

Managing a Communications Repertoire: Mobile vs. Landline

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Introduction

The spread of mobile telephony and the Internet has added to the variety of communications media available to people, all of which mean that they now have to deal with more complex communications repertoires. If we look at this repertoire holistically, different research questions present themselves compared to focusing on individual media of communication. For example, what are the continuities between the different elements of the repertoire? How do some communications practices draw upon practices developed from other media or indeed from other practices in daily life?

In this paper we specifically address the question of how we manage this repertoire, how we make choices about which option to use in different circumstances, focusing in particular on the choice between using the mobile phone for voice, for sending text messages and using the fixed phone.

An earlier review of telecoms research explored this area, noting how choices were shaped by both various qualities of the media and social considerations (Haddon, 2003a). We now look at the way this is lived out. The paper draws on a recent study that investigated peoples' communications strategies through a group of case studies to illustrate and explore the processes shaping these choices and shaping the way we manage that repertoire.

In particular, the case studies presented here underline different ways in which cost considerations can play an important role. The literature of youth and mobile phones has mentioned the appeal of the cheapness of texting, the enhanced ability to monitor expenditure that pre-paid cards offer and the negotiations between parents and children about paying the running expenses of mobiles (Ling, 2004). While some of these issues will be illustrated here, this study shows how the concern with telecoms costs also extends to adults and shapes their choices. It reveals the myriad of calculations at a time when ever more complex and varied tariff options are appearing. The evidence shows how concern over telecommunications costs may not be the only consideration shaping choices, but it can be a very important one

The second part of the analysis relates to individual decisions to the wider context of the household, reflecting the interests of the 'domestication' framework in the negotiations and indeed power relations that frame communication strategies (Silverstone et al, 1992; Silverstone and Haddon, 1996, Haddon, 1998). Compared to the pre-mobile era, we explore how the mobile options, including the complexities of tariffs, can change some of that household interaction, the issues as well as the rules and practices that emerge.

Methodology

Included within a more wider-ranging study for the UMTS forum, three sets of three generations of people filled in dairies for a day and were then interviewed about both their communications on that day and their communications more generally. In other words, we had three case studies in each of which one teenage child and the mother

took part, as did one grandparent living in a separate household. For the purposes of this paper, we focus on the stories of the children and their parents.

Clearly, the numbers of case studies is small, but the detail they reveal offers some insights into this management of communications. Equally clearly, the participants in these studies share some similar circumstances¹. We are talking about households at a similar point in life course, all taking the perspective of mothers and teenage children (of both sexes). Two of the mothers worked part-time, one was a housewife, which means that they had more non-work time available than much of the population who are of a similar age.

Nevertheless, it is sometimes useful to go beyond talking in terms of generalities and average behaviour to see how people in particular circumstances manage, how they interact, how they develop new strategies and how they face new issues. To put these into some context, we compare this with both qualitative and quantitative data from studies in the early- to mid1990s.

Case study 1: The Davidson Family

Lyn, 37, is married to Steve, with two sons, Kevin, the eldest and Brian the youngest. Lena is Sharon's mother. The main focus in this case study is on Lyn and Brian.

The day of the diary

About 9.00 Lena rang Lyn - she usually catches up with things on a Saturday. Lena called Lyn's landline from her own mobile at home because Lena had free weekend minutes on her tariff. Lyn could not talk to her immediately and so she said she would call her back. Then her other sister Sue also rang her on the landline for a chat. While she made breakfast Lyn called her mum back. She used the mobile because she, like her mum, had free weekend minutes so it was cheaper than using the landline. After breakfast Brian went off to check his e-mails. He could usually expect a few from school friends, but this was Saturday and so he also had the news service update for Watford football club, to which he subscribed.

While she was getting dressed to go out, a friend called Lyn on the mobile - many of her friends call her mobile and so she takes it around the house with her - they could call any time. Then Lyn got the boys together and they headed off in the car. There was much more traffic than expected and so she called her friend to say that they were delayed and then rang the hairdresser to check her appointment time - it did not cost anything on her tariff. She asked Brian to use his WAP mobile - also with free minutes - in order to get the telephone number of a shop they wanted to go to, in order to see if it was open. He did not manage to get the number from the on-line yellow pages. Some time later, when at his friend's place, he experimented again and this time was successful.

