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Developing social media literacy: How children learn to interpret risky opportunities on social network sites

Abstract: The widespread use of social network sites (SNSs) by children has significantly reconfigured how they communicate, with whom and with what consequences. This article analyzes cross-national interviews and focus groups to explore the risky opportunities children experience online. It introduces the notion of social media literacy and examines how children learn to interpret and engage with the technological and textual affordances and social dimensions of SNSs in determining what is risky and why. Informed by media literacy research, a social developmental pathway is proposed according to which children are first recipients, then participants, and finally actors in their social media worlds. The findings suggest that SNSs face children (aged approximately 9–11) with the fundamental question of what is real or fake. By around 11–13, they are more absorbed by the question of what is fun, even if it is transgressive or fake. By age 14–16, the increasing complexity of their social and emotional lives, as well as their greater maturity, contributes to a refocusing on what is valuable for them. Their changing orientation to social networking online (and offline) appears to be shaped by their changing peer and parental relations, and has implications for their perceptions of risk of harm.

Keywords: social networking sites, children and youth, media literacy, social media literacy, risky opportunities, online communication

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1 Introduction

The use of social network sites (SNSs) over recent years has absorbed the energy of many children, bringing opportunities for communication, self-expression and participation (boyd, 2014). Meanwhile, the mass media have headlined instances of bullying, harassment and even suicide (Mascheroni, Ponte, Garmendia, Garitaonandia, and Murru, 2010), leading parents, regulators and industry to try to manage online interactions so as to minimize the risk of harm. The intense public and policy interest in social networking has led to a burgeoning body of research examining changing practices of communication, identity, friendship, privacy and intimacy.

It would seem a straightforward policy goal to maximize the opportunities of internet access while minimizing the risk of harm. To advance this goal, both researchers and policy makers have sought to improve children's digital skills. Yet following safety and awareness-raising campaigns, children have more easily learned the messages (such as 'don't talk to strangers' or 'don't disclose personal information') than changed their behavior. This is partly because they do not see social networking in the same terms as adults – their main aim is generally not to meet strangers or disclose personal information but to make new friends, build relationships and widen their circle of contacts. To do this, they must exchange intimate details about themselves with people they do not know. Thus they must learn to manage trust and privacy in online situations that are often unfamiliar, difficult to interpret and liable to change.

Such ambiguities help explain why research finds that children's online opportunities and risks are positively correlated – the more opportunities they take up, the more they are exposed to risks, and vice versa (Livingstone and Helsper, 2010). Livingstone and Helsper's UK survey also found skills to be positively correlated with opportunities and risks. Similarly, in relation to social networking, more digitally competent users are more likely to engage in 'risky' practices (such as having a public profile or a large number of online contacts) and to encounter online risks (Staksrud, Ólafsson, and Livingstone, 2013). While the correlation with opportunities legitimates efforts to develop children's digital skills, the correlation with risks is problematic for policy makers. However, educational initiatives and awareness-raising campaigns often focus on simple skills (e.g., making an SNS profile private) and assume a linear progression from having a few skills to gaining more and more advanced skills. Can we rethink the skills children need to engage with the internet so that they do not increase their risk of harm?

In seeking a more complex analysis of how people learn to engage with the online environment, most research has focused on the challenges of measuring

digital skills and tracing their consequences (e.g., van Deursen and van Dijk, 2011; Litt and Hargittai, 2014; Sonck, Kuiper, and de Haan, 2012). Further, most research has focused on adults or older teenagers, with little known about whether younger children know what they need to use SNSs effectively (i.e., gaining the benefits rather than the harms), or even what that knowledge consists of. Yet a survey of European 9- to 16-year-olds found that many are now using SNSs, although the minimum age is typically 13 (Livingstone, Ólafsson, and Staksrud, 2013).

Beyond requiring practical skills, SNSs pose complex social situations. Use of SNSs demands that children manage their presentation of self, their relationships with known and unknown contacts and their personal safety. To analyze how children conceive of these demands, this article draws on research on media literacy. The advantage of a media literacy approach is its recognition of the complexity of the media world, with its media institutions, regulations, technologies, texts and meanings. Further, it offers a developmental account of how children gain understanding of the media as they mature. Applying these ideas to SNSs invites us to consider the nature of social media literacy (Banaji, *in press*), as I pursue below.

2 Media literacy and social media literacy

Media literacy research offers a body of work that is rich and fruitful, yet also contested. Although it is difficult to define, a widely accepted definition is that media literacy is the capacity to access, understand, evaluate and create communication in all forms (Aufderheide, 1993). It has been primarily researched in relation to television, building on the analysis of print literacy (Dorr, 1986; Messenger Davies, 1997). More recently, the concept of media literacy has been expanded, sometimes relabeled digital literacy or digital media literacy (Buckingham, 2007; Hobbs, 2008). On the one hand, such umbrella terms integrate research on film, gaming, search, mobile, internet, information literacy, etc. On the other hand, they recognize the distinctive literacies associated with particular media genres or platforms.

