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Article (Submitted version)
(Pre-refereed)

Children, Internet and Risk in Comparative Perspective

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Abstract
What do we know of the changing array of opportunities and risks that different children are encountering on the internet? This special issue includes articles exploring diverse dimensions of the EU Kids Online survey based on a detailed, in-home, face-to-face, representative survey of 25,142 children aged 9–16 years old plus one of their parents. Children's internet use is investigated on two levels, first taking the child as the unit of analysis to examine individual (demographic, psychological) factors and those relating to their socially mediated environment (centred on parental, school and peer relations), and second taking the country as unit of analysis, focusing on factors of socio-economic stratification, regulatory framework, technological infrastructure, education system and cultural values as possible explanations for differences in online use, risk and safety. As the articles in this issue reveal, the sheer scale of the project permits focused analysis of complex patterns and particular subgroups within the dataset. Thus new findings and conclusions are reached regarding the relation between cyberbullying perpetrators and victims, offline meetings with varieties of online "stranger", children's strategies for coping with online risks, and ways in which digital skills and parental mediation operate, potentially ameliorating harm. Lessons for theory, cross-national comparison, and research methodology are also identified.

Introduction to the Special Issue

It is a truism that widespread adoption and use of the internet and other digital technologies is changing the opportunities and risks faced by society. The nature of these changes is highly contested, for although each new application—such as social networking, mobile skype or cloud-based data-sharing—seems to change everything, explaining social change is always complex. Embedded in claims about "the digital age" is another familiar yet equally problematic story; that of the perennial ambivalence of adults towards the experiences of children and youth. On the one hand, young people are seen as enthusiastic pioneers of the ever-changing media landscape. On the other, adults worry that they are peculiarly vulnerable to the intensified exposure it affords to the wider world, often without protection from parents and teachers.

What do we know of the changing array of opportunities and risks that different children are encountering? In designing the EU Kids Online project, we were charged by the funder (the EC Safer Internet Programme)[i] to produce up-to-date statistics on children's internet use, opportunities, risks and parental responses in twenty-five European countries, so as to guide policy initiatives. To achieve this, the EU Kids Online project has produced an extraordinarily rich dataset based on a detailed, in-home, face-to-face, representative survey of 25,142 children aged 9–16 years old plus one of their parents, comprising some 1,000 children in each of twenty-five countries (and twenty-five languages)[ii]. So far, the project has been able to rebut some of the optimistic hyperbole about "digital natives" along with the media's pessimistic moral panics about online risks, instead setting out clear findings (Livingstone, Haddon, Görzig, & Ólafsson, 2011) and balanced evidence-based policy recommendations (O'Neill, Livingstone, & McLaughlin, 2011).

But our multinational, multidisciplinary network of over one hundred researchers designed the project to offer more than mere descriptions of the current landscape. In this special issue, we have selected original articles that showcase the results of our cross-national effort to understand the processes that connect the contexts, practices and consequences of children's internet use[iii]. Thus, to advance beyond the descriptive, though important, questions of who uses the internet, where, how, why and with what consequences, the articles in this issue ask theoretically driven questions in accordance with the working model formulated by the project.

Understanding Children's Internet Use

Children's internet use can be investigated on two levels (see Figure 1, Livingstone, Haddon, & Görzig, 2012). First, most commonly, researchers take the child as the unit of analysis, examining both individual (demographic, psychological) factors and factors relating to their socially mediated environment (centred on parental, school and peer relations). This permits the analysis of the processes and consequences of online engagement contextualised within the meso and macro circumstances of children's lives.
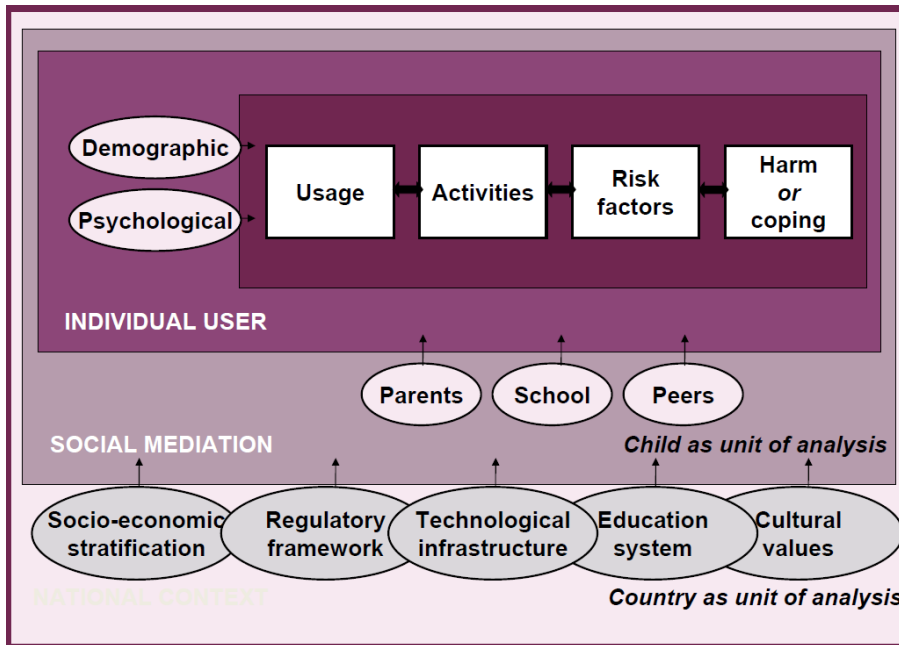
Figure 1. The *EU Kids Online* model (source: Livingstone, Haddon & Görzig, 2012)

