Parental Evaluations of Young Children's Touchscreen Technologies

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Abstract

This chapter reports the first findings from the Australia-UK Toddlers and Tablets project, exploring how parents of 0 to 5-year olds evaluate the role of touchscreen technologies in their children's lives. The findings indicate that parent's evaluations, covering both their concerns and satisfactions, are in many ways similar to those of parents of older children. Nonetheless, there are some differences that stand out. Parents of children in this age group are less concerned about inappropriate content and contact – most likely because they are in closer proximity to their very young children in the home. They tend to reflect more on the learning or developmental benefits or detriments of touchscreen use. These parents also revealed, often with mixed feelings, how touchscreens can be helpful in occupying their children, either when the child needs to be distracted or when they themselves need time to carry out other tasks.

Keywords: parent, concerns, learning, babysitter, touchscreen

Introduction

Over the last two decades we have seen a wealth of studies on children's use of Information and Communication Technology (ICT) generally and mobile phones and the internet more specifically. Much of this research has been about older children, especially teenagers and with good reason given, they were the first children to gain access to these ICTs. As children began using technologies at ever younger ages, there was more research on pre-teens but there were always far fewer studies of very young preschool children's experience of ICTs, especially in the home (Holloway et al., 2013). More recently, touchscreen technologies, principally but not only the tablet and smartphone, have an interface that has made ICTs more accessible to this age group.

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This chapter reports the first findings from the Australia-UK Toddlers and Tablets project, exploring how parents of 0 to 5-year olds evaluate the role of these touchscreen technologies in their children's lives. From the literature, it is clear that for parents of younger children there is more of a learning agenda than the online risk agenda discussed by parents of older children. Hence, the qualitative interviews in this study explored parents' various concerns – sometimes arising through what they had read – about what negative things their young children might be learning, and what type of experiences young children might be missing, what type of competences they might not be developing, through interacting with ICTs (rather than doing other things). On the other hand, we explored parents' views of the benefits of children using these technologies, especially the wide range of things that the children might actually be learning through this interaction with tablets and smartphones. However, not all of the discussions were framed in terms of learning, and in particular the research also explored the ambivalence expressed by these parents when using ICTs to occupying children.

Literature review

There is now a limited amount of research on the general ICT use of very young children aged 0 to 5 in the home (examples include Gutnick et al., 2011; Rideout, 2011; Vandewater et al., 2007; see Holloway, 2013 for a review). Within that literature some material specifically on touchscreen use is emerging: e.g. Chaudron, (2015); Lauricella and colleagues, (2015); Neumann, (2014); Verenikina & Kervin, (2011). However, in terms of providing a context for specifically understanding the evaluations of parents it is more relevant to outline some key themes from series of publications about preschool children's use of ICTs more generally produced by a Scottish research team – Plowman, Stephens, Stevenson and McPake.

These researchers systematically outline a range of moral panics about ICTs expressed in the media especially, among which are concerns about the negative effects on children's social development as children interact more with technology and less with other people, the addictive nature of such technologies, the inauthentic experience of the digital world compared to the physical one, and limitations that technology brings to children's imagination (Plowman et al., 2010a). The researchers note how parents themselves sometimes mention these considerations but also express reservations about them, depending on a range of background factors. Hence, one interest in this chapter is the issue of the extent to which parents do or do not share these concerns.

On the more positive side, these researchers among others have addressed the issue of what parents feel children learn though using technologies. Beyond developing operational skills in manipulating the technology, children can find out about the world through ICTs, and through their use enhance dispositions such as developing independence, sustaining attention and building confidence (McPake et al., 2012; Plowman et al., 2010b; Stephen et al., 2013). However, in the Scottish research parents tended not

to see all of these outcomes as learning (Stephen et al., 2013). Nor did they appreciate how children learn to engage in cultural practices such as talking to relatives on mobile phones or sharing memories by watching DVD recordings (Plowman et al., 2008). In fact, the researchers found that parents often introduce technologies to children not so much for learning but for "babysitting" or occupying children (Stephen et al., 2013) – teaching them to use technologies such as DVDs so that the children do not disturb the parents (Plowman et al., 2010b).

