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THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

Risks and safety on the internet

The perspective of European children

Initial findings from the EU Kids Online survey of 9-16 year olds and their parents





Sonia Livingstone, Leslie Haddon, Anke Görzig and Kjartan Ólafsson, with members of the EU Kids Online network

www.eukidsonline.net

Risks and safety on the internet: The perspective of European children. Initial findings from the *EU Kids Online* survey of 9-16 year olds and their parents.

This report, published on 21 October 2010, presents the initial findings for *EU Kids Online Deliverable D4: Core Findings* to the European Commission Safer Internet Programme. It has been produced by the project Coordinator: Sonia Livingstone, Leslie Haddon, Anke Görzig and Kjartan Ólafsson, with members of the *EU Kids Online* network (listed in Annex 2 of this report) and as advised by the International Advisory Panel (see Annex 1). Full findings, also incorporating *Deliverable 7.1: Recommendations on Safety Initiatives,* will be published later in autumn 2010. Please cite this report as:

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Previous reports and publications from *EU Kids Online* include:

- de Haan, J., and Livingstone, S. (2009) *Policy and Research Recommendations*. LSE, London: EU Kids Online. http://eprints.lse.ac.uk/24387/
- Hasebrink, U., Livingstone, S., Haddon, L., and Ólafsson, K. (Eds.) (2009) *Comparing children's online opportunities and risks across Europe: Cross-national comparisons for EU Kids Online (2nd edition)*. LSE, London: EU Kids Online. http://eprints.lse.ac.uk/24368/
- Livingstone, S., and Haddon, L. (2009) *EU Kids Online: Final Report*. LSE, London: EU Kids Online. http://eprints.lse.ac.uk/24372/
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EU Kids Online II: Enhancing Knowledge Regarding European Children's Use, Risk and Safety Online

This project has been funded by the EC Safer Internet Programme, http://ec.europa.eu/information_society/ activities/sip/ from 2009-2011 (contract SIP-KEP-321803). Its aim is to enhance knowledge of European children's and parents' experiences and practices regarding risky and safer use of the internet and new online technologies in order to inform the promotion among national and international stakeholders of a safer online environment for children.

Adopting an approach which is child-centred, comparative, critical and contextual, EU Kids Online II has designed and conducted a major quantitative survey of 9-16 year olds experiences of online risk in 25 European countries. The findings will be systematically compared to the perceptions and practices of their parents, and they will be disseminated through a series of reports and presentations during 2010-12.

For more information, and to receive project updates, visit www.eukidsonline.net

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1.1. The EU Kids Online survey

- This report presents the initial findings from **a new and unique survey** designed and conducted according to rigorous standards by the *EU Kids Online* network. It was funded by the EC's Safer Internet Programme in order to strengthen the evidence base for policies regarding online safety.
- **A random stratified sample of 23,420 children** aged 9-16 who use the internet, plus one of their parents, was interviewed during Spring/Summer 2010 in 25 European countries. Findings reported here are based on 23 of these countries.
- **The survey asked about these online risks:** pornography, bullying, receiving sexual messages, contact with people not known face to face, offline meetings with online contacts, potentially harmful user-generated content and personal data misuse.
- In this report, **'children' refers to internet-using children aged 9-16 across Europe**. 'Using the internet' means any devices by which children go online and any places where they go online.

1.2. Key findings

- **12% of European 9-16 year olds say that they have been bothered or upset by something on the internet.** This includes 9% of 9-10 year olds. However, most children do not report being bothered or upset by going online.
- Looking across the range of risks included in the survey (as detailed below), **a minority of European 9-16 year olds – 39% overall – have encountered one or more of these risks.** Most risks are encountered by less than a quarter of children – as reported under specific findings below.
- The **most common risks** reported by children online are communicating with new people not met face-to-face and seeing potentially harmful user-generated content. It is **much rarer** for children to meet a new online contact offline or be bullied online.
- **Significantly, risk does not often result in harm, as reported by children.** Being bullied online by receiving nasty or hurtful messages is the least common risk but is most likely to upset children.
- **Sexual risks** – seeing sexual images and receiving sexual messages online – are more encountered but they are experienced as harmful by few of the children who are exposed to them.
- **1 in 12 children have met an online contact offline; this risk rarely has a harmful experience.**
- **Comparing across countries, encounters with one or more online risks include up to two thirds of children in Estonia, Lithuania, the Czech Republic and Sweden.** Lower incidence of risk is found in Turkey, Portugal and Italy. However, children are more likely to say they have been bothered or upset by something on the internet in Denmark (26%), Estonia (25%), Romania and Sweden (both 21%); they are less likely to say this in Italy (6%), Portugal (7%) and Germany (8%).
- The more children in a country use the internet daily, the more those children have encountered one or more risks. However, **more use also brings more opportunities and, no doubt, more benefits.** The greatest range of activities online is also claimed by children in Estonia, Lithuania, the Czech Republic and Sweden, while the least are undertaken in Turkey and Ireland. In other words, internet use brings both risks and opportunities, and the line between them is not easy to draw.
- Since most children do not report encountering any of the risks asked about, with even fewer having been bothered or upset by their online experiences, future **safety policy should target resources and guidance where they are particularly needed – especially for younger children who go online.**
- **Among those children who have experienced one of these risks, parents often don't realise this:** 41% of parents whose child has seen sexual images online say that their child has not seen this; 56% of parents whose child has received nasty or hurtful messages online say that their child has not; 52% of parents whose child has received sexual messages say that their child has not; 61% of parents whose child has met offline with an online contact say that their child has not. Although the incidence of these risks affects a minority of children in each case, the level of parental underestimation is more substantial.

1.3. Specific findings on risk and harm

Children who use the internet were asked if they had encountered a range of online risks and, then, if they had been bothered by this, where 'bothered' was defined as something that *"made you feel uncomfortable, upset, or feel that you shouldn't have seen it."* Findings vary by child (e.g. age, gender), country and risk type, so generalisations should be treated with caution.

- **29% of European children aged 9-16 who use the internet have communicated in the past with someone they have not met face-to-face before, an activity which may be risky but may be fun.**
- **8% of children have met an online contact offline in the past year. 1% of all children (or one in seven of those who went to a meeting) have been bothered by such a meeting.** Although 9-10 year olds are the least likely to have met an online contact offline, they are most likely to have been bothered by what happened (41% of those who had been to such a meeting).
- **22% of 11-16 year olds have been exposed to one or more types of potentially harmful user-generated content: hate (12%), pro-anorexia (11%), self-harm (8%), drug-taking (7%), suicide (5%).**
- **14% of 9-16 year olds have in the past 12 months seen images online that are *"obviously sexual – for example, showing people naked or people having sex."*** Of those who have seen sexual or pornographic images online, one in three were bothered by the experience and, of those, half (i.e. one sixth of those exposed to sexual images or around 2% of all children) were either fairly or very upset by what they saw.
- **Looking across all media, 23% of children have seen sexual or pornographic content in the past 12 months – with the internet now as common a source of pornography as TV, film and video.**
- Older teenagers are four times more likely than the youngest children to have seen pornography online or offline and the sexual images they have seen online are more explicit. But, y**ounger children are more bothered or upset by sexual images online than are teenagers.**
- **53% of those who had been bothered by seeing sexual images online told someone about this the last time it happened** – 36% told a friend, 18% told a parent. However, 24% simply stopped using the internet for a while and few changed their filter or contact settings.
- **15% of 11-16 year olds have received peer to peer *"sexual messages or images …[meaning] talk about having sex or images of people naked or having sex,"* and 3% say they have sent or posted such messages.** Of those who have received such messages, nearly one quarter were been bothered by this. Further, of those who have been bothered, nearly half were fairly or very upset. So, overall, one eighth of those who received such messages, or nearly 3% of all children, have been fairly or very upset by sexual messaging.
- **Among those who had been bothered by 'sexting', about a third deleted the unwanted sexual messages (38%) and/or blocked the person who sent (36%).** In most cases, the child said that this action helped the situation. Such constructive coping responses could be encouraged among more children.
- **9% of 11-16 year olds have had their personal data misused – abuse of the child's password (7%) or their personal information (5%), or they have been cheated of their money online (2%).**
- **In relation to online bullying, 5% of 9-16 year olds have been sent nasty or hurtful messages online, and 3% have sent such messages to others.** Two thirds of those who received bullying messages were fairly or very upset.
- Since 19% have been bullied either online and/or offline, and 11% have bullied someone else in the past year, it seems **more bullying occurs offline than online.**
- Most children who had received nasty or hurtful messages online called on social support: only one fifth had not told anyone. Nearly half also used online strategies – deleting hurtful messages or blocking the bully; this last was seen by children as effective.
- **All risks increase with age**: 13% of 9-10 year olds have encountered one or more of these risks, rising to 32% of 11-12 year olds, 49% of 13-14 year olds and 61% of 15-16 year olds.
- Boys, especially teenagers, are more exposed to sexual images online, while teenage girls are slightly more likely to receive nasty or hurtful messages online. However, **girls are generally more likely to be upset by the risks they experience.**

1.4. The wider context of children's internet use

- **Children do a range of diverse and potentially beneficial things online:** 9-16 year olds use the internet for school work (84%), playing games (74%), watching video clips (83%) and instant messaging (61%). Fewer post images (38%) or messages (31%) for others to share, use a webcam (29%), file-sharing sites (17%) or blog (10%).
- The most common location of internet use is at home (85%), followed by school (63%). But **internet access is diversifying** – 48% use it in their bedroom and 31% via a mobile phone or handheld device. Access via a handheld device exceeds one in five in Sweden, UK and Ireland.
- **Children are going online at ever younger ages** - the average age of first internet use is seven in Sweden and eight in several other Northern countries. Across all countries, one third of 9-10 year olds who use the internet go online daily, this rising to 77% of 15-16 year olds.
- **Use is now thoroughly embedded in children's daily lives:** 92% of 9-16 year old users go online at least weekly (57% go online everyday or almost every day).
- **30% of 11-16 year olds reports one or more experiences linked to excessive internet use 'fairly' or 'very often'** (e.g. neglecting friends, schoolwork or sleep), rising to 49% in Portugal and 50% in Estonia.
- It is likely that **more use facilitates digital literacy and safety skill**s. One third of 9-16 year olds (37%) say that the statement, "I know more about the internet than my parents," is 'very true' of them, one third (31%) say it is 'a bit true' and one third (32%) say it is 'not true' of them.
- **Younger children tend to lack skills and confidence.** However, most 11-16 year olds can block messages from those they do not wish to contact (60%) or find safety advice online (58%). Around half can change privacy settings on a social networking profile (52%) compare websites to judge their quality (51%) or block spam (47%).
- **57% of 9-16 year olds have a social networking profile** – including 24% aged 9-10, 48% aged 11-12, 72% aged 13-14 and 81% aged 15-16. Social networking is most popular in the Netherlands (78%), Slovenia (76%) and Lithuania (75%), and least in Romania and Turkey (each 47%).
- **Among social network users, 29% have public profiles** – more in France (53%), Sweden (45%), Turkey (45%) and Poland (44%); 29% have more than 100 contacts, though many have fewer.

1.5. Note on methodology

- **Countries included in *EU Kids Online* are**: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Spain, Sweden, Turkey and the UK. Unless countries are specified, findings are weighted averages across all countries.
- It is acknowledged that it is particularly difficult to measure private or upsetting aspects of a child's experience. The survey was conducted in children's homes, as a face to face interview. It included a self-completion section for sensitive questions to avoid being heard by parents, other family members or the interviewer. For **full details of the project methodology**, materials, technical fieldwork report and research ethics, see www.eukidsonline.net.
- This report is **the work of the *EU Kids Online* network,** coordinated by the LSE, with research teams and stakeholder advisors in each of the 25 countries and an international advisory panel.
- **A full version of this report**, due in November 2010, will include all 25 countries, new findings on parental mediation and policy recommendations. Join the mailing list to be notified of its publication.

2. INTRODUCTION

2.1. Context

The rapidity with which children and young people are gaining access to online, convergent, mobile and networked media is unprecedented in the history of technological innovation. Parents, teachers and children are acquiring, learning how to use, and finding a purpose for the internet within their daily lives. Stakeholders – governments, schools, industry, child welfare organisations and families – seek to maximise online opportunities while minimising the risk of harm associated with internet use.

Diverse and ambitious efforts are underway in many countries to promote digital technologies in schools, e-governance initiatives, digital participation and digital literacy. As many families are discovering, the benefits are considerable. New opportunities for learning, participation, creativity and communication are being explored by children, parents, schools, public and private sector organisations.

Previous *EU Kids Online* research identified a complex array of online opportunities and risks associated with children's internet use.[1] Interestingly, the risks of concern to children often are not those that lead to adult anxiety.[2] Also, it appears that the more children go online to gain the benefits, the more they may encounter risks, accidentally or deliberately.[3]

Risks may arise when children are sophisticated, confident or experimental internet users, as observed in 'high use, high risk' countries or when, as in 'new use, new risk' countries, children gain internet access in advance of an infrastructure of awareness-raising, parental understanding, regulation and safety protection. So, although the popular fear that the internet endangers all children has not been supported by evidence, there are grounds for concern and intervention.

Further, despite the popular rhetoric of 'digital natives', many children still lack resources to use the internet sufficiently to explore its opportunities or develop vital digital literacy skills.[4] Thus it is important to encourage and facilitate children's confident and flexible internet use. A difficult balancing act faces stakeholders: promoting online opportunities without careful attention to safety may also promote online risk; but measures to reduce risk may have the unintended consequence of reducing opportunities.[5]

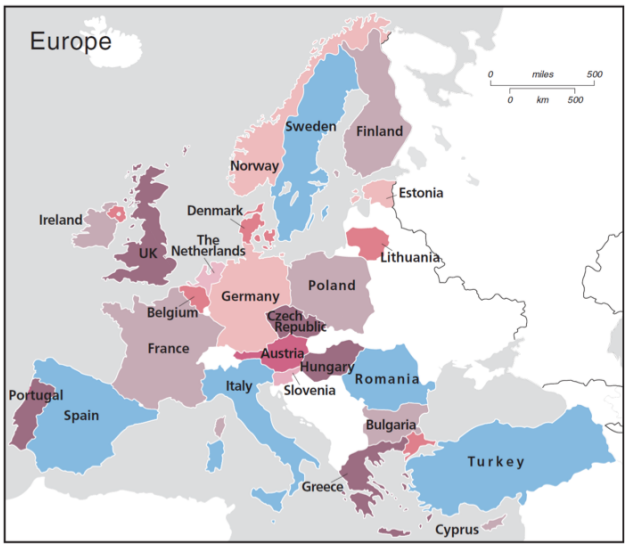
2.2. This report

This report presents the initial findings for *EU Kids Online Deliverable D4: Core Findings*, based on a new and unique project designed and conducted by the *EU Kids Online* network and funded by the EC's Safer Internet Programme.[6]

The *EU Kids Online* project aims to enhance knowledge of European children's and parents' experiences and practices regarding risky and safer use of the internet and new online technologies, and thereby to inform the promotion of a safer online environment for children.

It has generated a substantial body of new data – rigorously collected and cross-nationally-comparable – on European children's access, use, opportunities, risks and safety practices regarding the internet and online technologies. Significantly, findings come from interviews conducted directly with children across Europe (Figure 1).

Figure 1: Countries surveyed by *EU Kids Online*



This is the first of several reports to be produced by the network during 2010-11. It has been produced in time for stakeholder discussion at the 2010 Safer Internet Forum.

At the time of writing, fieldwork was incomplete in some countries. Country comparisons for Norway and Cyprus are therefore omitted from this initial version of the report. A full version of this report, to be published in November 2010, will include all children interviewed in all 25 countries, as well as additional findings on parental mediation, and the *EU Kids Online* Deliverable 7.1: Recommendations on Safety Initiatives.

Subsequent reports will explore the complex relations among the variables to identify groupings of children and of countries, test hypotheses, and explore particular areas of interest and policy relevance, including the nature of children's resourcefulness and vulnerability and the benefits of parental mediation and other safety practices.

2.3. The policy agenda

In recent years, the policy agenda concerned with both online opportunities (focused on access to education, communication, information and participation) and with the risks of harm posed to children by internet use has gained momentum in many countries.

In relation to risks, the main focus of this report, the agenda remains highly contested. This is partly because the evidence-base that informs it is patchy, in some countries more than others. It is also because the benefits of particular policy actions, whether focused on state intervention, industry self-regulation, educational initiatives or parent (and child) safety awareness, are as yet unproven. Last, it is contested because children's safety give rise to considerable public anxiety, even moral panic over childhood freedom and innocence, all compounded by an uncertainty, perhaps fear, of the power of new and complex technologies.

The *EU Kids Online* project seeks to explore children's online experiences, informed by research considerations (theoretical and methodological) and by the policy agenda of the EC Safer Internet Programme. One challenge of an evidence-based policy designed to reduce harm is to understand how children's online activities intersect with their wider online and offline environment so as to understand which factors increase or decrease the risk of harm.

Note that there is complex relation between evidence and policy. Research may identify the factors that reduce risks, but policy may decide it is better to tolerate some risks than to implement a strategy to reduce them. This may because the costs are too high for the child (e.g. their freedoms are overly restricted), to the state (e.g. too heavy a burden of implementation and compliance) or to the industry (e.g. too much regulation). Research findings, therefore, inform but do not determine policy directions.

To clarify the approach taken in this report, consider a familiar everyday parallel. In their daily lives, children engage in many activities – learning, playing, cycling, socialising, fighting, being naughty, and more. Much of this is beneficial but not all. Determining which activities are beneficial and which carry a risk of harm is not easy. It may also that an activity is neither beneficial nor harmful, or that the same activity is beneficial under some circumstances and harmful under others. Much depends on the child (their knowledge, skills, circumstances, vulnerabilities, etc) and on their environment (its features, design, sources of support, etc). Much also depends on how benefits and harms are conceived and evaluated, this depending in turn on shifting social norms and cultural values.[7]

Among those children who ride a bicycle, a small percentage will have an accident. The risk of harm is calculable, a function of the likelihood of an accident and its severity. Protective factors reduce the risk (either reducing the likelihood or severity of an accident); these may be environmental factors (e.g. provision of cycle paths, careful drivers, a park nearby) or individual factors (the child has received road safety training, or has good coordination). Risk factors increase the likelihood of harm and/or its severity; these too may be environmental factors (ill-regulated roads, careless drivers, long distances to travel) or individual factors (lack of road sense or insufficient parental supervision).[8]

In policy terms, there are multiple points of intervention, and typically many are pursued simultaneously. Still, a balance must be sought in enabling children to cycle and reducing the risk of harm. Simply banning cycling may seem the simplest solution, but it has two costs: first, cycling is a valued opportunity for children, and second, by taking some degree of risk, children learn to become more street-savvy, confident and resilient.[9]

Much of this analysis applies equally in the online realm. Importantly, in surveying children's online activities, we

begin by making no inherent judgement about what is 'good' or 'bad' for children. The evidence needed for policy must distinguish the ways in which children (themselves a diverse group) interact with the online environment (also diverse) in an effort to trace any beneficial and/or harmful consequences for children.

Consider now the child who goes to an offline meeting with someone they first met online. As with cycling, this activity carries a risk of harm. But that risk may be small, and the same activity also may bring benefits in terms of new friends and interests. For young children, it may be appropriate to curtail the activity itself to prevent such meetings (e.g. by parental restriction, or by excluding them from sites where new contacts are made or personal information exchanged). Even though there is an opportunity cost to such restrictions, it may be judged that young children lack the protective factors needed to keep them relatively safe (e.g. social judgements, self-protective skills).

For older children, it may be judged that provided protective factors are put in place to minimise the likelihood of harm (e.g. establishing usable privacy settings online, advising teenagers about safety precautions when meeting people offline), children may be free to explore and experiment. Still, in a small minority of cases, such meetings will result in harm, and the severity of this will range from mildly upsetting to criminal abuse. Societal responses to children's activities, online or offline, must clearly take into account a complex array of factors.

In its earlier work, *EU Kids Online* classified the risks of harm to children from their online activities in terms of content risks (in which the child is positioned as recipient), contact risks (in which the child in some way participates, if unwillingly) and conduct risks (where the child is an actor) (see Table 1).[10]

Table 1: Risks relating to children's internet use (*exemplars only*)

	Content Receiving mass-produced content	***Contact*** Participating in (adult-initiated) online activity	***Conduct*** Perpetrator or victim in peer-to-peer exchange
Aggressive	**Violent / gory content**	**Harassment, stalking**	**Bullying, hostile peer activity**
Sexual	**Pornographic content**	**'Grooming', sexual abuse or exploitation**	**Sexual harassment, 'sexting'**
Values	**Racist / hateful content**	Ideological persuasion	**Potentially harmful user-generated content**
Commercial	Embedded marketing	**Personal data misuse**	Gambling, copyright infringement

Each of these has been discussed, to a greater or lesser degree, in policy circles, and some have been the focus of considerable multi-stakeholder initiatives. Nonetheless, the nature of the harm at stake is not always clear. In other words, although society tends to be anxious about children's exposure to pornography or racism or the circulation of sexual messages, the nature of the harm that may result and which, presumably, motivates the anxiety, nonetheless often goes ill-defined.

Measuring the incidence, distribution, severity and consequence of any harm to children resulting from these and other risks has proved a significant challenge. Until now, no research has examined online risks in a methodologically rigorous, cross-nationally comparative, ethically sensitive manner, especially by conducting research directly with children. This, then, has been our task, in order to inform an evidence-based, proportionate policy framework in relation to children and the internet.

2.4. Framing the project

The *EU Kids Online* project contextualises both the opportunities and risks to children associated with internet use in terms of the intersection of three wider spheres – European society and policy, childhood and family life, and continued technological change (Figure 2). Not all of these can be pursued here, but they should be borne in mind as vital ways of framing the findings on opportunity and, especially, risk presented in what follows.

Figure 2: Focus of the *EU Kids Online* project

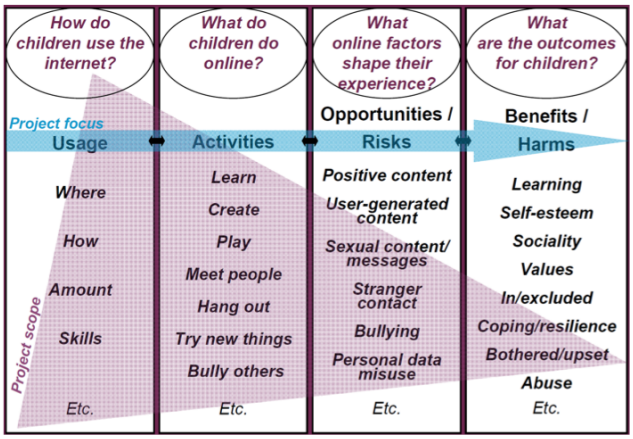
As shown in the model sketched in Figure 3, we propose a path that traces how children's internet use and activities, being shaped by online and online factors, may have harmful as well as beneficial outcomes for children.

We begin by examining the range of ways in which children use the internet, recognising that this varies by the location and device for going online, the amount of use and the digital skills a child has at his or her disposal. Children's use is hypothesised to depend on the socioeconomic status (SES) of their household as well as on their age, gender and, of course, country.

Second, we recognise that once online, children do many things which, crucially, cannot in and of themselves be described as 'beneficial' or 'harmful', for such judgements depend on the outcome of the activity rather than the activity itself. To be sure, some activities are likely to prove beneficial (e.g. school work) and others seem more negative (e.g. bullying others). Many, however, are indeterminate (e.g. downloading music, making new friends online). Some activities are motivated by a desire to take risks, for in this way young people explore the boundaries of their social world, learning through transgressing as well as adhering to social norms and so building resilience.

In the *EU Kids Online* survey, following the questions on internet use, children were asked about their online activities, thereby acknowledging their agency in choosing how to act online and how to embed the internet in their daily lives.[11] These activities may vary by demographic and country variables, as examined in this report.[12]

Figure 3: Possible consequences of online activities



Third, it is recognised that when children go online, they do so in a particular environment (see opportunity and risk factors in Figure 3). They engage with certain services. The online interfaces they visit have their own character. Some contents are more available or easier to access than others. Crucially too, many other people are already online. All these 'environmental factors' interact with the child's activities in shaping their online experiences:

- Some factors may enhance the benefits of going online: they may be labelled 'opportunities', for example the provision of own-language creative or playful content, or a lively community of people who share one's hobby.
- Some factors may enhance the likelihood of harm from going online: thus they may be labelled 'risks', for example the ready availability of explicit pornography or the activities of people who are aggressive, racist or manipulative.
- Some factors are ambiguous: for example, music downloading sites or video hosting sites may be fun, creative, empowering; but they may break copyright, or exploit intimacy or facilitate hostile interactions.

In the parallel domain of cycling, opportunities include having a cycle path or green space nearby one's home. Examples of risk factors would include a busy road or bad drivers in the neighbourhood, or even a peer culture that ridicules wearing cycle helmets. All these are hypothesised the increase the risk of an accident (i.e. the probability of harm). Focusing on the online domain, the survey then asked children about aspects of the online experience that may increase the risk of harm. These included exposure to pornography, the prevalence of sexual messaging and bullying, the circumstances of making new contacts online, especially if these result in meetings offline.

As the final column in Figure 3 shows, the *EU Kids Online project* examines the outcomes of internet use for children. This is the most challenging part of the project.

As shown by the shaded funnel in the figure, the scope of *EU Kids Online* project encompasses just part of this larger picture. Specifically, it traces the path from children's use and activities (experienced by most European children), through their encounters with specific factors that are hypothesised to increase the probability of harm (these are likely to be experienced by a smaller proportion of children). Finally, the project examines the outcomes for children in terms of subjective harm or, more positively, coping by children encountering these risk factors (hypothesised to encompass an even smaller proportion of children).

The relation between third and fourth columns in Figure 3 is complex. For some risks, the harm seems all but inevitable – bullying, for example, may be a factor in a child's life that, if it occurs, seems very likely to result in some degree of harm. Exposure to pornography, however, is considered harmful by some but, for many others, whether or not harm results is seen to depend on the circumstances.

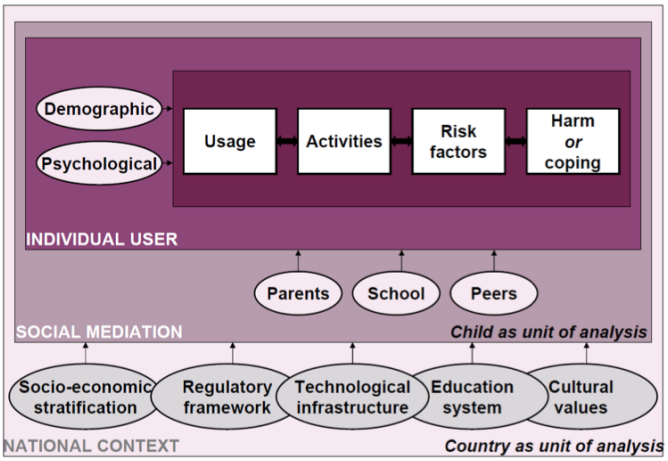
To the extent that there is a gap between experiences of risk and experiences of harm, different explanations of the two may apply. For example, lonely children may be more likely to be bullied and more likely to be adversely affected if bullied. However, boys may be more likely to be exposed to pornography (i.e. a higher risk) but girls may be more likely to be upset by such exposure (i.e. greater harm).[13] The *EU Kids Online* project explores some of these contingencies.

2.5. Project design

Within the wider context just outlined, the present report is organised according to a hypothesised sequence of factors relating to internet use that may shape children's experiences of harm. Figure 4 traces the core of our analysis from an account of children's internet use (amount, device and location of use) through their online activities (opportunities taken up, skills developed and risky practices engaged in) to the risks encountered.

The factors hypothesised to increase risk of harm include encountering pornography, bullying/being bullied, sending/receiving sexual messages (or 'sexting'[14]) and going to offline meetings with people first met online. Also included, more briefly, are risks associated with negative user-generated content and personal data misuse. Last, we ask how children respond to and/or cope with these experiences, recognising that to the extent that they do not cope, the outcome may be harmful.

Figure 4: Relating online use, activities and risk factors to harm to children



As shown in Figure 4, many external factors may also influence children's experiences. Three levels of influence may differentiate among children, shaping the path from internet use to possible harm:

- Demographic factors such as the child's age, gender, socio-economic status (SES), and psychological factors such as emotional problems, self-efficacy, risk-taking.[15]
- Social factors that mediate children's online and offline experiences, especially the activities of parents, teachers and friends.

