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## Children, risk and safety on the internet: research and policy challenges in comparative perspective

### Executive Summary

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**Children, risk and safety on the internet: research and policy challenges in comparative perspective. 2012. Edited by Sonia Livingstone, Leslie Haddon and Anke Görzig. Bristol: Policy Press. *Contents and summary.***



**The Policy Press**

## Children, risk and safety on the internet

Research and policy challenges in comparative perspective

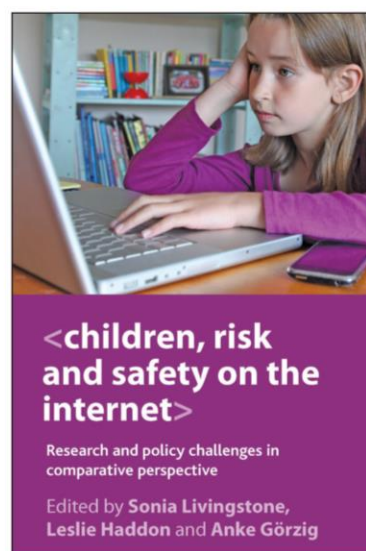
Edited by Sonia Livingstone, Leslie Haddon and Anke Görzig

With contributions from members of the EU Kids Online network from a broad range of European countries, this book captures the diverse, topical and timely expertise generated by the network, reflecting the different aspects of the EU Kids Online project.

With a particular focus on risk and safety, each chapter includes up to date and previously unpublished comparative findings from across Europe, developing a critical approach to the research domain, its findings and possible conclusions.

The book will be of interest to academics, researchers and students in sociology, childhood studies, social policy and media studies, as well as policy makers and those involved with corporate social responsibility in the internet industry.

Contents: Theoretical framework for children's internet use ~ Sonia Livingstone and Leslie Haddon; Methodological framework: the EU Kids Online project ~ Anke Görzig; Cognitive interviewing and responses to EU Kids Online survey questions ~ Christine Ogan, Turkan Karakus, Engin Kursun, Kursat Cagiltay and Duygu Kasikci; Which children are fully online? ~ Ellen Helsper; Varieties of access and use ~ Giovanna Mascheroni, Maria Francesca Murru and Anke Görzig; Online opportunities ~ Pille Pruulmann-Vengerfeldt and Pille Runnel; Digital skills in the context of media literacy ~ Nathalie Sonck, Els Kuiper and Jos de Haan; Between public and private: privacy in social networking sites ~ Reijo Kupiainen, Annikka Suoninen and Kaarina Nikunen; Experimenting with the self: a risky opportunity ~ Lucyna Kirwil and Yiannis Laouris; Young Europeans' online environments: a typology of user practices ~ Uwe Hasebrink; Bullying ~ Claudia Lampert and Verónica Donoso; 'Sexting' ~ the exchange of sexual messages online among European youth ~ Sonia Livingstone and Anke Görzig; Pornography ~ Antonis Rovolis and Liza Tsaliki; Meeting new contacts online ~ Monica Barbovschi, Valentina Marinescu, Anca Velicu and Eva Laszlo; Excessive internet use among European children ~ David Smahel and Lukas Blinks; Coping and resilience: children's responses to online risks ~ Sofie Vandoninck, Leen d'Haenens and Katia Segers; Agents of mediation and sources of safety awareness: a comparative overview ~ Dominique Pasquier, José Alberto Simões and Elodie Kredens; The effectiveness of prental mediation ~ Maialen Garmendia, Carmelo Garitaonandia, Gemma Martínez and Miguel Ángel Casado; Effectiveness of teachers' and peer's mediation in supporting opportunities and reducing risks online ~ Veronika Kalmus, Cecilia von Feilitzen and Andra Siibak; Understanding digital inequality: the interplay between parental socialisation and children's development ~ Ingrid Paus-Hasebrink, Cristina Ponte, Andrea Dürager and Joke Bauwens; Similarities and differences across Europe ~ Bojana Lobe and Kjartan Ólafsson; Mobile access ~ different users, different risks, different consequences? ~ Gitte Stald and Kjartan Ólafsson; Explaining vulnerability to risk and harm ~ Alfredas Laurinavicius, Rita Žukauskiene and Laura Ustinaviciute; Relating online practices, negative experiences and coping strategies ~ Bence Ságvári and Anna Galács; Towards a general model of determinants of risk and safety ~ Sonia Livingstone, Uwe Hasebrink and Anke Görzig; Policy implications and recommendations: now what? ~ Brian O'Neill and Elisabeth Staksrud.