While this chapter investigates parents' perceptions of the different forms of learning identified above, it also explores other rationales for positive evaluations by parents, particularly in relation to touchscreen technologies rather than ICTs more generally. For example, in the grandparenting literature, there has been some work on how video chat apps such as Skype and Facetime had been used to facilitate social interaction between generations (Forghani & Neustaedter, 2014; Kelly, 2015). Lastly, the chapter re-examines the issue of using technology to occupy children, noted above, because this evoked mixed evaluations by parents.

The Toddlers and Tablets project

Toddlers and Tablets is an Australian-UK project funded by the Australian Research Council's Discovery Programme. The arrival of various devices with touchscreen technologies has meant that very young children now have an interface through which they can more easily access the digital world, including the internet, compared to using a mouse and keyboard. While this can provoke concerns (e.g. about potentially more screen time) and enthusiasm (e.g. about earlier digital capabilities, if not literacy), we have seen that there is limited evidence about young children's experiences of these technologies. Hence this multi-method study looked both at children's practices with touchscreen technologies and the perspectives and actions of key actors in their lives, principally parents, but also grandparents and paid child carers. The research involved case studies of families in both countries.

The family studies each entailed an initial interview with one or both parents, depending on the (often busy) timetables of the participants. The parents were then supplied with a video camera and asked to record some examples of their children's use of tablets and smartphones, with suggestions (e.g. videoing their use, if they had difficulties, if they received help). During a second visit to pick up the video camera there was a chance for the researchers to observe the child using the technology and ask further questions. In the case of the UK study this was videoed and in the Australian study this was audiotaped and field notes were taken.

In the UK, there was a total of nine families (plus a pilot study) and in Australia there were also nine, recruited through diverse sources (e.g. work places, social networks, childcare) but principally involving snowballing. In the UK, all but one lived in London, the exception living in the commuter belt around London. The Australian

sample came entirely from Perth. While the project aspired to produce a range of family circumstances there was a preponderance of middle-class families in both countries. The gender balance was roughly equal in both countries, with slightly more 2 to 3 and 4 to 5-year olds. Older siblings were present in some families (Australia six and the UK four), and some had two children in the 0 to 5 age range of the project (Australia four and the UK two). In the UK, the cosmopolitan nature of London was reflected in the fact that quite a few of the parents had been born in other countries: Italians, a Slovak, Australian, French, Canadian-Indian and Russian. The Perth sample in turn reflected migration to the country with Chinese, Korean and Singaporean participants as well those with other heritages such as Dutch, Croatian and Italian.

The families filled in consent forms and their identities were anonymised (for participants see Appendix, Table 1). The analysis of the interviews and video material was in large part informed by reaction to the literature on young children outlined above.

Findings

Parental worries about the consequences of touchscreen technology for younger children overlap with, but are not the same as, concerns about older children. As in the case of parents of older children (Livingstone, 2002), parents of these younger often wanted their children's experience to be balanced between a range of activities, digital and non-digital (e.g. play with toys, play in the garden). In the UK, several parents commented that if their child had been using ICTs too much they would have intervened – but it turned out this was not an issue because the children concerned simply did other things. Nonetheless, others in both countries were still concerned, setting limits their children's use of the technology.

Some parents were apprehensive that touchscreen use was out of balance, as when one UK mother thought her daughter was using the tablet a little too much or another tried to avoid getting to that stage by encouraging alternatives. One Australian mother explained:

> I think it […] first of all it's the habit of being isolated […] and sitting up in bed watching screens alone. And the hours can just whizz by [...] And I don't like her getting on their first thing in the morning before we're up. (Claire, age 42)

Here we see the fears of social isolation that had emerged in interviews with parents of older children (Haddon, 2017) as do worries about addiction (Haddon & Livingstone, 2014), here noted by this Australian mother:

> I've had to put down some rules with him now about watching videos on Youtube because he was getting really obsessed about it and wanting to watch them all the time and not wanting to read, not making anything, not doing anything. (Kate, age 39)

Sometimes parents faced a dilemma, expressing these previous concerns but also wanting their child to learn how to use the technology. In the UK, because she was wary that her daughter Libby was becoming dependent on technology Stella allowed its use (and indeed supported it when her child got stuck) but did not promote it. This lasted until her daughter went to nursery when she discovered that ICTs were on the curriculum and Libby was behind peers in computer skills – at which point Stella encouraged more use of the tablet.

