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Researching children and childhood in the digital age

Book section

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Introduction to the digital age

The rapidity with which digital, networked and online media and information technologies (hereafter, 'the digital' or 'digital media') have become embedded in children's lives has been startling, triggering a revival of public hyperbole about media-related opportunities and risks, along with a burgeoning of argumentation and experimentation among social researchers keen to explore the significance of 'the digital age' for children and childhood. In even the 2008 (second) edition of this volume, there was no reference to mobile, smart or personal devices, no social networking sites or online identities; just a mention of online surveys as an addition to the researcher's toolbox. Until recently, analysis of children's experiences, social relations and lifeworlds implicitly prioritised face-to-face, physically co-located communication as the primary means through which their everyday lives are constituted and, therefore, the primary means through which research with children is to be conducted.

For sure, those researching children and childhood recognise that children like to fill their leisure time by watching television, playing computer games or looking things up on the internet. Now that traces of children's activities are visible on social networking sites, stored in mobile phones or collectable via 'big data' (Couldry & Powell, 2014), researchers are also recognising that digital media expand the methodological toolbox by adding a new means of communicating with children and a new source of data about their lives. This chapter takes a more radical position, arguing that the significance of 'the digital' goes beyond recognising that a new institution (the internet industry), set of activities (searching, networking, etc.) and a new space ('cyberspace') has become influential in children's lives, and thus beyond adding another phenomenon for inquiry and another tool for the box.

The digital, we argue, is to a greater or lesser degree reconfiguring the traditional phenomena of childhood studies – identity, friendship, participation, learning, family, place, play, disadvantage, risk and so on. Just as face-to-face conversation throughout human history has mediated identity, friendship, participation etc. in particular ways, and so cannot be sequestered as a discrete phenomenon for study, and just as print mediated children's lifeworlds through transformations of literacy, education and work (Luke, 1989), today's digital media are already mediating the many phenomena central to children's lives. By emphasising the digital as a process of mediation, we highlight how the digital media (or, more strictly, the practices associated with their deployment in everyday life) represent a way of getting 'in between' – whether in between people, places, activities or structures. As Hine (2015) argues, digital media are now "embedded, embodied and every day" (see also Pink & Leder Mackley, 2013).

Mediation reshapes and reconfigures meanings and practices in ways that are, in turn, shaped by time and place. Thus we point to an evolutionary shift rather than a dramatic break with times past. At the time of writing, academic and popular discourses tend to mark off the digital from the 'real', qualifying the concepts of identity or friendship or participation when they are digitally mediated as networked identity or Facebook 'friends' or e-participation, somehow distinct from the 'real thing'. This is reminiscent of the nineteenth century notion of 'book learning' (following the spread of print literacy as a contrast with what, before, represented 'normal' or unmarked, i.e. face-to-face forms of learning) or 'pen pals' (to describe friends known only through the exchange of letters). Today's popular discourses of childhood and youth abound with such prefixes – consider digital parenting or digital natives, e-learning or e-skills. Such terms may seem fashion-led, but at issue is the struggle to understand the altered materiality of our communication ecology or environment and thus the remediation of the conditions through which childhood is constituted and lived (Bolter & Grusin, 1999).

In this chapter we explore the increasing digital 'mediation of everything' (Livingstone, 2009a) but without becoming 'media-centric' (Couldry, 2005). On the one hand, we argue that the digital matters in ways yet to be well understood, but on the other hand, we recognise that many other concomitant changes are also reshaping children's lives and, moreover, what really matters in children's lives continue to be questions of identity, friendship, participation, learning, family, and so on, even as these are reconfigured in the digital age. Consider an illustration of this process of evolutionary change – in the world, and in our analysis. Twenty years ago, in the early days of the internet, the first author's (Sonia) eight-year-old son and his friend discovered amid much excitement that they could play their favourite computer game online. But then,

> "when restricted in their access to the Internet, for reasons of cost, the game spins off into 'real life'. Now the boys, together with their younger sisters, choose a character, don their battle dress and play 'the game' all over the house, going downstairs to Hell, The Volcanoes and The Labyrinth, and upstairs to The Town, 'improving' the game

in the process. This new game is called, confusingly for adult observers, "playing the internet"'.

