

Children and Sexting : The Case for Intergenerational Co-Learning

Disruptive innovations enabled by digital technologies are not only creating new markets and value networks in business (Bower and Christensen 1995; Nagy et al 2016), but are also affecting social relationships and the terms of personal value (Chambers 2013). With regard to children, this has generated a host of specific concerns such as cyber-bullying (Olweus and Limber 2018), online sexual exploitation (Brown 2017), self-image and self-esteem (Pounders and Kowalczyk 2016), and ideological radicalization (Sewell and Hulusi 2016) alongside more general concerns for their psychological autonomy (Lustig 2017). In what follows, we focus on children's 'sexting' as a feature of under eighteen year olds' peer-to-peer relations. Sexting involves the use of smartphones and other digital devices to communicate text and sexualized images of self and others (Ringrose et al 2012) between individual smartphone accounts and/or through social media websites such as Snapchat and Instagram. 'Sexting' covers a range of practices, from sexual partners consensually sharing text and images of each other, with each other, through flirtation and exchange between peers, to the non-consensual distribution of sexualized images or text for malicious or abusive purposes. In what follows, we frame children's sexting as one aspect of wider disruptive socio-technical innovation which, we argue, is undermining existing assumptions about how adults can help children. We develop the concept of 'intergenerational co-learning' an approach to knowledge creation that can replace assumptions about relationships between adults, children and technologies.

Children's sexting has been a matter of public discussion and concern for about a decade. In that time moral entrepreneurs have campaigned on it (Sternheimer 2015) and parliamentary inquiries in UK and Australia have addressed it (Law Reform Committee 2013; Women and Equalities Committee 2016). This has been accompanied by calls for children to abstain from sexting altogether (Albury et al 2016) and for adults to limit children's autonomous use of digital media (Guardian 2016). Sexting is thus a key site in contemporary debates about childhood and intimate life, about what the responsibilities of carers, professionals and social media businesses should be and over how they may effectively exercise these responsibilities. These debates have often been informed by the assumption that adults are able to intervene with children over sexting with positive outcomes. While such assumptions are open to challenge, it is not clear that children's online cultures alone are capable of reducing harm arising from children's sexting (Leaton Gray 2016).

For some children, consensual sexting can be experienced as an unproblematic aspect of their intimate relationships (Hasinoff 2015), but it can also have negative outcomes (Livingstone and Görzig 2014) including the precipitation of suicide. Estimates of children's levels of participation in sexting vary from 10% (Klettke, et al. 2016) to 69% (Pellai et al. 2015). There is, however, little consensus around the contexts and environments in which sexting can be detrimental for children. In many discussions, wanted and unwanted sexting (Drouin & Tobin, 2014), as well as consensual and non-consensual sexting

(Krieger, 2016), are conflated, making it difficult to determine the contexts in which sexting may be considered risky, whether physically or psychologically. Whether it is experienced as problematic or not, or as a more or less common practice, however, children's sexting reveals afresh the complexity of influence and communication between adults and children that are amongst the core concerns of childhood studies (Oswell 2012).

The ways that sexting is embedded in children's social lives (Ringrose et al 2012) and the degree to which sexting practices reproduce existing gendered hierarchies around sexual expression have received recent empirical attention (Davidson 2014; Ringrose et al 2013). Attempts better to educate and inform children about sexting risks have also begun to receive critical attention (Shields, Dobson and Ringrose 2016). The present paper builds on this work but has a distinctive approach. We present children's sexting as a phenomenon emerging at the intersection of two distinct systems of ascribing value to children, each of which frames age, agency and responsibility in its own way. One is a well-established value system that we call 'state investment'. Here, children are valued as future citizens such that adults, working in concert with state institutions and objectives, are expected to have the expertise, authority and responsibility to intervene in their lives to build their future value. State investment provides much in the way of 'common sense' about the relative responsibilities, agency and roles of adults and children. More recently the growth of social media has been fuelled by 'attention harvesting' (Wu 2017). This second value system is a business model and a technical infrastructure that frames individual social media users as units of attention who can be attracted to view and contribute to social media platforms such as Snapchat and Instagram so that their attention can be sold on to advertisers. Attention harvesting attaches economic value to children in just the same way as it does to adult users. Unlike state investment it need not, and often does not, distinguish between adults and children. Nor does it, within the confines of commercial considerations, need to articulate or enact any responsibility for children's present and future wellbeing. Situating children within the complex terrain emerging in the overlap of these two value systems, we present sexting as an aspect of children's attempts to navigate the two systems in the pursuit of their own agency and intimate lives. In doing so they encounter new agentic opportunities and risks that we describe through the concept of 'context dynamics'.