These particularities often concern media representation. For example, children must learn to engage with genres such as advertising or news – hence research on advertising and news literacy. This demands the critical understanding of the nature of representation – how texts are constructed to refer to or represent or construct a reality beyond the text. Children can be taught about visual codes and semiotic conventions, and they may also be taught about the

institutions that produce these texts and the wider circuit of culture in which they become meaningful. Much of this may be relevant to social media as here, too, children engage with particular websites as texts. For instance, competent use of Facebook or Twitter means that children must grasp their affordances – the structural features by which they anticipate the user’s knowledge and actions (Hutchby, 2001). This includes understanding how SNSs encode user privacy or safety, how they represent friends as ‘contacts’ and affiliation through ‘likes’, and how they embed advertising and sponsorship.

But through social media children also engage with the wider social world, interacting directly and indirectly with other people. Though it may be less obvious how a media literacy approach can help here, a distinctive feature of social media is that they encode social interactions as text. Social interaction, especially in its prototypical form of face-to-face communication, generally requires physically co-located, mutually known participants, and what they say tends to be transient. By encoding social interaction in textual form on SNSs, social interaction is made visible to uncertain audiences, persistent and difficult to erase, scalable across the digital network, and easily replicable or remixable to create hybrid or new textual representations (boyd, 2014). Thus we may conceive of social media literacy in encompassing the tasks of decoding, evaluating and creating communication in relation to media *qua* representation (text, image, platform, device, etc.) and *qua* social interaction (relationships, networks, privacy, anonymity, etc.), since these are integrated in the very nature and use of SNSs.

To explain how children develop social media literacy, two sources present themselves. The first concerns established research on how children develop media literacy in relation to television (Dorr, 1986; Lemish, 2007; Messenger Davies, 1997). Drawing on a Piagetian theory of cognitive development, researchers have widely concluded that below the age of seven or eight, children tend to treat what they see on television as ‘real’, a ‘window on the world’, having a poor grasp of the conventions of representation (genre, plot, characterization, truthfulness, etc.). Older children – up to around 12 years old – are developing the cognitive maturity by which to recognize that many portrayals, even of real people, are not ‘real’ accounts of the world but may be fictional, playful, persuasive or misleading. However, their use of such knowledge in judging the veracity or relevance of what they see is far from secure, partly because televisual texts are often complex and partly because deciding what is truthful or persuasive requires a mature understanding of the social world being represented. From around the age of 12, children’s cognitive development increasingly approaches that of adults, though of course they continue to learn, with their social development still underway.

Second, the development of social media literacy may rest on children's broader social development. In middle childhood (usually the upper end of primary school), children focus on play, family, the demands of school and friendships centered on shared locale and interests. Teenagers are focused on gaining autonomy and individuality, facing the crucial social developmental tasks of constructing a credible, valued and sexual identity and building meaningful relationships. As Peter and Valkenburg (2013) argue, these tasks fit well with the affordances of social media which facilitate self-expression (e.g., designing and updating a profile), testing trust (e.g., checking message meaning with others or reflecting on exchanges during online asynchronous communication), sharing intimacies (e.g., by managing privacy settings) and taking steps towards the adult world (e.g., by entering adult special interest forums).

In applying these ideas to social networking, it must be acknowledged that the 'ages and stages' approach to television literacy has been critiqued as overly mechanistic, too teleological and insufficiently social (e.g., Buckingham, 2007). Meanwhile, how children manage their social development through the technological mediation of SNSs, among other social media, has only begun to be studied, with little work on pre-teenagers. Some qualitative studies reveal complex interactions between children's socio-cognitive development and the affordances of SNSs, with interesting implications for online risk of harm. For instance, Marwick and boyd (2014) describe the phenomenon of 'drama' – a genre of emotionally conflictual social interaction typical of teenage girls that is newly visible and readily amplified in online spaces. While drama can be upsetting, it is also exciting, part of what Livingstone (2008) analyzed as teenagers' pleasurable experimentation with risky opportunities as they play with the boundaries of what is acceptable or transgressive. Children may even play with the dangers of engaging with adult strangers (Willett and Burn, 2005). Although online drama may resemble bullying or harassment (Ringrose, Harvey, Gill, and Livingstone, 2013), it is distinctive in being reciprocal and performative: The drama is enacted among peers for a networked public (Ito, 2008).