There are some concerns, however, that seem more specific to younger children, with a few UK parents in particular referring to what they had read about good parenting practices. Rohan had read that technology was not good for brain development because the interaction was too passive. Klara became a little apprehensive after coming across an article that suggested children might not develop the ability to entertain themselves if they relied on digital stimuli too much and that the structured digital world might also restrict the development of imagination compared to free play. This worry about the kind of play children experience and implications for mental development was also expressed in Australian interviews: "I think it actually stifles creativity" (Kate, age 39).

Comparing various screen technologies (e.g. TV versus tablets) sometimes helped parents to arrive at more nuanced understandings about different ICTs. Francoise from France was also worried about tablets limiting children's imagination, but she was even more critical of TV for doing the same thing, and so limited her children's TV viewing as well. Francoise's husband Craig followed up Francoise's discussion of some people using tablets as electronic babysitters with reference to older generations who had used the TVs in the same manner. Meanwhile, Linda may have had a few reservations about tablets, but thought they were much better than TV because they were interactive while Klara was another parent who was far more critical of TV, observing that 2-year old Simon could not turn away when watching TV and became irritated. Meantime, the Cheung-Yeo family in Australia talked in terms of a spectrum: TV watching was the most passive, games on the tablet afforded some interactivity but within set rules, while human interaction was the richest experience.

In terms of the physical consequences of using tablets and smartphones, as with parents of older children (Haddon & Livingstone, 2014) some parents in this study were concerned that use of these technologies might lead to eyestrain. Nevertheless, these worries about physical development seemed more acute with children of this young age, the more striking example in the UK being Lorenzo's concern that his son might not develop as much physical dexterity using apps compared with offline activities. Meanwhile, Daniel expressed some malaise about the radiation his daughters might be exposed to with all the WiFi boosters in the house.

The various worries about online risks identified in research on older children (Mascheroni & Haddon, 2015) were less apparent in this study. For example, possible exposure to adult content, a concern of parents with older children (Haddon & Livingstone, 2014), was not mentioned so much in the case of younger children in either country. This was partly because the young children often could not access the digital

world generally on the internet in particular without the parents' help, or else there were parental settings that meant "…on the iPad there's nothing going to harm him" (Kate, age 39). In addition, some parents in both countries made sure they were always around when the child used apps such as Youtube and many parents made sure only Kids Youtube could be accessed.

Where there was a worry about various types of content, some of the same themes as with older children emerged – e.g. "shoot 'em up" games on the devices as a form of exposure to violence – although sometimes there was a different emphasis compared to adult content for older children. For the Ross family in the UK the danger, which actually first came up in relation to the music channel on the TV rather than the tablet, was sexualisation when a girl band of 18-year olds were wearing revealing clothing and dancing in a sexual fashion. Meanwhile, Linda was concerned about an animation on Youtube that showed stealing, so this was an issue of the moral principles learnt by young children. And even though it was in a cartoon, she was uncertain if the depiction of the birth of a baby was age appropriate for her 4-year old. Some Australian parents commented that content could be scary for children this age and sometimes this had to be checked out in advance because of the sensitivities of their young children. In the UK, for example, Sandra's 3-year old daughter Penny became upset if she saw videos of animals being hurt while their son was not so bothered at the same age.

As regards more positive evaluations, even parents with some apprehensions often acknowledged children have to know something about technologies as "part of the modern world" (Mirabella Tosetti, UK). The Tosettis, in particular, were among the parents who were quite proud of their child's digital skills, but also positive about the digital world in general.