- National context – a range of economic, social and cultural factors are expected to shape the online experience as shown in the model; examining the role of these remains for a later report.

2.6. Methodology

A total of 23420 children who use the internet were interviewed, as was one of their parents, during Spring/Summer 2010, across 25 European countries.

Full details of the project's methods are provided in the accompanying Annexes (online at www.eukidsonline.net). Key features include:

- Two rounds of cognitive testing, in addition to piloting, to check thoroughly children's understandings of and reactions to the questions.
- Random stratified survey sampling of 1.000 children (9-16 years old) per country who use the internet.
- Survey administration at home, face to face, with a self-completion section for sensitive questions.
- A detailed survey that questions children themselves, to gain a direct account of their online experiences.
- Equivalent questions asked of each type of risk to compare across risks.
- Matched questions to compare online with offline risks, to put online risks in proportion.
- Matched comparison questions to the parent most involved in the child's internet use.
- Measures of mediating factors – psychological vulnerability, social support and safety practices.
- Follow up questions pursue how children respond to or cope with online risk.
- The inclusion of the experiences of young children aged 9-10, who are often excluded from surveys.

The design is comparative in several ways. It compares:

- Children's experiences of the internet across locations and devices.
- Similarities and differences by children's age, gender and SES.
- A range of risks experienced by children online.
- Children's perception of the subjective harm associated with these risks.
- Children's roles as 'victim' and 'perpetrator' of risks.
- Accounts of risks and safety practices reported by children and their parents.
- Data across countries for analysis of national similarities and differences.

The resulting findings from 25 participating countries (Figure 1) thus contribute to the evidence base that underpins policy initiatives by the European Commission's Safer Internet Programme and by national and international organisations.

Note that findings reported for children across all countries are calculated as the average across the particular 25 countries included in this project. In other words, the 'Europe' of this report is distinct from though overlapping with the European Union.

Note too that, for this version of this report, fieldwork was not quite completed in four countries. In Slovenia and Sweden, fieldwork is ongoing, but sufficient data has been collected to include in this report (see Annex 3). In Norway and Cyprus, too few interviews have been conducted to include these countries in cross-country comparisons. Consequently, this report includes all data as shown in Annex 3, but no country-specific information for Norway and Cyprus. The addition of completed Cypriot and Norwegian data will not substantially affect the overall findings reported here. Final weightings for within and across country findings are also still to be finalised.

2.7. The population

The population interviewed in the *EU Kids Online* survey is children aged 9-16 who use the internet at all.

Note that, in countries where nearly all children use the internet, internet-using children are almost the same as the population of children aged 9-16 years in those countries. But in countries where some children still do not have access, or for whatever reason do not use the internet, internet-using-children (the population sampled for this project) is not the same as all children.

In Annex 3, we estimate the proportion of internet-using children out of all children in each country. It is particularly important to keep this in mind when interpreting cross-country differences.

Additionally, to pinpoint the support children can call on at home, the *EU Kids Online* survey interviewed the parent 'most involved in the child's internet use', while also recording the existence of other adults in the household.

Throughout this report, the term 'parent' refers to the parent or carer most involved in the child's internet use. This was more often mothers/female carers (some three in four) than fathers (in one quarter of cases).

Demographic variables: in the present report, we have compared children by age and gender throughout. We have also compared them according to the socioeconomic status (SES) of their household. Socio-economic status was assessed by combining two measures – the level of education and the type of occupation of the main wage earner in the household. Educational systems vary across countries, so national measures were standardised using the International Standard Classification of Education (ISCED).[16]

2.8. Research agency

Following a public procurement procedure conducted in accordance with EC guidelines, Ipsos MORI was commissioned to work with *EU Kids Online* (coordinated by LSE) to provide support with questionnaire design and testing, and to conduct the fieldwork and produce the data sets. Ipsos MORI, in turn, contracted with fieldwork agencies in each of the 25 countries, in order to ensure a standard approach across Europe.

In each of 25 European countries, around 1,000 children aged 9-16 who use the internet were interviewed, as was one of their parents. Households were selected using random sampling methods and interviews were carried out face to face in homes using CAPI (Computer Administered Personal Interviewing) or PAPI (Paper Administered Personal Interviewing).

The methodology adopted was approved by the *LSE Research Ethics Committee* and appropriate protocols were put in place to ensure that the rights and wellbeing of children and families were protected during the research process. At the end of the interview, children and families were provided with a leaflet providing tips on internet safety and details of relevant help lines.

2.9. Research limitations

Every effort has been made in designing, administering and analysing the survey to provide the best account possible of children's internet use in Europe. Inevitably, however, the project has limitations, and these should be borne in mind when interpreting and using the results.

- Limits on sampling – despite repeated return visits to sampled households and every effort made to encourage participation, it must be acknowledged that the recruitment process may not have reached the most vulnerable or marginalised children.
- Questionnaire limits – the questionnaire was designed to take, on average, 30 minutes for children to complete (and 10 minutes for parents), although in practice, it took rather longer than this (just under one hour for the child and parent interviews combined). It is difficult to hold children's attention for longer than this, and so difficult decisions had to be taken about which questions to include or exclude.
- In over half the countries, the self-completion section of the questionnaire was completed by pen and paper – this limited the degree of routing (i.e. the degree to which questions could follow up on children's answers). Last, for ethical reasons (as confirmed by cognitive testing and pilot interviews), intimate, embarrassing or certain explicit questions could not be asked.
- Survey context – every effort was made to encourage honest answers, promise anonymity and privacy (including reassuring children that the parents would not see their answers). However, any survey takes place within some social context. Here, the fact that was conducted in homes with parents in the vicinity may have influenced the answers of some children, meaning they gave more 'socially desirable' answers. As detailed in the online Technical Report, in two thirds of cases, interviewers reported that parents were wholly uninvolved in the child's interview; in a fifth of cases they were 'not very much' involved, and in one in seven cases they were more involved.
- Findings – the present report includes top line findings by standard demographic variables and by country. Recognising that many more complex relations among variables, and more subtle categorisations of children and of countries are important in interpreting the findings, these will be pursued in future reports.
- Confidence intervals – It should be kept in mind throughout that all findings in the report have a margin of error. For analysis on the European level for all children this margin is very small but becomes significantly larger for smaller subsets of the data. This is further outlined in Annex 3.
- National data – the figures for countries combine different regions and urban and rural settings – in some countries the national averages might mask quite diverse patterns within the country.

Note: throughout this report we illustrate the text with direct quotations from children in the EU Kids Online survey. Children were asked to write down, "What things on the internet would bother people about your age?

3. USAGE

What do 9-16 year olds children in Europe say about how they use the internet? The face-to-face interview with children included a range of questions about 'using the internet'. As was emphasised throughout the interview, 'using the internet' refers to any and all devices by which children go online, and it includes any and all places in which the child goes online.

Levels and patterns of usage are important in understanding risks as well as opportunities because they shape the context within which children are exposed to risk factors and for which policy needs to ensure appropriate safeguards are in place. Importantly, levels and methods of access are increasing and diversifying, so that safety policy in turn needs to broaden and diversify to keep up with trends in this fast changing arena.

Of particular note, policy will need to respond to new empowerment and protection needs arising from children starting to use the internet at an increasingly young age, as well as from the increasing proportion of children using the internet independent of adult supervision, especially through mobile technology.

3.1. Where children use the internet

Each location of use implies particular social conventions of freedom, privacy, sociality and surveillance. Until recently, the internet was accessed via a desktop computer, and parents were advised in safety campaigns to locate this in a public room and/or to install filtering or monitoring software.

With the spread of mobile and personalised devices, the ways in which children go online are diversifying, and in their bedroom, or when 'out and about', children may escape supervision entirely, using the internet privately. Further, while schools are generally highly supervised locations of use, cybercafés are popular in some countries and here children may enjoy unsupervised access.

In the survey, children were asked in which locations they use the internet, recognising it is possible that more private locations are associated with more experience of online risks. Further, in relation to safety, the location of use suggests which adults, if any, could mediate children's experiences, whether encouraging them to take up opportunities or helping them to minimise risks.

Of the children surveyed (i.e. out of all children who use the internet at all), 85% use it at home.

Table 2 shows the percentage of children who say that they use the internet at the locations asked about, bearing in mind that they may use it in more than one location.

- **Overall, 85% of children use the internet at home. Most (60%) use it in the living room (or other public room) at home.**
- **Half (48%) can use it in their bedroom (or another private room) at home.**
- Two implications stand out. First, in addition to addressing children themselves, raising safety awareness among parents may be the best way of reaching the largest proportion of children. Second, many children are now using the internet in a location where it is difficult for parents to share or monitor.
- **The second most common location is use of the internet at school or college (63%).**
- This makes the school an important site for internet guidance and advice from teachers. But it is noteworthy that, although most schools in Europe now have internet access somewhere on the premises,[17] over a third of 9-16 year olds does not use the internet at school and so may not be reached by such a policy.
- Home and school account for a large proportion of children's reported average of three locations for going online. Other common locations include use of the internet at a friend's house, reported by half of the sample (51%), and at a relative's house (41%).
- Less common is the use of the internet in public places, with 14% using it in an internet café, 12% in a public library or other public place, and 8% using it generally when 'out and about'.

Table 2: Where children use the internet

% children who say they use the internet at the following locations	
At school or college	63
Living room (or other public room) at home	60
At a friend's home	51
Own bedroom (or other private room) at home	48
At a relative's home	41
In an internet café	14
In a public library or other public place	12
When 'out and about'	8
Average number of locations of use	3

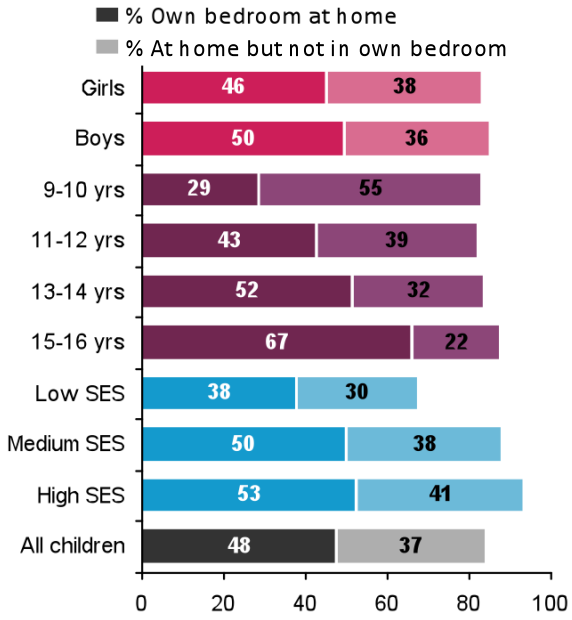
QC301a-h: Looking at this card, please tell me where you use the internet these days.[18] *(Multiple responses allowed)*

Base: All children who use the internet.

Given that the most common location of internet use is at home, this deserves closer attention. Figure 5 shows the contrast between use at home in private spaces (own bedroom) and use only in public rooms (although it should be noted that use in a bedroom may itself mean use in a room shared with other siblings). The findings for use in public rooms includes only children who do not use the internet in their bedroom (i.e. they do not access it in a private space at home). However, it is possible, even likely, that those who use the internet in their bedroom may also use it elsewhere at home – thus the finding for 'own bedroom' identifies all those who can use the internet in a private space.

- **For many European children, the internet has become a private phenomenon, or at least private from parents (though greatly shared with peers): more use it at home in their bedroom (48%) than elsewhere only in the home (37%).** Advice on parental supervision of children's internet use (e.g. to put the computer in a public space) needs updating to take this into account.
- **Private use in the child's bedroom is strongly differentiated by age – for younger children, use is generally in a public room, for teenagers it more occurs often in private.**
- The differences in access/use by SES are also striking – both the overall difference in access at home (only 68% of children from low homes use the internet at home) compared with 94% of those from high SES homes) and the difference in private/personal access (38% vs. 53%).
- Gender differences in access are minor, though there is a slight tendency for boys to have better access.
- This suggests a rather different quality to the online experience of children from different households. Having private access may offer a range of benefits – e.g. freedom to explore, privacy, flexibility in use. Insofar as these benefits are socially stratified, such differences are pertinent to policies regarding Europe's continuing digital divide and the Digital Agenda.[19]

Figure 5: Children's use of internet at home

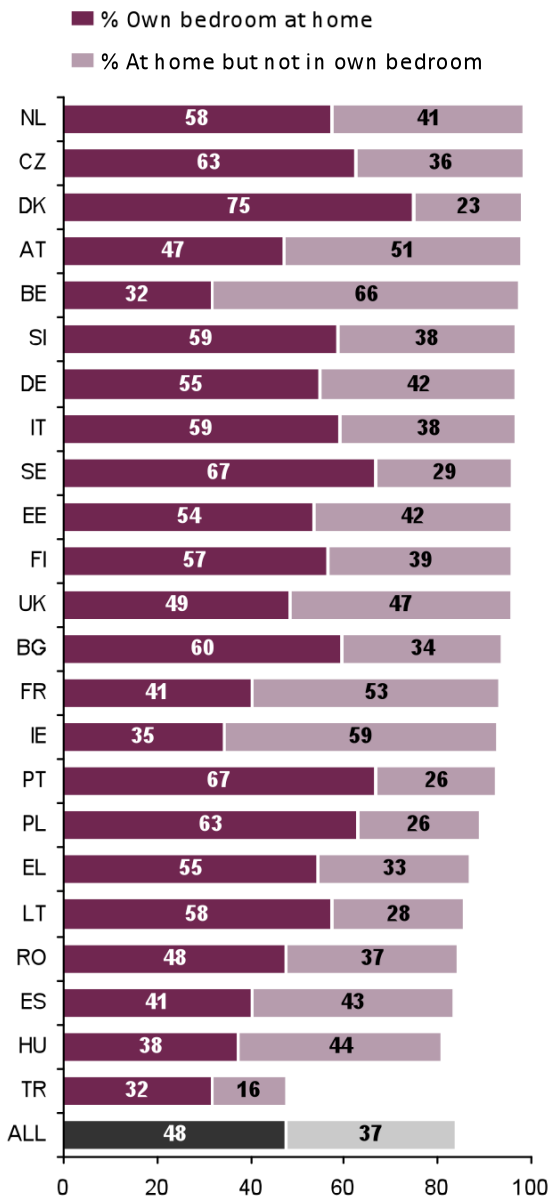


QC301a, b: Looking at this card, please tell me where you use the internet these days.

Base: All children who use the internet.

However, European countries vary, and children's use of the internet at home varies considerably by country (Figure 6 – see Appendix 3 for the country initials).

Figure 6: Children's use of the internet at home, by country



QC301a, b: Looking at this card, please tell me where you use the internet these days.

Base: All children who use the internet.

- Noting, first, the overall length of the bars, nearly all internet-using children in Europe use the internet at home. **Use at home is far lower in Turkey (48%) and, to a lesser degree, also lower in Hungary (82%), Spain (84%) and Romania (85%).**
- Using the internet in the child's bedroom shows a different pattern, being lower in Turkey (32%), Belgium (32%) Ireland (35%) and Hungary (38%), and higher in Denmark (75%), Portugal and Sweden (67%), and Poland (65%).
- It may be, that in some cases, (e.g. Denmark, Sweden), the household has multiple points of access, including in the child's own room, but that in others, the only access point has been given to the child (e.g. Poland, Portugal).

The above findings show that most teenagers use the internet at home but in the privacy of their own bedroom as opposed to in a public area of their home. Thus the challenge for parents of teenagers is different from that of parents of younger children.

Since school is the second most common location at which children use the internet, teachers have an important role to play when it comes to educating children about the safe and responsible use of the internet. Only schools have the capability to educate all children on this issue, and their resourcing should support this crucial role.

3.2. How children access the internet

Since personal and mobile devices permit children to go online flexibly, there is increasing overlap between where and with what devices children connect to the internet. Further, children do not always grasp the technical distinctions among devices that are relevant to policy makers or technology providers.

The *EU Kids Online* survey asked children which device they use to go online, permitting multiple responses (Table 3).

- **Most (55%) children still access the internet via a shared personal computer (PC), though access via their own PC is next most common (34%).**
- **Nearly one third (31%) go online through their television set, around a quarter do so via a mobile phone (28%), and another quarter access the internet via games console (24%).** Given that computer access has long predominated, these other options have clearly been taken up in recent years
- **About a quarter go online using a personal laptop (23%) or a shared laptop (23%)**, reflecting the growth in the use of laptops in general and, clearly, the greater access that children now have to them.

- **10% go online using a handheld or portable device such as an iPod Touch, iPhone or Blackberry).**

Table 3: Devices through which children access the internet

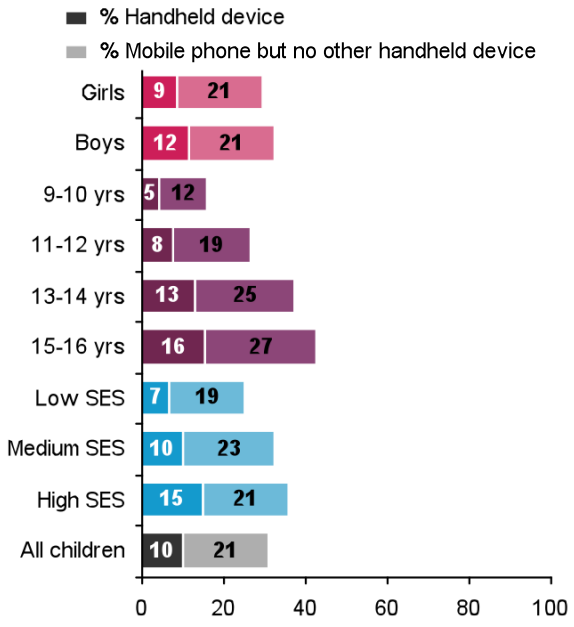
% children who use the internet	
Shared PC	55
Own PC	34
Television set	31
Mobile phone	28
Games console	24
Own laptop	23
Shared laptop	23
Other handheld or portable device (e.g. iPod Touch, iPhone or Blackberry) – *hereafter 'Handheld device'*	10
Average number of devices of use	2.5

QC300a-h: Which of these devices do you use for the internet these days? *(Multiple responses allowed)*

Base: All children who use the internet.

Possibly the main recent change is the growth in access to the internet via mobile phones, smart phones or other handheld devices (e.g. iPod Touch). Figure 7 shows the proportion of children, demographic variables, who access the internet in this way, and Figure 8 shows the same findings by country.

Figure 7: Child accesses the internet using a mobile phone or a handheld device



QC300h, e: Which of these devices do you use for the internet these days? [20]

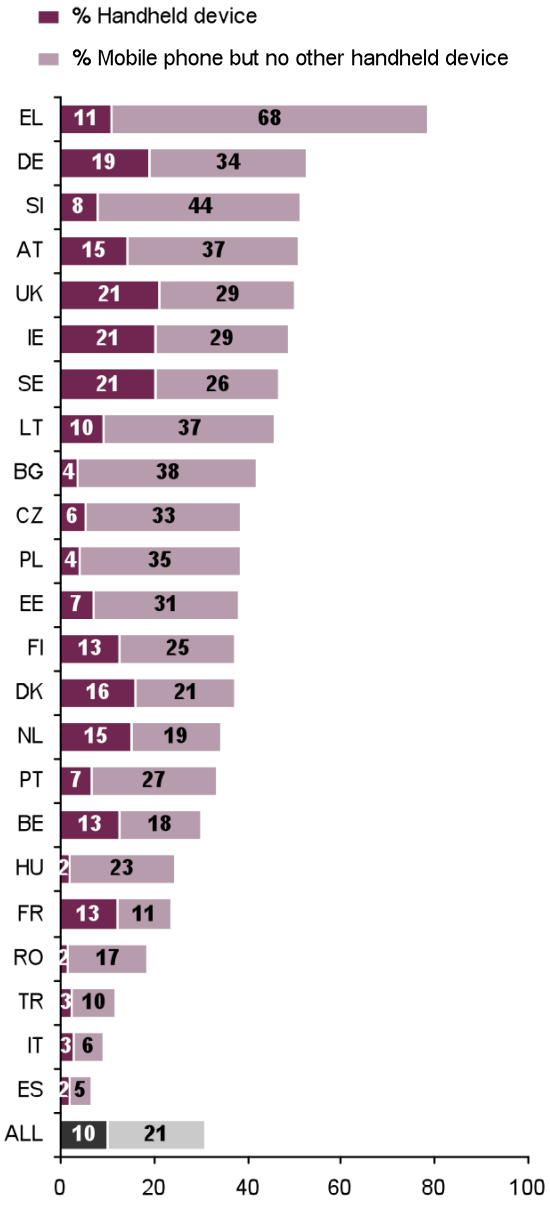
Base: All children who use the internet

- As already noted, 10% of 9-16 year olds go online via a handheld device, and 21% go online via an ordinary mobile phone.
- Children from higher SES homes are more likely to go online using handheld devices (15%). So too are teenagers, especially those aged 15-16 years old and, further, so too are boys (12%) compared with girls (9%).

Overall, access to the internet through mobile technology is, to some degree, stratified by gender, age and SES in persistently predictable ways.

As for country differences in mobile use of the internet, these are fairly substantial.

Figure 8: Child accesses the internet using a mobile phone or handheld device, by country



QC300h, e: Which of these devices do you use for the internet these days?

Base: All children who use the internet.

- Using a handheld device to access the internet is most common in Ireland, Sweden and the UK (each 21%), Germany (19%), Denmark (16%), Austria and the Netherlands (each 15%).
- Children in Southern and Eastern European countries are least likely to have internet access via some handheld device.
- A somewhat different pattern is evident for accessing the internet by means of a regular mobile phone – this is most common in Greece, Slovenia, Bulgaria, Austria, Lithuania and Poland

It seems likely that children are increasingly accessing and using the internet from personal communications devices other than home or school computers. This means that their internet access and usage cannot always be monitored by parents and/or teachers. This leaves two strategies for policy makers to promote – the contribution of educators in teaching children digital literacy and self protective skills, and the role of self-regulatory and/or co-regulatory management of the online technologies and services.

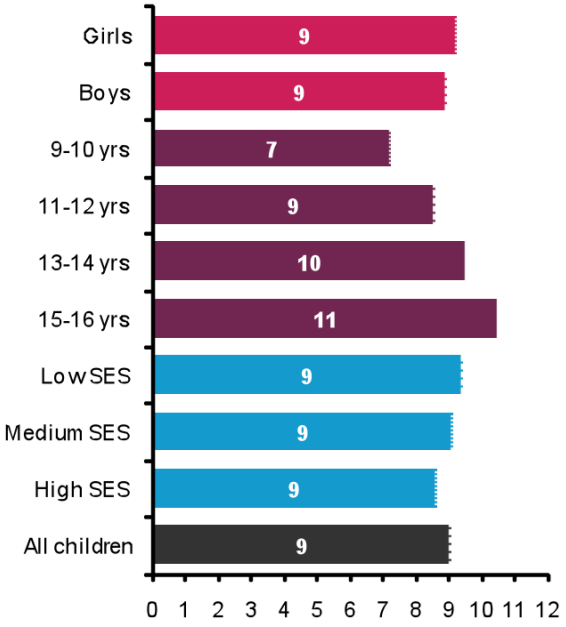
3.3. How much children use the internet

Previous research has suggested that the more children use the internet, the more they gain digital literacy, the more opportunities they take up, and the more risks they encounter.[21] Greater use suggests a deeper embedding of online activities in children's everyday lives at home, at school and with friends. While less use may reflect the choice not to use the internet, it is often taken to indicate digital, and possibly social, exclusion.

The *EU Kids Online* survey measured the amount of use in several ways – age when children first go online, frequency of going online and time spent online (on school days, at the weekend). Consider, first, how old children were when they started to use the internet (Figure 9).

- **On average, children aged 9-16 years old were nine when they first went online. This varies by age, with the youngest group saying they were seven, on average, while the 15-16 year olds say they were eleven on first use.**
- There is no evident gender difference in the number of years that children have used the internet, nor is there a difference for SES (the slight difference in bar lengths in the graph reflects minor differences in months).

Figure 9: Average age (years) when child first used the internet



QC302: How old were you when you first used the internet?

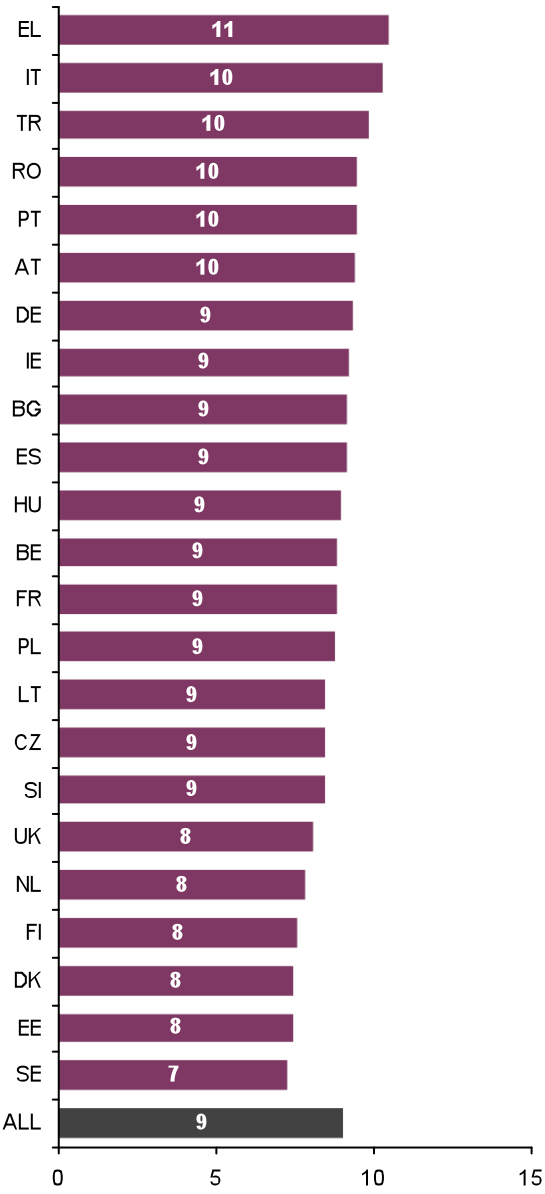
Base: All children who use the internet.

It seems likely, therefore, that the age of first use is dropping across Europe. Further, the age at which children first use the internet varies by country (Figure 10).

- **The average age of first internet use is seven in Sweden and eight in several other Northern countries (Denmark, Finland, the Netherlands and the UK) as well as in Estonia.**
- Average ages are much higher in Greece, at eleven years old, and they are around ten in Austria, Italy, Portugal, Romania and Turkey.

Since children are going online at younger and younger ages, internet safety campaigns and initiatives must be targeted at/tailored towards younger age groups, while also sustaining existing efforts for older children. To the extent that, until now, efforts have concentrated on secondary more than primary schools, this has implications for curricula and teacher training in primary schools especially.

Figure 10: Average age (years) when child first used the internet, by country



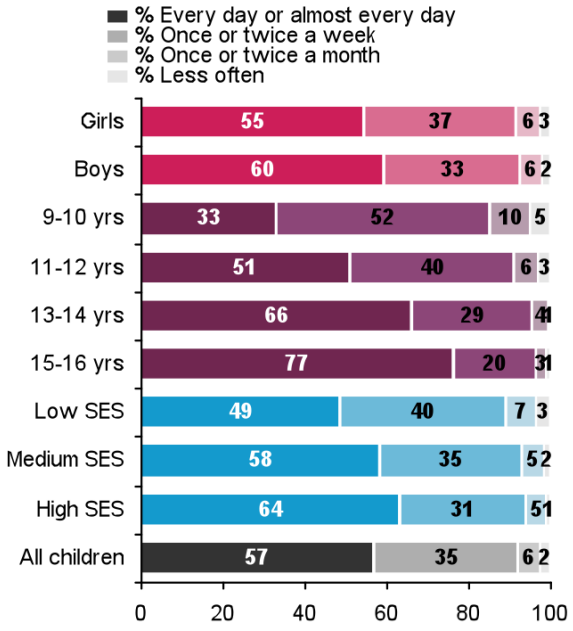
QC302: How old were you when you first used the internet?

Base: All children who use the internet.