In sum, researchers increasingly conceptualize children's online social networking in terms of the interaction between technological affordances and social norms of trust, reputation and identity (Hillier, Mitchell, and Ybarra, 2013; Litt and Hargittai, 2014; Madden et al., 2013). Through an analysis of focus groups and interviews with children aged from 9 to 16, this article examines this interaction in order to ask how children decode and engage with the risky opportunities of SNSs, what this tells us about social media literacy and what implications it has for the risk of harm.

3 Method

Following a pilot phase, interviews and focus groups were held during 2013 in a range of schools (public/private, city/suburban/rural). The open-ended topic guide was designed to capture children's perceptions of online activities, including their perceptions of and responses to online risk. Every effort was made to ensure a comfortable and confidential discussion, without teachers present insofar as this was possible. Individual interviews lasted around 40 minutes and focus groups lasted around 80 minutes. They were audio-recorded and subsequently transcribed verbatim. Focus groups were drawn from one or two adjacent school year groups, so findings are categorized in three slightly overlapping age groups: 9–11, 11–13 and 14–16 (see Smahel & Wright, 2014).

Fieldwork was conducted in nine European countries, but to limit the volume of material, the present analysis is based on data from four. These were selected for diversity according to the EU Kids Online's classification of countries into four groups: "protected by restrictions", "semi-supported risky gamers", "supported risky explorers" and "unprotected networkers" (Helsper, Kalmus, Hasebrink, Sagvari, and de Haan, 2013). The nine countries included only countries in the first two categories, so two were selected from each. In "protected by restrictions" countries (Spain and the UK), children encounter relatively fewer online opportunities and risks because their parents take a restrictive approach compared with the European average. In "semi-supported risky gamers" countries (Romania and the Czech Republic), children benefit from more opportunities and fewer parental restrictions, but encounter more risk.

The project faced a particular challenge in analyzing verbatim interview transcripts in multiple languages, so a two-stage coding strategy was adopted, as described in Smahel et al. (this journal issue). Two native speakers in each of the nine countries coded the material in their national language into short and self-explanatory descriptive statements in English. This produced 26,696 descriptive codes. The descriptive codes were then coded thematically by five coders, according to topic area, problematic situation described, online platform, actors involved and emotional responses; inter-coder reliability was 0.7 (Kappa) or better for the thematic coding.

Coders provided notes on the school context and interview conduct, and also translated into English verbatim segments of the transcripts (1,432 segments in all, varying in length from a few lines to most of a page). These were selected as representative of emerging themes or interesting in illustrating a distinctive or thought-provoking dimension of an interview. Figure 1 shows the coding for part of a British focus group (of girls aged 11–12). It shows the transcript with the bottom-up descriptive codes – all were coded in the second

phase as relevant to SNSs and all of this extract was marked as interesting (so had it been in another language, it would have been translated into English).

Interviewer: Do you think people say more things that are bad about each other because it's easier to do on Facebook?

All: Yeah

Girl 1: Because you don't see the person's face, you don't see the person's reaction, so you just... and you're only typing, so....

Girl 2: When you would see them in school anywhere....when it comes face to face, you would feel scared and you would try to avoid the person the whole day, and you would be like... you would be hanging round your friends, acting like it's cas [sic], but inside you're looking at... see the person's there, because you never know that the person can come after you and be like, you did this, so now watch what I'm going to do. Because it's easy... it's not face-to-face, it's like me and R-- again. We're rude to each other so much on Facebook, but then when it comes to face-to-face we have nothing to say. Maybe R-- will have nothing to say to me or I'll have nothing to say to R--, because it's a bit scary to see what will happen and the reaction.

Interviewer: So would you say there's quite a lot of people you know in your age – in your year – making bad comments about each other online?

Girl 2: Not that much.

Interviewer: Or is it just a minority thing?

Girl 1: Yes.

Girl 3: Sometimes people....in lessons....it's just... they say they're jokes, but some people might take it seriously but they meant it as jokes. But then after, there is some stuff that people might say over something that happened a long time ago. But if it always gets dealt with, it's not like where it comes to the point where it counts as bullying or someone gets hurt. It's just... they're just words. They're just saying it to each other.

Comment [H1]: Facebook: People are more likely to say bad things about each other online because they do not see the other person's physical reaction

Comment [H2]: Facebook: Girl 2 and R-- are rude to each other on Facebook, but not face-to-face

Comment [H3]: Facebook: Only a minority of children say bad things about each other

Comment [H4]: School: In lessons children often say things as jokes – even though some might take these serious, it's not really cyberbullying

Figure 1: Illustration of the coding process.

