0–8: very young children and the domestication of touchscreen technologies in Australia


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Abstract
Current figures from the UK and US show that there has been a dramatic uptake of internet use by very young children over the last 3–4 years, and a five-fold increase in tablet usage by children aged between 0-8 between 2012 and 2013 (Ofcom, 2013; Rideout, 2013). In the US “fully half (50%) of all children ages 0–8 have used mobile apps, up from just 16% in 2011” (Rideout, 2013: 20) and in the UK “over half of 3–4 year olds have access to touchscreen tablets at home” (Ofcom, 2013: 20). Comparative Australian figures are not available, although previous studies with older children indicate that Australian data is comparable to that of high use European countries such as the UK and some Scandinavian nations (Green et al., 2011). This paper presents a critical review of available policy recommendations and guidelines regarding very young children’s internet use. It makes particular reference to the rising take-up of touchscreen technologies such as smartphones and tablets by children aged between 0–8 and calls for relevant research to be carried out within Australia. Guidelines from the health professions typically advise strict time limits on young children’s screen time. Based for the most part on policy developed by the American Academy of Paediatrics (AAP, 1999; Brown, 2011), it is usually recommended that children under two have no screen time at all (Brown, 2011: 1040), and children over this age have no more than two hours a day (Strasburger et al., 2013: 959). Conversely, early childhood education guidelines promote the development of digital literacy skills (Australian Government Department of Education, 2009). Further, education-based research indicates that access to computers and the internet in the preschool years is associated with overall educational achievement (Bittman et al., 2011; Cavanaugh et al., 2004; Judge et al., 2006; Neumann, 2014). These differing points of view have a tendency to “polarise rather than advance policy development” (Livingstone, 2011: 161) about how best to support very young children’s engagement with the internet in safe and beneficial ways. Parents of children in this age range are usually experienced internet users themselves, and many are comfortable with their children using these child-friendly touchscreen devices (Findahl, 2013). Digital technologies are integral to their everyday lives, often making daily life easier and improving communication with family and friends, even during the high pressure parenting years of raising toddlers and preschoolers. Such families currently lack realistic evidence-based guidelines which take into consideration differences in screens (television or touchscreen), content (ebooks or cartoon videos), activity levels (active or passive; Sweetster et al., 2012), and context (co-use or independent use), in order to help support very young children in their engagement with these online technologies in safe and beneficial ways.

Keywords: preschoolers, touchscreens, parents, digital literacy, safety, risks
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This paper addresses the rapidly growing population of infants, toddlers and preschoolers and younger primary aged children who are embracing online interactions via iPads, tablets and smartphones. Where previously the very young age group (0–4) had effectively been locked out of online participation due to poor motor skills which prevented them from using a mouse or keyboard, the new touch and swipe technologies make it possible for babies and toddlers to operate internet-connected technologies before they are capable of walking or talking. (See, e.g. *A magazine is an iPad that does not work* [YouTube, 2011]). These developments raise pressing issues not previously addressed in media studies research.

Arguing that the pre-motor control generation, aged 0–5 years, are becoming mediatised through their use of touch and swipe technologies – after Krotz’s (2008: 23) use of the term ‘mediatisation’: “the historical developments that took and take place as a result of change in [communication] media, and the consequences of those changes”, cited by Livingstone (2009: 6) – there is an urgent need for mediatisation-based research which:

