

From teenage life to Victorian morals and back:

Technological change and teenage life

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Preamble

We are often told that mobiles, and that mobile texting in particular, has changed the lives of teenagers (Ling 2004; Nyiri 2003). One can easily imagine how, in the past, teenagers would wonder what their friends were up to, and would have to exercise their minds to figure this out: now, in contrast, they can call or text them. Thus the walls of teenage experience have been altered; what was once impossible is now achieved at the cost of only a few pence (for a review, see Harper et al. forthcoming). But is this change so great? One should remind oneself also that what teenagers find when they make these calls or texts to their friends is not something that will surprise us or them: one imagines that they discover that their friends are, like themselves, lurking in their bedrooms, sulking about too much homework and yearning to be elsewhere. And this indolence, this teenager ennui, one would readily agree, is hardly something new nor, alas, something that will vanish in the 'mobile age' (see Katz & Aakhus 2002; Brown et al. 2002; Harper 2003).

The particularities of teenage experience aside, the point here is that the nature of social experience is in part captured by recalling that individuals create a mental picture of the world, one which captures where they are, where others are and where both they and those others have been and will go. All people do this in various ways; it is perhaps the phenomenological philosopher and occasional sociologist Alfred Schutz who explores this most thoroughly. The centre of this experience, the heart, if you will, of this gestalt is the individual, and the measure of this world is how encompassing it is, how many people populate it, how many memories it carries and what prospects it holds for the future.

According to this view, the trouble with teenagers is that their attempts to create this world are rather poor: their attempts to do so are

amateur, indeed, by definition adolescent. Instead of, say, creating a mental space through conversation and interchange with people of different perspectives and social positions, for example, they solidify their parochialism by intensifying their experience of a world populated solely by those in identical positions, by people of the same age, the same sex, the same class at school, and the same geographic area (for a more general version of the same argument, see Gergen 2002: 227-241). And they do this through idleness, insouciance, and purposeless endeavours; they just 'hang out' with their mobile in just the same way that they used to hang out on street corners before (see Grinter & Eldridge 2001). There is therefore no surprise that there is a tension at the heart of this experience, a tension having to do with how the character of these individuals matures, grows, develops and moves beyond this self inflicted myopia, this adolescence.

Exploring teenagerdom

How is this achieved? Is this achieved through constant connectivity to one's fellow teenagers (see Ito 2003)? Does an adolescent get more mature by being able to text all day and all of the night (Kaseniemi 2001)? Does being able to talk from one's own bedroom with one's fellow teenagers in their bedrooms lead one to grow up?

And thus, in a roundabout way, I come to the rub of this chapter. I want to explore what the nature of teenage experience might be, and in particular their life vis-à-vis mobile devices. I noted at the outset that much is said about how this life is being changed by mobiles, and much is claimed about how the future can be discerned in the current actions of teenagers (see Nyiri 2003; Plant 2002).

But is it what it seems? Is the future all around us in the sweaty hands of our children? Or is it somewhere else, to be glimpsed not in the glory of their angst but in the dullness of the past, not in their faltering attempts at freedom but in their invocation of old fashions, ones that we ourselves have long forgotten.

Whatever the answer to these questions turn out to be, I will suggest that a way of identifying them is through exploring how teenagers, like all people, create and sustain a mental world populated by friends, families and strangers, a world that is at once embodied in the things they collect around them and in the things that they do day in, day out. This world, again like all social worlds, is a morally sanctioned construct, done well, done badly, managed chaotically and managed efficiently. What distinguishes it is two things: first, the commonplace fact that 'teenagerdom' (for want of label) is a world in which individuals transit, from being socially irresponsible and carefree to being re-

sponsible and burdened (as it happens this is a shift as much in physical form as it is in social status). Second, it is also a world that is, in terms of experience for the teenagers themselves, myopic, yet a world that from their point of view is rent with agony, doubt, and arrogance; for them, their lives are indeed a melodrama. But in so being this world, and their performance of it, is, I will contend, all too ordinary.