> I think we are trying to expose him to lots of different foods and languages and people and things [….] because I grew up in a small town, I was really bored, it was pre-internet and I always desired to have something like this but it didn't exist [….] so I thought what a wonderful thing for him to have access to, all these marvellous things. (Mirabella, age 41)

To varying degrees, many of the parents also thought that their children learnt about other things, not just operational skills related to ICTs. In the spirit of "learning about the world" identified in the Scottish research, parents in both countries often thought that various digital experiences had helped their children to learn shapes, colours, numbers, language in general, specifically English language in households that spoke another language and the language of one of the parents (e.g. Russian in the Mansi family or Mandarin in the Zhang-Chen family). Watching programmes online taught the children about some aspect of daily life, as when Linda noted how daughter Leela had learnt about tooth cavities and airline sickness through watching programme on the tablet. In fact, the Tosettis cited a whole list of what Leopoldo had learnt including finding out about animals, nursery rhymes, encountering classical music, potty training and appreciating cultural practices like birthdays (or for the Australian Zhang-Chen family,

"what Christmas is about"). Meanwhile, in the UK the Mansis noted how 23-month old Sergei made connections between what he had seen in an app on Youtube and the outside world, such as the fact that a leaf resembled a rainbow. The Mansis saw the digital world in general as reinforcing what he had learnt from other sources.

Upon reflection, many parents also felt that using the technologies had helped their children to develop the positive learning dispositions noted by the Scottish researchers. For example, in the UK several parents thought that simply having to wait for the technology to work (e.g. upload an app) helped to develop patience, as the Mansis explained when they told Sergei that he could not use the tablet because it was on charge:

> I don't think he understands what it means to charge something but he understands that that is a process that the iPad needs to go through to work properly so […]. the patience aspect as well I think is developed through that. (Rohan, age 34)

> […] sometimes I use it [...] like for example if he breastfeeds a lot during the day [....] I will tell him the milk needs to charge. And so he knows that that's when he needs to wait. (Nadia, age 38)

Then there are the outcomes that have a bearing on interaction amongst family members. Probably the most unproblematic is the use video chat apps like of Skype and Facetime, discussed in previous research, to keep in touch with grandparents, and also parents when they were away. This was used far more in the Australian sample, perhaps reflecting distances and hence less face-to-face contact, but also by the UK participants who had relatives abroad. As regards the implications for face-to-face interactions within the home, the evaluation was more mixed, with some lamenting the decline of family time because everyone was looking at their own screens, while others found positives, as when the iPad provided a focus for grandchild and grandmother to play together.

Finally, and in line with the Scottish research, many parents added that they did use touchscreens to occupy their children at times, although their own evaluation of this was mixed. Many of the Australian parents stressed the benefits for the child, from entertaining a child on plane flights or car drives, distracting a child when going through a medical procedure or having their fingernails cut through to soothing a child who has had a stressful day at kindergarten. In both countries, parents acknowledged that this could also benefit them, giving the parents a break to get on with other things such as the cooking or giving them a space to study for themselves. However, the UK parents had more reservations about this, especially when thinking about how this practice would be seen by others as using an electronic babysitter (Haddon & Vincent, 2015). Hence, Nadia mentioned she felt guilty about occupying Sergei, that there was some stigma attached to it, while other parents mentioned it would be a last resort or they would not use the technology for that purpose in certain public spaces like restaurants. Maybe this reflects the great pressure of some public discourses about good parenting, specifically documented in the UK, where parents should always be attentive to and interacting with young children – as opposed to occupying them (Macvarish, 2016).

Conclusions

Parents of younger children often share some of the same desires as those of older children, especially the wish to see some balance in their children's life. Some express similar concerns about the potential anti-social effect of technology use and how these technologies can be too attractive and tempting, referring to obsessiveness and addictiveness. However, even when showing concern about physical effects or "appropriate content", the fact that these are younger children adds a developmental aspect to parents' evaluation, be that physical development, children's development of values, or the fact that preschool children may not be very resilient at this stage. It is also striking that the risk agenda associated with older children – what they might encounter, who they might encounter, what thy might get up to online – is mainly absent for parents of these very young children. By and large, these parents think the children are safe from those types of risks, in part because of the children's lack of competence and also because of parents' monitoring and ability to control the digital environment in which their children operate. In fact, there is much more of a learning, or early learning, agenda that informed parental evaluations. Various parents referred to many of the different types of learning identified in Scottish research. And even if they were critical, questioning the quality of the digital world, where it restricts imagination and creativity, this is also informed by a learning agenda – i.e. what do children learn (and not learn) in different settings?

