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Book section

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Haddon, L. (2018) 'Domestication and social constraints on ICT use: Children's engagement with smartphones', in Vincent, J. and Haddon, L. (eds) *Smartphone Cultures*, Routledge, Abingdon, p.71-82

Introduction

Domestication analysis helps to make sense of people's engagement with technologies through understanding the broader context of their lives (Silverstone et al, 1992; Berker et al, 2006; Haddon, 2006, 2011). This framework enables us to appreciate how they acquired (or acquired access to) information and communication technologies (ICTs), the nature of that access, their uses of the technologies, the location and timing of that use and how and why they talk about or otherwise display their devices and services. That entails understanding people's circumstances, their biographies, the meanings that ICTs have for them and, as part of this, their relations and negotiations with others.

Sometimes that background can lead people to reject technologies altogether, be that through an antipathy towards what an ICT might threaten (e.g. as when interviewees in the past have said things like *'That will lead us to watch even more television!'*) or its perceived irrelevance (e.g. '*Why do I need that? I can already do what I want to do with this new technology!*). Sometimes a technology is adopted, it has some value for people, but it simply has a narrowly defined, limited, place in their lives.

What is of interest in this chapter is how, even when technologies are accepted, the contextual factors noted above can also be viewed as social constraints, restricting what people do with their devices. In other words, these factors not only steer use but they can also be considered to circumscribe how people deal with their technologies. The reason why it is sometimes useful to explore this emphasis is because we are often confronted with celebratory accounts of our relations with technologies, as captured in marketing slogans

about our ability to use them 'anytime, anywhere' and accounts of the 'endless' possibilities they promise. Like the cases of technology rejection and limited use noted above (and elaborated in Haddon, 2004), the focus on social constraints certainly provides something of an antidote to these enthusiastic claims, enabling us to understand some of the reasons why people do not always embrace the technological affordances on offer. But more generally in an academic literature that often addresses social consequences of ICTs, including what people can achieve through them, it is important to question any assumptions about people's unrestricted ability to use these technologies in the first place.

In fact, in the light of the some particularly positive images of how children often embrace new technologies, as in the claims about them being 'digital natives' (Prensky, 2001, or for one of many critiques of this claim see Selwyn, 2009) the empirical data reported in this chapter will focus on the particular constraints that children experience in their use of smartphones. More specifically, this allows us to explore the financial limitations faced by a group that is still economically dependent on parents as well as the social concerns that both adults and children have about children's use of ICTs. These lie behind restrictions on when and where children use or do not use these technologies – in other words, time and space constraints. Before moving on to the specificities of children and smartphones, a few more general points will be made about financial constraints, time and space considerations and the social evaluations of technologies that inform those adult interventions.

Social constraints on ICT use

Although not stressed in the original classic text on domestication (Silverstone et al, 1992), the financial circumstances of individuals and households are an important part of the social context influencing ICT adoption and use. One early quantitative analysis using the domestication framework showed the extent of this in a survey of 5-European countries, France, Germany, Italy, Spain, the UK, (Haddon, 1998). 24% of the Europeans surveyed received complaints from other household members about the cost of outgoing telephone calls, 64% rationed their own use of the phone and 42% tried to persuade others in the home to limit their calls. Unsurprisingly, such financial constraints were most visible in domestication studies of poorer households, as exemplified in UK and US qualitative studies

of single parent families (Haddon and Silverstone, 1995; Russo-Lemor, 2006).

Financial constraint can be exemplified even more strongly and in more detail through a Kenyan domestication study of mobile phone use by people living in slum next to Nairobi (Mwithia, 2016). Keeping in contact with extended family in rural areas of Kenya, including sending money to them and arranging to visit, was very important in this African context (also noted in Brinkman et al, 2009, pp.77-78). The study showed how existing ways of doing this – such as passing on messages via others travelling to the country areas, using rare public telephones or sending money - were all problematic. In desperation, people sometimes borrowed the mobiles of others to achieve those goals, but that could also be socially difficult for both the lender and the borrower. As a result, many participants acquired mobile phones. But even the cheapest models and minimal running costs constituted a high proportion of the income of these slum dwellers. Hence this study is useful for highlighting a whole range of financial constraints at work.