¹ In fact, the households were exceptional in that they were recruited through an agency because they all had picture phones. However, this has little relevance in this paper since no-one in their social networks had such phones and so they could not send images between mobiles - although Brian Davidson did download his onto the PC and sent over the Internet as attached files.

Leaving the boys at the friend's house, Lyn went to the hairdresser and then dropped some food off at her Mum's – but her parents were both out when she got there. She let herself in to her Mum's house and used her Mum's landline to phone her Mum's mobile to ask where she was – that was cheaper than phoning from her own mobile to her Mum's mobile. While driving to the beautician Lyn phoned her sister Sue again on the way. Returning home the traffic was bad again and so she called Steve to let him know and texted a friend – some of her friends preferred to text and so she went along with this.

During the day the boys they had been watching the Arsenal match, playing with their gameboys and later playing in the park. At times Brian had been bored and so had texted his friends. He had also used the WAP facility to check the half-time scores when in the park. Lyn picked up the boys. In the car on the Brian had texted a few friends to pass the time – he was often bored in car journeys. Once home, a friend her on her mobile – while some friends phoned her landline, others always phoned her mobile. After this Lyn phoned Becky, her other sister. Later that evening Lyn and Steve went out to a friend's 40th birthday party. The next day she texted her friend to say thank you.

Lyn's communications

Lyn had got her first phone 10 years ago, when most people did not have one. She had wanted to keep in touch with her children because she was going out a good deal. Her pattern of mobile use had not changed very much over the years, apart from texting now. Now that other friends had mobiles she would make more mobile-to-mobile calls. She expected to send pictures once other people she knew acquired camera phones. The Davidson's no longer used the Directory Enquiry service – they always look it up on the Internet at home or via WAP because it's free.

Brian's communications

Brian, 11, got the WAP phone in August 2003, so he had not had it for very long. Most of the time he said he just 'played' with the WAP facility, since he had 250 free WAP minutes a month. He also had 50 free text messages per month that he used up, as did his peers. '*So I just call people.*' Towards the end of the month he had to '*slow down*' texting as he neared his limit.

Brian had a T-mobile tariff with free evening and weekend calls to other T-mobile users - some of his friends were with this operator. On his tariff the free off-peak times started at 6pm, whereas Lyn's started at 7pm. Therefore she sometimes used his mobile if she had to make a call between those times. Brian also had some free minutes on his phone, so he would occasionally phone his operator to check how many he had left.

Brian's parents did not allow him to use the voice mobile in peak times because it was too expensive. If he needed to make contact with his mother he had to text her. If he just texted the word 'Brian' to his mother Lyn would then phone him back from her mobile.

If he goes abroad on holiday with the school or relatives Lyn always puts some extra on his phone so he can always text her – it costs him 40p per text when out of the country

Case Study 2: The Miller family

Sharon is 39, married to Mike and they have two daughters, the older one Becky the younger one Charlotte. The focus in this case study is on Sharon and Becky.

The day of the diary

It was a week day. Sharon received her first call on the home phone from a friend at 8am. Most of her friends are in a similar situation with children being given lifts to school or to the station in the morning. So if they needed to make contact with each other it was usually before 8.30 on the landline. Sharon then took Charlotte to her local school and returned to tidy up the house, also making two phone calls to the mobiles phones of friends. At 10 she went to the gym. While chatting to the others in the changing room she received two text messages, replying to one of them. As planned she met up with some other friends for leisurely lunch starting at mid-day. Just before eating she used her mobile to phone two other friends, and towards the end of the meal she received a text message from her husband, to which she replied. At 2.30 Sharon drove home, and then started to think about preparing supper.

Meanwhile, Becky finished school at 2.30 and made her way homewards via bus and train with her friends. She called her mum on the mobile to let her know she was going with her friends to the shopping centre first. During cooking Sharon called a friend from the home phone and received a call. Becky retired to her bedroom and did her homework, some of which involved word-processing on the PC. Just before dinner, a friend called Becky on the phone in her bedroom.