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## Overview

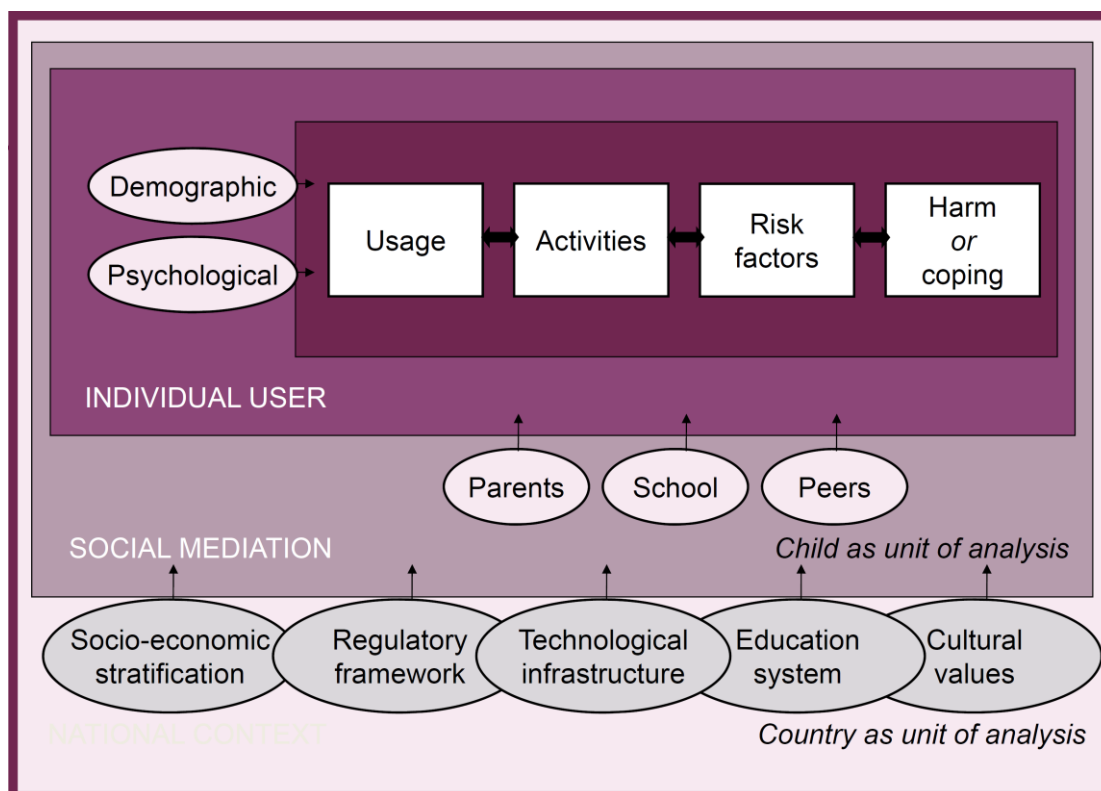
As internet use is extending to younger children, there is an increasing need for research focusing on the risks young users are experiencing, as well as the opportunities, and how they should cope. With expert contributions from diverse disciplines and a uniquely cross-national breadth, this timely book examines the prospect of enhanced opportunities for learning, creativity and communication set against the fear of cyberbullying, pornography and invaded privacy by both strangers and peers. Based on an impressive in-depth survey of 25,000 children carried out by the EU Kids Online network, it offers wholly new findings that extend previous research and counter both the optimistic and the pessimistic hype. It argues that, in the main, children are gaining the digital skills, coping strategies and social support they need to navigate this fast-changing terrain. But it also identifies the struggles they encounter, pinpointing those for whom harm can follow from risky online encounters. Each chapter presents new findings and analyses to inform both researchers and students in the social sciences and policymakers in government, industry or child welfare who are working to enhance children's digital experiences.