As already noted, this article analyzes data from the Czech Republic (6 focus groups, 12 individual interviews), Romania (8 groups, 11 interviews), Spain (6 groups, 12 interviews) and the UK (6 groups, 13 interviews). The number of descriptive codes referring to SNS platforms for these countries totaled 2,233. To add depth to the interpretation, the analysis also drew on the translated verbatim segments of the interviews, and these illustrate the results that follow.

4 Analysis and results

A thematic analysis was conducted by the author, respecting the nuance of children's expression and informed by media literacy theory. It was exploratory

insofar as there was little prior literature regarding children's social media literacy in particular. In practice, this involved a considerable amount of reading, sorting and re-reading the material to try out, test and revise emerging interpretations. The importance of age in shaping how children talked about social media platforms became quickly apparent, but characterizing the nature of age-related differences in social networking took longer.

Children were keen to discuss the social networking environment, including the associated risks. There was a lot of talk of "stranger danger", cyberbullying, "hacking" and attacks on their reputation. Most mentions of strangers referred to experiences learned of second hand – originating in parental warnings or cases highlighted by the mass media or used by schools for digital safety training. Mentions of bullying and hacking, along with stories of porn or violence, more often originated from respondents' direct experiences within their peer group. How can we learn about their social media literacy from the ways in which risks and coping were discussed? Consider this excerpt, from a British boy in a focus group of 11- to 12-year-olds:

"It's not so much cyberbullying but it's like on BBM [Blackberry Messenger], what you just said earlier has happened in the school, I know that. Someone took a picture of someone in a pose and then they edited the picture making a small comment and then he was pretty sad about it. Then I told everyone to delete the photo because I just told them, if that was you, how would you feel, so they deleted the photo and everything's fine now."

Most simply, he is describing an incident of cyberbullying against another boy at school. More subtly, he politely rejects the adult label of 'cyberbullying', because this implies a discrete event motivated by hostility. Instead, he implies the existence of an accepted and generally entertaining peer culture which has appropriated Blackberry Messenger's (BBM) affordances for disseminating, editing and commenting on messages. But in this culture, communication can go wrong, jokes can be taken too far, and small comments can result in bigger and problematic consequences. He uses both technological and social means to put matters right – deleting the photo and appealing to "everyone" to reflect on "how would you feel?" Thus he reveals knowledge of the technology and social norms, taking for granted that the two are linked. On the one hand, he recognizes that BBM has embedded social norms into its design by providing a 'delete' option so that users can put right what they consider a social wrong. On the other hand, his conception of peer norms is partly shaped by BBM's affordances – deleting the photo means that "everything's fine now".

Extending such a close reading to all the interviews raised many possible themes for analysis. To focus on the development of social media literacy I organized the material into three ideal-typical age-based cohorts, although of course the groupings overlapped in practice. As with parallel work on the development of media literacy in relation to television, children's perception of how their social world is mediated mixes social and technological assumptions in particular ways, according to their competences and motivations.

5 “What’s real and what’s fake?” 9- to 11-year-olds’ understanding of social network sites

Among 9- to 11-year-olds, there is considerable ambivalence about using SNSs. A group of Spanish girls asked, why not just call or meet your friends? Lacking in-depth experience of SNSs, much of their talk reflects what others had told them, often in warning. They are concerned about “strangers”, somehow aligned in their minds with “hackers”. As the girls explain, “they steal your photo and paste it with a naked body. They leave your head, so it is your face. So, it seems as if it were you. ...” For one British boy, this was reason enough for not joining Facebook: “Strangers could easily hack into your account and stuff, and you don’t want them seeing your personal stuff.” The risks are seen to be various: Strangers finding out where you live and breaking in, pedophiles getting in touch (“and then they may do something to them”, said a Czech boy), or exposure to unwelcome content (as when a group of Romanian girls complained about the swearing and nudity on Facebook).

Implicit in their talk seems to be a conception of a clear online/offline boundary, mapping onto the binaries of unknown/known and risky/safe. Generally, the risk of harm is imagined to originate online and extend offline, threatening their person or property. They seem preoccupied with the difficulty of distinguishing (online) strangers from (offline) friends in a situation where fakery, forging and false information is rife. For example, a Romanian girl (aged 10) observed that there are “people who spend their entire day online searching for passwords”. So the children are keen to work out tests to unmask what is fake and reveal the real. One child suggested that you could tell if an SNS profile had been hacked by checking if any of your friends had posted the nasty message on it. Another told us that they would only trust online communication with someone if they had a “friend” in common. Others preferred Skype because then you could see who you were talking to.