I will explore this world by suggesting that there are a number of metrics used in everyday ways by teenagers themselves and those who have to deal with them (most especially parents), to indicate how well they are faring in the shift in social status. Two metrics in particular will be focused on. They are, first of all, the metric of financial cost—though not only of texts themselves, but the costs implicated in all forms of every day conduct. I will show how the financial management of mobile telephony and texting by teenagers stands as a testament for the management of these other costs, and thus how their spendthrift approach to, say, clothes buying is a reflection of and is to be uncovered by assessing their competence or otherwise at managing mobile phone costs. The second metric relates to what one might call conversational turn-taking systems, including text communications. I will show how systems of etiquette and propriety governing mobile communication are used to create fine but often consequential distinctions between teenagers of different ages, gender and social connection, and this in turn is a reflection of the delicate yet complex systems of turn-taking propriety that govern the behaviours of all competent social adults, whatever their age. I will note, however, that it is individuals of the late teen years who seem most rigid and elaborate in the way they impose these systems, excluding some from communicating with them and admitting others strictly in accordance with certain rules of access that older and younger age groups worry less about.

By selecting two metrics it should be clear that I am not proposing to explore every dimension of teenage life; that would too ambitious, even if possible, which I doubt. These two are selected because of their salience in our data. As it happens they also illustrate the importance of matters which are often left out by much of the research on teenagers—whatever the reason for might be.

The cost of mobile phones

With this in mind, I now turn to the data I want to consider. It was collected with various colleagues on a project investigating the evolution of fixed and mobile phones in family life. This research was part of an ongoing series of projects with a major mobile network operator in the UK, and entailed diary studies and interviews of households in the UK

and Sweden. Some 59 persons were interviewed and monitored, populating some 21 households. All had both mobile and fixed lines available. The research focused on the grounds for the use of either.

The assumption that has governed mobile operator strategy on the fixed and the mobile has been that cost is and will remain the primary driver. Since mobile operators have been able to charge a premium for their technology outside of the home they see no reason to reduce that premium to make a success of mobiles in the home. Our research was meant to identify ways in which they could leverage new opportunities without having to reduce their premium charging.

Our research showed that cost, though often mentioned as the key driver, especially in interviews and focus groups, rarely drove actual behaviour. Other factors, like use of the 'virtual address book' on a mobile, the convenience and ease of use of the respective devices "their handiness as well as matters of habit were all more important". Without going in to the details of all the findings, there was one issue that was particularly interesting. This related to the fact that the cost of mobile phones was indeed something that people were conscious of, but that the issue of this cost was not viewed as something that could be thought of separately from other kinds of costs. The cost of mobiles stood testament to costs in general. Let me recount one interview with a father in a UK household which conveys the gist of what I mean.

"You know mobile phone bills are about the only thing I can talk to my daughters about when want I really want to talk to them about is not eating things out of the fridge and not telling anyone. I mean, they have got to learn that there are other people in the house and the only way I can think of making them do this is by having a talk about mobile phone bills and then I can talk to them about money and living together and sharing things without coming across as pompous, like some Victorian patriarch."

What was he getting at here? Was he wanting to exercise, as some sociologists would have it, his monopoly of power in the home? (see Ito, *op cit*; as regards power over space, see Massey 1994; for a somewhat more general version of argument see Foucault 1977) Or was he simply a little eccentric and somewhat rigid, unable to cope with the idea that kids do not worry about expense? I would like to suggest that he was simply being a normal adult, an ordinary run-of-the-mill dad trying to figure out how to help his kids grow up.

A vignette of family life

Let me explain this more carefully again by reference to this particular family. When the mobile phone bills—or direct debit statements to be precise—arrived, this dad would pick them up and open them, and

leave them around for his two girls—late teenagers—to bump into. He would put them on the kitchen table or on the fridge so that he could guarantee they would see them. They would thus not only be aware of their existence but would be also aware that ‘Dad had put them there since he wants to lecture us’.

He was not, however, concerned with the size of the phone bills. As he put it, ‘That’s up to them’. His concern was to discuss how the respective phone bills identified certain behaviours which he viewed as irresponsible, and these costs may have had nothing to do with the mobile phones themselves.

As a case in point, he had noted that when the girls were both at home (one had just started at University and had been home for two periods of holiday), his own fixed line phone bill went up substantially. His phone statement showed that this was primarily because of calls to mobile phones rather than to other fixed lines. Now, his concern was that for many of these calls it would have been cheaper had they been made from a mobile on the same network. He also believed that in many cases the girls’ own phones were on the right networks for this. He believed it was the girls who chose to make the calls on the fixed line not simply or even partly because they knew their dad was paying, but because they could not be bothered to find their own phone. Their costly behaviour was simply irresponsible behaviour.