The book contains 26 chapters which deal with an extensive range of issues and subjects of children's relationship with the internet. The book is thematically divided into four sections: theoretical and methodological frameworks; access to online opportunities; uses of the internet and children and online risk. The book's exhaustive coverage provides plenty of evidence and evidence-based recommendations in the most pressing areas of attention. Each of the sections is illustrated with case studies and provides an overview of the region as well, something which has been lacking in previous studies.

Written by the participating scholars from the EU Kids Online II network, the book offers analyses based both at the individual level and across countries, comparing similarities and differences. From this, typologies of access, use and risk emerge which enrich the picture of how children throughout Europe are engaging with the internet and its affordances. The book also offers a methodological contribution. Each chapter contains reflections on the limitations of such a large scale research project as well the advantages and exciting data it can yield when properly modelled. Theoretically, the book chapters are robust and communicate well with one another, providing easy transitions into other themes of the research and their links. While this area of research is ever-changing in all fronts, given its measured outlook and avoidance of moral panics, this book constitutes a thorough and sound basis for future research and policy making.

## Theoretical framework for children's internet use

**Chapter One** starts by outlining the theoretical principles guiding the research project. Arguing against technological determinism, this chapter locates internet adoption and appropriation within the wider context of changing childhoods in late modernity and the risk society. First, it provides an overview of the EU Kids Online network. It then examines three core debates over the question: of childhood (contesting the notion of 'digital native'), risk (contesting moral and media panics) and responsibility (arguing for effective multi-stakeholder alliances to improve children's online experiences). The chapter concludes with the working model that has guided the data collection, analysis and interpretation in the chapters that follow.



### Methodological framework: The EU Kids Online project

Building on the description of the model, **Chapter two** offers an in-depth analysis of the methods used and an overview of the dataset. It also describes the methodological approaches adopted for the EU Kids Online project surveying 1,000 children and one of their parents in each of the 25 participating countries. Likewise, there is an emphasis in one of the project's chief distinctive traits: it's decision to take children as a primary unit of analysis. The chapter first describes the process of questionnaire design relating to content and response formats, together with the processes of testing and refining questions. (**Chapter three** delves deeper into this, aiming to explain the application of cognitive interviewing to this study. It also illustrates some of the problems of surveying children on sensitive subjects and the importance of cognitive interviewing as a tool for improving the quality of responses). Then the process of sampling and survey administration is outlined, before moving on to fieldwork procedures, research ethics, the dataset structure and a brief description of the key variables. Finally, the relations among variables associated with sampling and fieldwork procedures on the country level are considered.

These first three chapters set the framework for the rest of the book, which is devoted to a meticulous look at the evidence both at a national and regional level on three fronts: Access, opportunities, Risks and Uses. These sets of themes constitutes a robust and thorough review of many aspects surrounding the complex set of relationships children establish with new technologies and the agents and materials involved in them.

### Which children are fully online?

In terms of access; education, gender and age are all associated with different types and

quality of access but the strength of the relationship between these socio-demographic characteristics and access vary by country. **Chapter four** uses EU Kids Online data to examine whether there are differences in access among different groups of young European internet users. It argues that these differences between European countries are associated with general, national level inequalities between education, gender and age groups, and with the level of internet diffusion within each country.