During dinner the phone rang twice. Sharon let the message go to the answering machine. She sometimes did this because she did not want them to be disturbed *‘otherwise you’re answering the phone all the time during dinner’*. Besides, she could hear the message to decide if it was urgent and whether she needed to pick up. In fact, the calls were for Becky – her friends had tried the phone line going to Becky’s room and when that did not work they tried the home phone. Many of the evening calls to the home were for Becky.

Sharon: *‘Normally between 6 and 7 the phone definitely starts going...and it can be constant until 9 o’clock’*.

After dinner Becky called her friend back from the main phone in the living room, and then got a call there from another friend. Dinner was cleared away by 8pm, when Sharon started to make the first of four more calls to friends, two of which were replies to earlier calls. Then the whole family settled down to watch TV for the evening. While watching, Becky sent three text messages to friends and received two.

Sharon's communications

The household first had a mobile when Mike got one since he worked in an outdoor market and so it was useful for work. Sharon first got a mobile about 7 years ago, when they were first becoming popular *'and everyone was starting to get one'*.

Sharon: *'We thought it would be able quite nice to be....in a situation when there was an emergency...to be able to use it...if you needed to'*.

She had started off with 'pay as you go', but then moved to a contract because it was more economical given the amount she was spending. She went on to a fixed tariff so that she knew how much she was going to spend and this also had had about 20 free minutes of calls. Since Sharon was also going over this limit as well she changed tariff and now had 200 free minutes of calls (that can be used at anytime) and 50 free texts a month. She sometimes checked to see if she was nearing her limit as regards calls, but Sharon was disappointed that she could not check how many free texts she had left. It did not matter that much because she would only ever go over by a 7 or 10, which was not too expensive, only £1.

The free calls had changed her pattern of communication. Because she had them she tried to use them up, and simple made more calls nowadays. Her friends probably did the same. Also, she used to make even more calls in the evenings, and did not mind doing so *'but I really don't like it now'* and so she only rang the ones back that she had to ring. Since she was tired then she preferred not to be bothered doing this, she wanted to *'sit down and watch the TV and relax a bit'*. She would make free calls on the mobile during the day instead – *'in the day I don't mind it so much, somehow'*. For example, she had a hands free system in the car and would phone while driving, thinking of who she had to contact next, or ring back, or phone to see how they were. She had always been good at maintaining contact with her social networks, but now she was even better.

Family and friends usually called her landline first on the days when she was not working since they knew her routines. If it was a work morning they might try to mobile first. It was complicated because she was out a good deal anyway (e.g. mornings at the gym) and if people knew this they might once again try the mobile first. She had a message on the answering machine attached to the landline giving her mobile number and that of her husband.

Some of her calls from home were made with the mobile because of the free minutes on the phone (usable at any time) – so during the week in the daytime she tended to use the mobile because it was cheaper. But some were from the landline, even before 6pm, because she sometimes forgot about the mobile and reached automatically for the home phone. The day of the diary was a fairly typical one for communications on non-work days. She worked 9-2 on Mondays, Tuesdays and Thursdays and so tried not make calls then. She was willing to receive urgent calls at work, but tried to discourage calls in general. However, she did read her hotmail emails at work, and tended not to bother when she was at home. Her friends were also on e-mail, *'but it wouldn't be the kind of instant thing that a text or a phone call would do.'*

During the day Sharon sent some texts. She had started texting a couple of years ago when she was shown how to do it. Her friends also texted. She thought that some

texting was useful if there was a short communication to convey. But if this was going to lead to several texts back and forth Sharon would probably choose to phone using the mobile instead because it would work out quicker.

Becky's communications

Becky, 13, had had a mobile for about two years when she started attending secondary school. The journey involved a good deal of travelling including train and bus and so for the first year they had arranged for her to ring on the mobile or text to say that she had arrived safely at school. And then she could ring again when on her way home to arrange to be picked up.