Cost was the key factor influencing what models were bought, so fashion played less of a role in the choice of mobiles than occurs in some of the European and Asian studies. It often led these users to limit the number of calls made, not just because of the telephone tariffs but also because of the cost of electricity for charging the mobile phone. Financial constraint was also the reason for the practice of 'beeping' (ceasing to ring before the person can answers), which did not incur charges, but nonetheless signalled to someone else that the mobile phone owner was free to be called (a practice also noted in some other Global South countries, Donner, 2007). Financial considerations limited other uses of the mobile – the participants in the Kenyan study would download music rather than stream it onto the phone so that they did not incur repeated costs when listening to music. Finally, because of the context in which they lived, mobile phones were generally concealed on the body, and not used at all in certain parts of the slum because the interviewees feared that their devices would be stolen. So apart from constraints on use, there was little of the display of mobile phones to others that has been noted in the European and Asian literature on mobile phones.

Turning to time and space issues, from its earliest formulation, domestication analysis highlighted the importance of these in its discussion of 'incorporation' and 'objectification',

covering how ICTs are fitted into people's temporal routines and those of social networks and how ICTs are located and used (or not) in certain spaces (Silverstone et al, 1992). Those particular social constraints have received considerable attention subsequently (reviewed in Haddon, 2004; Green and Haddon, 2009), but while the reason why they exist can reflect social contexts such as working times or housing types, they can also arise from people's values. In its discussion of the 'moral economy' of the home, the classic domestication text drew attention to the importance of values that motivate technology choices (as well as resistance to some technologies) and also shape rules governing how ICTs may or should be used (Silverstone et al, 1992). Perhaps the clearest example of how these act as constraints on use within the ICT literature more generally is the body of work on the parental mediation of children's experience of ICTs. This covers parental rules, other interventions such as the guidance that parents give to children and actions such as monitoring children's use of technologies like the internet (for a review, see Mascheroni, 2014). The focus in these studies is often on which strategies parents use and on which are most effective. However, some studies have also noted the history of moral panics that often underlie adult (and by implication parent) concerns about children's experience of technologies (e.g. Critcher, 2008), evaluations that in turn lead to those various parental interventions. To refer to the circuit of culture model that frames this book, using terms from the Du Guy et al (1997) version this chapter mainly focuses on the 'regulation; of smartphones, specifically the regulation of children's use, although this history noted above means that we also need to appreciate the 'representations' of technology that motivate that regulation by parents and other adults. One last caveat about those social evaluations of technologies, is that while some children may themselves acknowledge and reflect the worries of their parents, they also have their own agency, including their own values and perceptions of technology that influence their use or non-use of ICTs such as the smartphone. In other words, we need to remember that regulation includes self-regulation.

Children and Smartphones

The Net Children Go Mobile Project

Net Children Go Mobile was a multi-country European project lasting from 2012-2014 that

was funded by the European Commission's *Safer Internet Programme* (for further details of this project, see the chapter by Mascheroni in this book). Its aim was to look at possible online risks faced by children as smartphones and tablets provided a new channel for accessing the internet. Mascheroni and Ólafsson (2014) reported the quantitative findings from *Net Children Go Mobile* while Haddon and Vincent (2014) discussed the European qualitative research covering Belgium, Denmark, Germany, Ireland, Italy, Portugal, Romania, Spain and the UK. In addition, there was a specifically UK qualitative report, which is why there are slightly more UK quotations in this section (Haddon and Vincent, 2015). Since there was limited research on smartphone use by children, the qualitative research reported here had to cover more general questions about adoption, use and consequences before dealing with the risk agenda and it is some of this material that forms the basis for the analysis below.

The main fieldwork was carried out from January to September 2014, and was conducted in two phases: interviews and focus groups with children were generally completed by the end of April 2014. The focus groups with adults (parents, teachers, youth workers) continued in certain countries until September 2014. There were 55 focus groups with children (N = 219) and 107 interviews (N = 108) across the nine countries[i].