The second measure of use in the survey was frequency of use, giving an indication of how embedded the internet is in children's lives. It may be argued that daily or near daily use is necessary for the communication and networking functions of the internet. *Recall that the population surveyed includes all children who go online at*

all, whether frequently or rarely. How often children go online is shown in Figure 11.

Figure 11: How often children use the internet

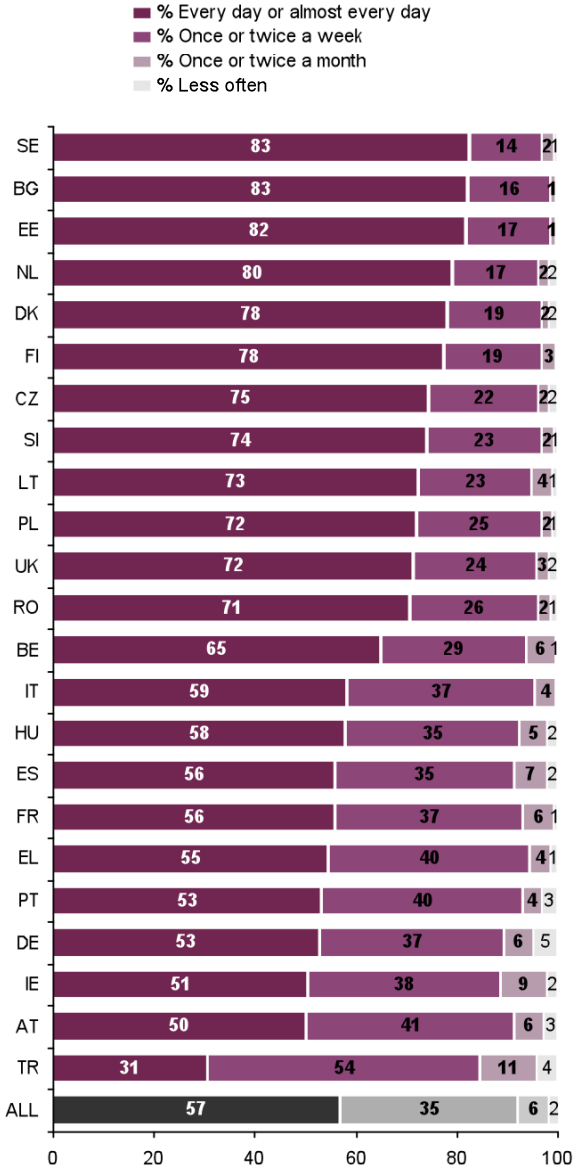


QC303: How often do you use the internet?

Base: All children who use the internet.

- **Child internet users can be divided into two groups: those who use the internet daily or almost daily (57%) and those who use it once or twice a week (35%). Combined, this is 92% of all children who go online at all; 6% go online once or twice a month, 2% less often.**
- There is little gender difference in frequency of use, though boys are slightly more likely to be daily users (60%, compared with 55% girls).
- SES differences are more evident: 64% of children from high SES homes go online daily, compared with 49% from lower SES homes. It seems likely that this reflects differences in quality of access, since children from high SES homes are more likely to have access at home, in their bedroom and via a handheld device.
- **Age differences in frequency of use are the most strongly marked. For 9-10 year olds, one third (33%) go online daily. This percentage rises steadily until for 15-16 year olds, three quarters (77%) go online every day.**

Figure 12: How often children use the internet, by country



QC303: How often do you use the internet?

Base: All children who use the internet.

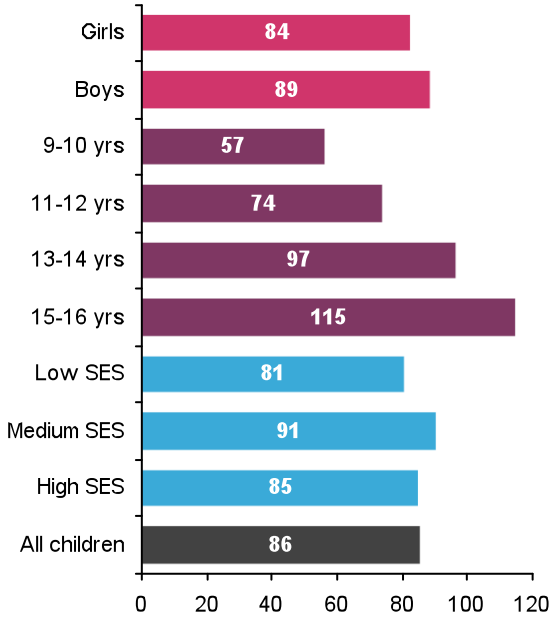
- **Four in five children from 9-16 in Bulgaria, Estonia, the Netherlands and Sweden use the internet daily. This applies to fewer than half of the children only in Turkey, where one third (31%) of children go online daily** (Figure 12).

Last, consider the amount of time children spend online each day. Time spent online was calculated using a method widely used to measure television viewing. It asks children for separate estimates for an average school day

and an average non-school day. These are combined to estimate average internet use each day (see Figure 13).

Note that time spent online was difficult to measure because younger children in particular find time estimates difficult and because children multitask, going online while doing other activities while not turning off the internet.

Figure 13: How long children use the internet for on an average day (in minutes)



Derived from QC304 and QC305: About how long do you spend using the internet on a normal school day / normal non-school day?

Base: All children who use the internet.

- **The average time spent online by 9-16 year olds is around an hour and a half per day (86 minutes).**
- Gender differences in time spent online are small (boys go online for an average of six minutes per day more than girls). SES differences are also small.
- The largest difference in time spent online is by age. The 15-16 year olds spend almost two hours per day, on average (115 minutes), twice that of the youngest group (9-10 year olds spend 57 minutes per day, on average).

It remains to be seen whether children will spend even more time online in the coming years. What is clear is that, for many European children, internet use is already thoroughly embedded in their daily lives and everyday routines.

3.4. Digital literacy and safety skills

'Digital literacy' (or 'media literacy', 'competence' or 'skills'), plays a vital role in children's use of the internet. It is assumed to result from, and further stimulate, the range and depth of children's online activities. Policy makers anticipate that the more digitally literate or skilled children become, the more they will gain from the internet while also being better prepared to avoid or cope with online risks. While digital literacy is generally defined as including a broad range of skills and competences, digital safety skills represent a specific subset of digital or media literacy.

Measuring digital literacy, including digital safety skills, is difficult, especially when using methodologies where no direct observation of the child's internet use is possible. Three self-report measures, themselves positively correlated, are often used in surveys:[22]

1. *Range/depth of online activities*. Assumes that the more (or less) a child does on the internet, the greater (or weaker) their skills will be, since skills develop through use. Skills are not themselves directly measured; rather, the focus is on activities, as pursued in the next section.
2. *Self-efficacy*, a simple self-report of ability to use the internet. The *EU Kids Online* survey asked parents ('how good are you at using the internet?') and children ('how true is it for you: I know a lot about the internet' and 'how true is it for you: I know more about the internet than my parents'). This may be more a measure of confidence than skill.
3. *Specific concrete skills*, hypothesised to be part of digital literacy. This approach was followed in the survey for 11-16 year olds, with the focus on critical and safety skills (not, say, on creative skills or production knowledge).

Eight specific digital skills were asked of the 11-16 year olds, as shown in Table 4.

Table 4: Children's digital literacy and safety skills (age 11+)

	11-12 year old		13-16 year old		
% who say they can…	Boys	Girls	Boys	Girls	All
Block messages from someone you don't want to hear from	43	47	71	71	62
Find information on how to use the internet safely	48	42	70	69	62
Bookmark a website	50	44	71	66	61
Change privacy settings on a social networking profile	32	35	64	64	54
Compare different websites to decide if information is true	40	34	63	61	54
Delete the record of which sites you have visited	37	31	62	59	52
Block unwanted adverts or junk mail/spam	34	32	60	53	49
Change filter preferences	14	13	40	28	27
Average number of skills	1.4	1.4	4.8	4.5	3.1

QC320a-d and QC321a-d: Which of these things do you know how to do on the internet? Please say yes or no to each of the following... If you don't know what something is or what it means, don't worry, just say you don't know.

Base: All children aged 11-16 who use the internet.

- **On average, children said they have three of the eight skills asked about. Most 11-16 year olds can block messages from someone they do not wish to be in contact with (62%), find safety information online (62%) and bookmark a website (61%).**
- **Roughly half can change privacy settings on a social networking profile (54%), compare websites to judge the quality of information (54%), delete their history (52%) or block junk mail and spam (49%).**
- **Only about a quarter can change filter preferences (27%).**

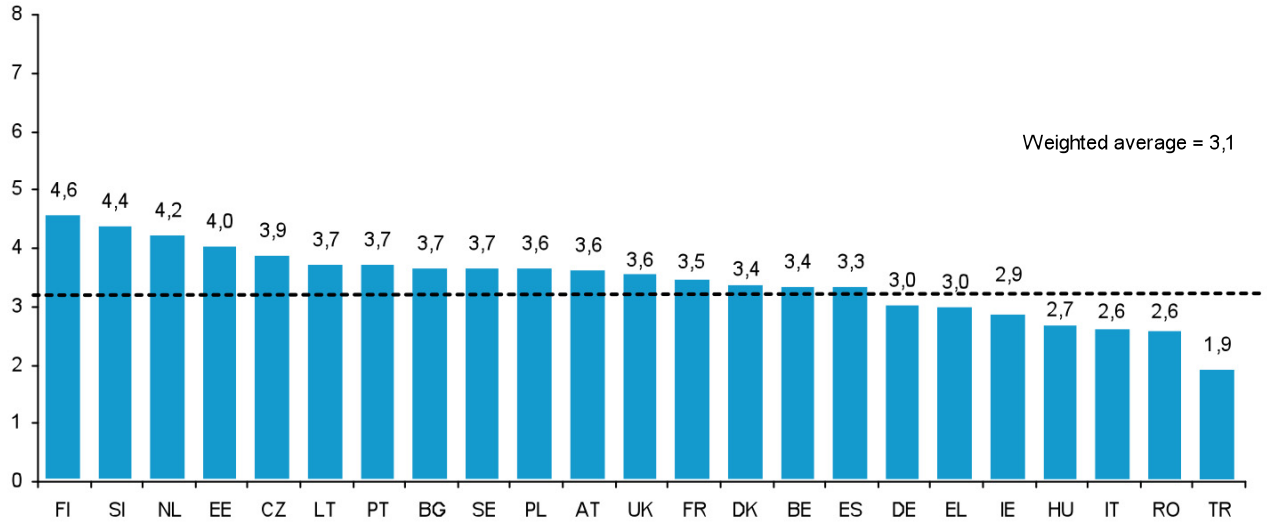
Young people's skills, it seems, include a mixture of critical skills and safety skills. Some skills widely promoted as part of safety programmes are, clearly, not yet in place. For example, the percentage that can change their privacy settings on a social networking profile is lower than those who have such a profile (see later section), a point that we will pursue in subsequent analysis. Blocking people is more manageable, it seems, than changing filter preferences. Demographic differences are significant.

- The teenagers (13-16) claim considerably more skills than the younger children (11-12).
- Boys claim somewhat more skills than girls, as is consistent with previous research.[23]

It has already been shown that the range of access platforms available to children and, related to this, how much they use the internet, varies considerably across different European countries. Are there similar national differences in self-reported digital skills? (See Figure 14)

- **Most skills are claimed by children in Finland, Slovenia, Netherlands and Estonia.**
- **Fewest skills are claimed by children in Turkey, Romania, Italy and Hungary.**

Figure 14: Children's digital literacy and safety skills, by country (age 11+)



QC320a-d and QC321a-d: Which of these things do you know how to do on the internet? Please say yes or no to each of the following... If you don't know what something is or what it means, don't worry, just say you don't know. *(Scale shows average number out of the 8 skills asked about in Table 4)*

Base: All children aged 11-16 who use the internet.

Additionally, as a simple, global measure of self-confidence among European youth, the *EU Kids Online* survey also asked the children (now including the 9-10 year olds) to say how true it is for them that "I know more about the internet than my parents".

Figure 15 provides a demographic breakdown of their answers.

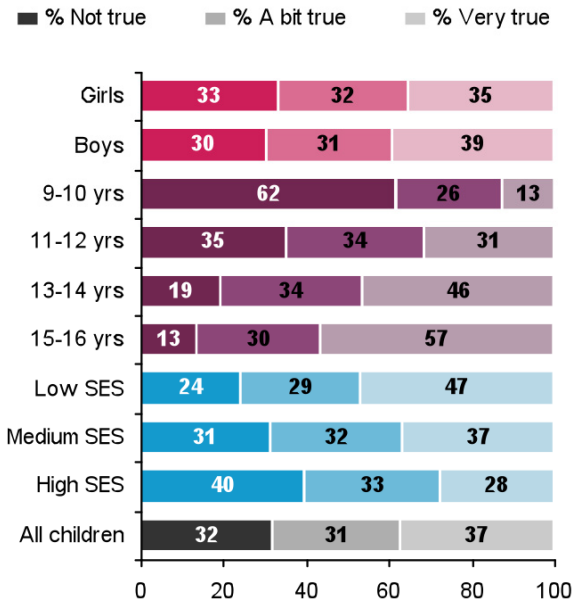
- **On average, one third of 9-16 year olds (37%) say that the statement, "I know more about the internet than my parents," is 'very true' of them, one third (31%) say it is 'a bit true' and one third (32%) say it is 'not true' of them.**
- The gender difference here is even less than was found with measures of concrete skills (above), although boys (39%) are slightly more than girls (35%) to say this statement is 'very true' of them.
- **Age differences are marked. It seems that, although sizeable numbers of 9-10 year olds use the internet, they have little confidence that they know much about it compared with their parents – 62% say this statement is 'not true' for them.**
- By contrast, teenagers are confident: 57% of 15-16 year olds say this statement is 'very true' for them.
- SES differences are less marked but still noticeable, with children from lower SES homes more confident that they know a lot about the internet than those from higher SES homes.

In terms of the digital literacy and safety skills that children are gaining across Europe, the 'glass half full' approach would emphasise that the majority of 11-16 year olds can manage most of the specific skills we asked about. Moreover, one third are very confident, and a further third are a bit confident that they are the generation that knows a lot about using the internet, especially compared with parents.

However, the 'glass half empty' conclusion is that one third say it is not true for them that they know more than their parents about using the internet. Further, of the eight skills we asked them about, on average they can only do three of them, and more than four in ten does not know how to block messages, bookmark sites, find safety information, change privacy settings or determine whether websites are reliable.

The lower levels of skills and confidence claimed by younger children are especially of concern, given that they are increasingly using the internet in substantial numbers.

Figure 15: "I know more about the internet than my parents"



QC319a: How true are these of you? I know more about the internet than my parents. Please answer not true, a bit true or very true.

Base: All children who use the internet.

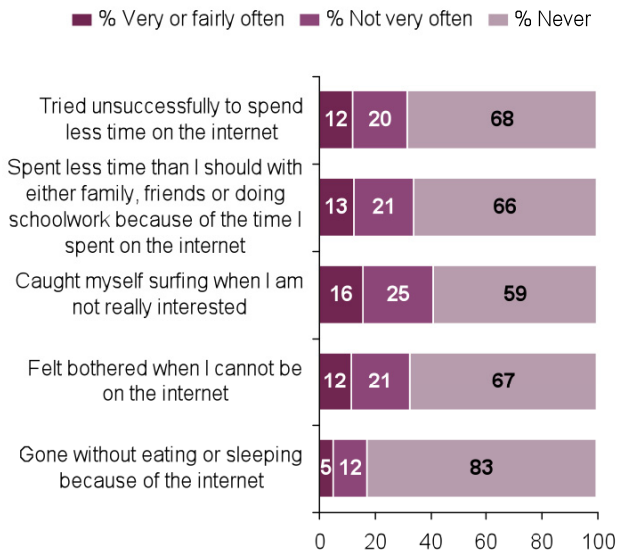
3.5. Excessive use of the internet

The arrival of each new medium has been accompanied by public anxiety over its potential dominance of children's time and attention – past examples include television and the home computer. Concern over 'internet addiction' is growing, with parallel efforts among researchers and clinicians to measure it, and to decide whether the internet is addictive in the same sense as alcohol or drugs.[24]

Although the jury is still out on the question of 'addiction', consensus is growing that 'excessive' use of the internet is worth investigating. Drawing on prior measurement of computer or games 'addiction', research on excessive use investigates when the internet displaces children's social or personal needs in a way that they cannot control. The result is a conception of internet use that proposes a curvilinear relationship between use and benefit: more use is likely to be beneficial up to a point but then, if excessive, is likely to become problematic.

Questions about excessive use were asked of the 11-16 year olds, as shown in Figure 16. These questions were selected from wider investigations into excessive use of the internet.[25] As will be seen, the focus is not simply on overall amount of use but on the conflict this may introduce with family or schoolwork, together with the experience of not being able to reduce or stop the activity.

Figure 16: Excessive use of the internet among children (age 11+)



QC144a-e: How often have these things happened to you?

Base: All children aged 11-16 who use the internet.

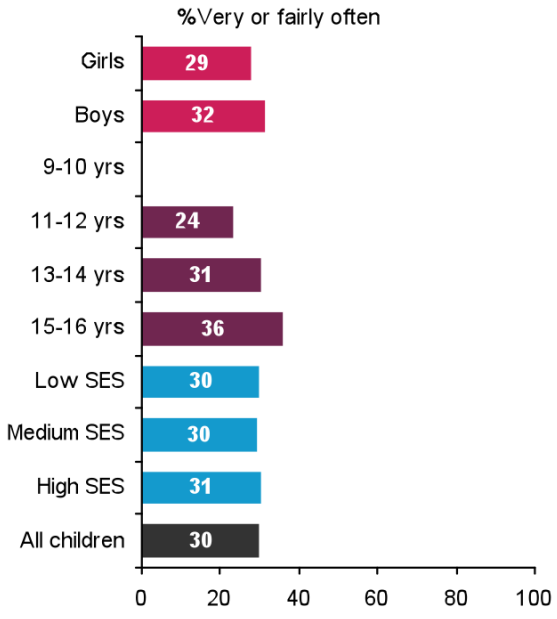
- Many agree with the statement, "I have caught myself surfing when I am not really interested". Four in ten (41%) children agree with this, though only 16% say this happens fairly or very often.
- Around one third say they have spent less time than they should with friends, family or doing schoolwork because of the time they spend online (34%). A similar proportion have tried unsuccessfully to spend less time on the internet (32%) and/or they feel bothered when they cannot be on the internet (32%).
- In each case, some one in eight says this happens to them fairly or very often.

- Fewer children (17%) say that they have gone without eating or sleeping because of the internet – 5% say this happens fairly or very often.
- It seems, therefore, that as an activity which children would like to cut down on, and which has some adverse effects on other aspects of their lives, excessive use is a problem for a minority of children.

The next two graphs are based on a composite index – the percentage of children, out of all children, who answer 'fairly' or 'very often' to one or more of these five experiences. Figure 17 shows differences by demographic variables.

- This reveals no differences by SES of household, and only a marginal difference by gender, with boys slightly more likely to report one or more of the forms of excessive use (32%, compared with 29% of girls).
- Differences by age are more marked, with one quarter (24%) of 11-12 year olds, rising to over a third (36%) of 15-16 year olds, experiencing the consequences of excessive use.

Figure 17: Child has experienced one or more form of excessive internet use fairly or very often (age 11+)

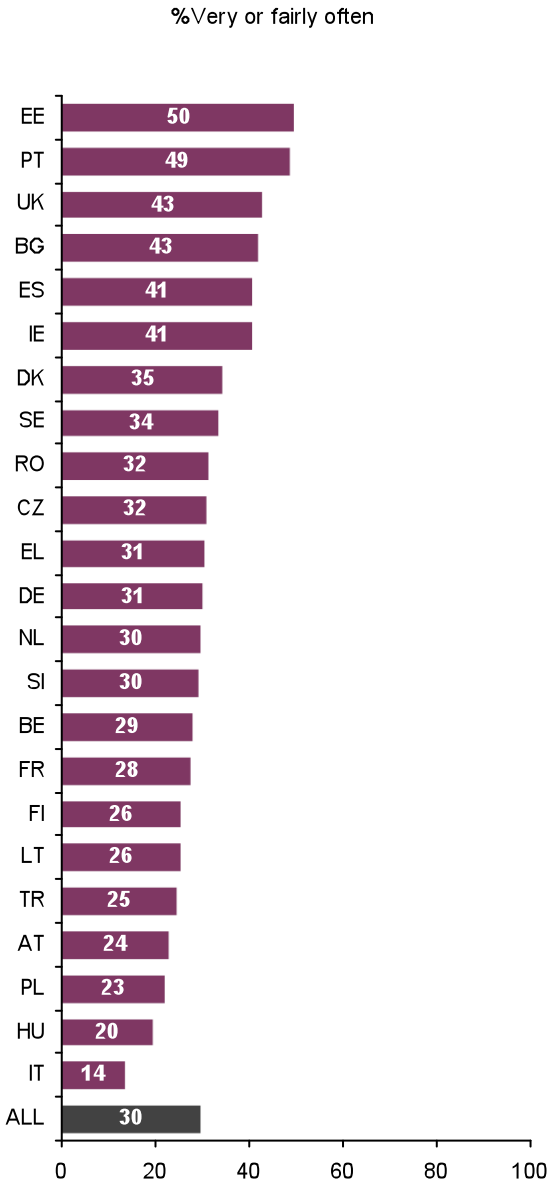


QC144a-e: How often have these things happened to you? The graph shows the percentage of children who answer 'fairly' or 'very often' to one or more of the five statements in Figure 16.

Base: All children aged 11-16 who use the internet.

Country differences in children's excessive use of the internet are shown in Figure 18.

Figure 18: Child has experienced one or more form of excessive internet use fairly or very often, by country (age 11+)



QC144a-e: How often have these things happened to you? The graph shows the percentage of children who answer 'fairly' or 'very often' to one or more of the five statements in Figure 16.

Base: All children aged 11-16 who use the internet.

- **Just under one third (30%) of children report one or more of the experiences associated with excessive internet use 'fairly' or 'very often'.**
- **This percentages rises to around half of the 11-16 year olds surveyed in Estonia (50%) and Portugal (49%), with the UK and Bulgaria (43%), Spain and Ireland (41%) close behind.**
- **Fewer children report consequences of excessive internet use in Italy (14%) and Hungary (20%).**

"Lack of sleep, you don't do your homework if you are too much on the computer and can't concentrate to study" **(Boy, 14, Finland)**

Further analysis of the relation between these experiences, and of the characteristics of those children who report more than one of them, will be included in our future reports. At that point, we will also investigate the possible relation between excessive use and other online risk experiences, since previous research suggests these to be correlated.[26]

3.6. Parental use of the internet

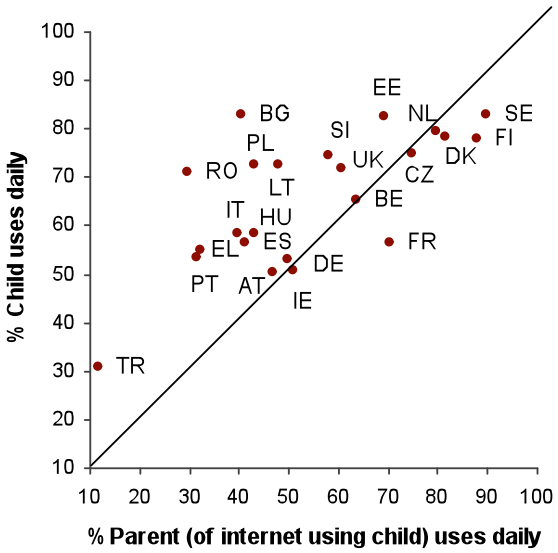
Popular conceptions of 'digital immigrants' and 'digital natives', although contested by empirical research,[27] have stimulated policy discussion of the responsibility that parents are able to bear in managing their children's internet use. While the concept potentially refers to rather more than the balance in online competence between children and parents, we have data to explore this particular balance below.

Analysis of the Flash Eurobarometer survey of European parents in 2008 showed that, since the previous Eurobarometer survey in 2005, parents have been 'catching up' with their children in many countries. The 2008 data showed that, in most countries, parents are as likely, or more likely, to use the internet compared with their children.[28] This matters because, as previous research has shown, the more parents use the internet, the more skilled they are and the more they manage their children's internet use.[29]

Figure 19 shows the relative balance of daily use among children and parents, by country. *Recall that in the EU Kids Online project, 'parent' refers to the parent or carer who is most involved in the target child's internet use.*

Importantly, this figure plots countries according to the overall percentage of daily use among internet-using-children against daily use among the parents of these children (whether or not these parents use the internet at all). Thus it tells us whether the parents of internet-using children in each country use the internet as much, more or less than children.

Figure 19: Children's daily use (%) by parental daily use (%), by country



QP215: Do you personally use the internet? QC303 and QP217: How often do you use the internet?

Base: All children who use the internet; all of their parents.

- Countries where daily internet use is high for both children and their parents are shown at the top right of the graph, notably the Nordic countries.
- Countries where daily internet use is relatively low for children and their parents are shown at the bottom left. These include Austria, Ireland and Germany.
- In both of these groups of countries, children's use is fairly well matched to that of their parents, as indicated by their closeness to the diagonal line.
- However, countries fitting the 'digital native' profile (i.e. more children use the internet daily than do their parents) are shown on the upper/left side of the diagonal line. Most countries fall into this category,

most notably the Eastern European countries of Romania, Bulgaria, Poland, Lithuania and Turkey.

- Countries where parents use the internet more than their children appear on the bottom/right. There are few strong findings here, though in France it seems that parents use the internet more than their children.

These findings are somewhat different, therefore, from those in the 2008 Eurobarometer. There, the comparison made was 'use at all', and it was also possible that children made more 'daily' use of the internet than their parents, even in that study.[30]

The present findings suggest that in most countries, children make considerably more use of the internet than their parents, irrespective of whether overall national levels of daily use are higher or lower. This may qualify parents' ability to manage their children's internet use effectively, complicating the kind of advice that can be given to parents and limiting the extent to which they may be tasked with the responsibility of keeping their children sufficiently safe online.

4. ACTIVITIES

4.1. Range of children's online activities

What do European children aged 9-16 say how what they do when they go online? The *EU Kids Online* survey asked children about which online activities they take up, so as to understand the opportunities they enjoy and to provide a context for the subsequent investigation of online risks.

We explore children's online activities in this report for two reasons. First, by mapping the range of activities they undertake and, it may be assumed, generally enjoy, a balanced view can be obtained of the benefits the internet affords children against which our subsequent examination of risks should be considered. Second, as noted in the Introduction, there is no easy line to be drawn between activities which result in benefits and those that carry a risk of harm. Understanding the nature of children's activities is necessary if research is to dissect the interplay between benefits and harm, recognising that this may vary for different groups of children.

Perhaps surprisingly, little previous research has examined online activities of children systematically across Europe, especially for younger children.[31] Notably, although access and to a lesser degree amount of use does vary by children's age and household SES,[32] previous research suggests children's online activities depend less on SES and more on age and gender.

Table 5 shows how many children do each of a range of activities, by age and gender.

- **Use of the internet for school work is the top online activity of the common things that children do online (84%)**, confirming the importance of incorporating the internet into educational contexts.
- **In their various forms, receiving content produced by others (e.g. watching video clips, 83%), playing games (e.g. 74% playing against the computer), and communicating (e.g. instant messaging, 61%) are the next most popular types of online activity.**
- This contrasts with the various ways of creating user-generated content. **Posting images (38%) or messages (31%) for others to share, using a webcam (29%), file-sharing sites (17%), spending time in a virtual world (17%) or writing a blog (10%) are all less common**. This is perhaps surprisingly given popular attention to the supposed rise of a more 'participatory culture'.[33]

If the internet is to become a truly participatory and creative opportunity for most young people rather than only the privileged few, it is important that policymakers actively seek to promote such activities in educational, leisure and civic forums as appropriate.

- Gender differences are generally small, which is perhaps a little surprising given that past research has referred to differences between girls and boys in tastes and interests. It is noteworthy that boys overall have a slightly wider repertoire of online activities, and that boys play more games than girls, especially as teenagers.

Teenage girls appear less interested than boys in creating an avatar or spending time in a virtual world. Whether this is an age or a cohort effect remains to be seen in future research. For example, one possible age effect is that teenage girls prioritise socialising offline to spending that time in virtual worlds.[34] Or, the development of services using avatars directed to younger girls (e.g. *Habbo*, *GoSuperModel*, where using an avatar on a social networking site is promoted as being "safer" for the youngest group), may explain greater use of avatars by younger than older girls.