Writing about this at the time (Livingstone, 1998, p. 436), the questions focused on boundaries – what's new, when is leisure mediated or not, what's the significance of 'virtual' versus real play? Reflecting on it again ten years later (Livingstone, 2009), what stood out was that leisure and play were themselves changing, no longer neatly classifiable in two pure forms, real or virtual. It is not just that children cross the boundary from the real to the virtual with ease but, as Götz, Lemish, Aidman, and Moon (2005) noted in their analysis of children's drawings about their lives, the narratives and images of the media – with its superheroes, Disney princesses, even traumatic news portrayals, and now the poetics (the forms, discourses and narratives) of the internet - have embedded themselves in children's imaginations and are threaded throughout their play (Willett, Richards, Marsh, Burn, & Bishop, 2013). Arguably play itself has become more commercialised, more gendered – and, some worry, also less imaginative, less socially constructed.

So, from an early fascination with boundaries, we have moved to exploring reconfigurations (Hepp, 2013). As we were writing this chapter, the second author (Alicia) added another twist to the tale. She was at the park with her children when she noticed two boys around six years old playing what they called 'the internet' on a climbing frame, pretending to fly around as if in a rocket ship and saying 'c'mon guys, we're in the internet!', 'let's go in the *internet*!' Their sense of exploration and possibility was palpable, expressed in the expansive sci-fi-informed imaginary of the digital age, though no digital devices were in sight. And their play did not, on this occasion, appear to lack imagination or enthusiastic sociability, thereby challenging – as child-centred observations often do – the anxious conclusions of media effects research (Millwood Hargrave & Livingstone, 2009).

Our personal observations illustrate how children's activities can reveal the subtle workings of the digital, a key theme for the present chapter. Conversely, the digital can reveal subtle processes of childhood, an equally important theme. As children's lives are increasingly enacted within digitally mediated environments, they leave digital traces visible to them, to their friends and parents, and to both public and private sector bodies. This brings new opportunities and new risks for children and those who conduct research with children. In what follows, we analyse the methods of selected research projects on the digital mediation of childhood, with a particular focus on the phenomena of identity, friendship and participation. Our purpose is to show that paying attention to the digital can reveal contemporary reconfigurations of identity, friendship or participation in childhood and, conversely, that children's enactment of identity, friendship or participation in the digital age leaves digital traces that have distinct consequences for the understanding of those phenomena.

Constructing networked identities

The first author met Megan, aged 13, as part of 'The Class', a year-long ethnography of the social, digital and learning lives of a Year 9 class, 28 13-to 14-year-olds in all (Livingstone & Sefton-Green, 2016). In the autumn term, we sat in their classrooms, observing and chatting to the students between and around lessons. Megan presented herself as 'cool' – challenging school rules by wearing nail polish, putting her feet on the desk, being cheeky to her teachers and always late with homework. When we asked the students to complete a social network of the class (each saying of all the others, who they hang out with, turn to with a problem, chat to on social media, etc.), it was unsurprising to find that Megan was highly connected to her peers, especially to the boys.

Some months later we visited members of the class individually at home, meeting their parents, siblings and pets, doing a 'media tour' of the home (Mitchell et al., 2014) and chatting with the teenagers in their bedrooms and as they went online. Moving from the more formal to informal and personalised spaces of her home revealed a softer, more thoughtful Megan, a self-proclaimed "daddy's girl" able to get around her fond father while her sterner mother insisted on music practice, high grades and good behaviour. Megan had become concerned about getting on better with her teachers, with other girls, and avoiding playground arguments. This effort to change who she was to her mother, teachers and peers was expressed also in her decision to prune her Facebook contacts to just the people she 'actually knew', now regarding this (technically private) space as her 'public face', where she would be still cool but more civil, less personal or vulnerable to the critical gaze of her circle. At the same time, she developed her use of Twitter (a technically public platform) for personal communication with a small group of 'real' friends (i.e. those primarily engaged with face-to-face). Most important still, we discovered that she was deeply invested in Tumblr (an anonymous, public platform) for explorations of her most private self not shared with with friends or family:

> I don't show people, like, Tumblr. Like, I wouldn't show my parents my Tumblr. I wouldn't show my friends, really, my Tumblr. Tumblr's, like, for me, quite private. Like, that's my space for, like, my things... When you first get Tumblr … you won't understand, and, like, I promise you, you will get obsessed with it…. You can design how it looks exactly to every detail of it. You can make it perfect. But I've spent, like, five hours in a row, like, perfecting it . . . That's, like, my space. I have everything perfect.