Financial constraints

The amount of money involved in buying and subsequently using smartphones was especially important for both children and their parents at various stages. When initially acquiring the devices, many parents clearly took these costs into account, in part referring to smartphones as expensive items that might potentially be lost or stolen or that the children might simply break. The cost of smartphones also influenced which model of phone parents bought. Marco: '… my mother says it doesn't have to be beautiful for me to show off. It has to be useful' (boy, 12, Italy).

While some children may be more fashion-conscious than others and lobby for brands like the iPhone, many of the young people interviewed were themselves cost conscious, often complaining about the price of (some) smartphones, especially when they appeared to be

fragile. And some of those interviewed mentioned their everyday anxieties about losing or damaging such a dear possession.

> Daniel: I need to be careful how I'm going to use it, where I'm going to use it, where to put it. Because people put their phone in their pockets and then they just drop out and they lose it. So I'd usually put mine in my top left blazer pocket so I know it's there at all times. (…you can have) panic attacks when you're: 'Oh, where's my phone, where's my phone!   And to feel it's there; or have these check-ups, to check it's still there. (boy, 15, UK)

After acquisition financial considerations could have a bearing on which apps children downloaded. Across countries, and not just in less economically prosperous families, parents had often advised their children to stick to free downloads (free apps, free games, free music downloads), occasionally adding that if the child really wanted to download something expensive, they would have to pay for it themselves. Where the parents had agreed to pay for downloads, younger children in particular had to ask their parents' permission first. In practice, many of the young people interviewed only downloaded free apps, especially games, at times arguing that they are good enough and the games they had had to buy were too expensive.

Running costs also influenced usage. Some, often older, children were very knowledgeable about the Service Provider tariff plans for their smartphones, and even when they did not know all the details with a few exceptions they had a good deal of awareness of the package they were on. This could influence their evaluation of various smartphone apps, several appreciating *Snapchat* and *WhatsApp* because these apps were free and hence could replace texting. Some recalled how they had first become aware of some costs:

> Wilson: I remember, I went on holiday ages ago and I wanted to watch 'The Simpsons' on YouTube. And I was on this journey, in the car, and I was using 3G. Then my dad said: 'How are you watching this?' And I said: ' 3G'. And he said: 'No, get off it, it costs'. I didn't even know that so I'd been using 3G for ages. (boy, 12, UK)

In the most extreme cases, the internet facility of the smartphone was either not used or abandoned. Ricardo (boy, 13, Portugal) had a smartphone but simply did not use it to access the internet - he did not want to spend money 'on this stuff'. Marco (boy, 15, Portugal) had

recently deactivated his 3G access because his internet tariff had become too expensive to go online 'wherever he wants'. He was planning to return to an older tariff. Lastly, Vasco's (boy, 11, Portugal) parents had said that his smartphone was mainly to be used for phone calls, that he should not use it much to go online or to exchange online messages. In fact, one day he had forgotten that the internet was switched on and when the higher than normal bill came in part of his pocket money was deducted to pay it. As a result, Vasco decided to avoid going online from his smartphone and used the laptop and free WiFi instead. Even without the experience of a large bill many sought out WiFi in public places. Children like Trine, (girl, 12, Denmark), would check to see if access to Wi-Fi was available before she turned on 3G, or else, like Griet (girl, 12, Belgium), they rationed their time online: 'I try to turn (3G) off most of the time, otherwise it would cost a lot of money. If I want to go on Facebook or Snapchat, I turn it on. But immediately afterwards, I turn it off again'.