Like other school students Becky is not supposed to use them at school. The children not even supposed to have mobiles with them, actually, but they do. But sometimes she or the other girls would text from the toilets if they had to send a message urgently. Becky no longer has to phone when arriving at school. She usually turns it on when on the way home. The children had to be picked up from the tube and so the parents had a rota. Once a week she would phone Sharon to say when she was going to arrive at Edgware so that she could be picked up.

Sharon: Really her essential calls are once a week...sometimes at weekends if she goes somewhere I say to her "call when you get there...or text me"...but most of hers are social ...

Becky's mobile is on a contract whereby her parents only pay for calls and texts and she has no free minutes or texts. They have a rule that she should not go above £10 a month.

Sharon: But if she goes over that I'm really not happy...up to 10...really it should be a lot less than that because there really isn't any...real need for her to actually make any calls...the odd texting isn't going to amount to a lot

However, the parents clearly tried to discourage too much texting. The tariffs for the two landlines were such that they were free in the evening. Hence Sharon commented that Becky and her sister were encouraged to restrict their communications to the landline after 6pm. That said, the diary clearly showed that a few texts were sent and received on the Friday evening of the diary, and Becky said this was normal. Becky had been texting since she first got the phone, and her friends at school all knew how to text.

Becky's had her own fixed line in her room that was used for both calls and for going on-line. She also regularly had sessions online using MSN with her friends, when up to 20 of them might be online at the same time. Compared to e-mails it was instant. Becky left her mobile on in the evening until she went to bed (in case she got any texts).

Case study 3: The Lenny Family

Janet, 37, is married to Nick, with two daughters; the eldest is Jenny the youngest is Melanie. Maggie is Nick's mother. The main focus in this case study is on Janet and Jenny.

The day of the diary

Janet did not usually make calls early in the morning unless she needs to because she did not like talking to anyone then. After dropping the girls off at school, Janet tidied up, had breakfast and received a call from her mum – which was common. Usually her mother would call the landline first, and then try the mobile.

'And sometimes she'll try the mobile before I've got to the phone here!'

The gym session lasted from 9.30 to 10.30. On her way driving to the post office she got a call on her mobile from a friend. The friend usually tried the mobile first. They were on the same network so the calls were free, and hence Janet also tended to call her on the mobile.

Also *'during the day she might have figured that I wouldn't be in'*

Once at home, Janet had a shower, called her mum's home phone and then called the travel agent about their holidays. Janet had recently realised that the new One-Tel flat rate tariff did not include certain numbers 08450 and 0870 – it was 8p a minute to ring 0870

'Lots of companies are like that now...help lines...all sorts of things...and you can be hanging on...I rang Virgin Holidays and it was like 45 minutes! But I knew this would happen. And so I rang Virgin Atlantic and said "Have I rung the right one...Oh, it's not, Could you put me through to the holidays." So I didn't mind hanging on for 45 minutes because it was included (in the One-Tel package).'

At about midday she went to check her e-mails. The Lennys had always-on broadband, and so Janet would occasionally look in the study to see if she had any e-mails. That day she had an e-mail a friend in Hong Kong, a reply to one Janet had sent the evening before. Janet sometimes checked late at night as well because they were on a different time-zone.

Jenny sent Janet a text message during the lunch break at school. Then Janet went to do some quick shopping in Tescos where she received a call on her mobile from Nick – since work paid for the call he did not mind calling from the work phone. But he would also ring from his mobile sometimes if he was out at lunchtime – being on the same network the call was free.

Later that afternoon, Maggie called Janet on the mobile called to say that she was at Tescos and she thought she has left her car keys in the car - and was locked out of the car. Janet explained that she could come and pick her up but only after she had picked up the girls because they were waiting for her at their respective schools. Maggie agreed, but said that she would use the time to check if she had left the keys in Tescos. Janet used her mobile to call Nick at work and explain what was

happening. Maggie phoned Janet from her mobile to say that she still had not found the keys, and she phoned home to her husband to let him know what was happening

Eventually, Janet picked up Maggie up at Tesco's, dropped the children off at home, and then took Maggie home to get some spare car keys before driving her back to Tesco's. Jenny then started her two hours of homework, using the PC, calling three friends on her mobile during that time. Some of this was because she was stuck on something doing her homework. But some of the calls were for social reasons, in which case she preferred to talk rather than text. *'I can't be bothered to text in the evening'*. Jenny had used her free mobile minutes because: *'Mum was busy on (on the landline) and she chats for ages.'*

Meanwhile Janet started the evening meal and packed up the next day's lunches for the children, while listening to the radio. She phoned Nick once again at work, noting that she would quite often ring him several times in the day – it could be 5 times a day. She also received a call on the home phone from a friend.