We see children's sexting as one aspect of a disruptive change taking place in the overlap of these two systems of value, a change that is reducing the pertinence of many assumptions about the roles that adults and children should fulfill for one another. The value of some existing 'scripts' of adult/child relations as guides for adults who want to help children is currently being undermined by disruptive socio-technical change. If interventions in children's sexting are to be successful in promoting children's well-being, some rethinking of matters of age, role and responsibility will be needed. If, as we suggest, adults and children are encountering disruptive change at the same time as each other, albeit from different perspectives, then it is appropriate for them to develop understanding and ideas about individual responses and collective interventions together. The

concept of intergenerational co-learning that we develop in what follows would help establish temporary spaces in which some of the boundaries of knowledge and experience between adults and children can be suspended so that they can understand and begin collaboratively to address children's sexting and the disruptive change that underlies it. The case we make for intergenerational co-learning is largely theoretical. We will also briefly identify some key design and ethical challenges that would need to be addressed in practice.

Intergenerational co-learning

The term 'co-learning' is current in such research fields as higher education (Cuesta et al 2016), inter-professional collaboration (Worswick 2012) and knowledge management (Aramo-Immonen et al 2015). Across these diverse contexts, co-learning practices are used to address circumstances in which inequalities of power, matters of traditional practice or perceived practical convenience stand in the way of communication between distinct groups of people about matters of common concern. Co-learning often figures as a way to bridge separated points of view so as to increase the collective capacity to recognize and to respond to shared problems and opportunities.

At one level, co-learning is about fostering the transfer of information across socially defined boundaries between, for example, undergraduate students and faculty members (Cuesta et al 2016). Co-learning implies more than simple transfer between fixed roles, however. It addresses social divisions of knowledge and communication and, therefore, has the potential to reshape the roles that are, in part, built on those divisions. Such effects are partial and temporary but significant nonetheless. For example, though co-learning alone would not enable an undergraduate to become a member of faculty, the repertoire of actions within the roles 'undergraduate' and 'faculty member' can change within co-learning, as can the relationship between them (Cuesta et al 2016). Co-learning thus involves the adaptation of existing roles to respond constructively to change.

We see children's sexting as a matter of concern that transcends existing divisions of knowledge and communication between adults and children. Intergenerational co-learning, as we see it, will thus involve creating opportunities for children and adults to gain new insights from each other, to clarify or change their views, to consider the way they perform their existing roles with respect to each other and, potentially to develop new roles and styles of response.

Intergenerational co-learning about children's sexting is needed for two main reasons that we examine in greater detail in later sections. First, while existing age-related roles and expectations certainly do generate responses to children's sexting (Shields, Dobson and Ringrose 2016), these roles can also constrain opportunities for children to articulate and reflect on their negotiation of sexual intimacy and can limit adults' ability to respond creatively to the challenges sexting poses. Second, since the digital businesses that create the environments in which children's sexting takes place have yet to define their roles with respect

to children's wellbeing, there is an opportunity to innovate with new ways of responding to digitally mediated problems.

The principles behind and methods for enabling children's participation in public decision making are well established in childhood research (Tisdall 2008; Coyne and Carter 2018). Intergenerational co-learning, as we see it, sits amongst a range of bids to promote children's participation in decisions about policy and practice (Hart 1997; Alderson 2000; Warming 2013). Within this range it is clear that to aim at increasing children's participation does not imply that participating children must act without adult assistance. It has recently been argued that children's participation requires adult facilitation (Warming 2012) and that productive collaboration between adults and children already take places within a range of settings (Wyness 2013). Further, a comprehensive review of intergenerational practice (Springate et al 2008) concluded that it can provide positive outcomes for individuals and communities and can contribute to social policy agendas. For us, rung 8 on Hart's 'ladder of participation' (Hart 1997) where young people and adults share decision-making and collaborate in setting agendas and proposing alternatives has much to recommend it.