This was also true for those not on a pay-per-use tariff but who had a tariff with internet access (however measured) up to a certain point. Sometimes their parents had imposed these limits, just as in the past other parents had imposed limits on how much money their children could spend on traditional mobile phones. Or else the parents had negotiated a deal whereby their child would pay the extra if they crossed that threshold. While some children admitted to going over their limit, more monitored their usage and tried to stay below their limit. For example, whenever Alana (girl, 12, Romania) received a notification that she was about to surpass her internet limit she stopped going online from her phone. Meanwhile:

> Anuj: I check how much data I have left normally. And then if there is Wi-Fi I'll use it. But if there isn't I won't mind using my internet, but only if it's somewhere when I really need it. If I don't need to go on my phone for something important then I'll wait till I get home or later on. (boy, 12, UK)

One common tactic to save money was to switch from texting via the phone to online app alternatives using free Wi-Fi. Several interviewees also mentioned using some form of online textual messaging option when abroad because it was cheaper than speaking on the phone. An alternative strategy to reduce costs lay in the choice of what service to access. For example, Emile (boy, 15, Denmark) would not use YouTube on his smartphone when out because it '*eats up data*' while Gaia (girl, 15, Italy) said the same but specifically about viewing longer videos on the smartphone. Another example of finding cheap alternatives is

when Massimo (boy, 14, Italy) noted that the mobile version of the newspaper *Repubblica* required a subscription, so he went to the newspaper's homepage instead because it was free. Paulo (boy, 12, Portugal) provided an illustration of a 'workaround' (Ito et al., 2010) whenever he was in a shopping centre: if he wanted to send a message to a friend, he would first check whether there is free Wi-Fi and if there was he would send the message through Facebook, avoiding costs. If there was no Wi-Fi, he would send the message by SMS because it was cheaper than activating 3G, going to Facebook, going to Facebook Chat and sending the message via that route.

As we saw earlier, some of the motivation to be careful about costs came from bad personal experiences. For example, Cătălin (boy, 14, Romania) only used the internet for about 10 minutes per day but at first had not known how to shut down apps and his bill had mounted by €10 per day. He had been too scared at first to tell his mother but eventually he did and Vodafone let the family pay just half the bill (€65). When Marius (boy, 11, Romania) had been at his grandmother's he had sent messages and watched films unaware of how much it would cost – and had cried when he received a bill of €80 (although his parents subsequently had not told him off).

This section has demonstrated how costs remain an issue and in fact shape the acquisition and use of smartphones in a variety of ways. Arguably, money concerns are more acute for children than adults because of their financial dependence, meaning limited personal funds, as well as parental pressures on them to be frugal (also suggested by analysis of earlier data from the 2010 *EU Kids Online* survey: Haddon and Ólafsson, 2014). This may be exacerbated in some countries, given the many examples from Portugal and Romania.

The social nature of time and space constraints

Time constraints were often imposed by parents. This frequently reflected concerns about the general amount of 'screen time' that their children experienced either because this was perceived as making children less sociable, less physically active, taking time away from homework or more "worthy" pursuits, causing eyestrain or leading their children to have insufficient sleep (a theme explored more in the *EU Kids Online* research - Smahel and

Wright, 2014; see also the chapter by Ponte et al in this book). In other words, many of these concerns carried over from earlier fears about the effects of TV and subsequently about the internet in general.

Although they sometimes objected and tried to get around these constraints, many children agreed with their parents' assessments. These concerns often led parents to impose limits on the total amount of time children could spend using these devices, or else the parents intervened when they perceived that the children had been using them too much (in one session). But sometimes it was the timing of use that was controlled, as when children were allowed to use devices only after finishing homework, or not during 'family times' such as communal dinners or holidays together.

Even without parental pressure, some children exercised their agency by, for example, preferring to do their homework first before using devices, including portable ones, for recreational purposes – even turning these devices off so that they could not be disturbed by incoming messages. For certain young people their after-school activities, their hobbies, their sporting interests, etc. took precedence, meaning that in effect they were not using devices, including smartphones, at these times. Or to be more exact, they were not undertaking tasks that took up blocks of time on these devices. Communication could be another matter, as some children checked incoming communications regularly, fitting this in between other activities, while others did not. How many personal commitments children had depended on the individual, but in general older children were more likely to mention these as reasons for not using the phone at certain times.

How young people evaluated the time spent on devices could also lead them to limit their use. While many were quite positive about their usage, some also recognised how the devices, smartphones especially, could be time-consuming. Occasional comments from children in a variety of countries suggested using smartphones could be seen as "wasting time" that children could use for doing other things, including school work.