Although important, learning is not the only consideration in parental evaluations. We had various examples of how touchscreen technologies could have positive or negative implications for interpersonal interaction, related to parents' wish for the child to be sociable. Parents also value the fact that these technologies could help the child cope with various situations, including potential boredom. Lastly, there were the benefits for the parent of occupying children – a point rarely mentioned by parents of older children – which parents can appreciate but which can create mixed feelings against a wider public discourse about the "good parenting" of younger children.

References

Chaudron, S. (2015). *Young Children (0-8) and Digital Technology: A Qualitative Exploratory Study Across Seven Countries*, Joint Research Centre, Ispra (VA), Italy.

Forghani, A & Neustaedter, C. (2014). *The Routines and Needs of Grandparents and Parents for Grandparent-Grandchild Conversations Over Distance*, paper for CHI 2014, One of a CHInd, Toronto, Ontario, Canada, April 26-May 1st.

Gutnick, A. L., Robb, M., Takeuchi, L., & Kotler, J. (2011). *Always Connected: The New Digital Media Habits of Young Children.* New York, Joan Ganz Cooney Centre at Sesame Workshop.

Haddon, L. (2017). Sociability, Smartphones and Tablets. In Serrano Tellería, A. (Ed.) *Between the Public and Private in Mobile Communications* (pp. 243-261). Routledge: Oxford.

Haddon, L. & Livingstone, S. (2014). *The Meaning of Online Problematic Situations for Children: The UK report.* EU Kids Online, London. [online]. Available at <http://eprints.lse.ac.uk/60514/>. [Accessed 23 August, 2018].

Haddon, L. & Vincent, J. (2015). *UK Children's Experience of Smartphones and Tablets: Perspectives from Children, Parents and Teachers*. Net Children Go Mobile, The London School of Economics and Political Science, London, UK. [online]. Available at <http://eprints.lse.ac.uk/62125/>. [Accessed 23 August, 2018].

Holloway, D., Green, L. & Livingstone, S. (2013). *Zero to Eight: Young Children and their Internet Use*. EU Kids Online, London. [online]. Available at <http://eprints.lse.ac.uk/52630/>. [Accessed 23 August, 2018].

Kelly, C. (2015). "Let's do some jumping together": Intergenerational Participation in the Use of Remote Technology To Co-Construct Social Relations Over Distance. *Journal of Early Childhood Research*, 13(1), 29-46.

Lauricella, A., Wartella, E. & Rideout, V. (2015). Young Children's Screen Time: The Complex Role of Parent and Child Factors. *Journal of Applied Developmental Psychology*, 36: 11-17.

Livingstone, S. (2002). *Young People and New Media*, Sage: London.

Macvarish, J. (2016). *Neuroparenting: The Expert Invasion of Family Life*. Palgrave MacMillan: London.

Mascheroni, G. & Haddon, L. (2015). Children, Risks and the Mobile Internet, In Y. Zheng (Ed.), *Encyclopedia of Mobile Phone Behavior* (pp.1409-1418). IGI Global: Hershey PA.

McPake, J., Plowman, L. & Stephen, C. (2012). Pre-school Children Creating and Communicating with Digital Technologies in the Home. *British Journal of Educational Technology*, 44(3): 421-431.

Neumann, M. M. (2014). An Examination of Touch Screen Tablets and Emergent Literacy in Australian Pre-School Children. *Australian Journal of Education*, 58(2): 109-122.

Plowman L., McPake, J. & Stephen C. (2008). Just Picking it Up? Young Children Learning with Technology at Home. *Cambridge Journal of Education*, 38(3): 303-319.

Plowman, L., McPake, J. & Stephen, C. (2010a). The Technologisation of Childhood? Young Children and Technology in the Home. *Children & Society*, 24(1): 63-74.

Plowman, L., Stephen, C. & McPake, J. (2010b). Supporting Young Children's Learning with Technology at Home and in Preschool. *Research Papers in Education*, 25(1): 93-113.

Rideout, V. (2011). *Zero to Eight: Children's Media Use in America*. Common Sense Media: San Francisco.

Stephen, C., Stevenson, O. & Adey, C. (2013). Young Children Engaging with Technologies at Home: The Influence of Family Context. *Journal of Early Childhood Research*, 11(2): 149-164.