The reason why he wanted to talk with the girls, then, was that he did not necessarily mind paying bills, including their own, but he did mind paying bills unnecessarily. Bills could be reduced if individuals thought about the overall economy of the family. For him the issue was that the girls treated expenditure as primarily individual rather than collaborative matter, and so they did not act in a way that reflected concern for others. In crude terms, if the girls recognised that some costs were shared then he believed that their behaviour would be different. Their use of the fixed line phone when a mobile would have been cheaper would have been an instance of this. By addressing this behaviour he hoped that the girls would adjust their behaviour for all shared matters in the house, whatever they might be. To be able to conduct oneself with respect to others was a matter of vastly more importance than the actual costs of something in particular. It was, if you like, a question of morality.

Now the term power might seem to offer a nice sociological view on exploring the issues here: after all there is clearly a difference in power between the dad and his daughters, especially over economics matters, or, more bluntly, over who had the most cash. But there is no news in saying that dads have more power than their teenage daughters, and if the goal of sociology is to merely repeat what one might call common sense knowledge then it would have withered long ago. No, the purpose is to prise open the nature of social experience and unpack

it into elements so that we can see it more clearly, and sometimes in new light. All this has to be done without compromising a concrete sense of the experience in question.

To illustrate this let me provide another example of the inter-course between father and daughters in this house. If the first example was about money and thus obviously about power, this second example is about altogether different matters. As part of each study, several visits were undertaken; during the first the cost of fixed to mobile came up. In a later visit, a very different yet oddly related topic came up.

“Look this sounds daft but I had some sausages in the fridge to make dinner and when I went to the fridge I found that (one of his daughters) had eaten them, well at least it must have been her. Now, they are only sausages—though they were special ones I had bought—and I don’t mind them eating them but now there isn’t anything to cook and I don’t want to go up to (the nearest supermarket).”

We saw in the first example that the father did not worry too much about mobile phone bills but their arrival was the only pretext he could think of that would enable him to get the girls to sit down over dinner and have, as he put it, ‘a rational conversation’ about learning to share. In the instance he is reporting here, his real agenda was about the sausages, but he felt that the issue of sausages *per se* would be simply laughed at by his girls. He was probably right. Yet, only through addressing a matter that they thought was potentially serious, namely phone bills, could he indirectly address matters that they thought were inconsequential, though he thought them symbolic. In short, he wanted to use conversations regarding mobile phone bills to raise the possibility that they might start behaving in different ways regarding other matters.

One might put this in a larger context: when these teenagers had been children, they might have simply taken without asking and used without commenting, as they were getting older and, presumably, as leaving home became increasingly imminent, he wanted them to start living in a manner where shared responsibility was the norm. His view was that part of moving on from being a teenager has to do with the ability of taking on responsibility. One of these responsibilities is for household bills; another has to do with consumption of shared goods, like groceries. The girls should cease behaving with little or no concern for others in the same space; they should start considering how their own behaviours would affect others. In a phrase, he simply wanted his girls to start being like adults: recognising that if the fridge was stripped of food then others in the house might be left hungry by the end of day, having planned to eat that same food.

Nothing sinister was meant here nor yet can one accurately capture it by describing it as the exercise of an oppressive power. I have

deliberately chosen this example as a way of highlighting the fact that the experience of teenagers is an essentially prosaic affair. Here is no melodrama, just the tiresome battle between adults trying to get teenagers to be less selfish. Of course at times this battle can take on the appearance of a melodrama, especially from the perspective of the teenagers: but this serves only to further underline my point; not a real drama but a false drama, not real battles over social structure but squabbles over sausages.

The social propriety of texting

The rub of the matter, then, for these teenagers and the household that they were part of is the difficult, socially organised process of movement from one social role to another. Here a father is trying to facilitate that in the best way he can; though doubtless his daughters thought his efforts at best harmless, at worse tiresome, almost certainly his actions caused them to giggle. But this change in social status is not solely achieved through the coercion and benign encouragement of others; teenagers also contribute to it themselves, albeit the way they do so—and the manifest consequence of this achievement—may not be so visible to themselves.