Still they acknowledge that unmasking fakery is no easy task, possibly because those using an SNS underage know that they themselves have falsified their age to gain a profile. A Czech boy (aged 11) explained the lingering uncertainty that characterizes SNS interactions: “Maybe hackers or something make fake profiles and maybe I already became friends with one of them, like he created a similar profile and I think it’s him, but it would be better not to accept his friend request, in case it’s someone else.” One British boy (aged 9–10) had direct experience of this:

Boy: *“When I was on my PS3 [Play Station 3] I met this boy, he was 15 or something, and we became best friends online. So I was typing in Black Ops with him and then he started sending me stupid messages like where do you live, what’s your email address? I was going to tell him but I thought for a minute and said like why does he want to send me these? So I said, like, well what’s yours? And then he told me, so I left it at that, and the next day he started texting me again, so I told him, like I’m stupid, and then he. ...”*

Interviewer: *“So you told him what?”*

Boy: *“My email address, and then he hacked me but he almost hacked me from the network so I couldn’t go back on it again, but luckily my dad entered this thing, a firewall. It protected it so I managed to, like, tell Sony, like, what he was doing and then they banned him as well.”*

It seems as if their vision of the online/offline distinction is of a distorted ‘window on the world’ in which they are vulnerable to deception and attack from outside unless they can build barriers that strangers cannot penetrate, and discern what’s real and trustworthy.

Yet even at this age, we see the beginnings of a positive interest in such ambiguities, with some engaging in the online drama that absorbs many of those in their early teens – a 10-year-old Spanish girl described spreading insults and weird content as a joke (a photo of a classmate picking her nose, for instance), and one British girl was already immersed in the drama of being rude, falling out and making up with friends on Facebook. This signals a shift in which the threat comes from within rather than beyond the peer group, thus demanding different social media literacy skills.

For the most part, risks and opportunities are seen as clearly distinct, and the children have little interest in risky opportunities. Consequently, they have little reason to keep their parents away from their SNS activities, instead wel-

coming parental guidance on what's real or not, and in dealing with problems as they occur.

6 “What’s fun and when does ‘a bit of fun’ go too far?” 11- to 13-year-olds’ understanding of social network sites

Among 11- to 13-year-olds, use of SNSs is already commonplace, and they have much more to say about them. Parents still provide some security (much of it restrictive – ‘don’t use SNS at all’, ‘don’t upload photos’, ‘don’t talk to strangers’), but these young adolescents try to keep their online interactions private. A group of British 11- to 12-year-old girls joked about family “blackmail”, telling stories of parents trying to find their passwords or calling on family members to monitor their social media use. Although they are keen to develop tactics to resist or deceive their parents, at the same time this cohort has encountered sufficient worrying incidents to recognize that they themselves must learn to deal with them.

Not only does this cohort recognize that risks arise within their peer group, making it difficult to draw a neat line between risks and opportunities, but they also enjoy experimenting with “risky opportunities” (Livingstone, 2008). Thus we heard many stories of online drama, with the adolescents oscillating between laughter and disgust as they recounted online interactions over which they sometimes struggled to maintain control. A Czech girl (aged 11) described a typical scene:

“We just had a big argument, like a really big fight, something stupid. Just over something stupid. And we were, like, arguing, and then she was really pissed at me and started cursing at me on Facebook. And I wasn’t going to let that fly, so I started cursing at her as well [laughter].”

While she justified perpetuating the drama as a matter of pride (“I wasn’t going to let that fly”), others recognize that they have a choice in escalating or ending episodes of this kind. Talking about the SNS Ask, another girl from the Czech Republic (aged 11) observed that:

“People either defend themselves or delete the question, when they want to. Or maybe when they’re not in the mood, they delete it, and when some-

one's already really pissed off, they'll write something vulgar back, so then they just fight and curse each other out and it can last a really long time. But those people can also be happy to be getting so many questions."

"Getting so many questions" on Ask, or getting so many "likes" on Facebook points to a process of social validation that is drawing in ever younger children. A Romanian 12-year-old told us, "I've seen cases, girls I know and they're around 10, 9 years old, 12 tops, who upload almost naked pictures of themselves on Facebook just to get likes". It certainly absorbs the attention of many young adolescents. But interactions can quickly become problematic, as SNS use tends to escalate problems by comparison with face-to-face communication. A group of British 11- to 12-year-old girls explained:

"Because you don't see the person's face, you don't see the person's reaction, so you just ... and you're only typing."

"We're rude to each other so much on Facebook, but then when it comes to face-to-face we have nothing to say."

"If something that happens in real life in school, it has to be said on Facebook. If somebody's seen this fight in school, they'll say, I've seen this fight with so-and-so. ... And then more people see the status. If they didn't know about it, then they'll ask the particular person who was in that fight, about it the next day. That person won't be very happy."