In terms of methodology, it took us quite a while, working across the places significant to Megan, before she revealed these layers of her identity and their distinct mediations. Each layer required a separate negotiation, and this too was informative. She had no qualms about showing us her bedroom, for instance, supposedly the locus of a teenage girl's private self. But Megan shared a room with her older sister and it wasn't entirely clear which possessions or posters belonged to which girl, though the shrine to Harry Potter was definitely Megan's. She was happy for us to screenshot her Facebook profile and even scroll through her Twitter feed. Her Tumblr, however, we could only take a quick glance at, and certainly not record.

For other young people in the class, their public and private selves were differently mediated, and our access as researchers was also different: thus of the 28 students in the class, some readily showed us their Tumblr while their bedroom door remained closed.

Childhood researchers are familiar with the affordances – both enabling and constraining – of children's offline spaces (school, home, the bedroom, 'being out'). But now these intersect with the affordances of online technologies and spaces in ways that are both revealing of the offline world (consider how Megan's talk about Facebook reveals her determination to alter her relationships with others at school and when with her peers) and that, in turn, shape identities by allowing people – teenagers especially – to 'write themselves into being' (Sundén, 2003); consider how Megan's changed use of Facebook is itself a key means by which she enacts this 'new self', and how this in turn drives her desire to find a new private space for identity work. That this space is itself online (rather than, as in previous generations, expressed in the form of a diary or secret spot in the garden) is indicative of today's relatively-privileged life in the West, where children live under the anxiously surveillant gaze of their parents and others, lacking the freedom of movement or choice of friendship also open to previous generations (Livingstone, 2009b). As boyd (2014) showed, this forces teenagers to seek creative ways of 'hiding in plain sight', including encoding their identity and communicative practices on digital platforms in ways not interpretable by parents, for instance.

Just what teenagers now hide online is not always as innocent as Megan's fascination with the aesthetics of landscapes and fashion images. A recent project conducted for the NSPCC asked teenagers about the transgressive images they collect on their mobile phones, variously self-taken and uploaded or downloaded from websites and social networking platforms (Ringrose, Harvey, Gill, & Livingstone, 2013). There we saw a similar effort to present and manage one's identity within the peer network, again evading parental scrutiny or even understanding. But now the images – highly body-conscious, often sexual – were sometimes used coercively to impose a normative gaze on both boys and girls, also enabling boys to pressurise girls into providing sexual favours. Further, the specific affordances of the digital – ease of image capture, manipulation, storage and sharing – tended to undermine girls' ability to manage their self-image and reputation within the peer group, creating new instabilities and occasional crises. These affordances also left their distinctive mark on identity and peer practices: we observed how the language of the sites was incorporated within everyday language as teenagers competed for 'ratings' or 'likes' (digital markers of peer status), 'adding' or 'deleting' friends (offline as well as online) and navigating the hazards of sexuality via the creation, sharing, tagging, editing and displaying of revealing images.

That project concluded that the digital age appears to intensify traditional teenage struggles, adding new levels of risk (or even criminality, given strict laws on the possession of sexual images of minors), new means of coercion or harassment and, intriguingly, also new ways in which such harassment could be documented and perpetrators called to account – as teens worked out how to record the hostility directed to them as evidence to show teachers, for

instance. For the researcher, today's altered balance between what is visible and what is hidden poses challenges of credibility, interpretation and research ethics. Teenagers pose researchers with some tricky tests to establish our credibility to them: have we got the 'right' phone, do we know the latest terminology or even understand what they mean even when they do describe their digital practices?

Visualising peer relationships

In considering the mix of spaces in which Megan displayed her identity, we are reminded that identities are social, contextual, relational and always-in-progress (Jenkins, 2014). In discussing herself she simultaneously revealed her relationships with others and, by implication, aspects of their identities also. Her careful curation of different aspects of herself in relation to the spatial, visual, material and networked opportunities available to her is not unique to the digital age but is nonetheless altered by it. In an increasingly networked world, it is no longer possible to draw strict distinctions between private identity and public display for networks simultaneously construct the meaning of the link (or relationship) through connecting up particular nodes (or individuals) and they recontextualise the meanings of nodes as the links that connect them alter and reform (Castells, 2010). Thus digital social networks allow for new ways of 'performing the self' (Hogan, 2010; Marwick & boyd, 2014) and for 'reflexive' and 'fluid' associations with others (Papacharissi, 2011).