Children's sexting, however, has distinctive characteristics that need to be taken into account. First, some, if not all, aspects of children's sexting are novel and relatively unfamiliar to many adults. Second, individual and demographic factors may interact with this novelty to generate different experiences and opportunities for action for different children. Third, the roles that adults occupy with respect to children, for example carer, teacher or social media employee, imply different levels and kinds of responsibility – from general concern and interest to statutory, enforceable obligations. Finally, and at the broadest scale of analysis, children's sexting sits at the juncture of two quite different systems for assigning value to children and shaping adult actions towards them. We see a contrast between a value generating system of 'state investment' (Lee 2001) that gives children a distinctive place in societies and seeks to organize responsible adults around them, and a value generating system of 'attention harvesting' (Wu 2017). While the latter is highly adept at assigning individuals' places within digital markets, it is relatively indifferent to the responsibilities that so often inform adult/child relations within 'state investment'.

Current responses to children's sexting: implications for co-learning

Thus far, we have begun to characterize intergenerational co-learning as a means of developing understandings of children's sexting that are oriented toward adaptation in age-defined roles and expectations in the light of socio-technical change. Further to characterize intergenerational co-learning we now contrast it with three extant styles of response to children's sexting.

Two current styles of responses to children's sexting, while differing in design and intent, both operate on the basis of a shared assumption that a separation between adults and children stands ready for use as dependable basis for distributing roles and responsibilities. On the one hand, the development of technologies that better block or surveil children's media use (Lee and Crofts

2016; Guardian 2016) seek to place power in the hands of adults, assumed to be competent and well intentioned, to control the activities of children, who are assumed to be either incompetent or to abuse their competences. On the other hand lies the hope that children will sort matters of value, risk and identity out for themselves by developing their own 'moral code' independently of adult intervention (Leaton Grey 2016). Each of these approaches has its drawbacks. Given the everyday ubiquity of digital media, blocks are difficult to engineer and surveillance can provoke more complex secrecy routines in response (Lee and Crofts 2016). As to the idea that children will develop their own 'moral codes', these may not result in the measured responses that the term 'moral' may be intended to connote. The intention publicly to shame a peer, for example, can be inspired by urgent moral feelings (Ronson 2015; Salter 2015).

These two styles of response share a tendency to maintain a separation between generations while dividing over matters of children's autonomy and adult, often parental, control. Despite the variety of individuals captured within the categories 'adult' and 'child', each style imagines its principal agents in a specific way. In the first instance, the adults imagined are identical in their benign, often parental, motivations. In the second instance, the imagined children are either identical in their levels of social and technical competence or differences amongst them are understood as inconsequential. Each style thus projects simplicity and stability over a scene of identities and roles that may, in practice, be varied and contested. We read this simplification and stabilization as an attempt to reduce the anxiety that children's sexting can provoke amongst adults. This may be an appropriate motivation. As they move rapidly from problem to solution, however, responses of this kind limit the degree to which adults and children can be imagined as collaborators in forming shared understandings and responses to technology-based change. They also fail to engage with the diversity of adult relationships to children that lie outside parenting and remain incurious about the potential diversity of children's experience.

A third style of response has been developed by organizations promoting personal, social and health education and public awareness of issues affecting children. In this style of response, children's sexting is treated as a matter that should be addressed through the provision of clear information in age-appropriate ways to adults and children alike along with the provision of opportunities for children to reflect on their own behavior and decision-making. The UK's Personal, Social, Health and Economic Association (www.pshe-association.org), for example, aims to give children the knowledge, skills and attributes to keep themselves healthy and safe and to prepare them for life. It campaigns for influence over UK education policy and curriculum content, offers training for teachers and provides lesson plans for teachers to use. It approaches children's sexting and its potential problems as an aspect of learning about on-line safety, about consensual sex and respectful intimate relationships. The National Society for the Prevention of Cruelty to Children (www.nspcc.org.uk) similarly offers facts and guidance to children, parents and professionals.