The challenge is primarily social – who to trust, what the likely consequences are of a particular exchange, and who carries the blame for a wrong decision. But for this age cohort the very concept of friends is becoming complex. On the one hand, friendships can be deeper and more intimate, including some romantic relationships. On the other hand, adolescents feel pressured to be friendly with people they may not like or who they cannot influence. An 11- to 12-year-old British girl described how a flirtation got out of control, and "for some reason nearly everyone in our year ... ended up finding out about it". A British boy told us of a case of cyberbullying that began among friends. Thus this age cohort was keen to discuss who could really be called a friend.

But SNS affordances complicate matters. As the Romanian 13-year-old girls worried, if you click the Facebook button to state that you are "in a relationship", intrusive questions are asked by your contacts, but if you do not, you can appear "available". The supposed privacy of a password, similarly, makes it liable to be shared precisely as a way of marking intimacy. But then friendships break up, leaving adolescents vulnerable to "hacking". To avoid this,

some create multiple profiles (contra Facebook's own rules; see van Dijck, 2013), changing them as and when their personal information or peer relations change or when something goes wrong; in the process, their digital footprint can become less rather than more manageable, as profiles and passwords are multiplied.

Unsurprisingly then, this cohort is keen to discuss how to check out digital footprints, which friend requests to accept, when to share images and so forth. They have much to say about their struggles with the site affordances, but their concerns differ from those of the youngest group, preoccupied with the question of what is real or fake. A Romanian boy (aged 12) complained that if someone posts a photo and tags you, only that person can modify that photo or tag, and the victim can do nothing about it. In group discussions, they exchanged strategies for un-/friending, reporting or managing the accessibility of pictures.

Girls seem particularly sensitive to how these episodes can get out of hand, risking positioning them as the perpetrator. A group of Czech 13- to 14-year-old girls, who set up a fake man's profile that one of their friends began to "fall in love with", described this transition: "It was quite funny at the beginning and then it was really embarrassing." Once the fraud was discovered, the result was anger and retaliation, making the girls reflect on the importance of being skeptical about online interaction. Girls' sensitivity also hints at their fear of victimization (Ringrose et al., 2013). As a Romanian girl told us: "A man from another country came, I think it was Africa and he kept writing me and I deleted him. After I had deleted him he kept writing to me and I've blocked him and he stopped writing."

Faced with such complexities, adolescents are developing their own norms and rules, a process that continues among older teenagers. Although the above quotations can be read simply as revealing risky opportunities, they also suggest youthful reflexivity, with risky encounters helping to build resilience for the majority, even though they lead a minority into harm's way (Vandoninck, d'Haenens, and Segers, 2012). Here a group of Spanish girls was thoughtful about a case of sexting that became a problem at their school:

"Because you trust that boy. If you trust someone and he fails you. ... It is your fault, because you have trusted someone who did not deserve it. You have nothing to do. You have to be 100 % sure of what you are doing and decide if it is really worth it."

In trying to work out why people act in a hostile or hateful manner on SNSs, their inquiry was both social and technological – they are aware that aggressive motivations are somehow amplified by the affordances of SNSs, with images

easily and quickly spread and difficult to remove, and the pain they may cause to a victim being rendered invisible. The question of who carries the blame is similarly social and technological – is it the person who takes the picture, the one who uploads or shares it, or the one who persuades others to send the pictures?

Not all discussions reflect a desire to be safe. The 13-year-old Romanian girls merrily told us about being vulgar or insulting, tagging each other inappropriately or threatening to steal each other's boyfriends, and were keen to relate their strategies for dealing with strangers (often peers from their wide network of 'friends of friends') who claim to love them, ask for their contact information or make indecent suggestions. Such contacts are not always wisely rejected: Provided the boy does not immediately share indecent images or demand sexual favors, some girls engage in flirtatious interactions, their test being whether they feel "OK" about the contact or not. Similarly, requests to take down an image are not always respected – a group of British 11- to 12-year-old girls discussed how funny it was when someone asked to have a nasty image taken down and they refused. They shared a host of stories about "dodgy" images of themselves, mixing humor, titillation, disgust and a little fear in a toxic mix that they found completely absorbing. Not having a Blackberry, one girl complained of being excluded from "a massive argument on BBM". Others competed to see which was worse – an approach from strangers or friends fighting?

While Marwick and boyd (2014) suggest that drama is particular to girls, the possibilities for fakery that concerned the younger boys offer more playful possibilities to their older peers, drawing them into the online drama. Here a group of Czech 12- to 14-year-old boys described hacking a friend's profile and posting "sexy" pictures:

"When we were at his place and [nickname] got his friend's Facebook, so we just tricked him. We did not change anything, we just occasionally changed that picture or we added something there."