In the digital age, social networks have become more observable by others (both researchers and peers). This visibility is enabled, first, by the graphical representations of digital networks in lists of 'friends' or 'followers' where numbers, geographic and age spread (or lack thereof) may paint a telling picture of the lives of young people. Second, it is enabled by the digital traces of the performance of interpersonal life – whether supportive or hurtful – made visible by having been played out on the 'walls' and 'boards' and 'chats' of 'networked publics' (Ito, 2008; Marwick & boyd, 2014). This newly discernable evidence of social relationships and their impact on identity presents opportunities for researchers interested in children and young people, but raises new ethical dilemmas as well (Livingstone & Locatelli, 2014).

Koen Leurs, our former colleague at LSE, encountered such possibilities and problems in his in-depth interviews with a diverse mix of 12-to 21-year old Londoners in a project to uncover 'the socio-political relevance of everyday internet use among young people… [and question] to what extent do diverse young Londoners network and identify with one another, across difference, using digital media' (Leurs, 2014, pp. 252–253). Integrating participatory (Gubrium & Harper, 2013) and digital methods (Rogers, 2013), Leurs examined the young people's investment of time and commitment in social networking sites to deepen what he could learn from the interviews. At the start of the interview, the young participants were asked to draw a concept map of what their 'view on the Internet looked like', and this informed the questions that followed (Leurs, Georgiou, Mcquire, Vuolteenaho, & Sumiala, 2015). Later in the interview, they were asked to create visualizations of their Facebook

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friendship networks, working with Leurs on his iPad using the commercial but freely available app called 'TouchGraph' which uses the Facebook 'API' (information architecture) to create visually pleasing maps of Facebook friend networks, grouping and color-coding the connections among friends. Leurs then prompted the young people to reflect on these groupings in the interview.

One of his informants, 13-year old Xavier, who lived in the same North London borough as Megan (above), produced a diagram (see Figure 1) showing his connections to an intensely global group of friends at his secondary school.

Figure 1: Xavier's network
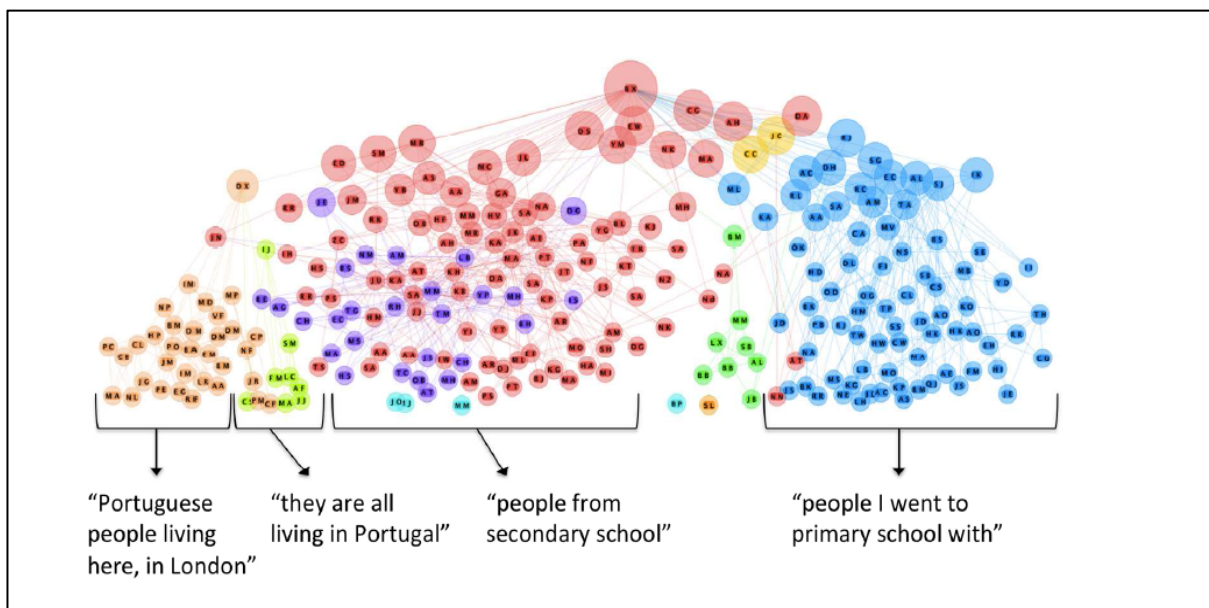
He described the diagram saying:

> Chinese, Nigerian, Caribbean, Nigerian, from Jamaica, he is from Somalia, Eritrea, she is from Wales, he is from Zimbabwe, all kind of different, she is from Colombia, he is the only English person that I know, there is more, but I just don't remember, he is from Ghana, Thailand, she is from Saudi Arabia, there is a lot, Algeria, Kazakhstan, he is from there. There is just so much. (Leurs, 2014, p. 251)

At the same time, Xavier also used Facebook to keep in contact with friends and family from the small village in Northern Portugal from which he had emigrated. Xavier's commentary on the diagram revealed his cosmopolitan outlook – as he commented, 'there is so many different like countries. You can't really discriminate. I prefer to learn than to, like, directly say something bad' (Leurs, 2014, p. 251) – combined with his commitment to maintaining kin networks and connection to his home country. Xavier's intensively networked identity

contrasts with Megan's treatment of Facebook for public, civil but not intense networks and Tumblr for the private exploration of her creativity and subjectivity.

Understanding how Megan and Xavier positioned themselves in their wider communities required both 'online' and 'offline' methods, and the contrasts these revealed opened up further questions for the research. For example, we found that Megan and her classmates, while being Facebook friends, rarely hung out together after school or supported each other when one of them faced a problem; for these more meaningful matters, the class tended to differentiate into smaller subgroups (largely according to gender, social class and ethnicity) while also sustaining other connections beyond the class. Xavier maintained an intensive network of contacts through his use of social networking sites, but he related to different groupings differently – some contacts were simply place-holders for more meaningful face-to-face interactions while others existed only as virtual connections as a result of economic migration but were no less deeply meaningful for that.

Although incorporating research on young people's digital networks is essential to understanding how their identities are constructed, doing so is not without practical or ethical problems. For example, the ToughGraph app that Leurs used in his research stopped working when the Facebook API was changed, and some of the youth centres had limited internet connectivity or blocked social network sites behind protective firewalls. Ethically, the new publicness of interpersonal interactions offers convenient 'ways in' to young people's lives, but these must be approached with care. For example, in 'The Class' the first author specifically chose not to present whole-class social network visualizations to the participants for these revealed who in the class was central and who peripheral to the network, and who said they were friends with whom – information that, while technically available to most of the class, was not generally visible to them. In Leurs' research the reflexivity invited by the friendship visualizations led to some emotional interviews. For example, asking one 16- year-old about his network visualization led the boy to reveal to Leurs how he had been bullied about his sexual orientation and had sought support. Reflecting on his role as a researcher in this fraught circumstance has led Leurs (2015) to advocate for 'informant-centred' research, noting that all researchers, including those engaged in data-driven research, owe their research participants a 'duty of care' (Lomax, 2015).

Mediating participation and youth voice

One hope for emerging technologies is that they allow 'ordinary people' (Thumim, 2012) to escape the restrictions of traditional media gatekeepers so as to 'speak truth to power' (Carpentier, 2007; Loader & Mercea, 2011). Children and young people, historically disenfranchised from public discourse, are among those who most stand to gain, now able to harness their passions and interests to connect to wider struggles for social justice, query policy and hold powerful institutions to account (Jenkins et al. 2016; Kahne, Middaugh, & Allen, 2015; Loader, 2007). However, while as we have seen, teenagers have been especially enthusiastic in spontaneously adopting social media, it takes coordinated intervention to

coordinate their participation in ways that can be heard by institutions with the power to make changes that matter. What can studying the process of bringing civic media into being, along with the digital texts themselves, tell us about the contemporary reconfiguration of youth participation?

As part of a research project on participatory digital filmmaking with young people the second author spent several months studying an initiative for young British Muslims to make films, with the help of a professional filmmaking team, about issues they felt strongly about. The project was organized by a Muslim youth organization and funded by the Department for Communities and Local Government through the 'Preventing Violent Extremism' (PVE) fund in order to 'open up their minds and to think about how they can get involved in the political system,' as one of the organisers explained. Thus it aimed at teaching young people the 'hard' technical skills of filmmaking, 'soft' interpersonal and communication skills, and content-based skills for political participation and advocacy such as contacting your MP. To ensure a meaningful audience for the films a final screening was booked at the Houses of Parliament a few months hence.