- **Age differences are greater, with the exception of using the internet for school work: 9-12 year olds are much less likely to use the internet for watching or posting video clips or messages, for reading or watching the news, for communication (instant messaging, social networking, email) and for downloading music or films than are 13-16 year olds.**

In all, there is evidence of considerable breadth in children's internet use, with younger children doing on average over five activities and teenagers doing 8 or 9 activities. As earlier research has suggested, these findings support the 'ladder of opportunities'. This hypothesises that certain basic activities tend be done first, and by most children. However, more creative or

participatory activities come later, and are undertaken by fewer children.[35]

Table 5: Children's activities online in the past month

	9-12 year old		13-16 year old		
% who have…	Boys	Girls	Boys	Girls	All
Used the internet for school work	77	82	87	90	84
Watched video clips	69	59	76	51	83
Played internet games on your own or against the computer	66	62	86	83	74
Used instant messaging	42	46	75	74	61
Visited a social networking profile	38	40	79	77	60
Sent/received email	42	43	72	72	59
Read/watched the news on the internet	37	35	59	57	48
Played games with other people online	46	32	62	31	44
Downloaded music or films	26	23	59	55	42
Put or posted photos, videos or music to share with others	22	22	53	52	38
Put or posted a message on a website	24	24	37	37	31
Used a webcam	17	17	42	37	29
Visited a chatroom	14	12	34	27	22
Created a character, pet or avatar	19	18	20	13	18
Used file sharing sites	10	8	27	20	17
Spent time in a virtual world	16	14	22	13	17
Written a blog or online diary	5	6	13	16	10
Average number of activities	5.7	5.4	9.0	8.1	7.1

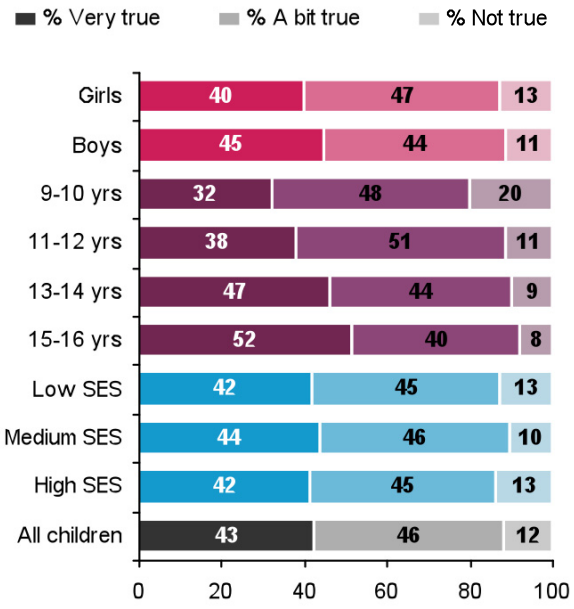
QC102: How often have you played internet games in the past 12 months? QC306a-d, QC308a-f and QC311a-f: Which of the following things have you done in the past month on the internet?[36] *(Multiple responses allowed)*

Base: All children who use the internet.

4.2. Perceived quality of online content

Children do not enjoy equivalent opportunities across Europe. In some countries there are more online resources, often as a result of differential investment and/or because national markets vary in size and wealth. Familiarity with the English language in each country, especially among children, also matters. Although an objective assessment of online opportunities is difficult, the *EU Kids Online* survey asked children for their own assessment (see Figure 20).

Figure 20: "There are lots of things on the internet that are good for children of my age"



QC319c: There are lots of things on the internet that are good for children of my age. Response options: very true, a bit true, not true.

Base: All children who use the internet.

- **More than one third (43%) of 9-16 year olds are very satisfied with levels of online provision available to them**.
- A further half of the population is somewhat satisfied: **for 46% of children, it is only 'a bit true' that there are lots of good things for children of their age to do online. For less than one in eight, provision is – in their judgement – insufficient.**

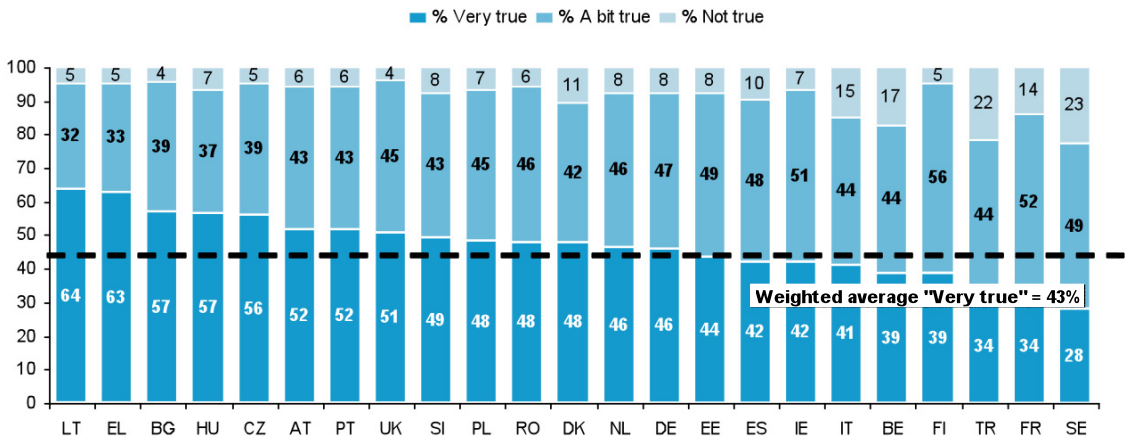
- There appear few notable differences by SES or gender, though perhaps boys are a little more satisfied and children from high SES homes a little less. Some differences by age are intriguing.
- **The youngest age group is markedly less satisfied by online provision – only 32% of 9-10 year olds say there are lots of good things for children of their age to do online.** Teenagers, by contrast, are the most satisfied, presumably because they share in wider public provision.

Figure 21 shows these findings broken down by country.

- The rank order of countries is puzzling, since at least of half the children in some countries with small language communities (Lithuania, Greece, Hungary, Bulgaria) consider it 'very true' that there are good things online. Possibly a generalised enthusiasm about the internet in some countries may shape this judgement.
- There does seem, however, to be a less positive response from children in several large language communities (France – 34% very true, Spain – 42% very true) and in well-resourced Northern European countries. In the Netherlands, 46% are very positive (i.e. 'very true'), in Finland 39% and Sweden only 28%.
- Children in the UK and Ireland are uniquely positioned, since they can access all English-language websites. This may account for the relative satisfaction among UK children: 51% 'very true' and 45% 'a bit true' that there are lots of good things for them online. By contrast, Irish children are less satisfied, suggesting that language may not be the only factor, and that locally produced content matters.

In the context of current European efforts to increase the availability of 'positive online content' for children, both to increase benefits and to reduce harm,[37] several conclusions may be drawn. First, it appears that the youngest children, aged 9-10 years, have started using the internet before there is sufficient content provided for them. It may be that there is little provided for older children also, but they are satisfied with generic content and don't require special provision. There is, second, clearly some improvement in content for children required in several countries, notably France, Turkey, Sweden and Germany.

Figure 21: "There are lots of things on the internet that are good for children of my age", by country



QC319c: There are lots of things on the internet that are good for children of my age. Response options: very true, a bit true, not true.

Base: All children who use the internet.

4.3. Children's use of social networking sites (SNS)

Although not quite the most popular activity, social networking is arguably the fastest growing online activity among youth. Certainly, social networking sites (SNS) have attracted widespread attention among children and young people, policy makers and the wider public. By integrating chat, messaging, contacts, photo albums and blogging functions, SNSs potentially integrate online opportunities and risks more seamlessly than was previously possible.

On the one hand, policy makers seek to capitalise on the benefits of social networking by developing educational, participatory, creative and other resources linked to web 2.0 platforms. On the other hand, public policy concerns centre on the uneasy relation between the design of the SNS interface and emerging social conventions of use in terms of notions of 'friendship', the management of privacy and intimacy, awareness of the permanence of what is uploaded, techniques for age verification, and possibilities of 'flaming', hacking, harassment and other risky communications.

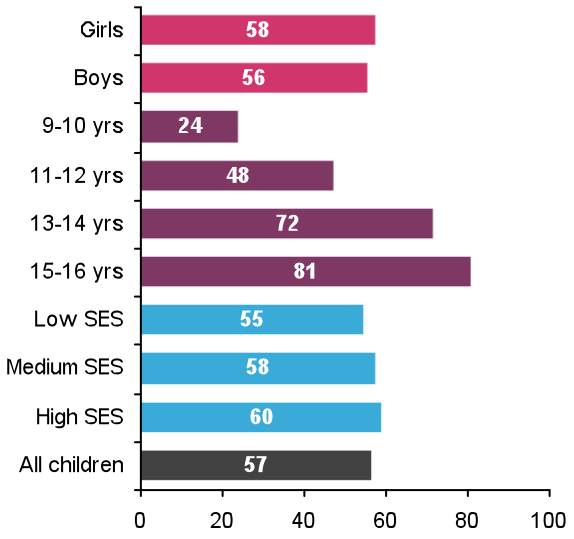
Research thus far has proved contradictory about whether SNS are more or less risky than instant messaging, chat, or other online communication formats,[38] and it is as yet unclear whether risks are 'migrating' from older formats to SNSs. Nonetheless, efforts are underway to ensure effective self-regulation of social networking on a European level and beyond.[39]

As was seen in Table 5, 60% of European 9-16 year olds use social networking sites. Such 'use' may include merely visiting the profiles of others. Figure 22 shows which children have their own profile on a social networking site.

- **Among all 9-16 year olds across Europe, 57% report having their own social networking profile.**
- Social networking varies only slightly by gender, with 58% boys and 56% girls having their own profile.
- It also varies little by SES also (ranging from 55% for children from low SES homes to 60% for those from high SES homes).
- Most policy attention has focused on the age of users, and here the differences are more dramatic. **One quarter (24%) of the 9-10 year olds report having their own profile, compared with half (48%) of 11-12 year olds. For teenagers, percentages are much higher – 72% of 13-14 year olds and 81% of 15-16 year olds.**

Different SNSs set different lower age limits on use, but it seems likely that significant numbers of 'underage' children are using social networking sites. In its next report in 2011, we will analyse findings in this section for SNS's separately.

Figure 22: Children who have a profile on a social networking site



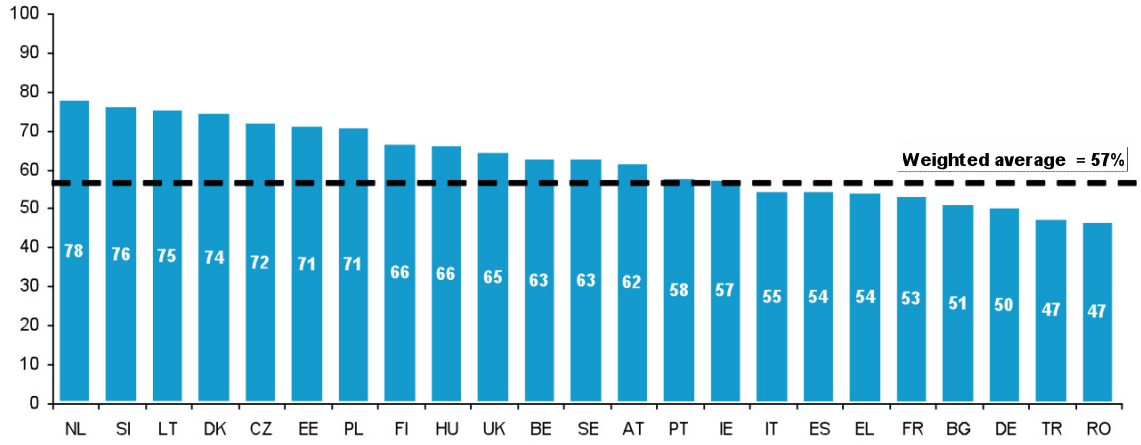
QC313: Do you have your OWN profile on a social networking site that you currently use, or not?

Base: All children who use the Internet.

Figure 23 shows which children have their own profile, by country.

- **Social networking is most popular, it appears, in the Netherlands (78%), Slovenia (76%) and Lithuania (75%), and least practiced in Romania and Turkey (47%) and Germany (50%).**
- Even in these countries, half of the population aged 9-16 years old claims to have their own social networking profile, rising to three quarters in a few countries.

Figure 23: Children who have a profile on a social networking site, by country



QC313: Do you have your OWN profile on a social networking site that you currently use, or not?

Base: All children who use the internet.

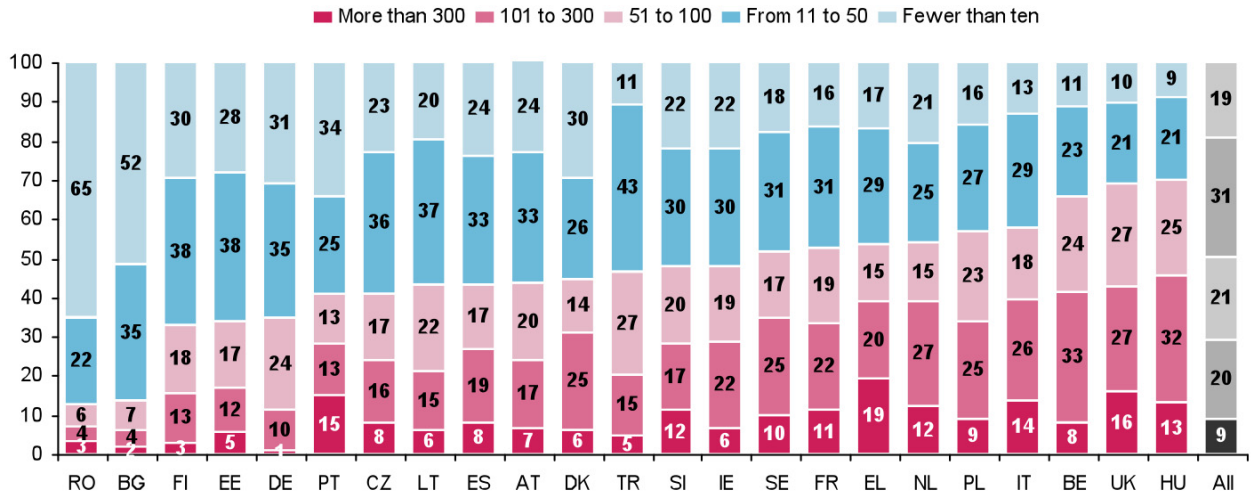
4.4. Nature of children's SNS contacts

With whom are children in contact via social networking sites? Figure 24 shows the number of contacts on children's profiles, interesting insofar as large circles of contacts may constitute as a possible risk factor.

"Facebook is dangerous when we put the name and address and can see my stuff." **(Boy, 9, Portugal)**

- **Despite popular media stories of children with hundreds of contacts, few overall report having more than 300 contacts on their social networking profile (9%), though one in five (20%) has between 100 and 300.**
- **Half have up to 50 contacts and 19% have fewer than 10.**
- Considerable country differences are evident in Figure 24, with British, Belgian and Hungarian children reporting the most contacts overall. Fewest contacts are reported by children in Romania, Bulgaria, Germany and Finland.
- Understanding the possible consequences of these wider or narrower circles of contacts will be a focus of our future analysis.

Figure 24: Number of contacts on children's social networking profiles, by country



QC316: Roughly how many people are you in contact with when using [name of child's (most used) social networking site]?

Base: All children who have a profile on a social networking site.

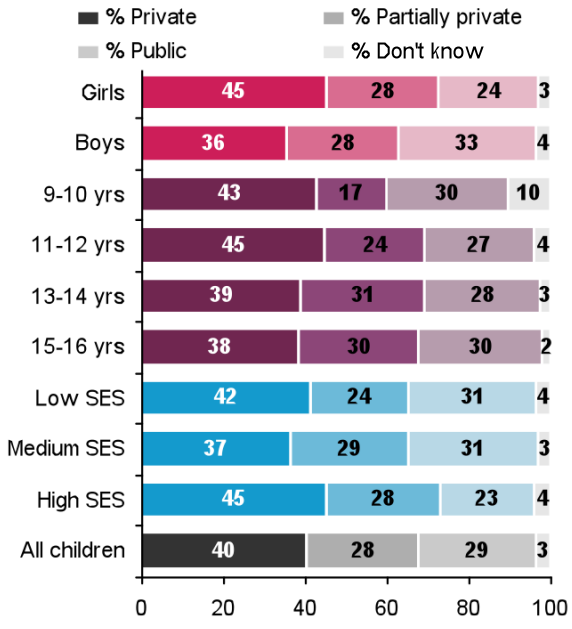
4.5. Use of SNS privacy settings

Many factors may influence the number of contacts by country, from norms of 'friending' and 'defriending' to the size of school community or industry conventions for default settings on different SNSs. Do such wide circles of contacts imply that children have no sense of privacy, that they might include anyone in their contact list? Research increasingly shows that children do care considerably about keeping certain kinds of information private i.e. managing with whom they share particular kinds of information.[40]

Figure 25 shows that, among those who have a SNS profile, the privacy settings they select for their most used social networking profile vary by the child's gender, age and SES. Bear in mind that, as shown in Figure 22, this includes one quarter of 9-10 year olds, rising to four fifths of 15-16 year olds.

> "Be invited at parties in the vicinity with free drugs – saw that on my brother's Hi5." **(Girl, 16, Greece)**

Figure 25: Children's use of privacy settings on their social networking profile



QC317: Is your profile set to …? Public, so that everyone can see; partially private, so that friends of friends or your networks can see; private so that only your friends can see; don't know.

Base: All children who have a profile on a social networking site.

- **Among social network users, 40% keep their profile private so that only their friends can see it. A further 28% report that their profile is partially private so that friends of friends and networks can see it. Notably, 29% report that their profile is public so that anyone can see it.**
- Girls, and children from lower/medium SES homes, appear more likely to keep their SNS profile private. If having one's profile public is linked to the risk of inappropriate contact, then it is boys and children from high SES homes who should be targeted by awareness-raising.
- There are few differences by age in terms of privacy settings. It is surprising that older teenagers are not more likely to keep their profile private, given the awareness-raising messages to which they will have been exposed. On the other hand, it is possible that parents have advised the youngest children to set their profiles to private. It may also be suspected that the 9-10 year olds were unsure how to answer this question, given the higher proportion (10%) of 'don't know' answers. This too suggests the need for awareness-raising and digital skills among the youngest children.

Whether it matters that children's profiles are set to public or private depends on the information they post on their profile. Table 6 shows several measures of the personal information children include in their profile, by country.

- The variation across countries in whether or not children's social networking profiles are public is noteworthy. Bearing in mind that those who have their profiles set to public are more often teenagers than younger children, **around half of social networking youth in Hungary (53%),and Turkey (each 45%) and Romania (44%) have public profiles.** By contrast, less than a fifth have set theirs to public in Ireland (11%), Spain and the UK (each 13%), the Netherlands (18%), Austria and Denmark (19%).(*Note that the table shows information posted by all children with an SNS profile, not just those for whom their profile is public*).
- **Mostly, children appear to have learned that it is unwise to post their address or phone number on their SNS profiles. Overall, 14% have posted such information, though in Lithuania, 35% of children have done this, as have 30% in Hungary.**

Table 6: What information children show on their social networking profile, by country

	% SNS profile is public	% Address or phone number	% Incorrect age	Average from 6 identifying features
AT	19	14	13	2,6
BE	28	14	19	2,8
BG	30	10	10	1,9
CZ	33	21	13	2,6
DE	32	7	8	2,5
DK	19	14	22	2,7
EE	28	27	19	2,6
EL	37	12	20	2,1
ES	13	10	30	2,2
FI	29	8	14	2,3
FR	20	7	17	2,4
HU	53	30	2	3,5
IE	11	7	26	2,2
IT	34	19	25	2,6
LT	30	35	9	2,8
NL	18	14	6	3,0
PL	37	23	3	3,4
PT	25	7	24	2,0
RO	44	22	13	2,2
SE	31	9	19	2,4
SI	22	18	17	2,7
TR	45	21	21	2,4
UK	13	7	27	2,5
ALL	29	14	17	2,6

QC317: Is your profile set to …? Public, private or partially private. QC318a-f: Which of the bits of information on this card does your profile include about you? *(Multiple responses allowed)* Identifying features asked about, which are summed in the final column: a photo that clearly shows your face, your last name, your address, your phone number, your school, your correct age.

Base: All children who have a profile on a social networking site.

- The question of showing a correct or incorrect age is significant, because 'exaggerating' one's age is said to be a fairly common practice among younger children in order to obtain a profile on age-restricted sites.[41] As column 3 shows, 17% (or 1 in 6 children) have posted an incorrect age and it may be assumed that these present the child as older than they really are. Such a practice is most common in Spain (30%), the UK (27%), Ireland (26%) and Italy (25%)
- Finally, of the six types of identifying information asked about (a photo that clearly shows your face, your last name, your address, your phone number, your school, your correct age), children have included an average of 2.6 of these on their profile, ranging from 1.9 in Bulgaria to 3.5 in Hungary.

It seems, in sum, to be a fairly common practice for children to post identifying information of some kind or other on their SNS profile. Some information is routinely asked for by sites (e.g. a clear photo) or a correct age, though not all children provide this. Some is not asked for but is still provided by a minority of children (e.g. phone number). Further, SNSs vary in their default practices. Clearly, there is a balance to be struck between the design of sites, especially those much used by children, in terms of default settings and advice/warnings about what to post, and the responsibility of children and those who advise them regarding what they post.

"Voting on a person or groups that are organised online and operate against you (threats, slanders, taking over personal sites." **(Girl, 14, Austria)**

4.6. Children's approach to online communication

Drawing the line between activities which facilitate beneficial outcomes and those which increase risk of harm is not straightforward. One aspect of contact and conduct risks that particularly challenges policy makers is that children's agency, although generally to be celebrated, may lead them to adopt risky or even deliberately risk-taking behaviours.[42] Focusing on communication online, we explored this by inviting children to compare their approach to communication online and offline (see Table 7).

Table 7: Online and offline communication compared (age 11+)

% how true is this of you…	Not true	A bit true	Very true
I find it easier to be myself on the internet than when I am with people face to face	50	38	12
I talk about different things on the internet than I do when speaking to people face to face	55	35	11
On the internet I talk about private things which I do not share with people face to face	68	24	9
Average	57	32	10

QC103a-c: How true are these of you?

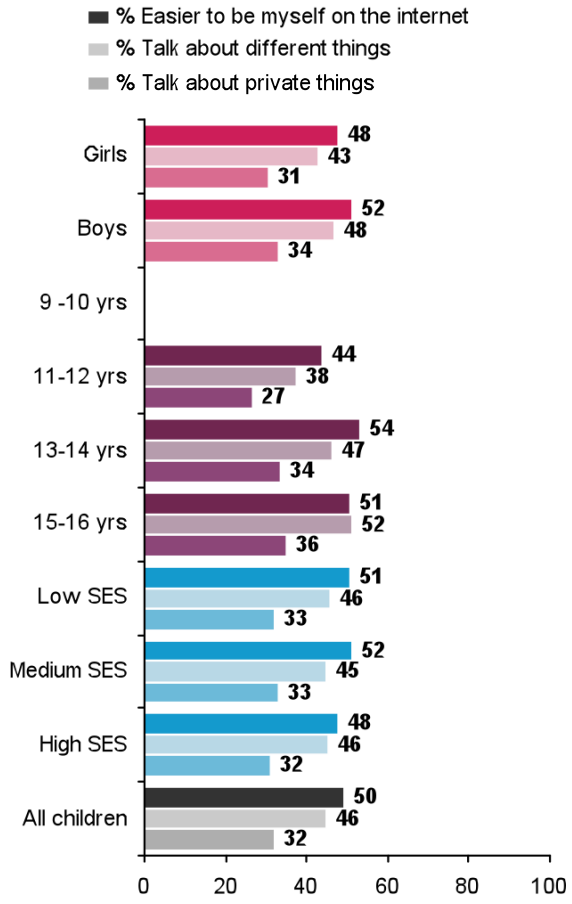
Base: All children aged 11-16 years who use the internet.

- **Half (50%) of those aged 11-16 across Europe say it is a bit or very true of them that they find it easier to be themselves on the internet than when with other people face to face. Half, however, say this is not true of them.**
- Slightly fewer (46%) say they talk about different things on the internet than when speaking to people face to face. Again, over half say this is not true of them.
- **One third (32%) say that on the internet they talk about private things which they do not share with people face to face. Two thirds say this is not true for them.**

It seems that children divide into those for whom face to face and online communication are not especially distinct, and those for whom the internet offers possibilities for

more varied or private or authentic communication that can be difficult to express with people face to face.

Figure 26: Online and offline communication compared (% aged 11+ who say a bit true or very true)



QC103: How true are these of you? Percentage who said 'A bit true' or 'Very true'

Base: All children aged 11-16 who use the internet.

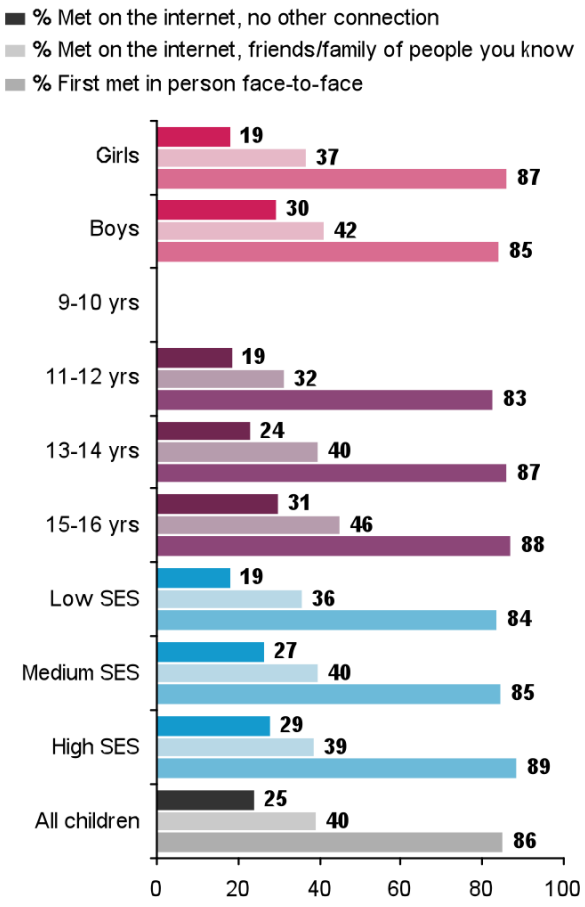
- For age, the trend is notable: older teenagers are more likely to agree with each statement, again suggesting that as children move through adolescence, the internet offers a valued opportunity for different, perhaps more intimate, communication.
- Although the gender differences are slight, it is intriguing that boys are a little more likely than girls to agree with all three statements regarding the potential value of online communication.
- There are no particular differences by SES.

If the internet offers some children an opportunity for more personal or intimate communication, this raises the crucial question, with whom are they communicating? For each platform (email, SNS, chatrooms, IM, games, virtual worlds) that the child had used in the past month, he or she was asked about "the types of people you have had contact with" (Figure 27).

This question pursued the common assumption that it is 'strangers' who threaten children's safety through online contact although, as previous research suggests, people from within a child's social circle can also pose a threat.[43]

- **A sizable minority (40%) are in touch with people that they first met on the internet but who have a connection with friends or family offline**: they may be said to be part of the child's wider circle offline though the child has not met them face-to-face.
- **One quarter of children aged 11-16 (25%) says they communicate online with people who they met online and who have no connection with their offline social networks**. It is these contacts, arguably, for which a better understanding is needed in the context of risk and safety issues.
- The gender difference observed mainly focuses on this last category – substantially more boys (30%) than girls (19%) communicate online with people whom they only know online. It may be that these are contacts sustained through online gaming (as shown earlier, gaming is the main online activity that distinguishes girls and boys).
- Four fifths in each age group communicate online with their existing offline social circle. But as children grow older, they widen their circle by communicating with people online who are connected to their offline circle but whom, nonetheless, they first met on the internet: 32% of 11-12 year olds, 40% of 13-14 year olds and 46% of 15-16 year olds.
- **The age difference for communicating with people that they first met on the internet (and who have no other connection with their lives) is striking: 19% of 11-12 year olds, 24% of 13-14 year olds and 31% of 15-16 year olds.**
- Differences by SES of household show a similar trend: more middle class children have wider and more diverse circles of online contacts, communicating with more people they met on the internet than do the low SES group (29% vs. 19%).