### **Varieties of access and use**

Furthermore, the increasing variety of internet access and use also contributes to a diversification of locations through which children may access it in their own households. **Chapter five** analyses this as experienced by children in Europe. This chapter investigates the relationship between place of access, online experience and frequency of use of the internet, within the family's wider technological culture. It examines cross-national variations in patterns of usage and provides a classification of countries. It concludes that while internet access seems to be growing in an increasingly private manner, with little to no supervision, it has also become embedded in more and more children's lives, a majority of whom use it on a daily basis.

### **Online opportunities**

**Chapter six** deals with the second element identified by the EU Kids Online Network: opportunities and uses. Based on the range and types of children's online activities this chapter analyses how and with which outcome children use the online opportunities using the 'ladder of opportunities' approach. This approach is based on the notion that children can be divided into groups depending on the range of opportunities used by a particular child moving from information-related sources to communication to advanced uses, ending with online content creation, practiced by only a few. Additionally, European countries are also compared in this context and analyzed on whether the opportunities used are related to age, gender, socio-economic status (SES) and/or online experience.

### **Digital skills in the context of media literacy**

When following a 'laddering' approach to opportunities, how to move up and down becomes a question in need of an answer. Thus, gauging where children are and how they can move up and/or down evokes the need to study their *digital literacy*. **Chapter seven** tackles this, describing European children's level of self-reported digital literacy, measured by the ability to perform specific tasks, the range of online activities undertaken and the belief about one's own internet abilities. While care is needed when using self-reporting as a proxy for media literacy, the chapter makes a strong argument how these reports relate to digital literacy and the broader concept of media literacy. A nuanced answer is also presented to the question whether European youth is really as skilled as often assumed. Differences in skills persist between children, due to gender, age and parental education. Moreover, skills vary between European countries. By multilevel analysis, both types of skill differences are studied simultaneously. It concludes by arguing for a strong correlation between skills and diversity of activities by children, but it admits that a set of skills is but a component of digital literacy, with further research needed on children's knowledge, attitudes and production capabilities of digital content.

## **Between public and private: Privacy in social networking sites**

Part of digital literacy is the ability to critically assess the information one gives and receives on different platforms. Safely using the internet is **Chapter eight**'s subject, focusing on privacy and risk potential of social networking sites (SNS) for children. Social networking is popular all over the Europe, but there are also national differences, and parental mediation in particular is closely related to SNS use. Young people do search new friends on the internet as one of the basic logics of social networking but this does not make children especially vulnerable for personal data misuse. This chapter argues that disclosure of personal information and/or huge amounts of 'friends' on SNS do not in itself cause more risk but multiple risk online activity increases the risk of data misuse.

## **Experimenting with self-presentation online: A risky opportunity**

One of these activities associated with risk online is taking on another identity other than your own. **Chapter nine** explores how children's experimentation with self-identity, age and gender online is related to online activities and experience of online risks and harm. The findings show that experimenting with the self online is less prevalent than expected; however, it remains a risky online opportunity because it is related to undertaking risky online behaviours, encountering online risks and experiencing harm from some online risks. The chapter also reveals that experimenting with the self online, together with the child's age and sensation-seeking, are significant predictors of undertaking risky online activities by children aged 11-16.

## **Young Europeans' online environments: A typology of user practices**

**Chapter ten** develops a classification of children and young people according to how they use the internet. Based on indicators such as duration of use, range of activities and the kind of preferred online practices, user types are identified by cluster analysis. Further analyses show how these types differ with regard to individual characteristics and how prevalent they are in different countries. Within the context of this book this step provides a basis for the analysis presented in Chapter 25, where user types are described with regard to their experience of risk and harm.