In contrast to the first two approaches and in complement to the third, intergenerational co-learning would involve adult and child participants in dialogue with each other about sexting as a matter of shared concern that they experience from quite different social locations. Rather than making assumptions about the roles and relationships between adults and children - for example that adults are competent and should be in charge or that children are competent and should enjoy autonomy - intergenerational co-learning would frame these matters of role and relationship as questions. In our view this would assist the development of practical responses to children's sexting because it would present an opportunity to adjust scripts of adult/child relations whose value as a guide to action is currently being undermined by disruptive socio-technical change.

Novel aspects of children's sexting

Not all aspects of children's sexting are novel. Sexting practices can involve flirtation, self-exposure and sexual arousal in ways that have been well documented as past aspects of young peoples' sexuality (Spurlock 2015). Further, there is evidence that, as in many other settings, gender plays a role in distributing negative experiences of sexting practices (Livingstone and Görzig 2014) and there are reasons to think that sexting is a site where familiar and well-documented 'double standards' of sexual conduct and social judgment, are in play (Ringrose et al 2013).

Turning to novel aspects, there are reasons to suppose that a difference in the quality of generational experiences in Mannheim's sense (Mannheim 1970; Bristow 2016) is relevant here. Many adults will have first encountered social media as a novel supplement to an existing social life while many children see digital media as an intrinsic aspect of everyday life (Livingstone and Blum-Ross 2017). Thus adult participants may require facilitation to learn to see usage of digital media as some, if not all, child participants do. There is a need, then, to explore sexting as embedded in wider contexts of children's lives. Methodologies for generating and transferring such insight across generational divides are well developed within childhood studies (Christensen and James 2017) and this would form a part of the intergenerational learning programme. The novelty of children's sexting and the matter of 'context' goes further than this, however.

Social media make the boundaries of privacy and intimacy relatively plastic, presenting users both with a challenge to preserve their privacy and with opportunities actively to design their presence within different communications contexts (Vickery 2015). Within social media use one can typically select one's intended audience and thereby selectively integrate one's messaging with other forms of sociality and relationship. Thus, rather than simply living within a set of life contexts, the social media user is able to select between contexts, to create links and separations between them and even generate a new context around a given image or a message. The risks and benefits of sexting practice are closely tied to the details of these 'context dynamics'. Crucially, an image conceived on the understanding of intimacy may be more widely distributed than the author intends. Sexting images can travel beyond the contexts of their creation, enabled

by digital connectivity and along lines shaped by personal projects, whim or malice.

The connective aspect of social media has been associated with a distinctive 'topological' culture (Lury 2013) in which agency, value and change are sought precisely through the technologically enabled creation of connection and disconnection between contexts. In this sense, social media comprise relatively new environments for intimate communication and other forms of self-expression, which present novel opportunities and challenges for users. They raise everyday questions for users about which contexts of their lives they might try to connect or keep separate and whether and how they can maintain the 'topology' they desire over time and in the knowledge of others' similar activity. We can thus see children engaging in sexting as agents in shaping the topology of the multiple contexts they live within, in ways that were not open to previous generations, by selecting the moments and means to alter connections between contexts of their lives. These are agents, however, who are constrained and enabled by the characteristics designed into specific technologies and platforms by the businesses that own and maintain them. Further, they are agents whose actions do not always generate the outcomes they may intend. Context dynamics can exceed individuals' intentions. Intergenerational co-learning would thus involve the articulation and discussion of these matters of context dynamics and topological agency. Consistent with Hart's (1997) views on children's participation, intergenerational co-learning would follow the lead of child and adult research participants in framing an agenda related to these themes.

As we have argued, responses to children's sexting that rely on historically sedimented versions of adult and child roles can manage anxiety about conjunctions of childhood, technology and sexuality but give little indication about how such roles may be adapted or generated anew. By addressing these questions of agency and its limits through the lens of context dynamics, intergenerational co-learning will be able to explore possible adaptation and innovation.