Figure 27: Nature of children's online contacts (age 11+)



QC310: I am going to read out each of the things you have just told me you do (e.g. email or whatever). For each one, I'd like you to tell me the types of people you have had contact with when doing each of these things. Response options: people who you first met in person face-to-face; people who you first met on the internet, but who are friends or family of other people you know in person; people who you first met on the internet, but who have no other connection to your life outside of the internet. *(Multiple responses allowed)*

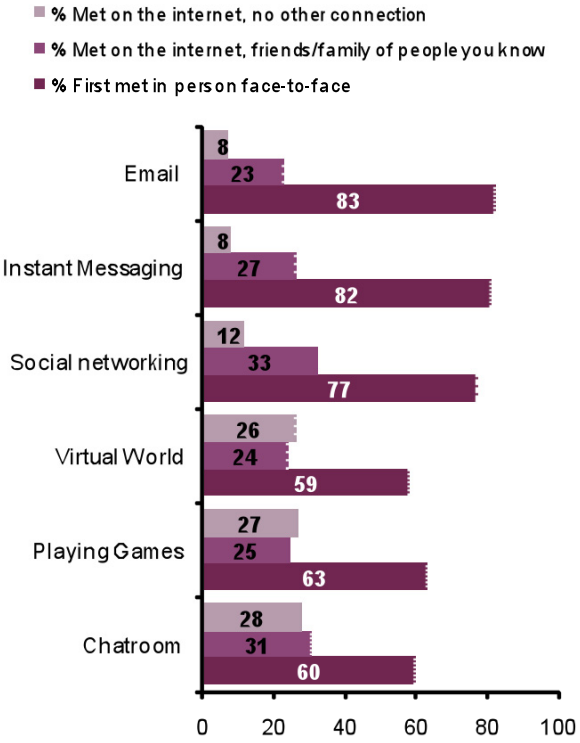
Base: All children aged 11-16 who use internet and have given at least one valid response about the nature of their online contacts.

- **Most children who communicate online are in touch with people they already know in person face-to-face (86%).** Thus online communication draws from and complements the communication that occurs in pre-existing social networks in daily life.

If it is considered that meeting people online, especially when there is no offline connection with an existing social circle, is a risky practice, then awareness-raising efforts should focus on boys, older teenagers, and those from high SES homes.

Whether or not having such contacts is actually associated with increased risk of harm remains for further analysis. However, it is possible here to examine the kind of contact according to the type of online communication used (see Figure 28).

Figure 28: Nature of children's online contacts, by type of communication (age 11+)



QC310: I am going to read out each of the things you have just told me you do (e.g. email or whatever). For each one, I'd like you to tell me the types of people you have had contact with when doing each of these things. Response option as before. *(Multiple responses allowed)*

Base: All children aged 11-16 who communicate on the internet in each of the ways shown (email, instant messaging, etc).

- Three applications provide the key means by which children communicate online with people they already know in person face to face. Of the 11-16 year olds who use email, 83% use it to contact people they know in person. For instant messaging, the percentage is 82%; for social networking sites it is a little lower at 77%.
- For those who use virtual worlds, play games online or visit chatrooms, around six in ten are in touch with people they know in person (59%, 63% and 60%).

- Each application is used by between a quarter and a third to communicate with people they have not met face to face but who are part of their social circle offline.
- **For virtual worlds, game playing and chatrooms, over one quarter use these applications to communicate with people they have no other connection with than their contact via the internet. For email, instant messaging and social networking, such contacts are much fewer.**
- **However, it is significant that, still, 12% or one in eight of those using social networking sites are in touch this way with people they have no other connection with.**

Table 8: Children's actions in relation to online contacts

% who have, in the past 12 months . . .	Never/ not in past year	Less than monthly	More often
Looked for new friends on the internet	60	19	21
Added people to my friends list or address book that I have never met face to face	67	17	16
Pretended to be a different kind of person on the internet from what I really am	85	9	6
Sent personal information to someone that I have never met face to face	85	9	6
Sent a photo or video of myself to someone that I have never met face to face	87	8	5

QC145a-c and QC146a-b: Have you done any of the following things in the PAST 12 MONTHS; if yes, how often have you done each of these things?

Base: All children who use the internet.

Finally in this section, children were asked about their practices in engaging with online contacts (see Table 8).

- Most children aged 9-16 say that in the past year they have not sent a photo or video of themselves (87%) or personal information (85%) to someone they have never met face to face. Nor have they pretended to be a different kind of person on the internet (85%).
- Two thirds (67%) say that they have not added people to their friends' list or address book who they have never met face to face, nor have they (60%) looked for new friends on the internet.
- However, a minority of children say they have done some of these things. **Four in 10 (40%) have looked for new friends on the internet, half of these more often than monthly. One third (33%) have added contacts they don't know face to face, half of these more often than monthly.**
- **Fewer have sent personal information (15%) or images of themselves (13%) to people they haven't met in person.**

Some of these approaches to communication might be judged to involve children in 'risky' practices. But as our overall framework asserts, the key question is whether or not undertaking these practices results in more risk-related behaviours or, importantly, more harm - a key question for further analysis.

"That older guys from other countries add you on Facebook. But then again, you don't have to accept."

(Girl, 16, Sweden)

5. RISK AND HARM

5.1. Methodological issues

It is acknowledged from the outset that it is particularly difficult to measure private or upsetting aspects of a child's experience. Our approach to mapping the online risk experiences of European children centres on several key responses to the methodological challenges faced:

- To maximise the quality of children's answers, the survey was conducted in home, face to face with children. This meant the interviewer could check the child's understanding, clarifying both questions and answers as needed.
- Every effort was made to provide the child with a quiet space to answer, without oversight or interference from a parent or others.
- Sensitive questions on risk, parental mediation and items where privacy should be respected were presented to children using a self-completion format so that neither the interviewer nor any family member present could oversee the child's response.[44]
- Rather than using emotive terms ('bully', 'stranger'), verbal definitions were provided using child-friendly language to ensure that children understood what was being asked of them.
- The questionnaires were tried out and then refined, using cognitive testing in each country, to ensure children's comprehension.
- To ensure questions are comparable across languages, the *EU Kids Online* network checked 'tricky' terms (both sensitive ones, and technical ones) in the translation and back translation process.
- Questions focused on children's reports of what has actually happened to them within a set time period, or the last time something happened, rather than inviting general statements of opinion or response.
- Every attempt was made to phrase questions neutrally, avoiding value judgements. Children were asked if a specific experience had bothered them without assuming that it had indeed been problematic (experienced as harmful) by all children.
- 'Bothered' was defined thus: *"for example, [something that] made you feel uncomfortable, upset, or feel that you shouldn't have seen it."*
- Thus harm was measured subjectively in terms of the severity and duration of their responses. Within a survey, an objective account of harm is not obtainable (as might, for instance, be possible using the records from law enforcement or clinicians).[45]
- Detailed follow up questions on what children have experienced online, how they felt and how they may have coped were asked for four main risks of harm to the child's safety – bullying, pornography, sending/receiving sexual messages ('sexting') and meeting online contacts ('strangers') offline.
- It was recognised that children may either be victims or perpetrators of certain harms (or both), as explored for bullying and sending/receiving sexual messages.
- An effort was made to keep online risks in proportion by comparing the incidence of online and offline risk experiences where appropriate.
- A direct comparison of the incidence of risks as reported by a child and by the parent most involved in their internet use, to pinpoint parental awareness of children's online experiences.
- A leaflet of helpful advice and sources of further support and guidance was provided for every child. We thank Insafe for compiling this, with a version for each country and language.[46]
- For sensitive questions, children could always answer 'don't know' or 'prefer not to say', rather than being forced to provide an answer when uneasy. In general, few children selected these options but ethically it was important to give children the option[47].

A detailed account of the methodological principles employed in the project, especially on the ethics of asking children questions about sensitive or private or 'adult' matters, is online documents at www.eukidsonline.net.[48] This includes the Research Ethics approval process undertaken and the Technical Report on survey design, sampling and administration.

"I am bothered by advertisements, which say that you have won and if you click on it, it takes you to paid mobile services pages." **(Boy, 16, Estonia)**

5.2. Overall experiences of harm

Before asking children about their specific online experiences associated with risk, we included both closed and open-ended questions in the survey that invited an overall view from the children. Quotations from their answers to the open-ended question are included throughout this report.[49]

Adopting an approach that we then repeat for the risk sections that follow (pornography, sexual messaging, etc), we decided to ask children about experiences that had bothered them in some way. The interviewer explained that by *'bothered'* we meant, *"made you feel uncomfortable, upset, or feel that you shouldn't have seen it."* The aim was to focus on the child's self-report of concern or distress in a way that avoided an adult framing (e.g. danger, risk, bad things, problem).

After this introduction, children were asked two closed questions:

- *Do you think there are things on the internet that people about your age will be bothered by in any way?*
- *In the past 12 months, have you seen or experienced something on the internet that has bothered you in some way?*

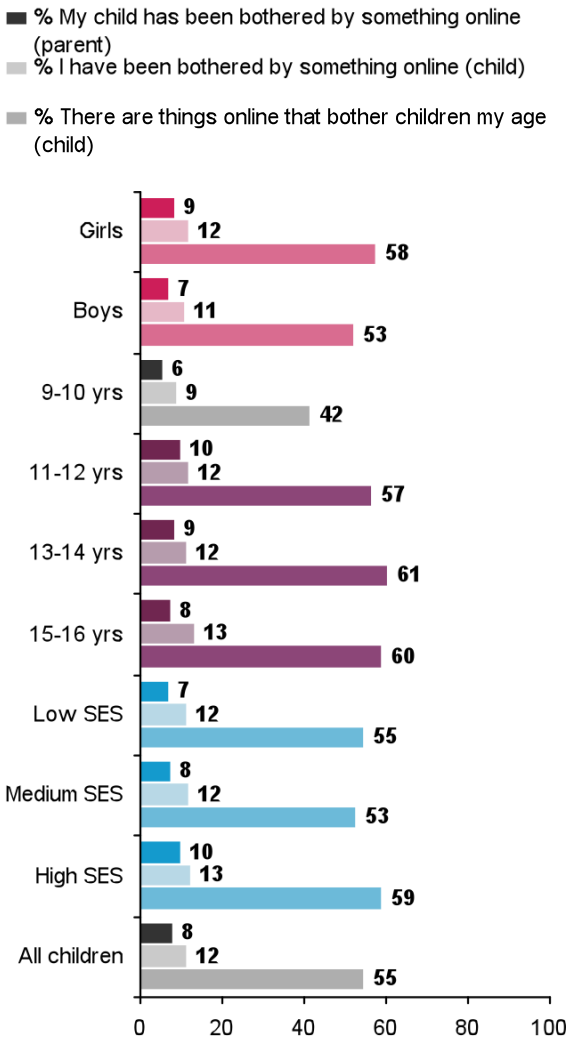
Also parents were asked:

- *As far as you are aware, in the past year, has your child seen or experienced something on the internet that has bothered them in some way?* [closed-ended question]

Children's and parents' answers are shown in Figure 29:

- In a classic case of the 'third person effect',[50] children are roughly four times more likely to say that there are things on the internet that will bother other children (55%) compared to saying that there are things that have bothered them personally in the past year (12%).
- In terms of the magnitude of the answers, it is striking that over half of European children aged 9-16 think that there are things on the internet that will bother children of their age.
- Clearly, many children do not regard the internet as a totally safe or unproblematic environment. This is particularly the case for girls more than boys and for teenagers more than younger children.

Figure 29: Online experiences that have bothered children, according to child and parent



QC110: In the PAST 12 MONTHS, have you seen or experienced something on the internet that has bothered you in some way? For example, made you feel uncomfortable, upset, or feel that you shouldn't have seen it. QP228: As far as you are aware, in the past year, has your child seen or experienced something on the internet that has bothered them in some way? QC322: Do you think there are things on the internet that people about your age will be bothered by in any way?

Base: All children who use the internet and one of their parents.

- **In terms of their own experiences of problematic events, a sizeable minority – 12% (or one in eight children) – says that they have been bothered by something on the internet in the past year. This is a somewhat higher percentage than reported by parents (8%).**

- Very slightly more concern is expressed by girls and their parents, than by boys and their parents.
- Differences by SES of household are more notable, with middle class parents in particular reporting a greater likelihood that their child has been bothered (10% from high and medium SES homes compared with 7% from low SES homes). Since there is less difference among their children (13% vs. 12%), it seems that working class parents are most likely to underestimate their children's reporting of harm.
- **The youngest children, aged 9-10 years, are least likely to have been bothered by something online (9%) compared with older children (12-13%). Parents appear most likely to underestimate problems experienced by the youngest and the oldest groups.**

Figure 30 shows the distribution by country of children's and parents' perceptions of problematic aspects of the internet, ranked by how children describe their own experiences:

- **Children's overall perceptions of the internet for children their own age vary considerably, from Denmark and Spain, where nearly all children think there are things on the internet that bother children of their age (93% and 92% respectively) to the much lower estimates from children in Bulgaria (38%), Austria (42%) and Turkey (44%). The average across all countries is 55%.**
- In relation to children's reporting that they themselves have been bothered by something online, much lower estimates apply (with an average across countries of 12%). There is no obvious pattern connecting estimates of risk to oneself and to others, though any relationships can be examined further.
- **One quarter of children in Denmark (26%) and Estonia (25%), and a fifth of children in Romania, Sweden and the Netherlands (all 21%) say that they have been bothered by something on the internet. These percentages are around double the European average of 12%, and notably higher than in Italy (6%), Portugal (7%), France and Germany (both 8%).**
- **In most countries, children are more likely to report a problem than their parents (overall average 8%), and this difference is marked in Denmark, Estonia and, especially, Romania (where only 7% of parents, but 21% of children, say the child has been bothered by something online). Only in Finland, France and Ireland are parents are marginally more likely to perceive a problem than their children**.

Several conclusions may be drawn. First, over half (55%) of all children consider that there are things on the internet that will bother children about their own age. It is worth contrasting this finding with that shown in Figure 20, namely that 84% think it true that there are lots of things on the internet that are good for children of my age (38% "very true" and 46% "a bit true"). On balance, therefore, children see the internet positively, but clearly they are aware of both the opportunities and the risks it affords them.

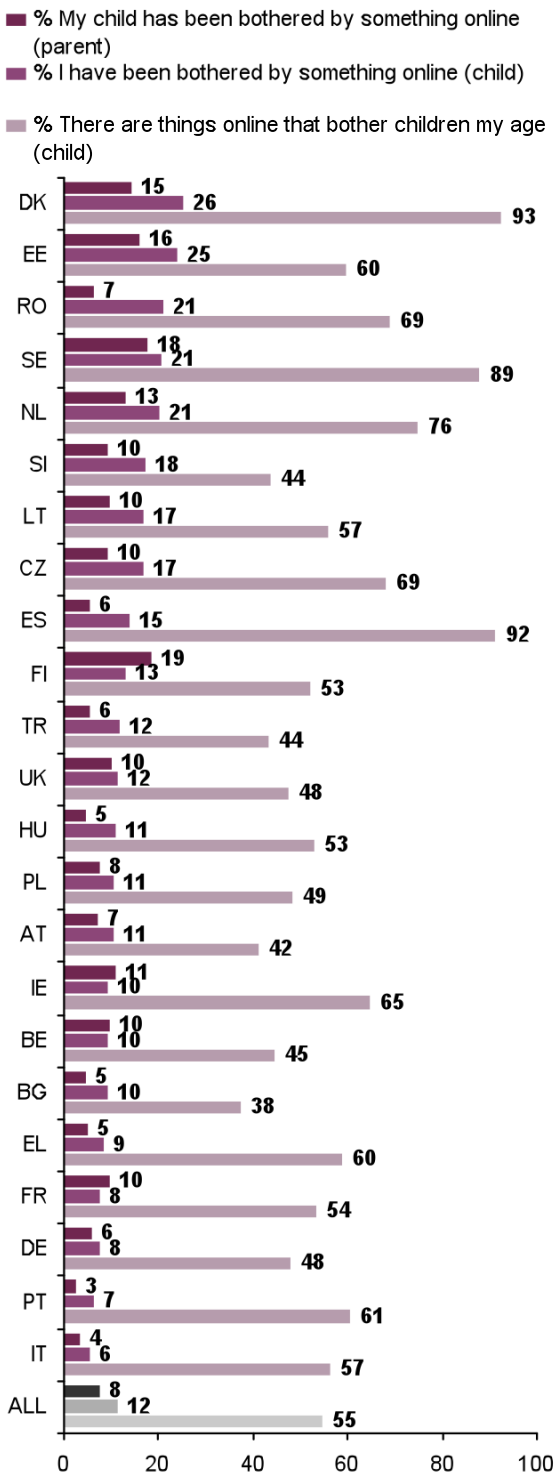
Second, although many children perceive that internet use may be risky, they do not themselves report that they have experienced harms from internet use in any great numbers. One in eight children reporting some problem is noteworthy, and may justify policy attention. But it is, nonetheless, a small minority of children who use the internet, many of them daily.

Third, although previous research has observed a gap in perceptions between parents and children,[51] here the gap is relatively small, though it is more sizable in some countries. It may be concluded that parents are becoming more aware of the experiences their child may have online.

In this section, we have not examined the nature of the problems children experience on the internet, merely the overall perception that there are things that have bothered them. In the following sections, we examine children's reported experiences (nature, incidence, severity and coping) regarding a series of particular risks of harm.

"I don't know. I think absolutely nothing. There isn't any kind of thing that you can't get over in less than….10 seconds and forget about until tomorrow." **(Girl, 14, Romania)**

Figure 30: Online experiences that have bothered children, according to child and parent, by country



QC110: In the PAST 12 MONTHS, have you seen or experienced something on the internet that has bothered you in some way? For example, made you feel uncomfortable, upset, or feel that you shouldn't have seen it. QP228: As far as you are aware, in the past year, has your child seen or experienced something on the internet that has bothered them in some way? QC322: Do you think there are things on the internet that people about your age will be bothered by in any way?

Base: All children who use the internet and one of their parents.

"Many people get viruses when downloading music/films and later they learn that they downloaded viruses instead." **(Girl, 14, Estonia)**

6. SEEING SEXUAL IMAGES

6.1. When / where children have seen sexual images online

Pornography is not easy to define. It covers a wide range of material from the everyday to the illegal. It may or may not be harmful to those exposed to it. In terms of the classification of risks presented in Table 1, it constitutes a content risk, positioning the child as receiver of what is, generally, mass produced content distributed via the internet.

> "Pornographic pictures are too widely available and unsuitable for children my age and younger, videos of violence" **(Boy, 15, Slovenia)**

For ethical reasons, pornography cannot be defined very explicitly in a closed-ended survey with children, for to do so might introduce new ideas to children who are hitherto unaware of such phenomena. Consequently, although this section broadly concerns pornography, the term itself was not used in the interview with children.[52]

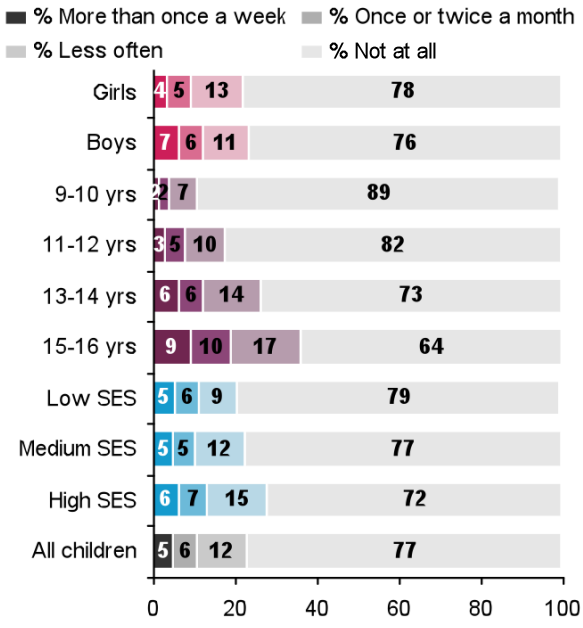
Questions about pornography were introduced to children in the following way:

"In the past year, you will have seen lots of different images – pictures, photos, videos. Sometimes, these might be obviously sexual – for example, showing people naked or people having sex."

To contextualise online pornography within the wider context of exposure to pornography across any media, children were first asked, "*Have you seen anything of this kind in the past 12 months?"* Figure 31 shows that most 9-16 year olds in Europe say that they have not seen sexual images of any kind:

- One in five (23%) say that they have seen obviously sexual images in the past 12 months, whether online or offline.
- **Among the 23% who have seen sexual images, online or offline, around half have seen this at least once or twice a month, while half have seen it less often.**
- **Seeing sexual images at all is related to age. One third of 15-16 year olds (36%) have seen such images compared with just 11% of 9-10 year olds; teenagers also see such images more often.**
- There are few or no differences by gender or SES.

Figure 31: Child has seen sexual images online or offline in past 12 months



QC128: Have you seen anything of this kind [obviously sexual] in the past 12 month? QC129: How often have you seen [images, photos, videos that are obviously sexual] in the past 12 months.

Base: All children who use the internet.

This exposure may derive from seeing pornography in any of a range of media (see Table 9).

- **The most common ways for children to see sexual images are on the internet (14%) and on television, films or videos (12%).[53]**
- **Less common is seeing sexual images in magazines or books (7%) and only 2% report seeing such images on their mobile phone.**

- Although the trend for increasing exposure with age is strong, it does not appear to differ by medium. Overall, as children grow older, they are more likely to see sexual images across all media.

Table 9: Child has seen sexual images online or offline in past 12 months, by age

%	Age				All
	9-10	11-12	13-14	15-16	
On any websites	6	9	17	24	14
On television, film or video/DVD	6	9	14	21	12
In a magazine or book	3	6	8	11	7
By text (SMS), images (MMS), or otherwise on my mobile phone	1	1	3	5	2
By Bluetooth	0	0	1	2	1
Has seen at all, online or offline	11	18	27	36	23

QC128: Have you seen anything of this kind [obviously sexual] in the past 12 month? QC130a-f: In which, if any, of these places have you seen [images, photos, videos that are obviously sexual] in the past 12 months? QC131: Have you seen [images, photos, videos that are obviously sexual] on any websites in the past 12 months? *(Multiple responses allowed)*

Base: All children who use the internet.

> "Sexual sites that show naked people or people having sex; especially fatal are webpages with naked children."
>
> **(Girl, 15, Austria)**

> "What really affects me and my psychology are the ones depicting rape and sexual acts." **(Girl, 11, Turkey)**

Although it is commonly supposed that boys are more exposed to pornography, the only observable gender difference is that teenage boys (13-16) are more likely than girls to see sexual images on websites (23% vs. 17%) (See Table 10).

Table 10: Child has seen sexual images online or offline in past 12 months, by age and gender

%	9-12 years		13-16 years		All
	Boys	Girls	Boys	Girls	
On any websites	8	7	23	17	14
On television, film or video/DVD	8	6	17	17	12
In a magazine or book	5	4	9	10	7
By text (SMS), images (MMS), or otherwise on my mobile phone	1	1	4	4	2
By Bluetooth	0	0	2	1	1
Has seen at all, online or offline	16	13	32	30	23

QC128: Have you seen anything of this kind [obviously sexual] in the past 12 month? QC130a-f: In which, if any, of these places have you seen [images, photos, videos that are obviously sexual] in the past 12 months? QC131: Have you seen [images, photos, videos that are obviously sexual] on any websites in the past 12 months? *(Multiple responses allowed)*

Base: All children who use the internet.

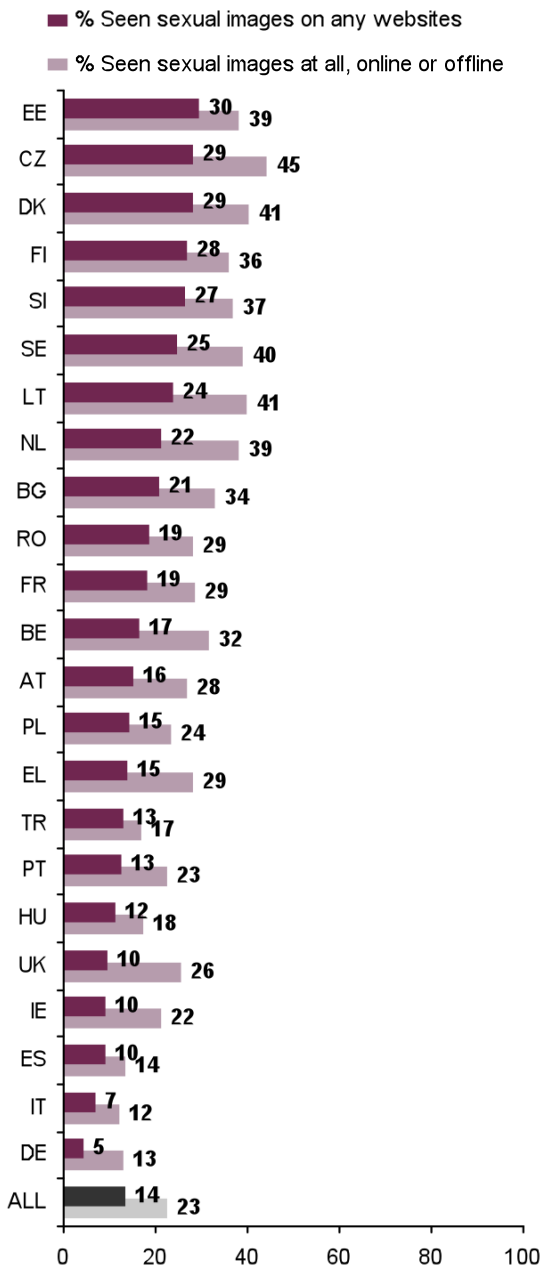
Country differences in exposure to sexual images online are shown in Figure 32. This reveals striking differences across Europe.

- **The greatest exposure to sexual images online is among children in Northern (Denmark, Finland, Sweden, Netherlands) and Eastern European countries (Estonia, the Czech Republic, Slovenia, Lithuania), with around one third having seen sexual images either online or offline.**
- Least exposure is in large 'older' members of the EU - Germany, Italy, Spain, Ireland and the UK

The overall reported exposure to sexual images in this survey is somewhat lower than found in other surveys, though others may use milder definitions of pornography (here, the emphasis was on sexuality including images of people having sex) and, generally, others have surveyed teenagers.[54] In the present survey, the one in five who reports exposure to sexual images across media represents an average of all age groups from the lowest (one in 9 of the 9-10 year olds) to the highest (more than one in three of the 15-16 year olds). It is also an average across all countries, where a similar range occurs (from countries where more than one third of all children have

seen sexual images to those where only one in 8 has seen it).

Figure 32: Child has seen sexual images online or offline in past 12 months, by country



QC128: Have you seen anything of this kind [obviously sexual]?
QC131: Have you seen these kinds of things on any websites in the past 12 months?

Base: All children who use the internet.

On average, 14% of the children surveyed have seen sexual images online. It is noteworthy that exposure to such images on the internet is roughly associated with exposure across all media – the more they have seen sexual images in general (especially, on television, film or video/DVD), the more they are likely also to have encountered it online. In some countries, the internet represents a proportionately less important source of exposure to pornography (e.g. Germany, Ireland, Portugal, Greece and the UK), meaning that if children do see sexual images in these countries it is often on other media. In other countries, it seems that the internet has become as or more common than any other source of pornography (e.g. Estonia, Finland, Turkey, Spain). National studies are needed to provide an explanation of these differences.

6.2. How children have seen sexual images online

Although it is difficult to determine whether children's exposure to sexual images is deliberate, accidental, or something in between, one follow-up question pursued the ways in which such exposure occurs, to shed some light on the question of intent (see Table 11). It seems that many children who report having seen sexual images online were exposed to them accidentally:

- 7% of 9-16 year olds overall (46% of children who have seen sexual images online) came across them as images that pop up accidentally.
- 5% of children overall (or 32% of those who have seen sexual images online) have seen them on a video hosting site such as YouTube.
- Slightly fewer have seen sexual images on adult sites , social networking sites or elsewhere on the internet (2-4% in each case).
- As before, the age trends do not appear to differ by type of exposure (e.g. via pop-ups or adult sites or SNSs). Rather, as children become teenagers, they are more likely to see sexual images in a range of ways.