Before dinner, Jenny was doing her homework, partly in the lounge, partly in her bedroom. At one point Janet helped her by going on the Internet to look up something. At 7 the whole family settled down for dinner in the lounge while watching Eastenders on TV. Jenny then had her bath, and watched some more TV during which time she received a call on her mobile from a friend. At 9.00 she went online for a while to check for instant messages and emails. Instant chat on MSN was not prearranged with others, but there was usually someone online whom she knew, either from her current school or her previous one.

Janet cleared up at about 8, and phoned a friend. Then it was time for ironing and a bath – during which time a friend phoned on the home phone, and she received a text message from another friend – to which she replied.

Janet: *'I can be on the phone all night...sometimes the phone doesn't stop ringing...and sometimes if there's something good on TV that I want to watch I'll make my calls earlier...I often speak to friends up to about 10.00, 10.30. I won't use my mobile in the evening, but a friend sent me a text and I heard it in my bag so I sent one back.'*

Janet then set up the dishwasher and washing machine before making one last call to a friend at 10pm.

Janet's communications

Janet first got her mobile 6 years ago: *'I suppose at the time it was like...the thing to get.'* Everyone was getting them and the prices were beginning to drop. Nick already had one. In fact, years ago he was on One-to-One. He did not make many calls during the day but there were free calls in the evenings and at the weekend. So Janet used to wait for him to come home and make all her calls on his phone then and at the weekend. She could be on his phone for hours.

However, as tariffs changed, Nick pointed out that his was not such a good one to be on because of the expensive day calls - compared to the other deals on offer. They

moved to the On-Tel offer for the landline a few months ago. For a flat rate (£13.99) Janet could make any calls in the UK at any time. This had made a difference to her pattern of calling - for example, she has a friend in Manchester who she used to call occasionally in the evenings, because she was conscious about making calls after 6 - but now Janet would call her anytime if she felt like it and the same is true for calling all her other friends. Hence she used the house phone more now.

Janet had been texting for a couple of years. Since she has free texts, she sometimes texted friends on their mobile rather than call – which would be expensive. Janet also used her mobile phone more nowadays:

'I noticed when the bill came yesterday that I'd used all my minutes up plus extra from last month...so I'm obviously using it more...I don't really ring for a chat...just a couple of friends.'

Later Janet commented on her husband's decision to phone the mobile.

Janet: *'One thing I don't like is when my husband tries the house phone and it's engaged. So he knows I'm on the phone! And (yet) he'll ring the mobile. By the time I get to it it's stopped. He often does that. It's really annoying.'*

Janet was on a different tariff to her husband and daughter. They were on *cross-network*, which meant that they could ring any mobile with free minutes. Janet could ring people on the same network for free, but it cost to ring other networks, such as her sister on T-mobile.

Janet: *'So I'm a bit mean at the moment and I won't ring her on the mobile unless I have to...(...) I mean I will. But I really need to change my tariff to cross-network ...and then I would ring more people from my mobile. For instance ,it's quite dear to ring my sister on my mobile...it's expensive to ring from One-Tel to a mobile now. Out of choice I would use my house phone instead of using my mobile. But if Jenny's here, she rarely uses her phone...I'll say I'm using your phone''*

Commenting on whether having the mobile had affected her routines:

Janet: *'Sometimes it infringes on you privacy. I mean you want to be left alone and unless you switch the thing off...For example, my husband (calls and asks) "Where are you, what are you doing'. (And I think) 'Oh, leave me alone, don't drive me mad''.*

Janet left the mobile on at night in her bag – if she heard any calls in the evening she could answer them. She had a couple of friends who would text her in the evening if they couldn't get through on the phone. Sometimes she heard it, sometimes she did not.