Where just a decade ago, a literature review found almost no empirical research (Livingstone, 2003), there has since been an explosion of new projects (e.g. Gasser et al., 2010; Hasebrink, Livingstone, Haddon, & Ólafsson, 2009; ISTTF, 2008; OECD, 2011); the result is a host of possible factors that may be important in shaping children's internet use, many of which merit further investigation. However, most of the recently produced research is concentrated in just one country, the United States, and much of it—like the fable of explorers in the dark each examining a different part of an elephant—focuses on just part of the overall picture, be it children's internet access, digital skills, responses to pornography or e-learning in schools. We suggest it is problematic, even indefensible for researchers or policymakers to take the findings produced in one country and assume they may be straightforwardly applied in another. Similarly, it is equally problematic to present one's own findings in unthinkingly universalistic terms, as if "children", "the internet", "risk", "parenting" and so forth are the same everywhere—culture-free concepts to be fitted together in a general theory of children's internet use. Thus, in order to recognise how children's experiences may differ across countries, the second level of investigation treats the country as unit of analysis, focusing on factors of socio-economic stratification, regulatory framework, technological infrastructure, education system and cultural values.

Taking the child as unit of analysis, it is possible to trace the complex processes which connect access, use, opportunities, risks, parental responses and—important to our child-centred approach, children's own developing digital skills and coping responses. By following the path from children's risk encounters to self-reports of harm and, then, coping strategies (see Figure 1), the EU Kids Online dataset offers an excellent

opportunity to explore how particular dimensions of internet use are shaped by any or all of these factors, ideally using multi-factorial and multi-level modelling to tease out the role of and interactions among the different influences. We begin, in this special issue, with two articles that contextualise the emergence of the relatively new phenomenon of online risk in relation to the more familiar conditions that frame offline risk (Görzig & Ólafsson; Barbovschi). Then two articles examine the path at the heart of our working model—for whom risk results in harm and how, in turn, children respond to or cope with such adverse consequences (Soldatova & Zotova; Vandoninck, d'Haenens & Roe). Developing the theme of children as agents, Sonck and de Haan then ask if digital skills can mediate between, and so ameliorate, these consequences. Turning, then, to parents as socialising agents, Sonck, Nikken and de Haan examine parental practices of internet mediation, extending and adapting the established literature on parental mediation of television, before Paus-Hasebrink, Bauwens, Dürager and Ponte map how these and other domestic practices are themselves shaped by the cultural contexts in which children live, resulting in cross- national variation that qualifies the universal claims common in the research literature.

Insofar as we have sought to understand the complex and conditional relationship between risk (the probability of harm) and the occurrence of actual harm, the sheer scale of the project allows us to ask some new questions. This is because self-reported harm is rather low: in our representative population survey, 12 per cent of 9 – 16-year olds and 8 per cent of their parents say that the child "has been bothered by something online" (although four in ten children say they have encountered one or more of the risks asked about in the survey; Livingstone et al., 2011). In research with smaller samples, as is more typical, little beyond basic descriptive information can be given of such minority experiences, especially if these must be subdivided further into those upset by different risks or living in different circumstances. But with our sample, it is possible to test multifactorial hypotheses and conduct path analyses and multilevel modelling, as undertaken in several articles in this issue (see also Smahel et al., 2012.; Livingstone et al., 2012). However, as may be appreciated, conducting so large a study on a sensitive issue in multiple countries and cultures posed a methodological challenge; in our final paper, Ogan, Karakus ̧ and Kurs ̧un reflect on this experience so as to draw out some lessons for future research.