## **Bullying**

After this typology of users, the next chapters focus on different risks for children that affect some children. **Chapter eleven** starts out this list by dealing with the issue of bullying. In the last five years the topic of cyberbullying has gained tremendous public and research attention. With the massification of social media applications, the possibilities of personal publishing and networking have increased, but also the possibilities of improper usage such as online harassment. The data show that many perpetrators and victims of cyberbullying are not just in one or the other role; they sometimes engage in both activities. In this chapter, cyberbullies, cyberbullies and cyberbully victims were compared with regard to age, gender, psychological difficulties, self-efficacy, sensation-seeking and ostracism. Logistic regressions indicate that incidents of offline bullying (as perpetrator and/or victim) are strong predictors of cyberbullying, followed by psychological difficulties.

## **‘Sexting’: The exchange of sexual messages online among European youth**

The second risk recounted by the EU Kids Online network is that of ‘Sexting’, the exchange of sexual messages among teenagers via the internet or mobile phones, something which public anxiety has recently centred on. **Chapter twelve** examines the incidence, antecedents and consequences of ‘sexting’ among 11- to 16-year-olds. Although only 15% say they have received a sexual message, and only a quarter of those were upset by it, it is shown that those who are more vulnerable offline (i.e., those with more psychological problems) are more likely to receive such messages and to find them upsetting.

## **Pornography**

Third on the list is pornography. **Chapter thirteen** aims to address the social anxiety around children and teenager’s encounters with online porn; it therefore focuses on research on children’s experience of online sexual images. Starting from the premise that children’s experience of online pornographic material is a socially constructed risk, the factors that may determine the probability of exposure to online sexual images and which children are more likely to be harmed by such an experience are explored. Three hypotheses are then formulated, a usage hypothesis, a risk migration hypothesis and a vulnerability hypothesis. The findings show that from this chapter’s sample of 19,136 children who use the internet, only a minority (about 6,000) experience online sexual images. These findings confirm empirically what cultural studies-oriented approaches have been arguing for some time – that social, policy and academic concerns regarding the impact of pornographic content on young people are seriously overstated.

## **Meeting new contacts online**

While making new friends and expanding one’s social circle is encouraged as something positive and desirable, the ‘stranger danger’ – connected with the practice of contacting new people online – continues to generate a great deal of anxiety among parents, teachers and policymakers alike. **Chapter fourteen** offers an account of children’s practice of making new contacts online and their further exploration of these new contacts through face-to-face meetings. Among all children, one third have made contact online with someone they didn’t know face to face, while less than 10% have gone to a face-to-face meeting with someone they met online. Results suggest that attention should be given to those few children who experience harm from meeting new people, which are the youngest and the most vulnerable, both online and offline.

## **Excessive internet use among European children**

A final risk factor comes from a concern parents and other stakeholders share about their children’s internet habits, specifically, ‘excessive internet use’. This term is often associated with determining pathological extensive internet usage, which could also be called ‘online addiction’. Such excessive presence online is usually defined by the following components used for determining other types of addictive behaviour: salience, mood change, conflicts, tolerance, relapse, reinstatement and withdrawal symptoms. **Chapter fifteen** introduces and shows the prevalence of the five dimensions of excessive internet use among European children. Its relation to other psychosocial



variables, such as self-efficacy, peer problems and other kinds of risky behaviour offline and online such as cyberbullying and meeting strangers online, are also analysed.

### **Coping and resilience: Children's responses to online risks**

After a recount of these five risk and harm chapters, the book turns to how children, parents and others involved respond to these risks. **Chapter sixteen** starts out this section investigating which children are more vulnerable, as they feel upset more intensively. While online bullying provokes most harm, children seem less bothered seeing sexual images (content risk). Younger children and those with little self-efficacy or psychological problems feel more intensively upset, and girls are more sensitive to sexual risks. This chapter also looks into children's coping responses when they feel upset after exposure to online risks. The chapter distinguishes between fatalistic, communicative and proactive coping strategies. It concludes that children identified as more vulnerable are more likely to adopt a passive or fatalistic approach, while self-confident children seem to tackle the problem more proactively. Girls and younger children are more communicative. Children higher on the ladder of online opportunities will adopt more online proactive coping strategies such as deleting disturbing messages or blocking the sender. These results are an indication for a double jeopardy effect: children who experience difficulties offline seem to find it more difficult to cope with online risks.