One early difficulty was that the remit was to work with 'politically disengaged' young Muslims, with politics defined narrowly. Thus while the project indeed worked with those largely uninterested in formal party politics, most were active in forms of cultural or social citizenship like volunteering or school-based activities like Model UN (Fahmy, 2006; Isin, 2008). This in turn led them to be sceptical about the premise of the funding, though they appreciated the opportunity to make their own films. Aswini, 18 years old and one of the two female participants told me (Alicia) that the PVE scheme was 'quite insulting really; it suggests that you don't have your own mind to make your own decisions and they have to put in measures to prevent you from becoming brainwashed… just because you're young and you're Muslim [it doesn't mean] that you're going to turn to that side.'

In the end the group made three films. The first examined Muslim gangs and how young people could escape the pull of gang culture; the second looked at police 'stop and search' tactics, and the third considered different forms of protest against the Iraq war – from political lobbying to peaceful protest to the interest in joining *jihad*. The group used the films as an avenue to interview other young people about why they might feel tempted towards violence, though they took great pains to intersperse these anonymised interviews with a boisterous discussion amongst a group of British Pakistani men on a 'stag do' discussing more moderate opposition to the war.

The final screening and eventual distribution of the films were key for the participants. Eighteen-year old Rahim, of the makers of the 'stop and search' film told me that he had directed his film to the police because 'they're working for us if you think about it. If they make us feel scared, if they make us feel stupid, there's no use of them because they're supposed to be out there making us feel safe.' Khalid, 17, who had been the cameraman on the gang culture film told me he was anxious about whether the film was 'going to make any

change or if it's a waste of time. I mean, obviously it's not a waste of time because I [will learn] quite a lot of skills but is anyone else going to get any aspect from it or anything?'

The final screening was well attended by friends and family, high level board members and representatives from the funders but not especially so by MPs who were involved in a last-minute vote that evening. The funder who attended the event told me she didn't find the films 'uncomfortable because I know those views exist and it is important that we bring them into the mainstream and into the forefront because these people are often quite isolated or maybe they're not engaged or maybe they're living in isolated communities.' But the screening revealed a mismatch between the young people's hope that the audience would engage with the content of their films instead of (more simply) praising them for their efforts (Blum-Ross, 2012a).

This project illustrates both the potential and the problems of harnessing newly accessible media production technologies to mediate youth participation. The problems are sadly familiar – the challenge of engaging 'hard-to-reach' young people, the pervasive marginalization of youth voice even by projects designed to promote it, the tendency to frame youth voice in terms of a 'deficit' narrative – in this case that the young people were 'at-risk' of becoming extremists or involved with gangs (Blum-Ross, 2012b; te Riele, 2006), and the difficulty of obtaining an audience for children and young people's voices (Levine, 2008).

The potential is more revealing. Following the production process itself, interviewing the young people about their creative and technical decision-making and hopes and expectations for the final film proved as illuminating as the film itself. The same has been found by researchers working with children on their experiences of migration (de Block, Buckingham, & Banaji, 2005) or of relationships to embodied local spaces (Blum-Ross, 2013; Thornham & Myers, 2012). In these cases, as with Leurs' research above, the act of visualisation, especially when implemented through an extensive and collaborative process of creation, invites reflexivity and encourages an 'invitation to talk'. Observing the filmmaking demonstrated the creativity with which the young people approached the complex issues, and how they used the particular affordances of filmmaking to enable dialogue and reflection – for instance in the use of non-linear digital editing to put two different perspectives on protest in conversation. Equally, interviewing the young people 'behind the scenes' allowed for a real-time reflection on their technical and creative choices, as well as later revisiting after the editing and the screening whether their expectations for their filmmaking and political participation had been met. The film itself as a text demonstrated a particular moment in political activism amongst young British Muslims, and can be subsequently revisited by researchers interested in political activism in this community. However, while the film serves as a helpful index to the process of making it, it is most illuminating when incorporated into a longer research engagement where digital 'processes' and 'products' are engaged with in tandem.