"I was playing a game with Cedric online and we bumped into something like sex and it was all over the screen" **(Boy, 11, Belgium)**

Table 11: How child has seen sexual images online in past 12 months, by age

%	Age				All
	9-10	11-12	13-14	15-16	
By images that pop up accidentally	2	4	8	14	7
On a video-hosting site	2	3	4	10	5
On an adult/X-rated website	1	2	5	9	4
On a social networking site	1	2	4	7	3
Some other type of website	2	2	4	5	3
In a gaming website	1	3	3	4	3
On a peer to peer file-sharing website	0	1	2	4	2
Seen sexual images online	6	9	17	24	14

QC131: Have you seen these kinds of things on any websites in the past 12 months? QC132: Which types of website have you seen [any kind of sexual images] on in the last 12 months? *(Multiple responses allowed)*

Base: All children who use the internet.

"When there are some embarrassing pictures in a game. Video clips. Pictures and images that can not be blocked." **(Girl, 11, Bulgaria)**

It may be wondered just what kind of sexual images children have seen. Those aged 11+ were asked what exactly they had seen (see Table 12).

- **The most common type of sexual image that children report is images or videos of someone who is naked – 12% of all children 11-16 (and almost 70% of those who have seen sexual images online).**
- **8% of 11-16 year olds (13% of 15-16 year olds) say they have seen someone having sex on the internet, and 8% have seen someone's genitals (termed 'private parts' in the UK survey and appropriately translated using child-friendly terms in the other languages).**
- In all, nearly half of those who report seeing sexual images online claim to have seen images or videos of someone's private parts or of people having sex.
- **Least common was seeing the kind of content most likely to be extreme, as a form of pornography, namely images or movies showing violent sexual content – just 3% of children. Still, one in seven of those who have seen sexual images online have seen portrayals that show violent sexual activity.**

Table 12: What kind of sexual images the child has seen online in past 12 months, by age (age 11+)

%	Age				All
	9-10	11-12	13-14	15-16	
Images or video of someone naked	n.a.	7	12	19	12
Images or video of someone having sex	n.a.	4	8	13	8
Images or video of someone's 'private parts'	n.a.	3	8	13	8
Images or video or movies that show sex in a violent way	n.a.	1	3	3	3
Something else	n.a.	1	1	3	2
Seen sexual images online	6	9	17	24	14

QC131: Have you seen these kinds of things on any websites in the past 12 months? QC133: Which, if any, of these things have you seen on a website in the last 12 months? *(Multiple responses allowed)*

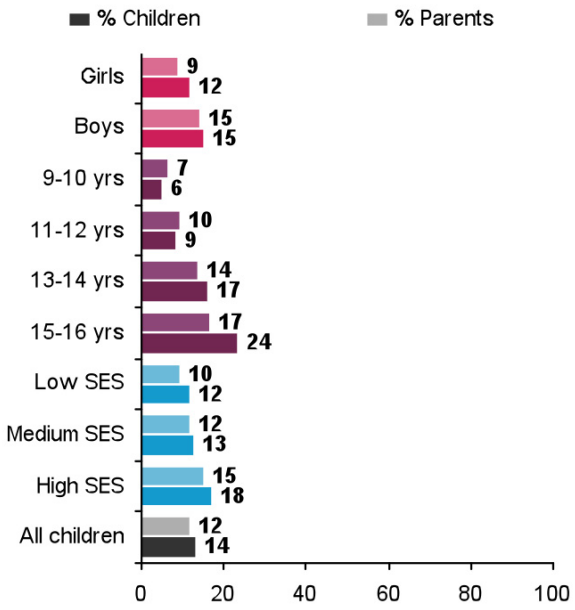
Base: All children 11-16 who use the internet.

6.3. Children's and parents' accounts of seeing sexual images online

Previous research has raised questions about how much parents really know about their children's experiences online, such knowledge surely being a prerequisite for supporting or guiding their children. Indeed a series of surveys has found parents to significantly underestimate the level of risk reported by children. [55]

Figure 33 compares the overall reporting by children and by parents regarding children's exposure to sexual images online.

Figure 33: Children's and parents' accounts of whether child has seen sexual images online



QP235: [Has your child] seen images on the internet that are obviously sexual - for example, showing people naked or people having sex. QC131: Have you seen these kinds of things on any websites in the past 12 months?

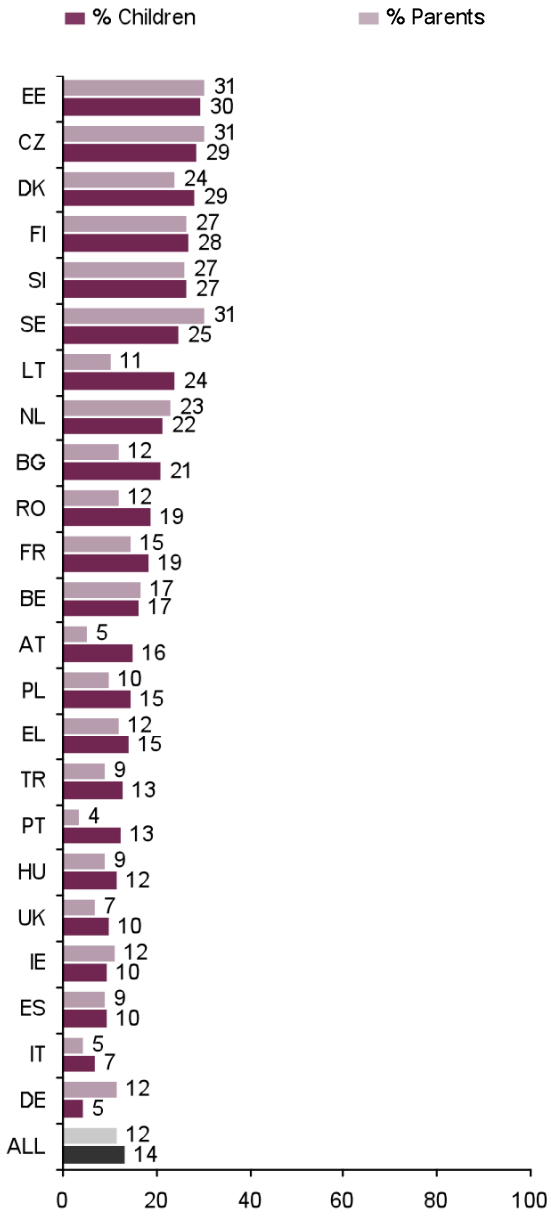
Base: All children who use the internet and one of their parents.

- Overall, parents give rather similar answers to their child about the likelihood that the child has seen sexual images on websites.
- **Parents tend slightly to overestimate exposure to sexual or pornographic content for younger children and slightly to underestimate it for older children (relative to children's answers).**

In general, considerable agreement is evident, partly because overall exposure is seen as relatively low by both parents and children. It seems that there has been a reduction in the generation gap in perceptions noted in previous research. Possibly, recent improvements in filter and spam controls have reduced children's accidental or unwanted exposure inn particular.

As before, country differences in the gap between child and parent perceptions are evident (Figure 34).

Figure 34: Children's and parents' accounts of whether child has seen sexual images online, by country



QP235: [Has your child] seen images on the internet that are obviously sexual – for example, showing people naked or people having sex. QC131: Have you seen these kinds of things on any websites in the past 12 months?

Base: All children who use the internet and one of their parents.

- Children's overall level of exposure to sexual images online appears least unrecognised by parents in Lithuania, Romania, Austria and Bulgaria. This

suggests that initiatives to improve parental knowledge of children's online experiences could be beneficial in these countries.

- Parents appear most likely to over-report exposure, if one takes the child's word for it, in Sweden, the Czech Republic, Estonia, and the Netherlands. This could be for a number of reasons ranging from parental anxiety to less concern about sexual images in these countries, though overall the differences are very small.

However, the foregoing graphs compare children overall with the answers given by parents overall. As will be seen, this gives a rather misleading impression of child/parent agreement. Another way of presenting the same data is shown in Table 13, now exploiting the unique features of the *EU Kids Online* survey in which answers can be analysed for each child/parent pair.

Table 13: Comparison between children's and parents' accounts of whether child has seen sexual images online

Child has seen sexual images on the internet?	Child's answer	
	Yes	No
% Parent answer:		
Yes	35	15
No	41	66
Don't know	24	19
	100	100

QP235: [Has your child] seen images on the internet that are obviously sexual - for example, showing people naked or people having sex. QC131: Have you seen these kinds of things on any websites in the past 12 months?

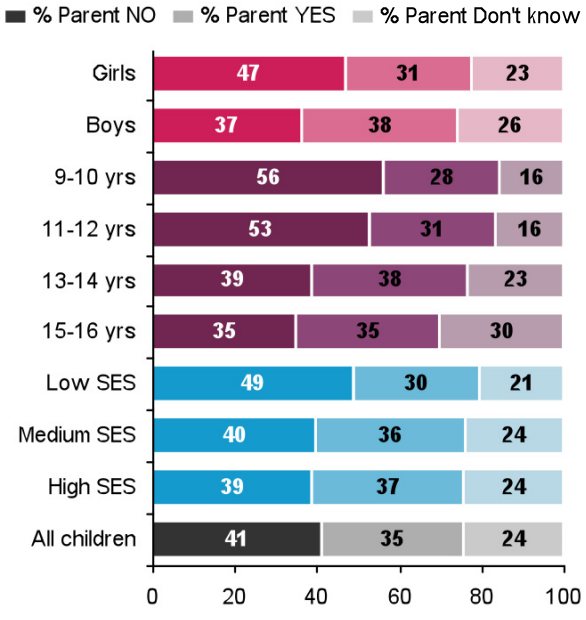
Base: All children who use the internet and one of their parents.

- **Among just those children who have seen sexual images online, one in three (35%) of their parents agree this has occurred. One in four (24%) of their parents say that they don't know and, significantly, 41% say their child has not seen sexual images on the internet.**
- Among children who have not seen sexual images online, most (66%) parents say the same, though one fifth is uncertain and one sixth thinks their child has seen this on the internet.

Most policy concern has focused on those cases where the child has seen sexual images online. Which parents are aware of this (see Figure 35)?

- **Parents appear less aware that their child has seen sexual images online in the case of daughters and younger children.**
- While they are more likely to recognise that their teenagers have seen sexual images online, they are also more uncertain, with a higher percentage of 'don't know' answers.
- It is noteworthy that among younger children and girls who have seen sexual images online, parents are least cautious – possibly popular assumptions about exposure to pornography (i.e. that it is seen by boys, teenagers) makes them more confident than they should be that they know what younger children/daughters have seen.
- Parents from lower SES homes are also a little more confident that their child has not seen sexual content online, or that they know the answer, than is merited by their child's account.

Figure 35: Parents' accounts of whether child has seen sexual images online (only children who have seen such images)



QP235: [Has your child] seen images on the internet that are obviously sexual - for example, showing people naked or people having sex.

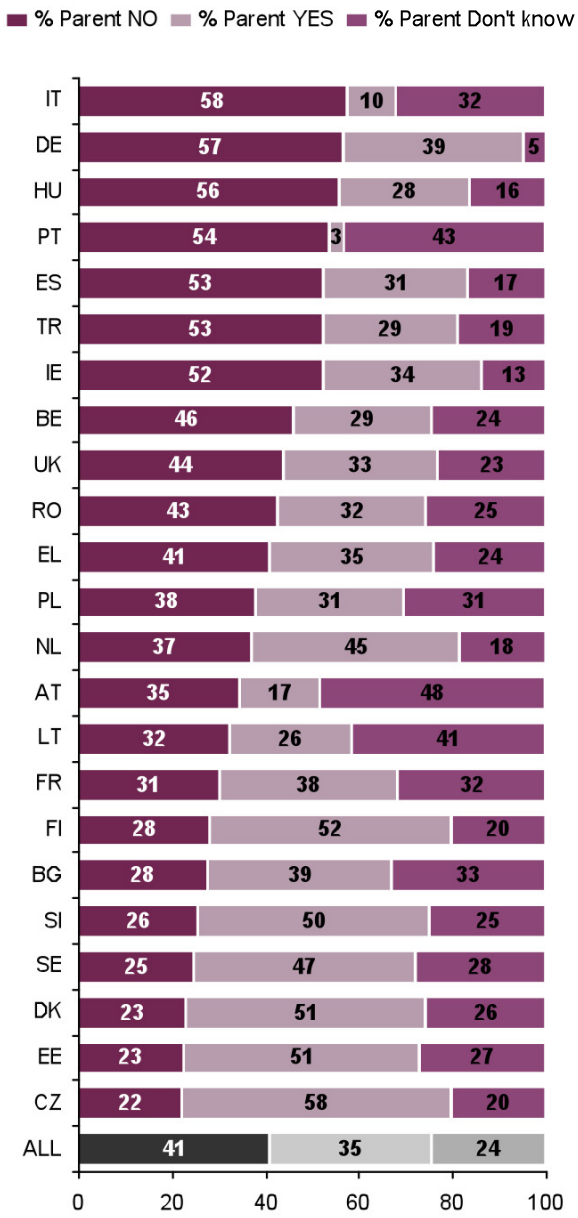
Base: All children who use the internet and who have seen sexual images online, and one of their parents.

> "Young people in my age can be bothered by announcements of the internet paedophiles and large quantities of pornography."
>
> **(Boy, 16, Estonia)**

Figure 36 again shows considerable cross-national variation in the degree of child/parent agreement regarding the child's exposure to sexual images online.

- **In cases where the child has seen such content, it is parents in Portugal, Italy and Austria who are least likely to recognise this.**
- By contrast, parents are most likely to recognise when their child has seen online sexual images in the Czech Republic, Finland, Denmark, Estonia and Slovenia.
- 'Don't know' responses among parents differ very substantially, with least knowledge of children's experience of sexual or pornographic content claimed by parents in Austria, Portugal and Lithuania, and most in Germany.

Figure 36: Parents' accounts of whether child has seen sexual images online (only children who have seen such images)**, by country**



QP235: [Has your child] seen images on the internet that are obviously sexual – for example, showing people naked or people having sex.

Base: All children who use the internet and who have seen sexual images online, and one of their parents.

6.4. Perceived harm from seeing sexual images online

When does risk translate into harm? As noted at the outset, the notion of risk refers to a probability not a necessity of harm. Unless one makes the strong case that any exposure to sexual images is inevitably harmful in some degree, it must be recognised that some children may, for instance, be exposed to pornographic content with no adverse effects. Others, however, may be harmed – whether upset at the time of the exposure, or worried later, or even influenced in their attitudes or behaviour years subsequently.[56]

While acknowledging that children may not evaluate an experience in the same way as adults, the value of the *EU Kids Online* survey is that we asked children directly about their online experiences. So as not to presume that all risks result in harm, we asked further questions to all those children who said they had seen sexual images online. These questions were prefaced as follows:

Seeing sexual images on the internet may be fine or may not be fine. In the LAST 12 MONTHS have you seen any things like this that have bothered you in any way? For example, made you feel uncomfortable, upset, or feel that you shouldn't have seen them.

The purpose was to explore the relation between the prevalence of a risk factor (here, exposure to online pornography) and the degree of harm as subjectively perceived by the child.

Table 14 shows the relation between seeing sexual images online in the past 12 months and being bothered by such images. In the questions that followed, we sought to focus children's memories by asking about the *LAST TIME* they were bothered in this way.

- **Although only one in eight (14%) of Europe's 9-16 year olds have encountered sexual images online, one in three of those who have seen it (5% of all children) report being bothered by this experience.**
- The relation between risk and harm (as perceived by children) varies by country in a complex way. For example, in Bulgaria, one in five children has been exposed to sexual images online but fewer than one in five of those children were bothered by what they saw. By contrast, only one in ten Irish children have seen sexual images online, but nearly half of those who had seen it were bothered by it.

Table 14: Child has seen sexual images online and was bothered by this, by country

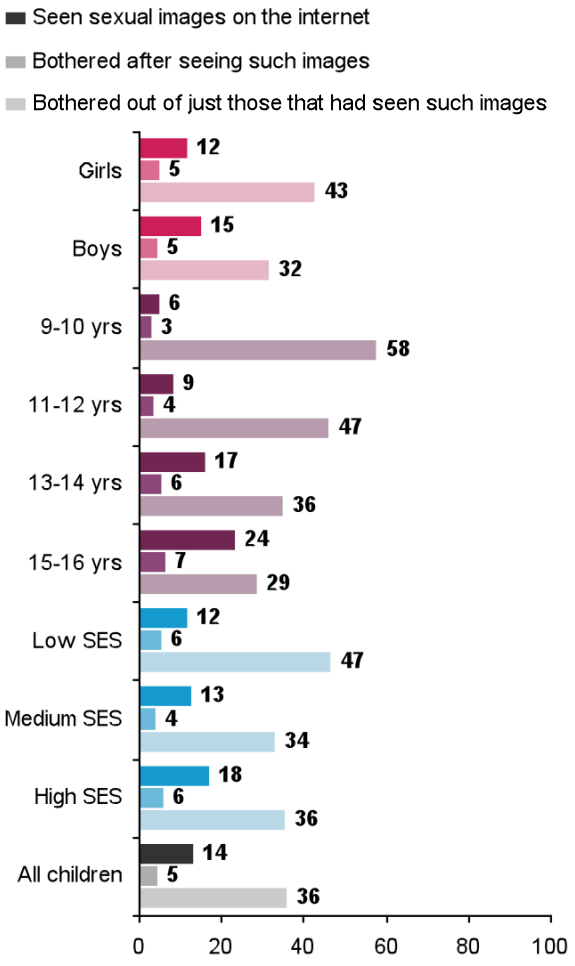
	All children who use the internet		Child bothered, of those who have seen sexual images online
%	Child has seen sexual images online	Child bothered by seeing sexual images online	
AT	16	5	34
BE	17	6	33
BG	21	4	18
CZ	29	8	26
DE	5	3	55
DK	29	9	30
EE	30	16	53
EL	15	2	16
ES	10	3	35
FI	28	6	20
FR	19	7	36
HU	12	4	30
IE	10	5	46
IT	7	2	32
LT	24	7	28
NL	22	5	25
PL	15	6	37
PT	13	3	25
RO	19	9	44
SE	25	8	30
SI	27	4	16
TR	13	7	51
UK	10	3	29
ALL	**14**	**5**	**36**

QC131: Have you seen these kinds of things on any websites in the past 12 months? And QC134: In the LAST 12 MONTHS have you seen any things like this that have bothered you in any way? For example, made you feel uncomfortable, upset, or feel that you shouldn't have seen them.

Base: All children who use the internet. Only children who have seen sexual images online.

"Naked pictures. Print screens of naked people on cam." **(Girl, 15, UK)**

Figure 37: Child has seen sexual images online and was bothered by this



QC131: Have you seen these kinds of things on any websites in the past 12 months? And QC134: In the LAST 12 MONTHS have you seen any things like this that have bothered you in any way? For example, made you feel uncomfortable, upset, or feel that you shouldn't have seen them.

Base: All children who use the internet. Only children who have seen sexual images online.

As suggested at the outset of this report, variables that shape exposure to risk factors (e.g. exposure to pornography) may or may not be the same as those variables that shape the likelihood of harm (here measured in terms of whether or not the child has been bothered by such an experience). This point is well illustrated by the findings of Figure 37.

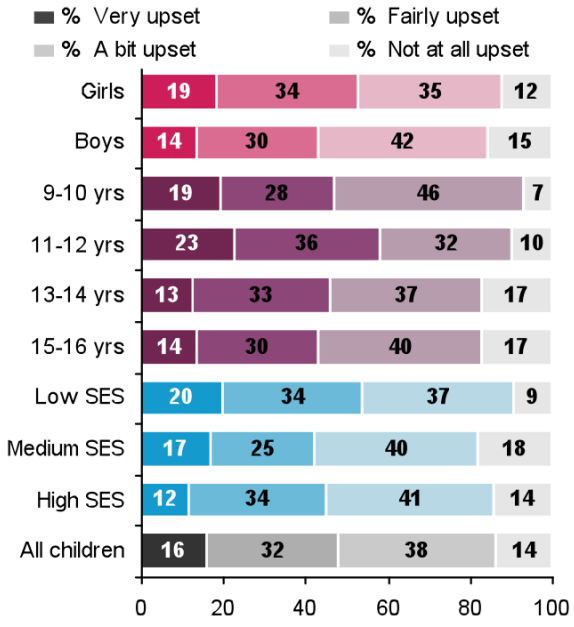
- **Girls are a little less likely to see sexual images online than boys (12% vs. 15%) but they are rather more likely to be bothered by it if they do see it (43% of those who see sexual images vs. 32% of boys).**
- **A similar situation holds for age. Thus 15-16 year olds are by far the most likely to see online sexual images (24%), followed by 17% of 13-14 year olds, 9% of 11-12 year olds and just 6% of 9-10 year olds. But, for those who are bothered by what they saw, the picture is reversed: 58% of those 9-10 year olds who have seen online sexual images were bothered by what they saw, as were 47% of 11-12 year olds. The percentages are lower for teenagers – 36% of 13-14 year olds and 29% of 15-16 year olds.**
- **To keep this in perspective, it means that overall, 3% of 9-10 year olds, rising to 7% of 15-16 year olds have been bothered by seeing sexual images online.**
- For SES also, the explanation for exposure to risk differs from that for the experience of harm. Children from higher SES homes are a bit more likely to be exposed to sexual images online (18%, vs. 12% for low SES children). But the high and medium SES children are less likely to be bothered by what they saw (around one third) compared with those from low SES homes (nearly one half of these children were bothered – 47%).

These findings – both the absolute levels of exposure to risk and experience of harm – should be born in mind in the remainder of this section, as we focus in on just those children who have been bothered by seeing sexual images on the internet.

In the remainder of this section, although the sample sizes are sufficient for a breakdown by demographic variables, they are too small for further cross-country analyses. [57]

To pursue what children meant by being bothered, two measures of subjective harm were used (still in relation to the LAST TIME the child was bothered by seeing online sexual images). These measures were severity (how upset were they), shown in Figure 38 and duration (for how long did they feel like this), shown in Figure 39.

Figure 38: How upset the child felt after seeing sexual images online (only children who have been bothered by sexual images online in past 12 months)

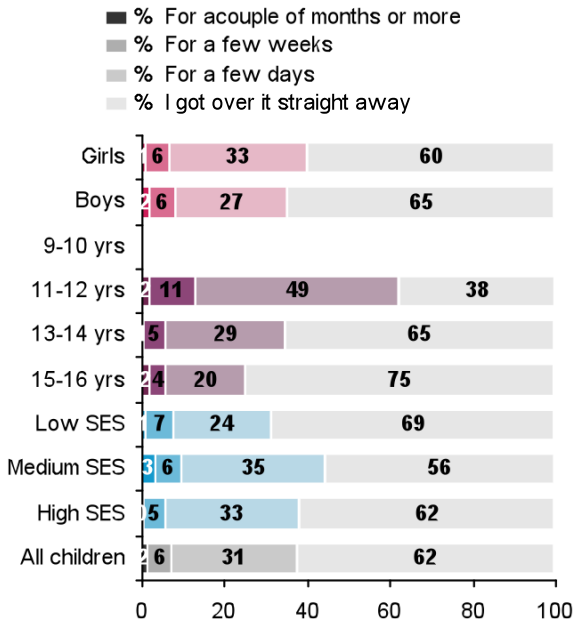


QC135: Thinking about the last time you were bothered by [seeing sexual images online], how upset did you feel about it (if at all)?

Base: All children who have been bothered after seeing a sexual image online in the past 12 months.

- **Among those who have been bothered by sexual images online, half were either fairly (32%) or very (16%) upset at what they saw. The remainder were a bit upset (38%) or, despite having said they were bothered in some way, not at all upset (14%).**
- Girls report being slightly more upset by the sexual images they saw online than boys.
- Children aged 11-12 (23%), are more likely to be 'very upset' than other groups, as are children from lower SES homes (20%).
- To put this the other way around, boys, teenagers and more privileged children appear less upset by online sexual or pornographic content that has, nonetheless, bothered them in some way.

Figure 39: For how long the child felt like that after seeing sexual images online (only children aged 11+ who have been bothered by sexual images online in past 12 months)



QC136: Thinking about [the last time you were bothered by seeing sexual images online], how long did you feel like that for?

Base: All children aged 11-16 who have been bothered after seeing a sexual image online in the past 12 months.

Even if upsetting, harm may be short-lived or, on the contrary, it may be remembered even much later. So, those children who had been bothered in some way by sexual images online were asked how long they had felt like that for, the last time this happened.

- **Most children (62%) aged 11-16 who had been bothered by sexual images online said they got over it straight away.**
- Gender and SES differences are slight. It does appear, however, that the younger children are upset for longer than teenagers.
- 49% of 11-12 year olds, compared with 29% of 13-14 year olds and only 20% of 15-16 year olds, said they felt bothered or upset for a few days.
- **11% of 11-12 year olds said they felt like that a few weeks later and 2% said they felt this way for a couple of months or more.**

It cannot be determined here whether these different age groups are responding differently to the same or different

types of content. But it is clear that younger children are both more upset by what they see and that this reaction lasts for longer. Taking these as subjective measures of harm, it appears that, when exposed to online pornography, younger children are more likely to be harmed. Even so, this applies to less than half of those who have been exposed to sexual images online.

6.5. Coping with seeing sexual images on the internet

A key feature of the *EU Kids Online* survey is that it follows up on how children respond to things that have bothered them online. How children respond can be understood in general terms, as a matter of broad coping strategies, and in specific terms, as a matter of specific activities that may or may not help to make things better.

We conceive of coping in three ways. The first, drawing on the established literature of adolescent coping,[58] distinguishes individual coping styles as applied across diverse situations in life. For example, a child may respond fatalistically (hoping the problem would go away by itself), proactively (trying to fix the problem), in a self-accusatory way (feeling guilty or blaming oneself).

For those children who were bothered by seeing sexual images on the internet, Table 15 shows what children say they did after the last time this happened.

Table 15: How the child coped after being bothered by seeing sexual images online (age 11+)

%	All
Hope the problem would go away by itself	25
Try to fix the problem	21
Feel a bit guilty about what went wrong	11
None of these things	44
Don't know	5

QC137: The last time this happened, did you do any of these things afterwards? *(Multiple responses allowed)*

Base: Children aged 11 to 16 who use the internet and have been bothered by seeing sexual images online.

- **One quarter (25%) of those who had been bothered by sexual images online took what might be called a 'passive' approach, hoping the problem would go away; 21% took a more proactive approach, trying to fix the problem.**
- A minority felt a bit guilty (11%) while the largest group (44%) said they did none of these things.

The second form of coping explored by the *EU Kids Online* survey is seeking social support. Over and again, awareness-raising guidance has advised children to tell someone or talk to someone about what has happened when something difficult or upsetting occurs online.

Previous surveys have often found that children do not tell anyone what has happened. But the present findings point to more positive responses from children, possibly as a result of awareness-raising efforts (Table 16).

- **Over half (53%) of those children aged 9-16 who had been bothered by seeing sexual images online told someone about this the last time it happened.**
- This is a broadly positive finding, suggesting that children feel empowered to seek social support when upset by online sexual or pornographic content.
- Commonly, that person was a friend (36%), but one in five (18%) confided in a parent. Children's preference for telling a friend suggests the value of peer-mentoring schemes. Increasing the proportion who feel able to tell a parent would also be beneficial.
- Few children told any of the other people who might be expected to support a child who is upset – 9% told a sibling, 4% another trusted adult, 2% a teacher and 1% some other responsible person.
- The potential embarrassment involved in discussing pornography with adults appears to impede the social support available to children in coping with upsetting pornography.

"On MSN they display invitations, but when I accept, girls I don't know appear in some erotic advertising."

(Boy, 14, Turkey)

Table 16: Who the child talked to after being bothered by seeing sexual images online

%	All
Talked to anybody at all	53
A friend	36
My mother or father	18
My brother or sister	9
Another adult I trust	4
A teacher	2
Some one whose job it is to help children	1

QC138: Thinking about [the last time you were bothered by seeing sexual images on the internet], did you talk to anyone about what happened? QC139: Who did you talk to? *(Multiple responses allowed)*

Base: All children who use the internet and have been bothered by seeing sexual images online.