> Nora: Another disadvantage is that it distracts a lot of attention from
> homework. Instead of doing homework and studying for a test, you prefer
> spending time on the phone because the phone is always on and you don't

notice how much time goes by. You just wanted to look something up quickly
but in the end you spend half an hour or more, because you lost yourself
somewhere. (girl, 14, Germany)

Hence, to return to the discussion of constraints on use, some children actually restricted their
own use of portable devices to go online, not just because they had got better things to do (as
in the earlier examples of turning off smartphones when doing homework) but also because
they were themselves wary of using devices too much, as when Lilya (girl, 11-13 Romania)
felt that some of her peers were 'addicted' to using smartphones and she was afraid that she
could become like that too. Others, like Stefania below, noted how they had overcome this
temptation.

Stefania: Initially, when I first had my smartphone, I used to be connected for
long periods and as a consequence I did my homework later and it took me
longer, until the evening. Then of course I learned how to self-regulate and
this does no longer happen, but it did at first. (girl, 13, Italy)

Turning to space issues, regulation of mobile phone use on school premises varied across
countries[ii] as well as to some extent between individual schools (for a fuller discussion of
school regulation see the chapter by Vandoninck et al in this book). Even in less strict
schools there was an understanding that devices could not be used in lessons when paying
attention to teachers, but many other schools banned their use for longer periods, as in some
UK schools, especially junior schools up to age 11, where phones were not even allowed on
the school premises (even if children often broke this rule in practice). One key reason for
banning smartphones in lessons was that their use could be disruptive. But it became clear
from some interviews with teachers that they had similar concerns to parents about children's
excessive use of (this) technology as well worries as about the smartphone's potential
negative consequences for children's face-to-face sociability.

Smartphones were often not used in those public spaces where they might be stolen.

Antony: 'I go to Peckham Bus Station to go to cadets and I never get my
phone out there. You'd literally get dragged behind… someone would take it!'
(boy, -15, UK).

In fact, children across countries, especially younger ones, often said themselves they would
be wary of using smartphones in (certain) public spaces, walking home or on buses.   And if

children did use the smartphone in such spaces they would often do so carefully. In part this reflected parental advice, based on fears that the device would be stolen – including very specific advice about certain locations, for example, that children should not take smartphones to football practice.

In the UK, the interviews with teachers showed how these staff went out of their way to warn their students to be careful not to show their smartphones when walking home while listening to music with headphones, for example. This was a concern based on the fact that a number of these phones had been stolen in the local area. Indeed, the police who gave talks at the school advised such caution, partly because of a concern that children would be less attentive to traffic if listening to music or being otherwise pre-occupied with their phones. Perhaps it is not surprising, then, that this awareness about use in public spaces was expressed most by the UK children, for example Daniel (boy, 15, UK):

> 'If I'm on the bus without my friends and there's a group of people behind
> me, then I'm wary of how I use it. You won't go through just poking the
> screen – because that's asking to get your phone stolen'.

Previous research on mobile phones had shown that these devices are used less in certain spaces because of social norms (e.g., in theatres during shows; reviewed in Haddon, 2004 and Green and Haddon, 2009). The same was clearly true for smartphones, as some young people told embarrassing anecdotes about their phones ringing in places like churches during a service. Thus, in some places smartphones were not used or even switched off.

Finally, young people also limited their use in public spaces (and at certain times) out of a sense of what was socially appropriate behaviour. Pilar (girl, 16, Spain) was one of the children interviewed who did not check her smartphone when out with friends out of respect for those co-present – that was as a form of etiquette. Fabio, below, had reduced his use when in company as he reflected on this

> Fabio: I used to be very attached to Facebook, but after a while I understood
> that... I mean, I see all my friends that are always on Facebook. They hang out
> with friends and they are stuck on their phones. That is not real life. It is not
> good. On Saturday night you go out to have fun and (they are) with their

> phones in their hands all the time. It is good to use it when you can, not using 24/7. (boy, 16, Italy)

While there are some practical reasons for time and space constraint on smartphone use, such as mobile signal coverage, this section has underlined some of the social reasons for restrictions on the use of technology, both reflecting parental concerns about technology but also children's own perspectives on the social implications of technology use.