1. Investigates the ways in which adults are introducing digital technologies to preschool children (0–5 year olds, inclusive) and the contexts in which these technologies are used;
2. Examines the rationales and strategies used by parents in deciding whether and when to allow very young children (0–4), and young children (5–8) to play online, as well as what online activities and content they choose as suitable for these young children;
3. Collects material around children’s online play for analysis, involving children in the 0–8 age group in research about what they like to do online, and why;
4. Uses an evidence-based media studies perspective to participate in the debate about preschoolers’ internet use currently emerging in the domains of education, psychology and paediatrics;
5. Compares the perspectives and experiences of Australian families with families in other countries (which might have a lower digital-risk profile in older children’s age groups than Australia does [Green et al., 2011]) such as the UK and/or Ireland;
6. Informs and charts the development of Australian policy in the area, comparing this with equivalent developments in the UK and in Europe more generally.
The EU Kids Online report on *Zero to eight: Young children and their internet use* (Holloway et al., 2013a), and the ANZCA 13 paper on this topic (Holloway et al., 2013b), go part way to addressing the gap which is now opening in the under-9 evidence base. The reasons for this gap are two-fold: (i) the growth of research about 9–16 year olds, partly as a result of the EU Kids Online project; and (ii) the burgeoning use of tablets and touchscreens enabling internet participation by very young and young children in ever larger numbers. As yet, there appears to be little or no government policy in this area, possibly because behaviours are changing and practices are emerging at such a rapid pace, and possibly because policy makers believe that no children are born with the capacity to access touchscreen technologies without the intervention of their parents, and what parents decide to do in their own homes is, to some extent, up to them. The absence of evidence-based research and the lack of policy in this area, however, mean that parents who are seeking guidance feel rudderless.

**The need for Communications and Media Studies discipline-based research**

There is currently little reliable information about very young children’s internet use in Australia, even though the subject is gaining some media attention (‘iTantrum latest trend for toddlers’, 2013; ‘The craze for tablets and smartphones is spreading’, 2014; ‘How much is too much?’, 2013; ‘iBubs turn into techno toddlers’, 2011). Additionally, it seems that children aged between 0–8 are yet to be seriously considered in policy debate and development. The Australian Government is currently conducting public consultation (closed 7 March 2014) around related issues including “the establishment of a Children’s e-Safety Commissioner; developing an effective complaints system, backed by legislation, to get harmful material down fast from large social media sites, and examining existing Commonwealth legislation to determine whether to create a new, simplified cyber-bullying offence” (Department of Communications, 2014). This Discussion Paper comments that “Almost daily internet use is common for children as young as eight or nine” (Department of Communications, 2014: 2) indicating that the 0–8 year old age group is not specifically included in the consultation, possibly because this cohort is yet to be identified as a policy priority, or because their internet activities are deemed to be fully under the purview of their parents. Observational data of very young children using touchscreen technologies in public places, such as cafés and cars, would not appear to justify policy complacency in this area, however.
Two of the proposed functions of the e-Safety Commissioner “working with industry to ensure that better options for smartphones and other devices and internet access services are available for parents to protect children from harmful content; [and] establishing an advice platform with guidelines for parents about the appropriateness of media content” (Department of Communications, 2014: 5) indicate that policy and guidelines will be available from the e-Safety Commissioner in due course. In light of these positive developments, it is important that 0–8 year olds are placed on the policy agenda and that future policy is informed by the real life contexts in which very young children (0–4) go online. This evidence is required for the development of:

1. Realistic, evidence-based guidelines for parents/carers regarding very young (0–4) and young (5–8) children’s engagement with digital technologies and the internet. Parent education packages should be aimed at specific age groups (0–1, 2–3, 4–5, 6–8) and outline ways in which parents can maximise the benefits and minimise the risks of their children going online. Co-use activities such as reading ebooks and video conferencing (‘Facetime’) with relatives are likely to benefit the child, as well as providing engaging, interactive and safe activities that offer fun, learning moments for young children, sometimes through targeted apps (applications).

2. Appropriate investigative methods so as to include children’s own experiences and opinions.

3. Materials to inform parental education regarding posts, pictures and videos of their children, and the potential effect these postings may have on their children’s digital footprint and on the child as s/he gets older (Leaver, 2011).

4. Industry recommendations and guidelines for online service providers regarding user consent policies and their responsibilities to ‘take-down’ information in a wide range of circumstances, including confidential, risky and erroneous information posted by minors – as well as parental postings.

5. Recommendations for software developers, designers and marketers to ensure the provision of greater transparency regarding how data is collected, collated, used and shared via children’s apps, and the provision of straightforward opt-out choices for parents and children within these apps.