Conclusion: new directions, new challenges

Today's omnipresent digital media are inescapable but their significance is yet to be weighed, neither taking them for granted nor falling subject to utopian or dystopian hyperbole. This process of weighing and reflecting is not only now a vital academic task but also one that the public – including parents, children, teachers and others are also engaged in. In our current research with families, 'Parenting for a Digital Future', a fascination with unfolding socio-technological changes – in the present and as imagined for the future – is generating a heightened reflexivity and a wealth of experimentation with everyday practices and meanings. For example, 'the digital' seems to catalyse critical self-reflections from parents about whether they are 'good enough parents' or 'doing it right' or 'getting their children ahead.' In terms of research methodology, this makes our task easier – parents respond enthusiastically to interview requests, and the reflections they offer go far beyond questions of the digital to reveal anxieties about parental responsibilities, family relationships, ethical norms and values, and their children's (imagined) life chances. The same may be said when working with children directly – the digital is often the focus of their liveliest interests and commitments, making it a productive route to exploring children's communication, relationships, education, health, work, commerce, civic and political engagement, identity, creativity or any of a host of other phenomena.

In this sense the digital eases the researcher's task, as it does also by providing opportunities to visualise what has long remained implicit or hidden through techniques that work with the digital traces now left by many social interactions and performances of self. A central feature of the digital is the importance of the image over the word (Kress, 2003) and of the visual over the other senses (Brighenti, 2007). Theorising visibility in terms of the intersection of aesthetics (perception) and politics (power) together constituting the symbolic realm, Brighenti argues that the interplay between visibility and invisibility signals and reproduces asymmetries of power. For children, today's mechanisms or 'regimes of visibility' are increasingly mediated by the digital. Visibility brings recognition but also surveillance. It offers new ways to be seen and new ways to hide – for secrets, privacy, intimacy. It enables voice but also hostility to or abuse of those who seek visibility: 'visibility is a double-edged sword: it can be empowering as well as disempowering" (2007, p. 335).

Taking the view that any and all dimensions of childhood are constituted through communication in one form or another, our present interest is in the difference that mediation via the digital makes – to childhood and to its study. Hence we have invited researchers of children and childhood not only to consider what's new and changing in the digital age but also to reconsider their familiar concepts as they are being reconfigured by and for children in an expanded and diversified communication and information ecology. This is not to argue that with the advent of the internet everything has changed in its entirety, for social change is complex, multi-faceted and not necessarily linear (Lunt and Livingstone, 2016). Nor is it to sign up to the media panics that claim digital media to be negatively impacting on once-innocent lives, forever displacing face-to-face communication or established values.

Rejecting simple technological determinisms, most theories of the digital stress the mutual shaping of technology and society, recognising that technological innovation affords (or enables) a host of social uses and social consequences precisely because it emerges from and operates within a larger and multifaceted process of political, economic and cultural change (Lievrouw & Livingstone, 2006).

In practice this means that it is vital to carefully contextualise any object of study, especially the use of those shiny new technologies that seem – misleadingly – to speak for themselves. It is important to acknowledge that the practices that we have explored in this chapter – of 'writing oneself into being', networking with friends and others, and participating in wider processes of power – have long histories. People have always – via diaries, letters, journalism and fiction – performed selfhood to different, perhaps imagined audiences; the history of identity-as-text, for example, should not be forgotten in the shock of the new. But for the most part such activities have been much less available to children, especially for performances of self and voice that attain significant audiences; so there is something new here in terms of scale, control and efficacy. Further, the choice of forms and modes of communication has multiplied hugely. For sure, the locked paper diary is still with us, as are handwritten letters. But for teenagers, the choices that matter today centre on blogs, social networking sites and more, and thus the texts of identity and relationships have become simultaneously multimodal and networked, often commercialised (since they rely on proprietary platforms with their own corporate interests at stake) and, in complex ways, more or less visible to different audiences (boyd, 2014).

In short, for children and young people today, digital and networked technologies have shifted from playing an incidental or supplementary role within leisure and learning to an ever-present medium in which and through which children (and all of us) now live their lives. Digital media have become not only valuable tools, useful for meeting instrumental information or communication needs but, more fundamentally, they have become 'environmental', being embedded in and significantly constitutive of today's practices, relationships and institutions (Livingstone, 2009b). It is this environmental or ecological character we have sought to stress, to understand its methodological implications for researching childhood and to challenge lingering hopes for conducting research as 'business as usual' by sidestepping attention to digital mediations or assuming them to be, still, incidental or supplementary. The 'digital thread' that now runs through children's lives, we argue, must now also run through social research with children.

Acknowledgements

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