I will examine this by addressing the issue of turn-taking on mobile communications, texting being one genre of these communications. I will make a similar argument about the question of the social shift in the competence of teenagers, but will show in this case that the adoption of various socially accepted patterns of mobile phone use are closely related to age differences in teenagers: eighteen year olds being systematically more sophisticated (in their own terms) than thirteen year olds. I will explain that the prosody of calling and answering, of content and topic management with mobiles, becomes increasingly artful as teenagers age, so much so that after a certain age an inability to manage these issues gracefully is viewed as a measure of immaturity. In other words, as they grow, teenagers themselves start behaving in ways that distinguish those who are becoming adult and those who are not. These skills and competences have to do with the social rituals of when to address someone, how to address someone, and what to say. These are at once ornate yet everyday, prosaic yet artful. They are about the socially achieved skills of ensuring the appropriate intersections of time, place, content and persons.

Managing calls

Crudely speaking, new users do not know how to manage mobile calls, and this results in them using the phones excessively, and it is only gradually as they age from the impressive heights of the first year of teenagerdom towards the middle and later teens that these skills become more astute and refined.

These skills have many forms and their evolution is itself a measure of the general social skills of the individual in question. In Kaseniemi's 'Mobile Message' (2001) for example, teenagers report how tiresome they find friends who have just got their first mobile: apparently they phone and text all the time. Once they have got over this excitement they start to use the devices more 'appropriately', we are told. What this means is itself variable and complex. The same set of subjects report differences in the behaviour of the two genders: girls treat what they share and exchange over the mobile as more private than boys. So girls modulate what they say according to the gender of the person they are calling.

In our own research corpus, and as we have remarked upon extensively (see Taylor & Harper 2003: 267-96), there are ritual communications that need to be undertaken when girls and boys are going out together: the goodnight text sent from a boy to a girl last thing at night is now a social requirement, for example. Failure to deliver the message results in a summons the following morning in the playground. Sending a steady stream of little notes throughout the school day is also a measure of devotion and adoration; the absence of the same is an indication that an 'item' (an idiomatic label for a couple) are not what they once were.

All these little differences, in content, in the frequency of calls, in who is calling who and so on, are in a sense not only visible to those involved and merely matters of private moment, they are also matters of public interest since all are subject to the same patterns, exchanges, and rituals. Boys complain to other boys about the oppressive need to send goodnight texts; girls about the slovenly failure of the boys to send them, and so forth.

These patterns are of course somewhat varied with different codes being applicable in different societies and cultures: in Japan for example, we are told by Riviere & Licoppe (forthcoming) that texting is used between persons of different social status so as to avoid the *faux pas* of interruption; between intimates such as husband and wife, no such fear is present and thus voice calls are made any time day or night. In contrast, in France, texting is used not so much to avoid the problem of interruption as to avoid the possibility of emotional violence that goes with close relationships; thus girls would prefer to text their complaints to a boyfriend since this would not result in a physical out-

burst from that same boy; the boys prefer to text their own concerns since the girls do not respond with tears and weeping. Somehow text not only avoids these all too real physical reactions being seen, they also make them less likely to happen; girls apparently find themselves less weepy when they communicate with texts, boys less prone to violence. Now I do not want to comment on what this says about the respective cultures, these being matters properly addressed in the papers in question. The point I am trying to draw here is that teenagers begin to develop fairly elaborate patterns for mobile communication amongst themselves and these patterns slowly become concrete as they get older; what was accepted when thirteen is laughed at and a source of embarrassment by the time they are eighteen (Kaseniemi 2001).

Who is talking to who

The research above is drawing attention to the self-accomplished sophistication of teenagers, a sophistication regarding the who, the when and the what of mobile connectivity. I now want to focus in particular on one aspect of this patterning of communication. I will do this by once again referring to our research on home life.

We found that one of the reasons why teenagers like to use the mobile when calling from their home, and one of the reasons why they like to call a mobile rather than a fixed line, is that they can guarantee who they will end up talking to. For a mobile phone is, despite what we have said above about cost, one of those articles that remains essentially one person's sole responsibility. Thus a call to that person's mobile will not be answered by someone else, but only by that person. By contrast, a call to a fixed line could summon anyone within the space in which that fixed line phone rings.

What is interesting about this is partly how teenagers in particular are loath to speak with their friend's families. "Oh they are so awkward", as one of our respondents remarked. Apparently teenager-parent conversation, whether they be within a family or across families are always difficult.