Cross-National Contextualisation
The potential of a specifically European focus is noteworthy. First, EU Kids Online has produced a sizable body of evidence about Europe, inviting comparisons with the United States and elsewhere that can illuminate the distinctive and common features of each region. Second, there is value in comparing countries which, in terms of comparative methodology, are sufficiently related in geographic, cultural and historical terms to enable us to avoid the difficulties of "comparing apples and oranges" and to draw conclusions regarding similarities and differences. Third, the project can inform the European Commission's (2012) effort to "make the internet a better place for kids", given the currently open policy window for which evidence may prove useful. To be sure, the same may be true for research conducted anywhere; but undoubtedly, the EC's efforts are currently motivating many European researchers. For researchers, an added benefit is the opportunity for capacity building, for it is valuable to develop and strengthen the capacity

of European scholars from an ever-expanding range of countries to construct a rigorous and informative evidence base on children's internet use.

However, while we regard cross-national investigation as crucial given the universalising claims often made in the burgeoning international research literature on children's interest use, a note of caution is in order. It is no simple matter to determine how children's experiences vary by country or culture. EU Kids Online's survey included children in twenty-five countries, ranging from Norway to Turkey and from Portugal to Estonia, resulting in a wealth of directly comparable data with the potential to unpack individual, familial and country-level variation in findings. To guide the cross-national comparative aim at the base of this special issue, we operationalised Kohn's (1989) four "ideal types" of comparative research (as applied to media and communications research in Livingstone, 2012). The simplest rationale for comparative research is to compare with others in order better to see oneself: through cross-national comparison, what is distinct about one's own country is readily highlighted (or even, features thought to be distinctive are revealed as shared with others).

This idiographic model of comparison sharpens the description of national contexts and provokes reflection, but it does not in and of itself develop an explanation for cross-national differences. Rather, this is often how comparative research begins, and so is best used when little previous knowledge exists. In this special issue, Soldatova and Kropalev report the online experiences of Russian children, for the first time in English, having replicated the EU Kids Online methodology in order to make precise comparisons. As they poignantly reveal, Russian children are gaining internet access rapidly, ahead of the adult generation's ability to support them individually or develop regulatory and safety initiatives on a national level. The consequence is substantially higher levels of risk and harm experienced by Russian children compared with Western Europe, and much of this they have to cope with by themselves.

The opposite approach is taken by Paus-Hasebrink, Bauwens, Dürager and Ponte, who endorse the system-sensitive model (Blumler, McLeod, & Rosengren, 1992). As Kohn puts it, this is to treat countries as units in a multidimensional analysis in which the researcher has gathered directly comparable cross-national measures. Rather than simply observing cross-national similarities or differences, the purpose is to understand how country-level factors can explain the observed patterns of variation. Lobe and Ólafsson (2012) summarise EU Kids Online's findings that (i) children in wealthier countries encounter more online risk, even though these countries are surely able to provide user-friendly safety resources for families; (ii) countries with more press freedom are more likely to have children who encounter online risk, possibly because they have less internet regulation; (iii) degree of broadband penetration is linked to children encountering more online risks but not, counter-intuitively, more online opportunities; and (iv) in countries with more years of schooling, and in countries where more schools use computers in the classroom, children have better digital skills. Taking a step further, Paus-Hasebrink et al. show that countries vary in their inclusion of four distinct parent-child interaction patterns—families characterised by a digital generation gap; families where both children and parents are low in digital skills, families who are confident and communicative about internet use, and families where parents are strongly protective. Yet

it seems that we still lack knowledge of the country-level factors that influence digital engagement and so would enable us to model the differences found across Europe, impeding our ability to explain observed cross- national differences (as anticipated by Hall, 2003).

Two further comparative models from Kohn are, therefore, worthy of consideration. One —the transnational model—does not compare countries as the unit of analysis but rather regards all countries in terms of their position on a hypothesised global or transnational trend. In the present case, this might be conceived as the rise of the network society, or the advent of the digital age or, most simply, the process of globalisation itself. For example, in identifying four strategies of parental mediation of the internet (active safety mediation, restrictive content mediation, restrictive technical mediation, and monitoring), Sonck, Nikken and de Haan hint at a developmental curve whereby countries with higher levels of diffusion might reveal the early establishment of parental practices yet to emerge in others. But a truly transnational model would require longitudinal data, and since EU Kids Online is a cross-sectional project, our data do not directly permit conclusions regarding change.

The final model to be discussed here has proved the most useful, as illustrated by several articles in this special issue. In what Kohn calls the hypothesis-testing model of cross-national research, countries provide the context for examining general hypotheses. This approach is parsimonious in that it seeks generalisable phenomena (regarding "children", "internet", "risk", etc.) but it adopts a Popperian scepticism regarding such an effort. In short, the researcher should seek out not similar countries but instead very different countries for comparison precisely in order to discover the limits of their generalisations. When these limits are found, the only recourse is to turn to the system-sensitive model, difficult though this is to operationalise. Note that this model is quite different from the unthinking assumption, which we criticised from the outset, namely that all countries are like one's own, for here the onus is on the researcher to examine whether or not their findings are similar in different countries as a deliberate step in the analysis. As discussed in the next section, most analyses suggest that the similarities are far more striking than any differences across countries, pointing to a pan-European experience of children's internet use. The extent to which these findings may have a broader generality, however, remains for researchers beyond Europe to examine.