Vandewater, E. A., Rideout, V. J., Wartella, E. A., Huang, X., Lee, J. H. & Shim, M. S. (2007). Digital Childhood: Electronic Media and Technology Use Among Infants, Toddlers and Preschoolers. *Pediatrics* 119(5): e1006-e1015.

Verenikina, I. & L. Kervin (2011). iPads, Digital Play and Pre-schoolers. *He Kupu,* 2(5): 4-19.

Appendix

Table 1. Details of the sample

P/t = part time f/t = Full time

Family name	Composition	Children 0-5	Older sibling	Ethnicity	Occupations
UK					
Brent	Ted (44) Elizabeth (43) +3 Children	Ellen (4)	Andrew (11) James (9)	English	(T) International development consultant (E)P/t Finance section of an NGO
Brown	Jerry (38) Klara (37) + 1 child	Simon (2).		(J) English (K) Slovak	(J) Director of a family company (K) Not working
Greenfield	Danny (41) Trish (35) +1 child	Andrew (21 months)		English	(D) Careers advisor in a university (T) User interface designer
Jameson (Pilot)	Craig (38) Francoise (42) + 2 children	Floyd (5) Owen (3)		(C) Australian (F) French	(C) Own business in procurement (F) Intelligence officer for the financial services regulator
Kramer	Michael (28) Stella (31) + 2 children	Libby (4) Owen (1)		English	(M) Management accountant (S) P/t receptionist in a primary school.
Mansi	Rohan (34) Nadia (38) + 1 child	Sergei (23 months)		(M) Canadian-Indian (N) Russian	(M) P/t academic, p/t yoga instructor (N) Not working
Palmer	Linda (33) + 2 children	Leela (4)	Marissa (16)	English	(L) Not working
Ross	Ron (31) Sandra (30) + 2 children	Penny (3)	Frankie (6)	English	(R) Bus driver (S) P/t hotel receptionist
Spinner	Daniel (42) Karla (41) + 3 children	Imelda (4)	Alice (9) Belle (7)	English	(D) Advertising (K) P/t IT firm
Tosetti	Lorenzo (41) Mirabella (41) + 1 child	Leopoldo (2)		Italian	(L) animations and special effects (M) Not working

Table 1. Cont.

P/t = part time f/t = Full time

Family name	Composition	Children 0-5	Older sibling	Ethnicity	Occupations
Australia					
Andrews/ White	Richard (40) Kate (39) + 3 children	Liam (5) Scott (2)	Ben (8)	Australian	(R) Runs workshops (K) Not working
Bernard	Scott (40s) Sarah (40s) + 5 children	Connor (5) William (3)	Xavier (13) Sean (11) Chloe (9)	Australian	(S+S) Family business selling solar panels
Cheung/ Yeo	Jo (38) Marie (37) + 1 child	Samuel (20 months)		(J) Singaporean (M) Vietnamese	(J) Internet service provider (M) P/t Large industrial company
Cullen	Sherryl (37) + 4 children + her parents (60s)	Finn (14 months)	Elle (16) Adam (12) Alexa (9)	Australian	(S) F/t student, nursing (Grandfather) retired (Grandmother) Tourist centre assistant
Davis	Malcolm (42) Isabelle (41) + 3 children	Phoebe (5) Emma (2)	Jacob (10)		(M) Educational consultant (I) P/t Geologist
Lawe/ Tammell	Richard (47) Rosalie (50) + 3 children	Ben (5)	Samantha (16) Amelia (12)		(Ri) General manager of a boutique hotel chain (Ro) Co-runs a children's clothing business
Lim/Park	Andrew (42) Mi Na (40) + 2 children + Mi Na's mother (65)	Michael (4) Emily (23 months)		(A) Singaporean (M) Korea	(A) IT in a large multinational (M) Instructor in digital design for gaming
Petersen	Jeff (40) Claire (42) + 2 children + Claire's mother (70s)	Emma (5)	Freya (9)	Australian	(J) P/t at an educational facility (C) Runs several online businesses, p/t Commercial artist. (Grandmother) Retired
Zhang/ Chen	Stanley (36) Rita (33) + 1 child	Lavinia (28 months)		Chinese	(S) IT in a mining company (R) Finance section of a bank