State Investment and Attention Harvesting

So far we have argued that children's sexting is novel in some respects and we have suggested that this calls for a co-learning response that is tailored to the recognition and exploration of this novelty. We now take our case a step further and argue that intergenerational co-learning that allows for the critical and creative reconsideration of adult/child roles and responsibilities is now vital for the development of effective societal responses to children's sexting. To make this case, we present children's sexting as an epiphenomenon of a business model that is dominant in the social media sector which, following Wu (2017), we call 'attention harvesting'. We do not suppose that this model was developed in order to generate children's sexting, rather, we see children's sexting as an emergent phenomenon (Lee and Motzkau 2013), growing from the interaction between a set of multipurpose technical capabilities, designed to serve a business model, and children's own activities and purposes.

In this section, then, we compare and contrast 'attention harvesting' with an approach we call 'state investment' (Lee 2001) which we present as the basis of many contemporary adult roles toward children. As we see it, instances of childrens' sexting take place in the overlap of the spheres of influence of these two ways of framing children. We then argue that the conditions that allow for childrens' sexting simultaneously raise questions about the ability and responsibility of adults and adult organizations to take steps to safeguard children and alter the conditions under which children negotiate intimacy. For us, it is the developing connection between these two matters – the negotiation of responsibility and of intimacy – that makes intergenerational co-learning both vital and promising as a means of informing societal responses.

Children often figure as a 'resource' within the regular functioning of modern states (Lee and Motzkau 2011). Many states conceive of children as sites of investment which are, in the present, economically and politically inactive, but which, in the fullness of time, will yield benefits in terms of, say, tax revenue. Where children have been sequestered away from economic and political activity, often protected, sometimes silenced, it has been, in part, in the name of their future value as adult citizens. Children are thus figured as a means for states to anticipate and respond to projected futures. We call this way of figuring children as a resource 'state investment' (Lee 2001).

State investment distributes responsibilities and roles, agency and duty between adults and children. The desire to shield children from threatening aspects of public life is shared by many parents. However the public/private relations performed within state investment are, in practice, rather more complex than a simple barrier. Children's relative exclusion from the public sphere of economic and political activity has never confined them to a sealed and simple private sphere. As Donzelot (1997) has shown historically, a neat distinction between those aspects of life that are 'public' and those that are 'private' conceals a good deal of variation of practice and experience. As sequestered resources, many children are subject to 'inclusive exclusion' with respect to public life (Agamben 1998). This means that the apparently 'private' spaces – family and community life - children come to occupy outside the public sphere of adulthood's political and economic enfranchisement are at once the domain of the adults around them and key foci of concern and intervention for public authorities and commentators. Thus, children may not experience them as 'private' but as spaces in which adults, competently or otherwise, assume responsibility for them. Where children negotiate sexual intimacy, they often do so against this backdrop. The difference between public and private contexts of a child's life may, from a distance, appear clear and stable. But social life may also be experienced as a set of multiple contexts, each with their own standards of conduct, local performances of autonomy and responsibility and requirements of identity, each set within potential relation to the others. Taking place within and across such diverse contexts, children's negotiation of sexual intimacy - flirtation, relationship formation and sexual expression – confounds the clarity of the state investment scheme of role and responsibility by involving children in autonomous action in contexts that it cannot chart.

The contextual orders that state investment requires adults to design and enforce around children at home, in family life, in neighborhoods and communities are often supportive, but can be oppressive. Children's sexualities, for example, are not always, but certainly can be, subject to denial, denigration, abuse or punishment within domestic and community life (Renold et al 2015). The forms of this oppression vary with such demographic factors as gender, sexuality, ethnicity, faith and dis/ability. To be, at once, a child and a sexual being within the frame of state investment thus means navigating a range of life contexts and relationships often whilst maintaining cover from adult scrutiny within the dominant contexts of family and school life. It can thus be difficult for children to navigate, and for children and adults alike to articulate, the complexity of children's sexual intimacy.