### **Agents of mediation and sources of safety awareness: A comparative overview**

Children are not the only ones who develop strategies to cope with online risks. Dealing with these risks requires collaboration from several agents and stakeholders. **Chapter seventeen** starts out this section by comparing the articulation between agents of mediation. Five different types of mediation are considered: active mediation of child's use, active mediation of child's internet safety, restrictive mediation, monitoring, and technical mediation of child's internet use. Data show that parents are the main mediation agents in all countries, but the role of teachers appear to be very important, especially in northern European countries, and for older adolescents. Those adults mainly give restrictive rules or advice about safety. On the opposite side, peers appear to play a major role when seeking social support, whatever the type of risk.

### **The effectiveness of parental mediation**

Continuing on the previous chapter insights, **chapter eighteen** goes into further depth through an analyses the role that parents play in order to protect their children against the risks and harm they may encounter while using the internet. Parental mediation strategies are examined and classified attending to the different ways of communication established between parents and children. Besides these strategies, parents and children's personal characteristics (such as gender, age and socio-economic status, SES) are taken into account in order to see whether such characteristics affect the type of risks and harm suffered by minors when they surf on the internet (sexual content, bullying and contact with strangers).

### **Effectiveness of teachers' and peers' mediation in supporting opportunities and reducing risks online**



Besides parents, teachers and peers are probably one of the most important agents of mediation for children. Given their role as educators, teachers are in privileged position to guide and contribute towards protecting children online. Likewise, peers are also a primary source of help given the common ground shared. **Chapter nineteen**, thus, explores the extent to which social support from teachers and peers is related to children's uptake of online opportunities and their levels of digital literacy and safety skills; and second, whether and how teachers' and peers' mediation are related to the main online risks and harm experienced by children. Socio-demographic variations in the effectiveness of teachers' and peers' mediation are also analysed. Finally, the chapter explores whether there are substantial differences among European countries with regard to correlations between teachers' and peers' mediation on the one hand, and children's digital skills and online opportunities, and experiences of risks and harm on the internet on the other. One of the conclusions is that substantial mediation by peers (as well as teachers) occurs retroactively, after children have experienced online harm, with children being active agents in the process and initiating the mediation when needed.

### **Understanding digital inequality: The interplay between parental socialization and children's development**

Of the three agents mentioned, parents shoulder most of the responsibility for building the foundation of their children's ability to navigate and cope with online risks. However, two of the most salient elements influencing their ability to protect and guide are their own formal education and the child's development by age. The interrelation between these two processes, parental socialisation and development by age, helps us understand the interplay of children's activities in dealing with the internet and their parents' handling of that. **Chapter twenty** discusses this relationship by, first, considering the persistent importance of social inequality for information and communications technology (ICT) use in the industrialised countries. It then elaborates on a theoretical framework by discussing both children and parents' individual agency and how these are interlinked with respect to their societal status. Finally, based on the EU Kids Online dataset, it tests out the theoretical ideas and hypotheses and ask how parental socialisation shapes young people's online competences, and how children's development by age interacts with structural processes and dynamics of socialisation. Children with a lower socio-economic background agree that they know more about the internet than their parents, as these children might acquire internet skills often independently from their parents.

### **Similarities and differences across Europe**

**Chapter twenty one** complements previous chapters with an overview across the countries in the EU Kids Online network, investigating similarities and differences in children's usage of the internet and their encounters of risk. Countries are clustered according to levels and types of usage and risk to determine what is distinctive (or not) about a country, and national contexts are explored to show how contextual factors at country level shape children's patterns of online use, opportunities and risks. The objective is to explain patterns of similarities and, in particular, differences among countries, by examining the national level contextual factors, such as national socio-economic stratification, regulatory framework, technology infrastructure and education system, that explain how and why nations vary systematically. It concludes the differences across countries are comparable to those observed with age and; more

importantly, that children from countries with more press freedom and with higher GDP encounter more risks. This suggests that the high amount of opportunities and ways of access for children are out speeding policy makers' efforts to reduce risks they also come with.