Table 17: What the child did after being bothered by seeing sexual images online

%	Did this	Did this and it helped
I deleted any messages from the person who sent it to me	29	29
I stopped using the internet for a while	24	21
I blocked the person who had sent it to me	22	18
I changed my filter/ contact settings	17	14
I reported the problem (e.g. clicked on a 'report abuse' button, contact an internet advisor or 'internet service provider (ISP)')	13	9
None of these	18	14
Don't know	29	27

QC140: Thinking about [the last time you were bothered by seeing sexual images on the internet], did you do any of these things? QC141: Which, if any, of the things you did helped you? *(Multiple responses allowed)*

Base: All children who use the internet and have been bothered by seeing sexual images online.

The third type of coping response is more specific to the internet. In recent years, the providers of internet services and contents have been developing tools by which children may be safer online. To complement these, children have been advised through a range of campaigns how to make use of these tools. Possibly the least desirable outcome of a harmful experience is that it might lead the child to stop using the internet, thereby reducing the child's online opportunities.

It has to date been difficult to establish whether any of the coping responses actually improve the situation, notwithstanding the claims often made for them. Hence, by adding a question about whether each strategy helped the situation *EU Kids Online* sought a simple solution to a difficult research problem.

Thus, when children reported using a particular strategy (e.g. deleting nasty messages or changing filter settings), they were also asked if this helped. *For comparability, findings are reported as a percentage of all children who have seen sexual images online, not as a percentage of those who used the strategy* (Table 17).

"While you are undressing dolls you click "girls" and photos of naked women appear." **(Girl, 11, Lithuania)**

- **The most common response was to delete messages from the person who had sent them these images (29%), seen by children as a helpful strategy.**
- **It may seem unfortunate if understandable that children's next most common response to seeing sexual images online that bothered them is to stop using the internet for a while (24%).** Unsurprisingly, this helped in most cases, although at a cost of online opportunities.
- One fifth of children changed filter or contact settings (17%) or blocked those who had sent sexual or pornographic messages to them (22%). Neither of these appears quite so helpful but still, they did help the situation in the majority of cases.
- One in seven children reported the problem to an internet advisor or service provider, again a fairly helpful strategy, as assessed by the child.

Do children cope well with seeing sexual images online in a way that bothers or upsets them? Over half do tell someone about it, one fifth seeks to fix the problem in some way, and up to a third tries an online strategy (blocking, deleting or reporting what has happened).

Clearly, this leaves a sizeable number of children who do not adopt either a general or an internet-specific coping strategy, and many who do not even tell someone. Targeting those children who are bothered by an online experience to widen their repertoire of coping strategies would, if possible, surely be beneficial. Additionally, improving accessibility to or usability of online tools to support children is also required.

7. BULLYING

7.1. How often children are bullied

In terms of the classification of risks presented in Table 1, being bullied is one of several conduct risks that may harm children when they use the internet. In some sense, bullying builds on children's availability through and/or conduct in peer-to-peer exchanges and, significantly, the threat comes from a peer.

Although the term 'bullying' has a distinct and familiar meaning in some countries, this is not universal, making the term difficult to translate. So, as with 'pornography', the term 'bully' was not used in the children's questionnaire. Instead, it was defined thus:[59]

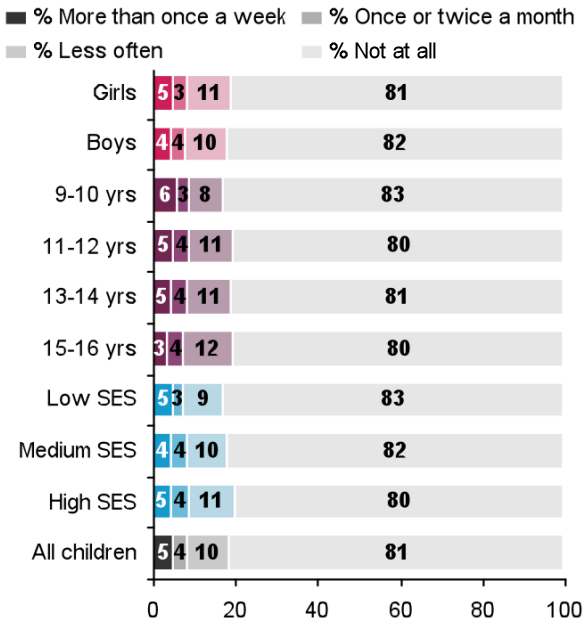
"Sometimes children or teenagers say or do hurtful or nasty things to someone and this can often be quite a few times on different days over a period of time, for example. This can include: teasing someone in a way this person does not like; hitting, kicking or pushing someone around; leaving someone out of things." [60]

The interviewer explained then to the child that the questions these activities could refer to events that occur in person face to face, by mobile phone calls or texts, or on the internet – e.g. via email, social networking sites. (Recall that we are concerned to put online bullying or 'cyberbullying' in the context of other kinds of bullying 'offline').

Following this introduction, children were asked whether *someone has acted in this kind of hurtful or nasty way to you in the past 12 months.*

- **Nearly one in five (19%) 9-16 year olds across Europe say that someone has acted in a hurtful or nasty way towards them in the past 12 months.**
- **Bullying is rarely a frequent experience – 5% say someone acts towards them in a hurtful or nasty way more than once a week, for 4% it is once or twice a month, and for 10% it is less often, suggesting one or a few instances have occurred in the past year.**
- Few if any demographic differences can be seen in Figure 40. In this sense, bullying is spread thinly across the range of children.

Figure 40: Child has been bullied online or offline in past 12 months



QC112: Has someone acted in this kind of hurtful or nasty way to you in the past 12 months? QC113: How often has someone acted in this kind [hurtful and nasty] way towards you in the past 12 months?

Base: All children who use the internet.

7.2. How children are bullied

To contextualise online bullying in relation to other kinds of bullying, the 19% of children who reported that someone had acted in a hurtful or nasty way towards them were then asked how this had happened. Table 18 shows what children said about how this occurred.

"If people take a picture of you and they edit it and make you look bad and the put it on the internet"

(Girl, 9, Ireland)

Table 18: Ways in which children have been bullied in past 12 months, by age

%	Age				All
	9-10	11-12	13-14	15-16	
In person face to face	12	14	12	13	13
On the internet	3	6	6	7	5
By mobile phone calls, texts or image/video texts	1	3	4	5	3
Has been bullied at all, online or offline	17	20	19	20	19

QC114: At any time during the last 12 months, has this happened [that you have been treated in a hurtful or nasty way]? QC115: At any time during the last 12 months has this happened on the internet. *(Multiple responses allowed)*

Base: All children who use the internet.

Table 19: Ways in which children have been bullied in past 12 months, by age and gender

%	9-12 years		13-16 years		All
	Boys	Girls	Boys	Girls	
In person face to face	14	12	12	13	13
On the internet	4	5	5	7	5
By mobile phone calls, texts or image/video texts	2	2	3	6	3
Has been bullied at all, online or offline	18	18	18	20	19

QC114: At any time during the last 12 months, has this happened [that you have been treated in a hurtful or nasty way]? QC115: At any time during the last 12 months has this happened on the internet. *(Multiple responses allowed)*

Base: All children who use the internet.

> "Insults that lower our self-esteem and affect us psychologically."
>
> **(Girl, 15, Portugal)**

- The most common form of bullying is in person face to face: 13% say that someone has acted in a hurtful or nasty way towards them in person face to face compared with 5% who say that this happened on the internet and 3% who say that this happened by mobile phone calls or messages.
- Although overall, younger children are as likely to have been bullied as teenagers, they are less likely to be bullied by mobile phone or online. In other words, it seems that for teenagers, being bullied in one way (e.g. face to face) is more likely to be accompanied by bullying online and/or by mobile.
- Receiving nasty or hurtful messages online is more common with age, though still affects only a small minority. One in 13 of the 15-16 year olds reports having been treated in this way on the internet, half as many who have been bullied face to face in the past year.

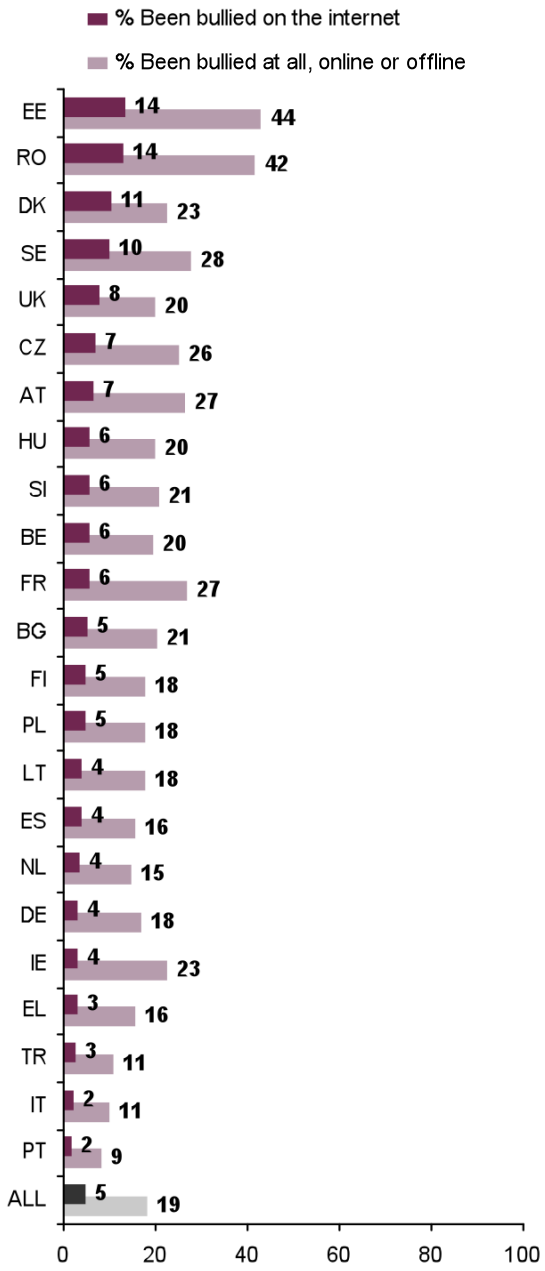
Previous research findings are mixed on whether there are gender differences in patterns of bullying. Table 19 reveals few differences in ways that children are bullied by gender. Teenage girls are, however, a little more likely to be bullied in all ways, compared with others.

Country differences are noteworthy (see Figure 41).

- In Romania and Estonia more than 40% of children report having been bullied, twice the average across all countries, and online bullying in these countries is more than twice the average at one in seven children who use the internet.
- Bullying is lowest in Southern European countries: Portugal, Italy, Turkey and Greece.

Broadly, bullying online is more common in countries where bullying in general is more common (rather than – an alternative hypothesis – in countries where the internet is more established). This suggests online bullying to be a new form of a long-established problem in childhood rather than, simply, the consequence of a new technology.

Figure 41: Child has been bullied online or offline in past 12 months, by country



QC112: Has someone acted in this kind of hurtful or nasty way to you in the past 12 months? QC115: At any time during the last 12 months has this happened on the internet?

Base: All children who use the internet.

7.3. In what ways children are bullied online

Bullying online can occur in a number of ways. One question is whether particular applications – email, social networking, chatrooms, etc. are more or less likely to provide a context for bullying. Those children who had been bullied online were asked how this happened. To keep the results in perspective, these are reported as a percentage of all children who use the internet, which means that the percentages are low compared to a table based on just the few children who have been bullied (see Table 20).

- Although overall, the vast majority of children have not been bullied on the internet, those who have are more likely to have been bullied on a social networking site or by instant messaging. Bullying by email, in gaming sites or chatrooms is less common, probably because these are less used applications across the whole population.

Table 20: Ways in which children have been bullied online in past 12 months, by age

%	Age				All
	9-10	11-12	13-14	15-16	
On a social networking site	1	3	4	3	3
By instant messaging	2	2	3	4	3
By email	1	1	1	1	1
In a gaming website	1	1	1	0	1
In a chatroom	0	0	0	1	1
Some other way on the internet	0	1	0	0	0
At all on the internet	3	6	6	7	5

QC115: At any time during the last 12 months had this happened on the internet? QC116: In which ways has this happened to you in the last 12 months? *(Multiple responses allowed)*

Base: All children who use the internet.

Just what has happened when children are bullied is difficult to determine. For the 11-16 year olds who had been bullied online, we asked what they had experienced (Table 21).

Table 21: What happened when child was bullied online in past 12 months, by age (age 11+)

%	Age				All
	9-10	11-12	13-14	15-16	
Nasty or hurtful messages were sent to me	n.a.	4	4	5	4
Nasty or hurtful messages about me were passed around or posted where others could see	n.a.	1	2	2	2
Other nasty or hurtful things on the internet	n.a.	2	2	2	2
I was threatened on the internet	n.a.	1	1	1	1
I was left out or excluded from a group or activity on the internet	n.a.	1	1	1	1
Something else	n.a.	1	1	1	1
At all on the internet	3	6	6	7	5

QC115: At any time during the last 12 months has this happened on the internet? QC117: Can I just check, which of these things have happened in the last 12 months? *(Multiple responses allowed)*

Base: All children 11-16 years old who use the internet.

- **Being the target of nasty or hurtful messages is the most common form of online bullying (4% of all 11-16 year olds). Having such messages passed around the peer group or posted where others can see is less common (1%). And only 1% has been threatened online.**
- Although being bullied online is generally more common among older children, no particular age trend in forms of bullying is evident.

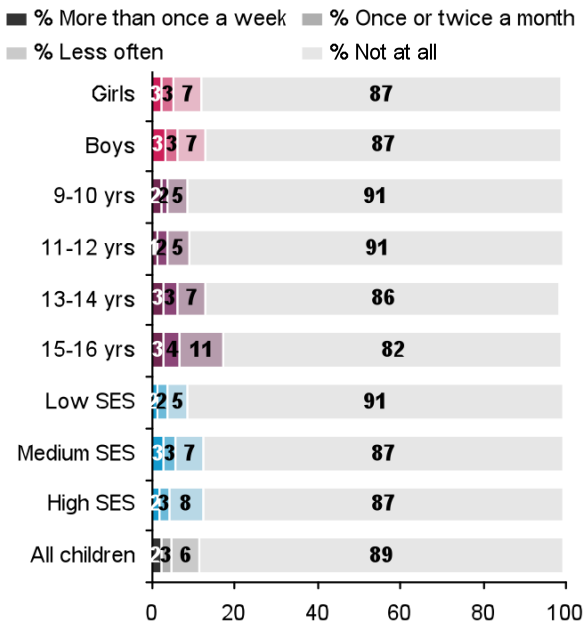
"Be made a ridicule by having personal stuff written about you and then made public." **(Boy, 11, Greece)**

7.4. When / how children bully others

Bullying is an activity that occurs largely among peers. It is, as classified earlier, a conduct risk. Thus it is possible that the children surveyed had not only been bullied but also that they had bullied others, either on the internet or in other ways. Indeed, research is beginning to suggest that these two groups may overlap – that some of those who bully others have also been bullied themselves.[61]

After being asked about their experiences of being bullied, children were asked if they themselves had acted in a hurtful or nasty way to others in the past year (Figure 42).

Figure 42: Child has bullied others online or offline in past 12 months



QC125: Have you acted in a way that might have felt hurtful or nasty to someone else in the past 12 months? QC126: How often have you acted in this kind [hurtful and nasty] way in the past 12 months?

Base: All children who use the internet.

- **In all, 12% of 9-16 year olds in Europe report that they have acted in a nasty or hurtful way to someone else in the past year. This finding may be compared with the 19% who say they have been bullied.**
- Although practised by only a small minority in any demographic group, bullying others is relatively more

common among teenagers than younger children and, if anything, more common among children from middle and higher SES homes.

- In terms of frequency, over half of the bullying reported occurred less often than once per month.

As we saw with the finding for being bullied, bullying others is more common in person face to face than on the internet. Similar findings are found for children's reports of bullying others (see Table 22).

- **One in ten (10%) children reports having bullied others face to face, compared with 3% who have bullied others on the internet and 2% by mobile calls, texts or video.**
- The age trend for bullying others is similar for each form of bullying except to note that, among teenagers it seems that multiple methods may be used by those who bully others.

Table 22: How child has bullied others in past 12 months, by age

%	Age				All
	9-10	11-12	13-14	15-16	
In person face to face	7	8	12	14	10
On the internet	1	2	3	5	3
By mobile phone calls, texts or image/video texts	0	1	2	4	2
Has bullied others at all, online or offline	9	10	14	17	12

QC125: Have you acted in a way that might have felt hurtful or nasty to someone else in the past 12 months? QC127: In which of the following ways have you [acted in a way that might have felt hurtful or nasty to someone else] in the past 12 months? *(Multiple responses allowed)*

Base: All children who use the internet.

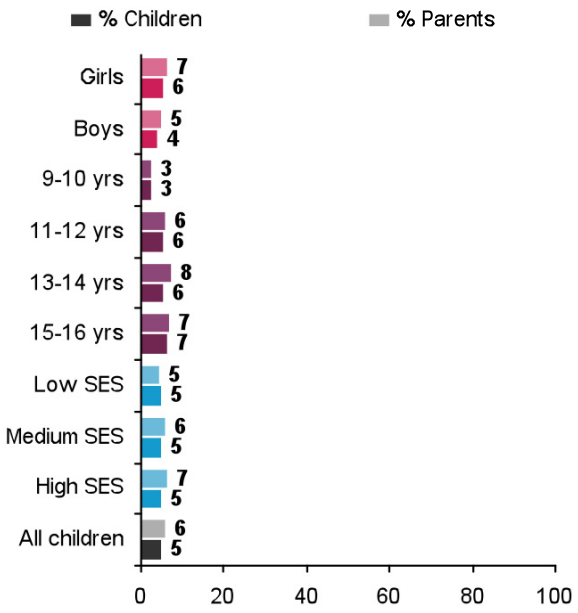
Overall, being bullied occurs more often face to face (19% of 9-16 year olds) than online (5%). Even though online bullying appears more common in countries where bullying is common than where the internet is widespread, online bullying still, of necessity, occurs where the internet is used. For teenagers in particular, it appears that bullying is spreading across platforms, so that a child who is bullied may be bullied in several ways simultaneously. This point awaits further research.

It is also worth noting that the ratio of being bullied overall to being bullied online (19 vs. 5%) is similar to the ratio of bullying others to bullying others online (12 vs. 3%). Whether being bullied is what makes some children retaliate and bully others remains for future research too.

7.5. Children's and parents' accounts of bullying online

In the previous projects that have compared data from children and their parents, it has been the gap between their accounts that is most striking.[62] Today, that gap appears to be reducing, as we already saw in the section on sexual images.

Figure 43: Children's and parents' accounts of whether child has been bullied online



QP235: [Has your child] been treated in a hurtful or nasty way on the internet by another child or teenager? QC115: Has someone acted in this kind of hurtful or nasty way to you in the past 12 months?

Base: All children who use the internet and one of their parents.

- **Overall, 5% of children and 6% of parents report that the child has been bullied on the internet** (Figure 43).
- Slightly more girls than boys (7% vs. 5%), and slightly more older teenagers (7% of 15-16 year olds) than

younger children (3% of 9-10 year olds) say they have been bullied.

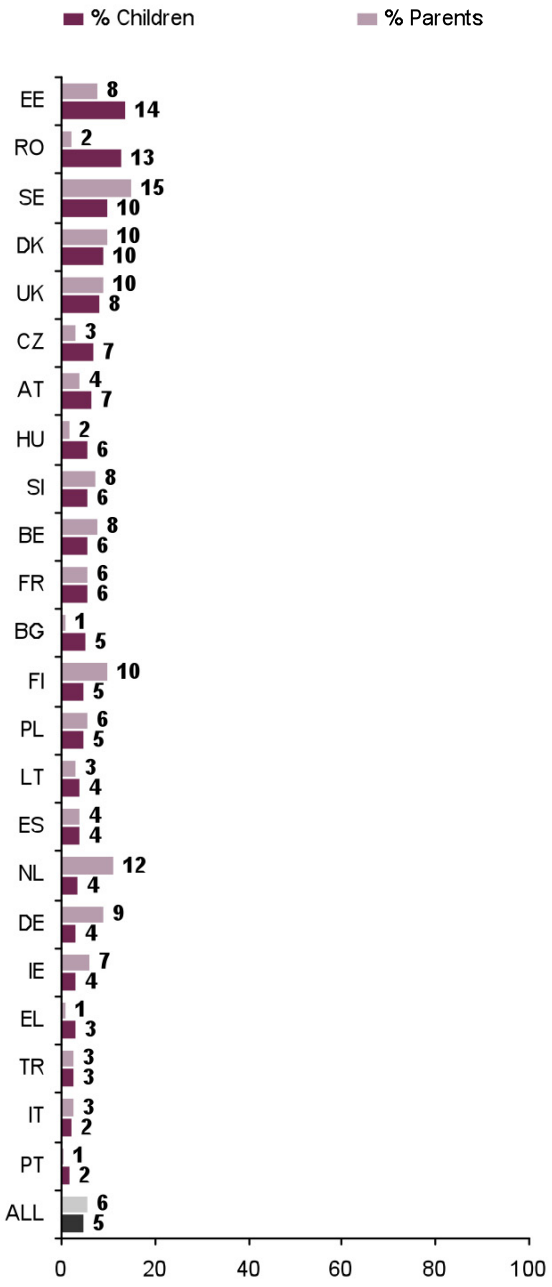
- There is a high level of agreement between children and their parents regarding whether or not the child been sent hurtful or nasty messages on the internet. Such agreement is mainly high insofar as both agree that their child has not been bullied online. Nonetheless, it seems that parents seem to have a fairly good idea about their child's experiences online.

> "Bullying, negative comments, exclusion - not being allowed to participate in something online, like a game." **(Boy, 16, Norway)**

Country differences in relation to the child/parent gap in perceptions are small but noticeable (see Figure 44).

- **Overall child/parent agreement is a little lower in the Netherlands, Sweden and Finland. In these countries, it seems that parents are more likely to think their child has been bullied online even when the child says they have not.**
- **In Romania, Estonia, the Czech Republic and Hungary, children are more likely to say they have been bullied online when their parents are unaware of it**. This suggests the value of greater parent-child communication in those countries.

Figure 44: Children's and parents' accounts of whether child has been bullied online, by country



QP235: [Has your child] been treated in a hurtful or nasty way on the internet by another child or teenager? QC115 Has someone acted in this kind of hurtful or nasty way to you in the past 12 months?

Base: All children who use the internet and one of their parents.

As for pornography earlier, such high levels of agreement overall masks some differences in parental understanding when one focuses just on those children who have been bullied online.

Table 23: Comparison between children's and parents' accounts of whether child has been bullied online

Child has been sent nasty or hurtful messages on the internet?	Child's answer:	
	Yes	No
% Parent answer:		
Yes	30	7
No	56	83
Don't know	14	10
	100	100

QP235: [Has your child] been treated in a hurtful or nasty way on the internet by another child or teenager? QC115: At any time during the last 12 months [have you been treated in a hurtful or nasty way] on the internet?

Base: All children who use the internet and one of their parents.

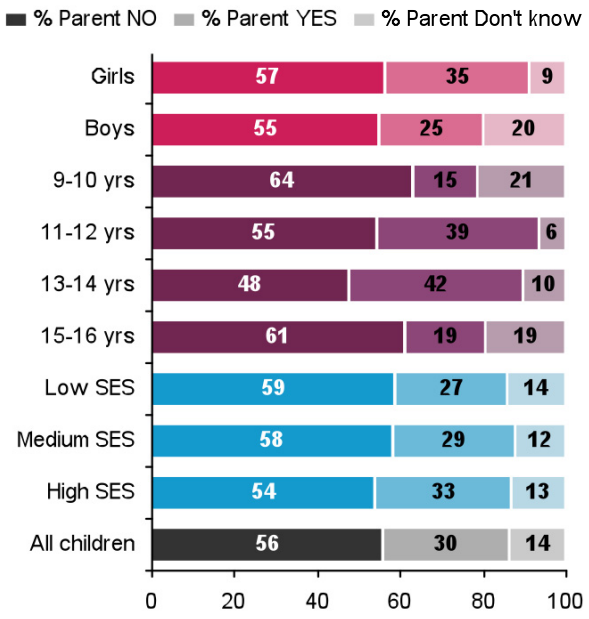
- **Among children who say "yes, I have been sent nasty or hurtful messages on the internet", one third (30%) of their parents also say that their child has been bullied online. But in over half of these cases (56%), parents say that their child has not been bullied, and in a further 14% of cases, the parent doesn't know** (Table 23).
- By contrast, in those cases (of which there are many more) in which the child says no, they have not been bullied, only 7% of the parents think they have been bullied.

Arguably the greatest concern regarding parent versus child accounts is whether the parent is aware of bullying in those cases in which the child says they have been bullied. Figure 45 focuses on just those children who have been bullied online, and reports parents' answers (i.e. yes, no or don't know if my child has been bullied).

"Violent video filmed at school or when somebody is harmed"

(Girl, 10, Lithuania)

Figure 45: Parents' accounts of whether child has been bullied online (only children who have been bullied online)



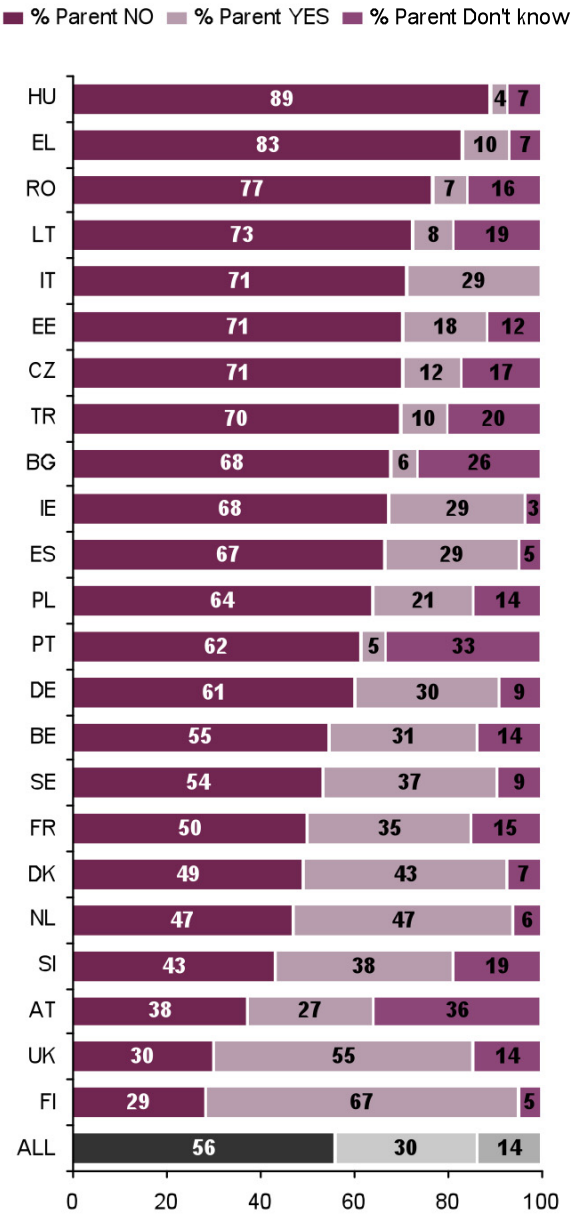
QP235: [Has your child] been treated in a hurtful or nasty way on the internet by another child or teenager?

Base: One parent of children who use the internet and who have been sent nasty or hurtful messages online.

- As noted above, among the 5% of European children who report having been bullied on the internet, parents are aware of this in one third (30%) of the cases. In more than half (56%) of these cases, however, parents say their child has not been bullied.
- **Parents appear more aware that their child has been bullied if the child is a girl, or in the middle age groups (11-14) than if they are either older or younger.**
- Parents appear over-confident that the youngest group has not been bullied, when the child says they have, though parents also most often say they 'don't know' about the 9-10 year olds.

Country differences for the same analysis, shown in Figure 46, reveal some striking differences.

Figure 46: Parents' accounts of whether child has been bullied online (only children who have been bullied online), by country?



QP235: [Has your child] been treated in a hurtful or nasty way on the internet by another child or teenager?

Base: One parent of children who use the internet and who have been sent nasty or hurtful messages online.

- Not forgetting that the incidence of children having been bullied online is rather rare, it is noteworthy that parents are most aware of when their child has been bullied online in Northern counties (Finland, UK, Netherlands, Denmark) and least aware in some Southern and Eastern European countries.
- **Of more concern is the proportion of cases where the child's experience of being bullied goes unrecognised by parents. This is highest in Hungary, Greece and Romania.**
- Also interesting is that in Austria and Portugal, one third of parents say they don't know when asked if their child has been bullied online.