As we have suggested, state investment is not the only way in which children are figured as resource with consequences for children's sexting and responses to it. We turn now to 'attention harvesting' (Wu 2017). Wu offers an account of an arrangement for figuring children and adults alike as a kind of resource whose 'attention' can be drawn, held and sold to advertisers. Attention harvesting has historically taken place through media including newspapers, magazines and television. Wu's key insight is that this basic business model has been in continual use and refinement across a century or more and has influenced the design and use of recently emerging technologies, such as smartphones and social media, with consequences for the politics of personal identity and much else. One result of the success of this model is that social media companies can now afford to offer their services to users for no fee because, from advertisers' points of view, consumer attention is a product worth paying for. Thus, for those equipped with a smartphone, social media can be experienced as a cost-free space in which to express one's interests and values and explore and develop one's identity.

As they have elaborated this successful business model, social media companies have created channels of desire, new pathways along which users, including children, can actively seek self-expression and self-development, which they can follow relatively unmonitored by adults. Even as this enables children to set aside some of the complexities of navigating intimacy within state investment, it also, as we have argued, adds new kinds of challenge. Despite the potential risks to children inherent in participation in context dynamics, attention harvesting involves minimal responsibility on the part of social media business for the wellbeing of the children who use their services. When social media users are figured as attentional resource, they are treated as elements of a highly differentiated market. The targeting of advertisements within social media has high levels of personalization (Wu 2017). They are not, however, consistently divided up into child-becomings and adult-beings in the way that we have associated with state investment. Wu's attention merchants and the sphere of activity they have created and operate within are largely indifferent to the distinction between kinds of people that is central to state investment. Special responsibilities toward children as a group who share a distinctive kind of value are, thus, not an intrinsic aspect of attention harvesting. Social media companies

have barely begun to articulate or to enact their possible roles in enabling children to manage new combinations of opportunity and risk.

In the sphere of state investment then, we have children's bids for sexual intimacy that are poorly understood within established frames for articulating adult/child roles and responsibilities. In the sphere of attention harvesting we have the generation of fresh opportunities for children to pursue sexual intimacy through digital means in ways that currently have a limited capacity to consider responsibilities towards children. State investment and attention harvesting thus have parallel deficits. One has difficulty recognizing children's intimate lives, the other has difficulty recognizing responsibilities that are attached to the ability to affect those lives. In our view there is therefore a need to innovate in the matter of the available understandings of adult/child relationships and to bring innovation to policy and practice surrounding children's sexting. Intergenerational co-learning would provide one setting to enable and to begin to communicate precisely this kind of innovation.

Intergenerational co-learning and participant diversity

Drawing on insights into the novelty of children's sexting and its location within the overlap of state investment and attention harvesting, we have, so far, argued that children's sexting needs to be approached with a curiosity about children's creative engagement with topological culture and in ways that allow participants to recognize limitations and manage ambivalences about adults' and children's agency. Our analysis of the location of children's sexting in the overlap of 'attention harvesting' and 'state investment' further suggests that intergenerational co-learning will need to find ways to allow participants, whether adults or children, to find and maintain critical distance from those existing models of role and responsibility and to allow for the exploration of a wide range of possible future relationships. A key technique to enable this critical and creative work to take place is to multiply the range of views of 'adulthood' and 'childhood' available within co-learning sessions. It is therefore important to adopt inclusive practices in attracting a diversity of participants.

The differences between state investment and attention harvesting show that although a division between adults and children is of central importance to the issue, this does not mean that all adults occupy the same position with respect to children's sexting. There are parents and carers, and health, education and law enforcement professionals who tend to have a 'downstream' engagement with children's sexting, responding after the event. They, variously, safeguard children, foster children's articulacy about sexual intimacy, and help them deal with negative outcomes. There are also those with an existing, or potential, 'upstream' engagement capable of influencing the conditions in which children's sexting takes place. Media regulators and policy makers are in the business of fostering both existing and new relationships between stakeholders in changing circumstances. Employees of, or consultants for, social media businesses will have concerns of their own and insights into emerging products and consumer practices. Levels and kinds of motivations for involvement in intergenerational co-learning will vary between these groups, as will their understandings of their

own agency, their experiences and assumptions about childrens' sexting and possible future roles, relationships and styles of response. This diversity will be useful in complexifying intergenerational co-learning so as to create critical distance from existing assumptions and views.