### **Mobile access: Different users, different risks, different consequences?**

One of the fastest growing methods of access for children and teenagers alike is the mobile phone. While mobile phones may be primary sources of online access to some and supplementing access to others, all mobile platforms offer the benefits of being personal, portable and always on and to hand. Increased online access from mobile phones raises two questions: does more access to the internet from mobile phones expose children to more risk and harm, and are there different risks and harm if children use mobile access rather than traditional personal computers? **Chapter twenty two** explores and analyses potential correlations between online access through mobile platforms, and patterns of exposure to risks. It argues that while the introduction of smartphones into the lives of many teenagers does have an influence in the risks they are exposed, as well as providing more opportunities, more detailed research is needed on the subject.

### **Explaining vulnerability to risk and harm**

While up to this point risks have been dealt in terms of the subjects involved, the differences between countries and how children access online platforms, **chapter twenty three** investigates the socio-demographic and psychological factors associated with two types of online risk (bullying and sexual images) and harm, resulting from encountering these online risks. Age, gender, time spent online, sensation-seeking, self-efficacy, psychological difficulties and presence of offline risk were selected as predictors of risk and harm. The results show that all selected variables predict risks of both type, but the strongest predictor of both risks is experience of the same risks offline. Intensity of harm from an encounter with both online risks is associated with gender, the presence of psychological difficulties and an experience of the same type of risk offline. Presence of offline risk decreases intensity of harm. The results show that there is a strong connection between online and offline risks: as the internet comes into more frequent use, online and offline risks tend to coincide. The results support arguments for treating children's online reality not as separate from, but rather as part of, their usual reality.

### **Relating online practices, negative experiences and coping strategies**

**Chapter twenty four** builds on the previous chapter's results, but it focuses on the presence of multiple risks in children's lives, using a complex approach that also takes account of the complex characteristics of the different coping strategies employed to obviate potential harm. Using multivariate analysis the results suggest evidence for the support of both usage and risk migration hypotheses in the case of risk, and for the vulnerability hypothesis in the case of harm.

By analysing coping strategies the chapter suggests that only a small minority of children choose a single coping strategy. Most adopt more than one solution, which means that they mix the theoretically separate types of action in responding to harm. The results show that a sole passive type of coping is very rare among children, thus

confirming the previous findings which indicate that children's responses are generally positive: most children feel empowered to seek social support or act on their own. This chapter concludes the last major section of the book, with the remaining two chapters being a collation of the findings and their relevance to academia, policy makers and other stakeholders.

### **Towards a general model of determinants of risk and safety**

Drawing together the findings reported earlier in the book, **chapter twenty five** looks to develop a general model of the determinants of children's risk and safety on the internet. The findings broadly support the working model outlined in Chapter 1. The chapter also offers a typology of young internet users, revealing the contextual links between internet use, opportunities, risk and harm. Last, it presents a classification of countries to show how the patterning of variables differs in different cultural contexts.

### **Policy implications and recommendations: Now what?**

In **chapter twenty six**, the final chapter of the book, the background to the EU Kids Online project's policy objectives is reviewed and the principal recommendations that emerged from the findings highlighted. The focus is primarily on Europe and policy actions framed at a European level and/or implemented within member states of the European Union. Against a background of intense debate regarding the effectiveness of self-regulatory regimes as mechanisms for online child protection, the chapter examines gaps in policy formulations for internet safety, asking whether current policy is effective and how policymakers can address future challenges in an area that continues to evolve and become more complex.

For more about the EU Kids Online project, see [www.eukidsonline.net](http://www.eukidsonline.net)