The problem was that she wanted to change her phone to be on the same tariff as her husband and Jenny so that she could call them for free. But any new phone would not fit the car handset, and so they would have to change this – which was expensive. Nick was advocating that they wait another year until they changed the car, and then change the hands free, mobile and operator all at the same time.

Right at the end of the interview they made some comments that showed how telecoms bills were an issue in the household, and hence why some of the strategies noted at various points were actually attempts to address a problem. Here, the conversation starts with the husband's shock at seeing the size of the phone bills.

Janet: *'My husband said "Oh!" ...he can check (the bill) on the computer. I said to him that unless you change my tariff obviously if I have to make a call I did. I rang my sister twice last week on her mobile. And I looked and it was like 40p a time. So he's not going to change my network. I've got to use it. "So (she pretends to talk to her husband) don't whinge me about making the odd call!" I have cut down. And when I'm out and about the children do not ring me as much on my mobile. They do if they have to. But sometimes when I was out shopping they used to ring me 5 times...'*

Jenny: *'I would ring daddy to ring you.'*

Janet: *'She wouldn't ring unless it was important...which quite often they did do. And he would say "Oh my god, they rang your mobile 90 times last month when you were out ...for goodness sake...stop, it cut it down." So we are trying to cut down.'*

Jenny's communications

All the other children at school had mobiles. Janet explained how Jenny, 13, had got a mobile:

Janet: *'Well she stole the one the one that was my husband's old one, a pay-as-you go phone and started to use it...and he gave it to her...and then ...I suppose it's just peer pressure...so we bought her one for her birthday last year...and of course this year it was out of date and not good enough...not up to date enough and she had to have a newer and more modern one...it wasn't trendy any more and it wasn't fashionable...so, of course my husband caved in again...and bought her another one...but I don't really feel she uses it to its full capacity...you've got 200 minutes on it...she doesn't really use as much as she could do.'*

Jenny protested: *'Yes I do.'*

Janet: *'No you don't. I know friends' kids that send 20 or 30 texts a day. You're not doing anything in that kind of league. So she's quite sensible...bit mean with it.'*

They bought Jenny the new one in August for her birthday – one that came with a camera attachment (rather than being built into the phone).

The schoolchildren were not allowed to use the mobile at school. But like the others, if she wanted to text her mum she would go in the toilets and do it, for example, to say she might be home earlier, or could she stay on for something like netball, or if there was some other change of plans.

All her friends at school could text. On the day of the diary Jenny phoned her mum on the mobile when her mother was late picking her up.

Janet: *'I said, "I'm coming, I'm on my way" Sometimes calls are a complete waste of time really. "I'm coming" You know...that's not important.'*

In part this was because calls were now free as the daughter had just switched onto the same network, Vodaphone, whereas it used to be *'60p or whatever'* to ring. Janet was no less conscious about the cost of calls because of this.

Although Jenny sent texts – as all her peers did – she was not a heavy user. Janet pointed out that she normally had quite a number free texts left at the end of the month. Jenny would check to see if she had any texts when she first arrived at school in the morning. She usually switched her mobile off overnight. Sometimes it was also switched off part of the evening, and then she would occasionally switch it on to check for texts.

Choosing from the communication repertoire

In the early to mid-1990s qualitative British research was already noting how sensitive many people were to the costs of basic telephony, more so when on a lower income (Haddon, 1994). The extent of this was subsequently shown in a 5-country survey (Haddon, 1998a)². For example, in the UK sample, cost sensitivity was indicated by the 57% of people who thought that telecom costs were too high³. This issue itself had a bearing on household interactions in that 32% of the sample received complaints about the cost of the calls they made, the figure rising to 65% for the 14-17 years olds⁴. This should not lead us to assume that children make more calls; in fact they make less than adults (Claisse, 1989). But the issue is how those calls are evaluated by parents, for instance, whether they are seen as being worthwhile. Those cost considerations also had some bearing on communication strategies: 72% made calls at times when the tariff was cheaper because of this (more so women); 55% rationed their own calls; and 35% attempted to limit the calls of other members of the household.