Conclusions

In his book '*What is history?*' (1961), the historian Carr likened his discipline to fishing. What fish you catch will depend on, amongst other things, where you go fishing and the type of fish you are trying to catch (that will also influence the type of fishing equipment that you use). In other words, what historical accounts researchers generate will depend on where they look and what they are looking for (influencing what methods of analysis they use). Carr's analogy could certainly be applied in other domains, including the study of ICTs. Although domestication analysis has become a very diverse corpus of work, and different contributions to that literature can have different goals, the classic work and some of those who subsequently used this framework were to varying degrees contextualising people's experience of ICTs. That does not mean that domestication analyses automatically dwell upon the issue of social constraints, but it is easy to see why these might sometimes be striking when conducting this form of research. The question has been raised about whether domestication analysis could ask a range of further questions, to use the fishing metaphor, whether there are other things researchers could fish for. For example, should domestication analysis pay more attention to the social consequences of ICT use, and whether this could be empowering (Bakardjieva, 2006). These are indeed worthy questions. But to turn this the other way around, when looking at social consequences in terms of at what people – in this case children - achieve with their technologies, how they can be creative, what problems they face, what risks they run, how it could change the organisation of their lives, etc. it is important to first pay attention to the social constraints that restrict, or 'regulate', what they do in practice. And these can reflect the values and perceptions of others (here, parents, teachers, and adults more generally) as well as of children themselves, when the self-regulate their own use.

References

Bakardjieva, M. (2006) 'Domestication running wild. From the moral economy of the household to the mores of culture', in Berker, T,. Hartmann, M., Punie, Y,. & Ward, K. (eds) *Domestication of Media and Technologies*, Maidenhead, Open University Press, 62-79.

Baron, N. (2008) *Always on: language in an online and mobile world*, New York, Oxford University Press.

Berker, T., Hartmann, M., Punie, Y. & Ward, K. (eds) (2006) *Domestication of media and technologies*, Maidenhead, Open University Press.

Brinkman, I., De Bruijn, M. & Bilal, H. (2009) The mobile phone, "modernity" and change in Khartoum, in De Bruijn, M., Nyamnjoh, F. & Brinkman, I. (eds) *Mobile phones: the new talking drums of everyday Africa*, Bamenda, Cameroon and Leiden, the Netherlands, Langaa and African Studies Centre.

Carr, E. (1961) *What is history?* London: Macmillan

Critcher, C. (2008) Historical aspects of public debates about children and media, in Drotner, K. & Livingstone, S. (eds), pp91-104*The International handbook of children, media and culture,* London: Sage,.

Donner, J. (2007) The rules of beeping: exchanging messages via international missed call, *Journal of Computer Mediated Communication*, 13 (1), 1-22.

Du Gay, P., Hall, S., Janes, L., Mackay, H. & Negus, K. (1997) *Doing cultural studies. The story of the sony walkman*, London, Sage.

Green, N. & Haddon, L. (2009) *Mobile communications. An introduction to new media*, Oxford: Berg.

Haddon, L. (1998) Il controllo della comunicazione. Imposizione di limiti all'uso del telefono, in Fortunati, L (ed) *Telecomunicando in Europa*, pp195-247 Milano: Franco Angeli.

Haddon, L. (2000) Social exclusion and information and communication technologies: lessons from studies of single parents and the young elderly', *New Media and Society*, 2 (4), 387-406.

Haddon, L. (2004) *Information and communication technologies in everyday life*, Oxford: Berg.

Haddon, L. (2006), The contribution of domestication research to in-home computing and media consumption, *The Information Society*, 22, 195-203.

Haddon, L. (2011) Domestication analysis, objects of study, and the centrality of technologies in everyday life', *Canadian Journal of Communication*, 36, 311-323.