SNSs also offer a means of retaliation for past wrongs, with several stories of perpetrating bullying or setting up hate groups against their peers. A 12-year-old Romanian boy described how he hit back at a friend who had upset him by making a fake Facebook page with embarrassing content. Even though the friend was upset, the perpetrator retold the episode as if it was somehow inconsequential precisely because it had occurred online: "But theoretically I didn't tell him, I just set it [the profile], we started laughing then forgot about the account." In both these instances, the boys seem to prioritize the technological

over the social, neglecting how a victim may be hurt because of their fascination of manipulating SNS affordances.

7 “What does social networking say about my values?” 14- to 16-year-olds’ understanding of social network sites

By 14 to 16 years old, adolescents increasingly display a critical distance from their younger selves, as well as from parental and teacher mediation. They are keen to make independent judgments about the meanings and contexts of on-line experiences, and wish to assert themselves as agents, actors in a world of their own making. They tend to prefer meaningful friendships over wide circles of ‘friends’, and have become wary of how both online affordances and their own need to be liked can exacerbate interactional problems. It seems that their priority is to work out how social relationships – online and offline – can benefit them, providing valuable experiences. For example, asked how she would respond to an unknown friend request, a Spanish 14-year-old said that she would:

“Try to find out who she is. I may know her and I don’t realize who it is. I ask who she is, and if I don’t know her I won’t accept her. What do I need that contact for? Who knows who she is and what she is looking for?”

Yet complicating their growing wisdom is the growing complexity of their lives. By this age, some have boyfriends or girlfriends, or go out drinking, or are becoming sexually active. Thus some of the harms they discuss are serious – including cases of sexual harassment, hate groups, explicit pornography, ‘trolling’, bullying and interactions with potential pedophiles or abusers. Further, they are more vulnerable to the emotional spillover between online and offline, and here gender strongly differentiates their experiences. Girls are now aware of the sexual double standard according to which boys are cheered on for being sexually predatory but where girls are called “sluts” (Ringrose et al., 2013). The boys’ stories, meanwhile, have become tougher – telling of teens misusing each other’s profiles, arguments and swearing, racist insults, being blocked by Facebook, and so on.

This cohort’s greater maturity – which brings both resilience and a new vulnerability – seems to intensify their interest in SNS affordances, to the point

where they talk about their social relations through the very language of social media affordances (e.g., blocking, deleting, amending photos or ‘likes’) rather than in terms of the traditional (offline) discourses of making and breaking friendships or sharing intimacies. A common example is how they express trust in a best friend by sharing their password: “She’s my best friend, I trust her, that she wouldn’t do anything to me” (girl, 15, Czech Republic). Relatedly, a Romanian 16-year-old girl captures the banter between her boyfriend and girlfriends in terms of SNS-related activities:

“Even if he’d say give me your password and I’ll add beautiful pictures of you ... anyway, I wouldn’t do that; the girls had just created my Facebook account and I didn’t know what could happen; once I saw the photo I changed the password and added a much longer one.”

Judging people’s online activities is becoming less playful, seen as reflecting the kind of person you are. The girls especially realize that problems created online must often be resolved offline, leading them to think carefully about which friends to accept, to consider how their profile is available to future employers, and even deactivating their accounts. The boys, too, seem to be ‘thinking twice’. One Romanian boy (aged 14–15) explained that “likes” no longer matter, what matters is how you behave online; another tells us how he checks out people’s profile before friending them, and another now thinks hacking is wrong. A British teen spoke for many in this age cohort when he said, “I think Facebook gets boring after you, like, I think a certain age, like, maybe, like, after, like, you’re, like, 12 or something then it just becomes not interesting”.

While some appear to be withdrawing their emotional investment from Facebook (though few actually delete their profiles), more are intrigued at the affordances of the widening array of available SNSs. The British 13- to 14-year-olds, for instance, note that you can monitor people on Twitter but not on Facebook (because of its privacy settings), including tweeting anonymously to be nasty to those you do not like. One girl describes being “a keyboard warrior, like, say if you’re having an argument, you’re going to say that to them on, say, Twitter but then not being able to say it to them in front of their face”.

8 Discussion and conclusions

Converged, networked and interactive media have become established in the lives of many children, but the literacy required to engage with them is still to

be understood. This article took a bottom-up approach to how children themselves understand their social network activities to illuminate their emerging social media literacy and, ultimately, untangle the puzzling relation between online opportunities and risk. The analysis has prioritized the importance of age, recognizing that children are maturing socially and cognitively. Although the findings resemble an ‘ages and stages’ approach, no invariant sequence of development is proposed, and nor is there any implication that later stages are ‘better’ than earlier stages. Rather, the point is that children have particular motivations, live in diverse contexts and face different challenges at different points in their lives.