When we turn to the three families some years later in 2003, the problem of the telephone bill is most explicit in the Lenny household, although it is probably safe to assume that it drives many of the choices in the other households as well. The sensitivity to costs is shown in the way Janet checks to see if she is near the limit of her remaining free minutes and would like the same facility for 'free' texts. Throughout the day, the choice of which means of communication to use is clearly influenced by tariffs in all three households. There were many examples of people using mobiles because calls were free to people on the same network. There were the examples of family members using the mobile rather than the landline because it had 'free' minutes that could be used. Using the mobile after certain times because calls were free was best illustrated by Janet Lenny, who some years ago switched to the mobile for all evening and weekend calls because of this tariff, only returning to the landline to make those same social calls once she moved over to a flat rate tariff for

² This covered, France, Germany, Italy, Spain and the UK. The figures reported here are from Haddon, 1997, but the general European pattern can be found (in Italian) in Haddon, 1998b. An English version of this can be downloaded from <http://members.aol.com/leshaddon/Date.html>

³ Actually, this was the lowest figure of the 5 countries.

⁴ There were also significant gender differences: 40% of females received such complaints compared to 23% of males.

the fixed phone. In both the Davidson and Lenny households, the mothers would sometimes borrow their children's mobiles at certain times because the children's mobiles had free calls when the parents' mobiles did not. And on the day of the dairies, when Lyn Davidson went round to her parents and discovered they were not at home, she used their landline to call them and find out where they were because it was cheaper than using her own mobile to contact them.

Arguably we see some of the more inventive strategies to cut costs in the Lenny household, as when Janet evaded the phone costs of talking to a holiday firm by playing ignorant and arranging for the call to be passed on, at an effectively free tariff, by its sister company. And when Jenny wanted to ring her mother, she rang her father's mobile to mobile because it was free, he rang his wife on the free work phone and Janet phoned Jenny back using her free minutes. While being an inventive strategy to keep down costs, it is somewhat cumbersome and does generate extra communications work. The point is, this anecdote really shows the lengths people will go to in order to keep down costs.

All these examples underline how important cost considerations can be in shaping decisions about which medium to use – but they are not the only ones. There were plenty of occasions where the mobile phone rather than the fixed line was used simply because the people were travelling when they wanted to call – as when Lyn Davidson reported to her husband that she was delayed in traffic. Sometimes they simply forgot to think about charges, as when Janet Lenny mentioned reaching for the landline automatically. And her daughter Jenny sometimes resorted to the mobile because the main house phone was in use (and the mobile did not cost more). Other examples in the case studies suggest that people reply back in the mode in which they are addressed, for example, replying to a text message with another text. However, as Sharon Miller reflected, they occasionally thought about the nature of the conversation that would follow before choosing whether to text or use voice communication.

One further consideration is the channel they used because of their knowledge of the person they were trying to reach. If we take the example of Sharon Miller's social networks, she might receive calls on either her mobile or fixed line depending on how much other people knew her routines of work and non-work days.

Lastly, we had plenty of examples of trying other channels if the first one fails. So if Lyn Davidson's mother Lena cannot get through to the landline, she resorts to trying Lyn's mobile number. The same happened in the Lenny household. Meanwhile Jenny Lenny's school friends tried her personal landline first, and only then called the family phone when they did not get an answer.

Managing communications within the household

When we focus more specifically on interactions with households, cost consciousness certainly affects the rules laid down for children and the complaints about their behaviour – as when Sharon Miller said that she is not happy if Becky goes over her mobile phone budget because of social calls. The situation is obviously now more complicated since the days of just arguing over fixed line outgoing calls. In this household we also see a rationing of text messages, since Becky's tariff did not have

the free texts as part of the tariff package. Potentially this raises some tensions, given the culture of texting amongst youth, i.e. texting to be part of a peer group, that has been identified in previous research (and even Becky send more texts than her parents might wish)

The situation is further complicated by the fact that sometimes the parents are not asking children to ration calls but rather to switch to different and less expensive channels of communication. For example, we see Lyn Davidson encouraging her son Brian to text her rather than phone on his mobile during peak tariff times. Then she can ring him back since this worked out cheaper using her free minutes. And we see Sharon Miller encouraging Jenny to use the landline after 6pm rather than text, because these later calls were free. In fact, free minutes, free calls on certain networks and flat rate systems have all introduced a change to a British telecommunications culture that was previously pay-per-use. In the 1990s studies there used to be complaints about children using the phone in the evening because even though it was cheaper, it still cost something. This is no longer an issue if various types of call have simply become free. So Brian Davidson is allowed to text, and indeed uses his WAP minutes, simply because he is bored.