Socio-Cultural Contextualisation
The hypothesis-testing model, then, relates directly to our interest in examining the paths through our model, connecting the individual child and their socio-cultural context via their use of the internet to the specific risks encountered and its possible consequences. Since, crucially, exposure to online risks does not in and of itself address any associated experience of harm, EU Kids Online has also explored the consequences of exposure, showing how these depend on the child and the context (i.e. on the multiplicity of factors that lead a child to encounter a risk). Of the possible outcomes, EU Kids Online has concentrated on two—self-reported harm (operationalised as the child saying that the risk bothered or upset them) and coping (here we asked children about a range of possible coping strategies, to understand which are more effective). Forms of social mediation, especially but not only from parents, may also help children avoid exposure to or adverse

consequences of online risk.

In principle, complex analyses are needed to contextualise risk and harm in terms of a plurality of different factors ranging from meso-level influences of parents, peers and school to the micro-personal circumstances of the children in terms of their psychological and socio-demographic characteristics. In practice, however, many research questions can be satisfactorily addressed by shining a spotlight on specific parts of this model. For example, Görzig and Ólafsson's article on cyberbullying and Barbovschi's article on meeting people offline show a clear link between offline and online vulnerability. Yet both also demonstrate the ways in which some aspects of the online world draw in certain groups of young people that would normally be less at risk offline. Girls and those who are digitally but not socially confident are likely to migrate to cyberbullying, and those who are either digitally confident or sensation seekers are more likely to take contact risks. As with most articles in this special issue, these processes appear common across Europe, although country variations are conscientiously noted where they occur.

Pursuing the path sketched in Figure 1, Vandoninck, d'Haenens and Roe show that children with greater self-efficacy and fewer psychological difficulties cope better with online risk; those who cope better also have more digital literacy skills. However, once a range of individual factors are controlled for, the apparent benefit of greater digital skills in reducing harm disappears, as Sonck and De Haan reveal, contrary to the assumption of many digital literacy initiatives—indeed, they find a positive association between breath of online activities, digital skills and exposure to online risk (see also Livingstone & Helsper, 2010). Further, Sonck, Nikken and De Haan's article on parental mediation strategies shows that parental mediation practices and their effectiveness should be contextualised in terms of family composition as well as the gender and age of the child. While the articles in this special issue trace various paths shown by the arrows in the model, many questions still remain for future research: how do individual factors shape internet usage, enabling children to undertake online activities of varying types, range or depth; how does this, in turn, lead them to encounter particular risk factors (such as pornographic or inappropriate content, contact with unknown other people, or the peer exchange of hostile or sexual messages)?

Methodological Contextualisation
Finally, we conclude this special issue with an article that examines the considerable methodological demands of a cross-national comparative study of this scale and complexity. It should be recognised that the EU Kids Online project has been ambitious in its methodological set up not just in scale but also in terms of asking questions about a range of sensitive issues that had never been asked before of young people themselves using a mix of face-to-face and self-completion techniques. In this volume, Ogan et al. show that it is not only cultural or national contexts that matter in how children respond to questions about their online risk and opportunity taking but also procedural. The background of the child is related to socially desirable responses but so is the fieldwork context (i.e. whether an adult was present), the use of different formats in conducting the survey was not, perhaps surprisingly, influential. This shows that comparative research should not only look at traditional contextualisations based on national or family backgrounds but also at methodological contexts. While their findings are significant in

their own right, they also draw out the lessons for future researchers planning and designing comparative research with children. We appreciated being able to include such an article in these pages precisely because we hope to see much more research on children's internet experiences being conducted in many parts of the world. Then this research community can enjoy even more fascinating discussions in the years to come.

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[i] The *EU Kids Online* network is funded by the EC (DG Information Society) Safer Internet plus Programme (project code SIP-KEP-321803); see www.eukidsonline.net. As always, we warmly thank members of the network for their collaboration in developing the design, data and ideas expressed here.

[ii] The EU Kids Online dataset is publicly archived for use by any researcher who requests it in the UK Data Archive; see http://www.esds.ac.uk/findingData/snDescription.asp?sn=6885&key=EU+Kids+Online. Full details of the design, sampling, ethics and data collection procedures are available at http://eprints.lse.ac.uk/45270/.

[iii] Although authors are members of the *EU Kids Online* network, articles are only included here that survived a rigorous process of first internal and then external blind peer review, in accordance with the high standards of the *Journal of Children and Media*.