Intergenerational co-learning will need to draw on a further diversity of experience – that amongst children themselves. It is clear that understanding childrens' experience and views of sexting in distinction from that of adults is important in its own right. Even as we assert the importance of children's perspectives, however, we should not assume that these are consistent across children's experience related to gender, ethnicity, social class, sexuality, faith and impairment and the intersectionality (Carastathis 2014) of these. There is evidence that social media usage involves a good deal of racist, sexist and other prejudiced content (Hassinoff 2015). The experience of some girls confirms that such tensions are a factor in shaping negative outcomes in childrens' sexting (Ringrose et al 2012). Despite the significance of the adult/child distinction in forming some responses to childrens' sexting, then, there is no reason to assume that all children, any more than all adults, have similar experiences, or views, or that they are any more likely as a group to reach a consensual view.

Intergenerational co-learning workshops

Putting intergenerational co-learning into practice will require flexibility and adaptation to the needs of participants. The specific methodologies and design deployed would thus be, in practice, the result of negotiation. However, the distinctive characteristics of intergenerational co-learning we describe throughout the piece, including the temporary and partial suspension of barriers of communication between adults and children and the focus on critical examination of existing age-based roles would shape those practical decisions. As we see it, the key challenges to successful inter-generational co-learning are threefold; the potential emergence of unequal power relations between adult and child participants; a tendency for anxiety management to dominate consideration of the issue; and, the ethical implications of asking adults and children to discuss sexting.

The need to reduce anxiety could be met by promoting trust within the intergenerational group. This would involve a series of facilitated workshops in relatively small groups (10-12) in which individuals meet each other several times over the course of a few months. We would seek to recruit adults who are actively involved in addressing children's sexting in the professional fields of social media business, media regulation and education and who have some experience of working with children. A friendship group of child participants aged between 15 and 17 years old, recruited through a school or youth group, would be able to raise each other's confidence within workshops. Facilitators would work to ensure that all voices were heard.

Prior informed consent would be sought from all participants along with parental consent in the case of children. At an initial workshop, ground rules of discussion and conditions of confidentiality and anonymity and safeguarding

policies would be agreed within the group. Some adult or child participants may have had direct personal experience of children's sexting. This would not be the focus of the workshops. Rather the group would draw on cases and vignettes from published popular and academic accounts of children's sexting and adult responses to it chosen by participants. For all participants involved it would be important to have appropriate resources or helplines ready if needed. Facilitators would be available prior to and after workshops to provide support and debrief if needed.

Conclusion

We began by presenting children's sexting as one aspect of a wave of disruptive innovation that is affecting many identities and relationships. We supposed that, if there is evidence of harm to children within this, there is a case for societal responses informed by research. We argued that responses ought to take account of the new conditions of interaction of state investment and attention harvesting that socio-technical change present. As we examined a range of extant responses to children's sexting we found that some base themselves on a clear and simple division between adults and children. We argued that while such a model of intergenerational relationships can be a guide to forming responses, the resultant responses tend to reinforce social and communicational divisions between adults and children.

We then developed the view that children's sexting is a matter of shared concern for adults and children and that there is, thus, a need for critical and creative enquiry into the phenomenon that pays special attention to emerging opportunities to adapt and invent roles and explore mutual expectations. The intergenerational co-learning we have described is designed to foster such critical and creative enquiry. Its aims are to; maximize the ability of a group of adults and children to sidestep generational differences in understandings of technologically mediated social life; to frame the diversity of experience and view that lies within each of the categories of 'adult' and 'child' as a resource for rewriting roles and expectations; to explore the contextual dynamics of children's sexting and adult engagement with them; and, to pose questions of whether and how deliberate ameliorative interventions in this can take place and who is best placed to design, steer and evaluate them.

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