Haddon, L. (forthcoming) Domestication and the media, in *International Encyclopedia of Media Effects*, Oxford: Wiley.

Haddon L. & Ólafsson, K. (2014) Children and the mobile internet, in Goggin, G. & Hjorth, L. (eds) *The Routledge companion to mobile media*, pp300-311. Abingdon: Routledge,

Haddon, L. & Silverstone, R. (1995) *Lone parents and their information and communication technologies*, SPRU/CICT Report Series, No.12, University of Sussex, Falmer. http://eprints.lse.ac.uk/62461/

Haddon, L. & Vincent, J. (2009) Children's broadening use of mobile phones, in Goggin, G. and Hjorth, L. (eds) *Mobile technologies: from telecommunications to media*, Abingdon, Routledge, 37-49.

Haddon, L. & Vincent, J. (eds.) (2014) *European children's and their carers' understanding of use, risks and safety issues relating to convergent mobile media*, Report D4.1. Milano: Unicatt. http://eprints.lse.ac.uk/60147/

Haddon, L. and Vincent, J. (2015), *UK Children's experience of smartphones and tablets: perspectives from children, parents and teachers*, London, LSE, Net Children Go Mobile, http://eprints.lse.ac.uk/62126/

Ito, M. (2005) Mobile phones, Japanese youth and the replacement of social contact, in Ling, R. & Pedersen, P. (eds) *Mobile communications: renegotiation of the social sphere*. London, Springer, 131-48.

Ito, M. et al (2010) *Hanging out, messing around and geeking out: kids living and learning with new media*. Cambridge, MA., MIT Press.

Lim, S.S. (2006) From cultural to information revolution: ICT domestication by middle-Class Chinese families, in Berker, T, Hartmann, M., Punie, Y & Ward, K. (eds*) Domestication of media and technologies*, Maidenhead, Open University Press, pp185-204.

Livingstone, S., Haddon, L., Görzig, A., & Ólafsson, K. (2011), *Risks and safety on the Internet: The perspective of European children. full findings.* London, LSE, EU Kids Online. http://eprints.lse.ac.uk/33731/

Mascheroni, G. (2014) Parenting the mobile internet in Italian households: Parents' and children's discourses, in *Journal of Children and Media*, *8* (4), 440-456.

Mascheroni, G. & Ólafsson, K. (2014) *Net children go mobile: risks and opportunities* (2nd ed), Educatt, Milan, Italy.

Mwithia, J. (2016) *Domesticating the mobile phone in Kibera: how Nairobi's poor are integrating the mobile phone into their everyday lives*, Doctoral Thesis, University of Technology, Sydney, Australia.

Pathak-Shelat, M. & DeShano, C. (2014) Digital youth cultures in small town and rural Gujarat, India, *New Media and Society*, 16 (6), 983–1001.

Prensky, M. (2001) Digital natives, digital immigrants', in *On the Horizon*, 9 (5).

Russo Lemor, A-M. (2006) Making a 'home'. The domestication of information and communication technologies in single parents' households, in Berker, T, Hartmann, M., Punie, Y & Ward, K., (eds.) *Domestication of media and technologies,* Maidenhead, Open University Press, 165-184.

Selwyn, N. (2009) The digital native – myth and reality, *Aslib Proceedings: New Information Perspective*, 61 (4), 364-378.

Silverstone, R., Hirsch, E. & Morley, D. (1992) Information and communication technologies and the moral economy of the household, in Silverstone, R. & Hirsch, E. (eds.) *Consuming technologies*, London: Routledge, 15-31.

Smahel, D. & Wright, M. (2014) *The meaning of online problematic situations for children: Results of cross-cultural qualitative investigation in nine European countries*. London, LSE, EU Kids Online.

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[i] In some of the focus groups we only had the age range that had guided the choice of the sample (e.g. 11-13 years old). When this happens in the quotes an average figure is given (e.g. 12).

[ii] In the UK, 63% of children are not allowed to use smartphones in school. The fact that for Denmark the figure is only 18% shows the national variation in how smartphone use is regulated, implying different degrees of constraint on use in different countries.