Apart from rules about the choice of medium at any one moment, the changing telecommunications options have introduced another level of negotiation around different tariff arrangement. We see how the family members have adapted their tariffs over time, and still consider further change in an effort to cut costs, considering also the tariffs their social networks and other household members are on if it had a bearing on whether some calls were free⁵. In the Miller case described above, choosing a tariff without free texts for their daughter provided a potential basis for further tension.

It is worth adding that the parents are actually sanctioning, indeed encouraging, new forms of communication that did not occur with previous generations. For example, Becky Miller now phones home to organise being picked up or tell Sharon about a change of plans. Indeed, she, and apparently the other girls, sometimes breaks school rules to contact parents. And Lynn Davidson encouraged the children to text (certainly rather than phone) from abroad. However, even in the case of child-parent calls, there is still a sense they are exploring new ground, as when Janet complained about Jenny's 'unnecessary' call to her just because Janet was late picking her up from school. Janet's husband was also shocked when he saw in the bill that the children had called her 90 times that month. With new options and new practices, new issues arise leading to yet more negotiations over appropriate communications.

Meanwhile, there were new frustrations over managing incoming calls in the era of the mobile, as when Janet complained about her mother trying to call her on the mobile before she had had chance to answer the landline. Meanwhile, her husband was ringing the home phone and then trying her mobile, even if the implication was that she was busy talking on the home line. She even notes how the mobile had lead to more infringement on her privacy. Given that all the mothers thought their communications had increased, which probably applies to the children as well in

⁵ In a workshop discussing these case studies, one participant pointed out how his daughter had changed tariff when she changed boyfriend for this reason.

comparison to previous generations, then there is, literally, more communication taking place. While it can be convenient, it clearly has the potential to be overwhelming at times.

Conclusions

Since the arrival of the mass markets for the mobile and the Internet in the mid-90s, the communications landscape and the repertoire of options available to people have been transformed. But there has also been evolutionary change, as adoption rates have gradually increased, as the mobile has become accessible to more and more children, as further facilities such as SMS have developed. In the case of the UK, but other countries as well, we have also seen the development of more and more tariff options for both mobile and more recently fixed line telephony. And in terms of practices, there are still changes taking place. For example, texting was mainly identified with youth for many years, but here we are starting to see examples of adults texting and being texted by their children and by other adults.

It is in this context that one can pose research questions that deal with the ensemble of practices as a whole, rather than particular technologies such as the mobile phone. In this particular paper, we first asked what factors shaped choices between communication media. Although in principle Internet communication could have been included, and was described in the case studies to provide a more complete picture of a day in the life of these households, the actual analysis dealt specifically with mobile versus fixed line telephony.

Drawing on earlier research on the importance of telecom costs in decisions about communication, the households examined here illustrate how costs can remain an important influence shaping choices. This is not to claim that on the basis of 3 studies we can generalise too much. For example, many people have relatively few communications, unlike the busy telecommunications cultures of these households. Many people use up only a limited amount of their free minutes. However, if the statistics demonstrate how important costs were in the 1990s, then at least we might assume that some of the experiences lived through by these three families might be more widespread – how much more widespread requires further research.

Meanwhile, the expansion of the repertoire and in particular some of the tariff complexities have clearly changed some of the negotiations taking place within households. While the overarching concern with costs may still be the same, the emerging rules, questions of what calls or texts are a problem and what are not, the decisions about choosing tariffs, the communication practices and strategies that develop or are encouraged and the new frustrations show us how people are trying to cope with the (ever-)changing communications landscape.

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