These are clearly important issues for Australian families with young children, and educators and service providers working with young children. In advocating the development and refinement of this evidence base, it is prudent to acknowledge that the current experts in the
field in terms of the everyday uses of touchscreen technologies by very young children are
the parents of very young children themselves. Knowledge arising in the near future is likely
to be informed by both a conventional social constructionist perspective (Burr, 2003), and a
co-construction of knowledge (Fong, 2005) / social learning (Wenger, 2000) approach, which
has links with the ‘communities of practice’ literature (Wenger, 1988). Social
constructionism argues that meaning is constructed through social and verbal engagement
with others: “In writing this book, then, I am contributing to what might be called ‘the social
construction of social constructionism’” (Burr, 2003: 13). In talking about and investigating
young children’s uses of digital technologies and the social contexts in which these
technologies are used, researchers, parents, preschoolers and their families will collaborate in
the construction of social meaning. At the same time, a community of practice has already
been developed by parents and 0–4 year olds with respect to parents’ operational protocols
which grant very young children’s access to touch and swipe technologies. Exploratory
investigations with parents (currently in refereed journal review) indicate that online
activities by 0–4 year olds both concern and delight parents.

**Approaches and methods: the challenge**

The desired research should integrate:

(i) An international level perspective, drawing upon work from media studies and
other discipline areas in New Zealand (e.g. Fleer, 2013), the US (e.g. Wartella et
al., 2013; Rideout, 2013), the EU (Holloway et al., 2013a) and Australia (e.g.
Neumann, 2013). Data from the EU Kids Online and AU Kids Online quantitative
research indicates that, for children aged between 9 and 16, the UK has a much
lower online risk profile than Australia (Livingstone et al., 2011a; 2011b) (Green
et al., 2011: 61) and it may be possible to identify differences between English-
language speaking cultures that are evident in parental approaches to media use by
children at an early age which contribute to the development of such differences;

(ii) A national level contest, with the analysis of media, policy and debate in the
public sphere; and

(iii) A personal and interpersonal level, possibly including interviews, focus groups
and video observational data with children, parents, grandparents and non-resident
extended family members.
A multi-level comparative structure should help create rich, deep information, providing evidence which can underpin both theoretical and policy-driven findings. The manner of concepts which are required to be developed and elaborated upon in the progress of research into online access by very young and young children (0–8) include the ‘mediatisation’ of early childhood, in terms of the incorporation of pre-verbal non-ambulant infants into active audiences. What we are terming here ‘mediatisation’, cognisant that this has a prior and totally different meaning in postcolonial discourse, but unwilling to adopt the notion of the ‘technologisation’ of infancy (Livingstone, 2009), has parallels with the ‘domestication’ research of a generation ago (Silverstone and Haddon, 1996). Within the overall 0–8 cohort, it can be argued that the 0–4 age group is the most pressing research priority, as infants’ touch and swipe practices are comparatively new, growing fast and developing within the context of (effectively) a policy vacuum.

**Discussion and conclusion**

A timely focus upon this area of research will enable Australian interests to set the agenda in terms of discussions with online service providers, software developers, designers, marketers and regulators around their responsibilities with regards to young users. In terms of promoting the sustainability and responsible practice of business in this area, such interventions also offer economic benefits. By supporting the development of age-appropriate guidelines for very young (0–4) and young (5–8) children to be able to interact safely and beneficially with touchscreen technologies, this research project also offers substantial social benefit.

Parents and families already know that certain aspects of digital engagement are highly valuable in young children’s social and sociability contexts, for example through using touchscreens to connect absent family members with young children. Such activities can have ancillary benefits in terms of supporting family connections, for example in fly-in fly-out contexts and following family separation through migration or relationship breakdown.

At the same time, there is an urgent need to understand very young Australians’ online practices as part of making the internet safer for these children and their families. Such safety can be enhanced by guidelines, policies, and age-appropriate technological safety systems integrating hardware, software and user practices. These young children are growing up in a
world which is already different in significant ways from that of their parents. The mediatisation of their childhood is likely to help equip them for their lives ahead. Whilst it is impossible to be sure what that future holds for these young Australian citizens, we can be certain that it will encompass a large component of digital interactivity.
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