Another perhaps more interesting issue has to do with the virtual address book. We have used this term before. I mean by this the address book on mobile phones which enables particular names to be associated with particular phone numbers. This is possible since the GSM standard for mobile network requires that a caller's number is made available to the recipient (this is called 'caller line identification' or CLI). The virtual address book, when combined with the assumption that only one person has rights to answer a mobile phone, creates what one might call a tight coupling of social systems of propriety and technology.

In much of our other work, on teenagers gifting for example (Berg et al. 2003; Taylor & Harper 2002; 2003), as well as in our research on home life, the power of the virtual address book as a tool and instrument to manage the ritual patterns of human communication is paramount. This is highlighted by the fact that when someone no longer wishes to communicate with another, as in the case of a girl breaking up with a boy, the name of the person out of favour is ceremoniously—one might almost say ritually—deleted from the address book. This does not inhibit that person calling that phone but it does mean that when the call is made no name comes up on the screen: it is the summons of an anonymous person.

Now, it might seem natural to answer any and every call whoever makes it, and indeed this has been habitually the case with users of fixed line telephony, but with mobiles and with the technological infrastructure that provides caller line identification, the phones themselves are now used to let the recipients of a call determine whether they wish to answer or not. They do so by grading their decisions according to social rights. People who have the right to call have this right embedded in their 'presence' in the address book: those who do not have this demonstrated by their exclusion from the address book. Membership and exclusion is not permanent, it is flexible and is dependent upon the state of relationship between two persons.

What is curious and at once delightfully anachronistic about this is that teenagers, especially as they grow toward late teens, use this link of the virtual and the real to manage the details of their phone communications in ways that appears extraordinarily rigid. They really do avoid answering calls that do not have a caller ID. They do so on the grounds that it might be some one that they have excluded from their address book. In short, instead of being available to be contacted by anyone at any time, which is surely what the technology was developed to provide, in practice teenagers constrain their social worlds to those who have a right to contact them and exclude those who do not.

This severely managed social intercourse is, it seems to me, redolent of high class Victorian propriety, where visitors would not be accepted in to a drawing room unless they provided a card first, and this card would then enable the host to decide whether that caller had rights of access or not. How strange then that today, in the 21st century, this is what teenagers rely on; they use a technology to bolster the very social practices that, one would imagine, they would laugh at and mock if they saw it in their parents.

Conclusion

This is what one finds not only in our research but others too: in Finland (Kopomaa 2000), Germany (Höflich & Gebhart 2003), the Philippines (Ellwood-Clayton 2003), and many other places too (see Harper et al. forthcoming). The technologies are indeed allowing teenagers to work at their relationships more energetically than they might have done before. They are also allowing them to embody what might have hitherto been unfilled thoughts, ideas and ambitions about who can and cannot contact them. The social systems that result are at once complex, subtle, highly graded and rigid; and this is the work not of those who have power over teenagers, it is they themselves who create these tongue-tied processes.

Even so, this social world (and the patterns that constitute it), is endemically threatened by teenagers themselves; they make confused and often hazardous judgements about who should be in their address book and who should not, on when they should send a text and when they should not, and so on. Their judgements on these matters often conflict with the occasionally more sophisticated judgements of others, including on occasion, their fellow teenagers, most especially when these teenagers are of a different age and level of familiarity with mobile communications. In short, it is a world made up of complex and definable rules, but the ability of teenagers to act upon them in socially sanctioned ways is highly variable and often very faltering. But though this moral order is one of their own making, one should not be surprised that this occurs—they are teenagers after all.

This brings me back to the issue of whether the world is changing in ways we commonly expect or in directions that are always leading to a new, more liberated future. I asked at the outset just how much teenager life is really changing with mobiles. What I have wanted to do is show what the texture of teenage experience might be through the use of some empirical materials. In the first empirical section of the chapter, where I addressed cost, I explained that the actual battles between parents and teenagers that constitute an important aspect of teenage existence are enormously prosaic yet oddly emotional to teenagers themselves. Where they view their parents attempts to talk to them about the cost of texting as an invasion of privacy, the parents simply view it as a reasonable attempt to get those teenagers to recognise that others exist in the world. Whereas for one set of persons, the goal of such conversations is to make another group of individuals appreciate that they are part of society, the other group want nothing to do with same society, it being boring and uninteresting and, most offensive of all, 'old'.