The youngest group in the study consists of generally inexperienced social networkers, reliant on parents to keep them safe, and not very reflexive in what their social networking reveals about them. They tend to draw a clear line between online and offline, seeing the former as risky and unsure how to determine what is real or trustworthy. This is partly because they have not progressed far up the “ladder of online opportunities” (Livingstone and Helsper, 2007; Helsper et al., 2013). Rather, they mainly use the internet to watch video clips, play single-player games and surf the web, giving them little opportunity to judge peer-to-peer interactions.

The ladder of online opportunities also helps contextualize older children’s SNS use, since adolescence is associated not only with greater social media use, but also with more multiplayer gaming and sharing user-generated content of various kinds (Livingstone and Helsper, 2007). These older users are not only recipients of mass media, but also participants in a mediated, interactive environment. Still, it is likely to be their social development rather than their technology use that explains why they are so absorbed in risky opportunities and online drama. Social media offers a chance to participate online, but the children’s motivation to take risks and transgress boundaries is more likely to be driven by their growing independence from parents and the importance of establishing a desirable identity in their peer network.

For the oldest cohort, the findings suggest their growing autonomy from conformist peer norms and their increasing reflexivity in determining their own values as actors in their social worlds. Here, too, social networking practices dovetail with wider online activities, because although few undertake the most interactive, creative and civic activities online, these are all more common among older adolescents. It seems likely that these online activities are facilitated by their growing independence, wider engagement with the adult world and increasing interest in pursuing specialist activities.

So social media literacy – the perceptions and understanding that account for how children engage with social media – takes different forms depending

on children's age and social context. But age and development are interpreted here in terms of a complex mix of social experiences. These encompass children's changing relations with parents and peers, the identity and emotional needs of adolescents as they grow up, and the distinctive affordances of SNSs insofar as they support the expression of identity and relationships in particular ways. Research must move beyond simply listing the digital skills users need to communicate safely and effectively with social media.

In addition to scoping the complex array of understandings needed to engage with online social interactions, a hypothetical pathway has been proposed to account for the development of social media literacy, in which children pass from being largely passive recipients through sometimes out-of-control participants to reflexive actors. Subsequent research may link this pathway to the development of social media literacy to the pattern of online risks encountered by children of different ages – these, too, can be classified as risks associated with the receipt of mass media (e.g., pornography), with participation in problematic contacts (e.g., grooming) or with being an actor (e.g., a cyberbully) (Livingstone et al., 2013).

Further research may also propose more differentiated pathways, for example, depending on gender or culture. In terms of culture, there could be further analysis of the differences in the four countries included here. Although it appeared that children described more extreme online risks in the less protected countries (as defined by Helsper et al., 2013), Romania and the Czech Republic, no clear cross-national comparisons were discerned in terms of children's conception of the online/offline relation, risky opportunities or parental mediation. Perhaps in countries that prioritize active parental mediation (such as the Nordic countries), future qualitative research will reveal differences in social media literacy.

In understanding the development of social media literacy, there are interesting parallels with research on television and other literacies. Just as deciding what's real is crucial in television literacy, as a precursor to judgments of what is trustworthy or accurate, something similar occurs in social media literacy. To some degree, the concern with what is real or fake persists across the age range, but it is particularly pressing among the youngest cohort facing this challenge for the first time. But while the youngest children are concerned to avoid what is fake (even avoiding SNS use altogether), by the early teenage years making things up can also mean having fun or being 'entertainingly' naughty; consequently, distinguishing the real from the fake does not automatically map on to a decision to accept or avoid. Similarly, the question of the values associated with social media participation is interesting across the age range, but this preoccupied the oldest cohort the most. For them, any simple

conception of the online/offline distinction has been superseded, with questions of reality or entertainment online being subsumed into the wider question of how to be online – who one is and how it is worth spending one's time. Their primary focus is the nature of their relationships (genuine friendships, wider circles of contacts, romantic and sexual relationships), However these are mediated. They discuss these relationships through the language of SNS affordances – talking of deleting people as a way of describing the ending of a relationship, or of changing passwords to mark entry into a new social circle.

The development, shaping and consequences of social media literacy need to be further researched. It has been proposed that such literacy is shaped by the interaction between children's social development and the affordances of particular social media, which has consequences for children's progression up the ladder of online opportunities and, the present focus, for their perceptions of and responses to online risk of harm. Last, it may be that attention to social media literacy, by capitalizing on what is already known in media education, can offer a route to educational intervention that may complement or even replace current efforts to prevent younger children using SNSs or ensure that their parents are always supervising them. This is not to say that very young children can be taught to make reliable and safe judgments about complex matters online (or offline), but it does invite practical consideration of what they can be taught, while the limits to media education would justify lower age boundaries or other conditions under which children should be permitted to join SNSs. Moving beyond simple visions of children as 'vulnerable' is surely important to empowering them in the digital age.

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