In the second section of the chapter what we have seen is that it can be, in certain regards, the teenagers themselves who act in ways

that can be described as old or conservative, in particular as regards conversational turn taking systems and summons-answer rituals. We saw that teenagers apply very strict rules about who can call them, when they call and about length, topic and so forth. The phrases 'not now' and 'enough is enough' might be associated with parents but it is teenage morals they most accurately describe.

References

- Brown, B., Green N. & Harper, R. (Eds.) (2001)**, *Wireless World: Social and interactional aspects of the mobile age*, London: Springer.
- Berg, S., Taylor, A. & Harper R. (2003)**, 'Mobile Phones for the Next Generation: Device Designs for Teenagers', *Proceedings of CHI 2003*, Florida, ACM Press.
- Ellwood-Clayton, B. (2003)**, 'Virtual Strangers: Young Love and Texting in the Filipino Archipelago of Cyberspace', In: Nyiri, K. (Ed.), *Mobile Democracy: Essays on Society, Self and Politics*, Vienna: Passagen Verlag, 225-239.
- Foucault, M. (1977)**, *Discipline and Punish: The Birth of the Prison*, trans. Sheridan, A., New York: Pantheon.
- Gergen, K. (2002)**, 'The challenge of absent presence', In: Katz, J. & Aakhus, M. (Eds.), *Perpetual Contact. Mobile Communication, Private Talk, Public Performance*, Cambridge: Cambridge University Press, 227-241.
- Grinter, R. E. & Eldridge, M. A. (2001)**, 'Y Do Tngrs Luv 2 Txt Msg?', Seventh European Conference on Computer Supported Cooperative Work, Bonn, Germany, 18-20 September.
- Harper, R. (2003)**, 'Are mobiles good for society?', in Nyiri, K. (Ed.), *Mobile Democracy: Essays on Society, Self and Politics*, Vienna: Passagen Verlag, 185-214.
- Harper, R., Palen, L. and Taylor, A. (Eds.) (forthcoming)**, *Inside Text: social, cultural and design perspectives on SMS*, Amsterdam: Kluwer.
- Höflich, J. & Gebhart, J. (2003)**, *Vermittlungskulturen im Wandel: Brief—E-mail—SMS*, Frankfurt am Main: Lang.
- Ito, M. (2003)**, 'Mobile Phones, Japanese Youth, and the Replacement of Social Contact', Paper presented at the conference 'Front stage, back stage: Mobile Communication and the Renegotiation of the Public Sphere', Grimstad, Norway, 22-24 June.
- Kopomaa, T. (2000)**, *The City in your Pocket. Birth of the mobile information society*, Helsinki: Gaudeamus.
- Katz, J. (2003)**, 'A Nation of Ghosts', In: Nyiri, K. (Ed.), *Mobile Democracy: Essays on Society, Self and Politics*, Vienna: Passagen Verlag, 21-33.

- Katz, J. & Aakhus, M. (Eds.) (2002)**, *Perpetual Contact. Mobile Communication, Private Talk, Public Performance*, Cambridge: Cambridge University Press.
- Kaseniemi, E. (2001)**, *Mobile Message*, Tampere: Tampere University Press.
- Ling, R. (2004)**, *The Mobile Connection. The Cell Phone's Impact on Society*, San Francisco: Morgan Kaufmann.
- Massey, D. (1994)**, *Space, Place and Gender*, Minneapolis: University of Minneapolis Press.
- Nyiri, K. (Ed.) (2003)**, *Mobile Democracy: Essays on Society, Self and Politics*, Vienna: Passagen Verlag.
- Plant, S. (2002)**, *On the Mobile: the effects of mobile telephones on social and individual life*, Report commissioned by Motorola.
- Riviere, C. A. & Licoppe, C. (forthcoming)**, 'France/Japan: major trends with respect to mobile phones', In: Harper, R., Palen, L. and Taylor, A. (Eds.), *Inside Text: social, cultural and design perspectives on SMS*, Amsterdam: Kluwer.
- Taylor, A. & Harper, R. (2002)**, 'Age-old practices in the 'New World': A study of gift-giving between teenage mobile phone users', *CHI 2002*, Minneapolis, ACM Press.
- Taylor, A. & Harper, R. (2003)**, 'The gift of the gab: A design oriented sociology of young people's use of mobilZe', *CSCW: An international journal*, Amsterdam: Kluwer, 267-96.