It might be concluded that in countries where the internet is most established, and accompanied by considerable investment in awareness raising activities, parents are most in touch with their child's online experiences. Alternatively, there might be other explanations for these differences – as will be explored in future *EU Kids Online* reports.

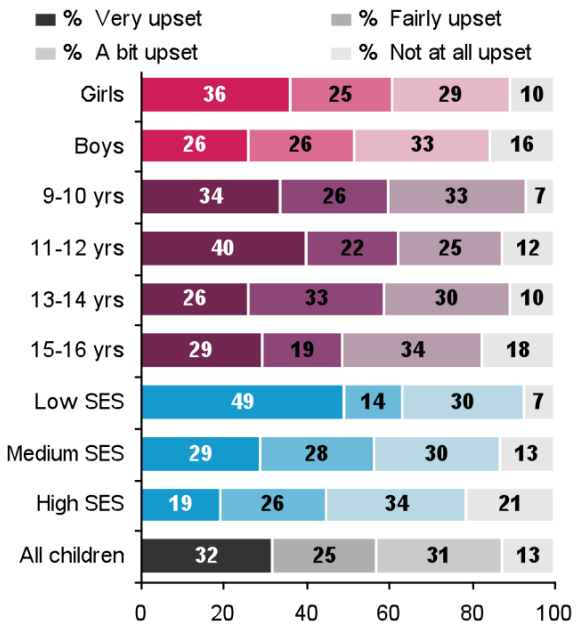
7.6. Perceived harm from being bullied on the internet

A central question in the *EU Kids Online* project is to explore whether and when certain factors increase the likelihood of harm to the child. In the above case of pornography (and, later in this report, for sending sexual messages or meeting online contacts offline), we addressed this question by saying to the child, in the private, self-completion part of the questionnaire, *"sometimes this experience may be fine, sometimes it may not be fine"*. They were then asked if the experience bothered them. However, in relation to bullying, it did not seem plausible to say to a child that sometimes being bullied might be fine and sometimes it might not. So this step was omitted from questions about bullying.

Nonetheless, the two measures of subjective harm consistently used in the survey could be applied. Focusing on the LAST time the child was bullied online, we asked about the severity of the experience (i.e. how upset the child was) and its duration (i.e. for how long the child felt like this).

Figure 47 shows, for the 5% of children who have been bullied online, how upsetting this experience was, if at all, the last time it occurred.

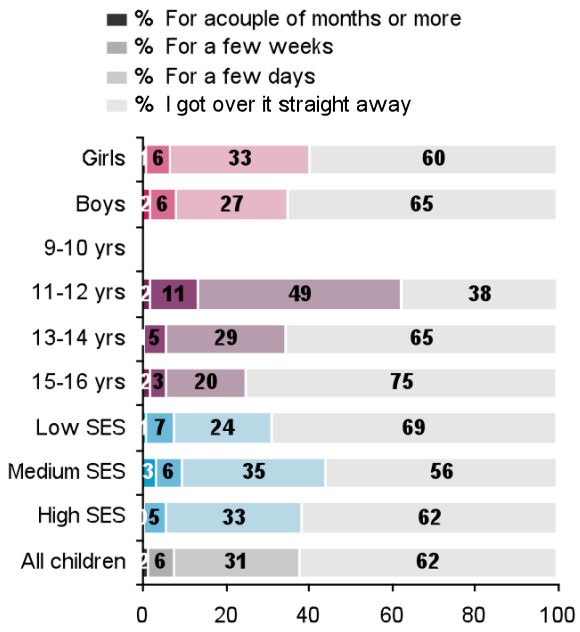
Figure 47: How upset the child felt after being bullied online (only children who have been bullied online in past 12 months)



QC118: Thinking about the last time you were [sent nasty or hurtful messages on the internet], how upset were you about what happened (if at all)?

Base: All children who have been bullied on the internet in the past 12 months.

Figure 48: For how long the child felt like that after being bullied online (only children aged 11+ who have been bullied online in past 12 months)



QC118: Thinking about the last time you were [sent nasty or hurtful messages on the internet], how long did you feel like that for?

Base: All children aged 11-16 who have been bullied online in the past 12 months.

- **The 5% of have been bullied online divide fairly evenly into those who were very upset (32%), fairly upset (25%), a bit upset (31%) and, the smallest category, not at all upset (13%).**
- **It appears that children from lower SES homes are considerably more upset – nearly half of them (49%) compared with other groups.**
- **Younger children (9-12 years) are more likely to be 'very upset' than teenagers, and so are girls (36%) compared with boys (26%).**

Thus it appears that although rather few children are bullied online, far fewer than those bullied face to face in person, when children are bullied online this is a fairly or very upsetting experience for more than half of them. Nonetheless, nearly half were only a bit or not at all upset, suggesting considerable variation in response.

The duration of this response after the event also varies, as is revealed by answers to the question, '*how long did you feel like that for?'* (See Figure 48)

- **However children felt who had been bullied online, it seems that the majority (62%) 'got over it straight away'. One third (31%) still felt as they did for a few days. Just 6% felt the some response a few weeks later, and only 2% were affected for a couple of months or more.**
- Although the duration of response was, generally, very short lived, it appears longer lasting for the youngest group included in this part of the survey – the 11-12 year olds.

7.7. Coping with being bullied on the internet

One reason that most children may have got over the experience of being bullied online fairly quickly may lie in the effectiveness of their coping responses.

- **The most common response to being bullied online was proactive – 39% tried to fix the problem themselves** (Table 24).
- **The next most common response was perhaps fatalistic – one fifth (21%) hoped the problem would go away by itself.** However, it is easy to aggravate bullying by one's actions and this, too, could be a sensible response.
- One in ten felt a bit guilty about being bullied, which is arguably a less constructive response.

Table 24: How the child coped after being bullied online (age 11+)

% who did…	All
Hope the problem would go away by itself	21
Try to fix the problem	39
Feel a bit guilty about what went wrong	10
None of these things	16
Don't know	5

QC120: The last time this happened, did you do any of these things afterwards? (*Multiple responses allowed)*

Base: Children aged 11 to 16 years who use the internet and have been sent nasty or hurtful messages online.

The second form of coping explored by the *EU Kids Online* survey is that of seeking social support. In previous surveys, it was often found that children did not tell anyone what had happened Table 25. However, the present survey suggests a more positive response from children, possibly resulting from awareness-raising efforts to stress the importance of discussion with others.

- **Four in five (79%) children aged 9-16 who had been bullied online talked to someone about it.** As in previous research, a common source of social support was the child's friend(s) – 42% talked to a friend about what had happened.
- However, telling a parent was also common – 45% told their mother or father, a higher percentage than in much previous research, and this may help to explain the considerable degree of child/parent agreement regarding the child's online experiences, as already observed in this report.
- Although other sources of social support are less commonly turned to, one in six talked to a sibling (14%), one in nine talked to another adult (11%) they trust, and 7% told a teacher.

Table 25: Who the child talked to after being bullied online

% who did talk to…	All
Anybody at all	79
My mother or father	45
A friend	42
My brother or sister	14
Another adult I trust	11
A teacher	7
Some one whose job it is to help children	2

QC121: Thinking about [the last time you were sent hurtful or nasty messages on the internet], did you talk to anyone about what happened? QC122: Who did you talk to? (*Multiple responses allowed)*

Base: Children who use the internet and have been sent nasty or hurtful messages online.

The third type of coping response is more specific to the internet. As shown in Table 26, several internet-specific coping responses were put to those children who had been bullied online to discover how they had responded the last time this occurred.

Table 26: What the child did after being bullied online

%	Did this	Did this and it helped
I stopped using the internet for a while	21	13
I deleted any messages from the person who sent it to me	45	28
I changed my filter/ contact settings	18	13
I blocked the person who had sent it to me	41	35
I reported the problem (e.g. clicked on a 'report abuse' button, contact an internet advisor or 'internet service provider (ISP)')	12	8
None of these	8	14
Don't know	18	19

QC123: Thinking about [the last time you were sent nasty or hurtful messages on the internet], did you do any of these things?
QC124: Which, if any, of the things you did helped you?
(Multiple responses allowed)

Base: Children who use the internet and have been sent nasty or hurtful messages online.

- **The most common actions taken when being bullied online are to delete the nasty or hurtful messages (45%) or block the person who sent the nasty or hurtful messages (41%).**
- One fifth (21%) of those who had been bullied online stopped using the internet for a while, the bullying presumably being sufficiently upsetting that it did not seem worth going online at all.
- **Although less common, nearly one in five (18%) changed their filter or contact settings, and one in eight (12%) reported the problem to someone (their internet service provider, advisor, or similar) who provides an online support system.**
- As may be seen, in children's view, what helped or did not help varies by strategy. For those who blocked the bully, this almost always helped the situation. Deleting messages from the bully is, it seems, less effective, although it did help in two thirds of the cases where it was tried.
- Other strategies, although less commonly used, were similarly effective, helping matters in over two thirds of cases.

Children's approach to being bullied online is, it seems, primarily to call on social support: only one fifth had not told anyone. This is, surely, encouraging for the success of peer mentoring processes, increasingly employed in some countries to tackle online and offline bullying.[63] Still, children's reluctance to discuss online problems with teachers and other adults trained to promote their welfare is a challenge for policy makers.

Nearly half of those bullied online also used online strategies – deleting hurtful messages or blocking the bully. This last – blocking the person who sent the hurtful messages – was seen by children as effective, and efforts to encourage more children to do this would presumably be beneficial.

Since most children say that, even when bullied online and upset by what happened, they still got over it quickly, one might conclude either that the bullying is, generally, minor or, possibly, that the strategies children employ do indeed help them to cope with what happened.

Since children may be both victims and/or perpetrators in relation to bullying, it is important to teach children that online actions can have offline consequences of which they may not be aware but can be significant for those affected.

8. SENDING/RECEIVING SEXUAL MESSAGES

8.1. How often children send or receive sexual messages online

There is some evidence, and much speculation, that the internet facilitates the exchange of sexual messages among peers. Originating with the spread of mobile phone messaging more than online communication, and thus popularly labelled 'sexting' (an amalgam of 'sex' and 'texting'), such practices have given rise to popular and policy concern.[64]

This topic was explored in the survey because of both the intended and unintended consequences of sexual messaging. Exchanging messages with sexual content, whether in words or pictures, may merely make visible on the internet the kinds of practices in which children have always engaged, and this may be fun, part of flirtation, involving the exploration of developing sexuality and intimacy. On the other hand, when distributed on the internet, such messages may be circulated to unexpected recipients and hard to delete or edit in terms of their content.

> "In online games where you can get some bonus points. When a child meets someone unknown in such game and that person offers him or her buying those points if the child sends him some naked photos."
>
> **(Boy, 12, Czech Republic)**

Although the practice of sexual messaging online could be compared with offline equivalents (notably, via mobile text messaging), so the focus here is on the internet: how much do such practices occur, and among which children? As in the section on pornography, it was judged appropriate first to ask children about these practices and then to ask if such practices had bothered them or not. As in the section on bullying, questions concerned both receiving and, also, sending sexual messages. Last, for reasons of both research ethics and interview length, questions about sending and receiving sexual messages were not asked of 9-10 year olds.

The term 'sexting' was not used in the questionnaire. Children (and parents) were introduced to the questions on sending and receiving sexual messages as follows:

"People do all kinds of things on the internet. Sometimes, they may send sexual messages or images. By this we mean talk about having sex or images of people naked or having sex."

One complication of online communication, and one reason for public and policy concern about sexual messaging, is that these messages may be sent from peer to peer directly or they may be posted online (e.g. on a social networking site or message board) where they can be seen by others.

Consequently we asked about both sending/receiving messages and about posting/seeing messages. Seeing and receiving are treated in this section as passive (or, potentially, 'victim') activities. Posting or sending are treated as active (or, potentially, 'perpetrator') activities. As elsewhere in this report, the exact question asked in the survey is reproduced at the foot of each figure. It should be noted that the survey referred to *"sexual messages of any kind on the internet? This could be words, pictures or videos."*

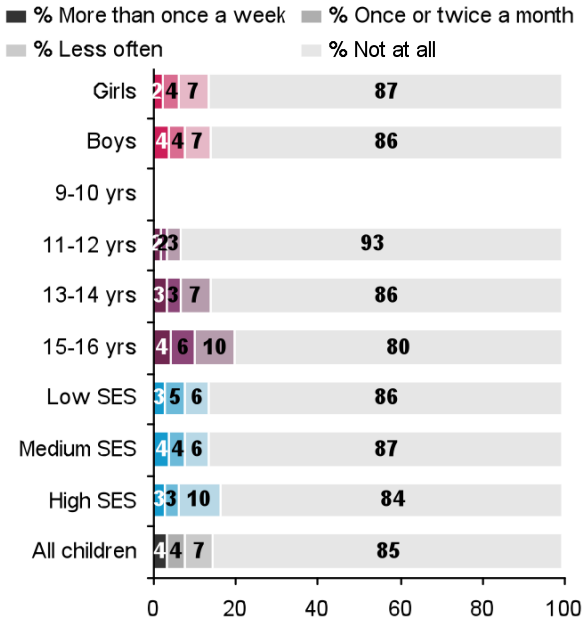
Figure 49 shows the survey findings for seeing/receiving sexual messages on the internet.

- **Overall, 15% of European children aged 11 to 16 years say that they have seen or received sexual messages on the internet in the past 12 months.**
- **The age trend is marked – 7% of 11-12 year olds, 13% of 13-14 year olds, and 20% of 15-16 year**

olds had seen or received such messages. There are few differences by gender or SES.

- For around half of those who have seen or received sexual messages, this is an infrequent experience (less than once a month), while for the other half, it occurs more often, and more than once a week for 4% of 15-16 year olds.

Figure 49: Child has seen or received sexual messages online in past 12 months (age 11+)



QC167: In the past 12 months have you seen or received sexual messages of any kind on the internet? QC168: How often have you received sexual messages of any kind on the internet in the past 12 months? This could be words, pictures or videos.

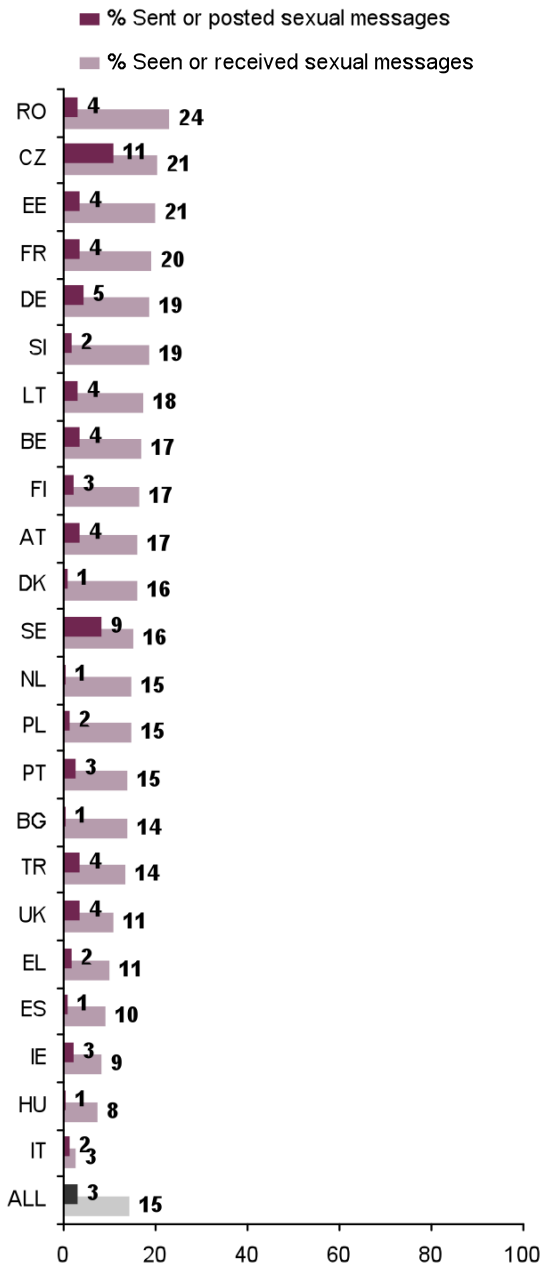
Base: All children aged 11-16 who use the internet.

Countries vary in the practice of sexual messaging. Figure 50 includes the finding for posting or sending sexual messages, as well as seeing or receiving such messages.

- **Overall, seeing/receiving is more common (though still a minority practice at 15%) than is posting/sending: only a very small proportion of children – 3% of 11-16 year olds – say that they have posted or sent a sexual message in the past 12 months.**
- National differences are relatively minor – about two-thirds of countries are in the range from 14% - 20%. Seeing/receiving sexual messages is more common in some Eastern European countries (Romania, the Czech Republic, Estonia) and France, and least common in Italy, Hungary and Ireland. Interpreting the pattern of incidence by country is, however, difficult.
- The relative balance between sending and receiving sexual messages is most equal in Sweden and the Czech Republic. In other countries, far fewer claim to have sent than to have received sexual messages on the internet.
- Generally there is little variation in the percentage of children who have sent or posted sexual messages, which in most cases ranges between 1 and 4 percent. Sweden and the Czech Republic stand out in this respect, however, with more children (9% and 11% respectively) saying that they have sent such messages in the past 12 months.

"Have had nightmares after writing mean things online about a friend. Feeling bad after that. Have friends that got dirty mails." **(Girl, 15, Sweden)**

Figure 50: Child has seen/ received or posted/sent sexual messages online in past 12 months (age 11+)



QC167: In the past 12 months have you seen or received sexual messages of any kind on the internet? This could be words, pictures or videos. QC179: In the past 12 months, have you sent or posted a sexual message (words, pictures or video) of any kind on the internet? This could be about you or someone else.

Base: All children aged 11-16 who use the internet.

What kinds of messages are children reporting on here? Table 27 shows their answers, where the low percentages once again reflect the fact that the table shows the occurrence of sexual messaging as a percentage of all children who use the internet.

Table 27: Kinds of sexual messaging child has encountered online in past 12 months, by age (age 11+)

%	Age				All
	9-10	11-12	13-14	15-16	
I have been sent a sexual message on the internet	n.a.	3	6	11	7
I have seen a sexual message posted where other people could see it on the internet	n.a.	3	6	9	6
I have seen other people perform sexual acts	n.a.	2	5	7	5
I have been asked to talk about sexual acts with someone on the internet	n.a.	1	2	4	2
I have been asked on the internet for a photo or video showing my private parts	n.a.	1	2	3	2
Has seen or received at all	n.a.	7	14	21	15

QC169: In the past 12 months, have any of these happened to you on the internet?

Base: All children aged 11-16 who use the internet.

- Most common among these generally relatively rare practices (a matter of decimal points before the percentages were rounded up) is being sent a sexual message on the internet – 7% of all 11-16 year olds. **While involving few younger children, being sent a sexual message online was reported by over one in ten of the 15-16 year olds.**
- Seeing a sexual message posted where others could see it was also reported by 6% overall, with 9% of 15-16 year olds saying they had seen this.
- **5% of 11-16 year olds (most of them teenagers) said they had seen other people perform sexual acts on the internet, while 2% had been asked to talk about sexual acts with someone on the**

internet or to show a photo or video of their genitals to someone via the internet.

The purpose of these questions was to discover more about how explicit or extreme sexual messaging might be. Although this remains difficult to determine, it appears that most sexual messaging is relatively mild, with few occurrences involving direct portrayals, discussion about or incitement to sexual activity.

As with other risk factors shaping the online environment, it is meaningful to ask whether certain online services or applications are particularly associated with risky activities (see Table 28).

Table 28: How child saw or received sexual messages online (age 11+)

%	Age				All
	9-10	11-12	13-14	15-16	
By 'pop up'	n.a.	2	5	7	5
By instant messaging	n.a.	2	3	6	4
On a social networking site	n.a.	1	4	5	4
Some other way on the internet	n.a.	1	4	5	3
By email	n.a.	1	2	4	2
In a chatroom	n.a.	1	2	3	2
In a gaming website	n.a.	1	2	2	2
Has seen or received at all	n.a.	7	14	21	15

QC170: Thinking about the times in the LAST 12 MONTHS that you have seen or received a sexual message on the internet, how has this happened?

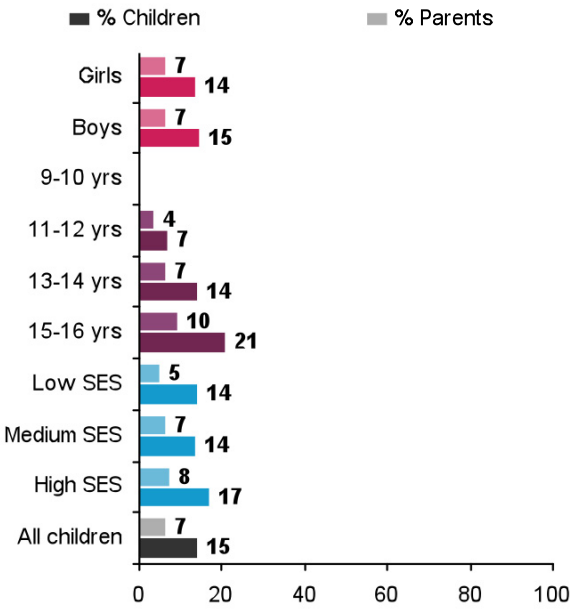
Base: All children aged 11-16 who use the internet.

- Receiving sexual messages in a pop up is most common (5%).
- Receiving them by instant messaging or on a social networking site are roughly equally likely (4%).
- Less common are such messages within email, chatrooms or gaming sites.
- Beyond the positive age trend, there is no apparent interaction between age and type of online activity.

8.2. Children's and parents' accounts of sexual messaging online

The relation between child and parent perceptions of children's experiences on the internet was pursued in the *EU Kids Online* survey in relation to sexual messaging.

Figure 51: Children's and parents' accounts of whether child has seen or received sexual messages online (age 11+)



QP235: [Has your child] seen or been sent sexual messages on the internet? QC167: In the past 12 months have you seen or received sexual messages of any kind on the internet? This could be words, pictures or videos?

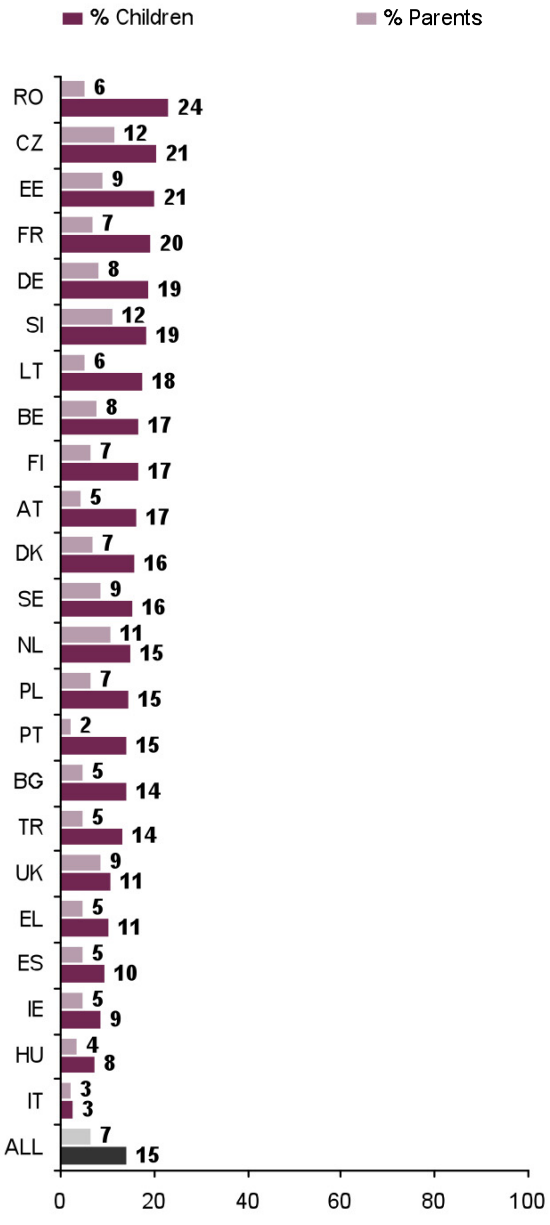
Base: All children aged 11-16 who use the internet and one of their parents.

Looking first at the overall levels of reporting by children and by parents, Figure 51 shows that:

- **Assuming children are telling the truth, parents slightly underestimate the amount of sexual messaging experienced (7% estimated by parents, 15% claimed by children).**
- Receiving sexual messages increases with age, but so does the gap between parents' judgements and children's claims.

- Higher SES is associated with receiving slightly more sexual messages. Gender differences are negligible.

Figure 52: Children's and parents' accounts of whether child has seen or received sexual messages online, by country (age 11+)



QP235: [Has your child] seen or been sent sexual messages on the internet? QC167: In the past 12 months have you seen or received sexual messages of any kind on the internet? This could be words, pictures or videos?

Base: All children aged 11-16 who use the internet and one of their parents.

Figure 52 shows the national distributions of parents and children's accounts of sexual messaging:

- As already noted, there is some national variation in the amount of sexual messaging, as judged by children's accounts, ranging from 24% in Romania to 3% in Italy, with an average of 15% overall.
- **Parents underestimate sexual messaging compared to their children in all countries, except in the UK and Italy, where children and parents report about the same percentage.**
- The degree of underestimation varies by county – in many countries it is a few percentage points, but occasionally it is more (e.g. Romania, 6% of parents vs. 18% of children).

A rather different picture emerges if we compare what a child and his or her own parent says. This pair-wise comparison between children and their parents' accounts is shown in Table 29.

- **Among the 15% of children who say they have seen or been sent sexual messages online, only 22% of their parents are aware of this. Half (52%) of their parents say they have not experienced this – a considerable underestimation, and 26% of parents don't know.**
- Among those children who say they have not seen or received sexual messages (the vast majority of all children), few of their parents think that they have – just 5% of parents estimate that this has occurred when it has not. The majority of parents (82%) say their child has not experienced this, and so their view accords with their child's.

Table 29: Comparison between children's and parents' accounts of whether child has seen or received sexual messages online (age 11+)

Seen or been sent sexual images on the internet?	Child's answer	
	Yes	No
% Parent answer:		
Yes	22	5
No	52	82
Don't know	26	13
	100	100

QP235: [Has your child] seen or been sent sexual messages on the internet? QC167: In the past 12 months have you seen or received sexual messages of any kind on the internet? This could be words, pictures or videos?

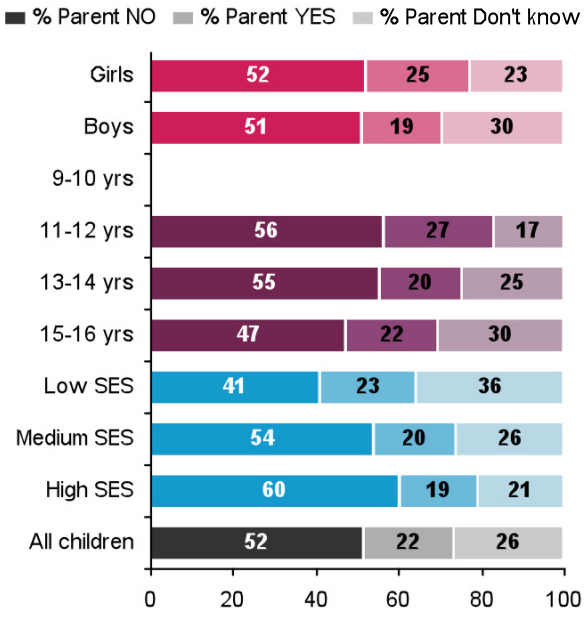
Base: All children aged 11-16 who use the internet and one of their parents.

In short, although within a national population, children and parents report a similar level of sexual messaging, at the individual level within families, there is a considerable difference of understanding. Half of parents do not recognise when their child has actually experienced sexual messaging.

> "In social networking sites it bothers me if there are foreigners who start bothering you and writing to you. They often ask for your MSN in order to see your Webcam." **(Girl, 16, Estonia)**

This finding is examined by demographic factors in Figure 53. Here the sample shown is, again, just those children (12% in all) who have seen or been sent sexual messages on the internet; the answers shown are those of the parent.

Figure 53: Parents' accounts of whether child has seen or received sexual messages online (only children aged 11+ who have seen or received such messages)



QP235: [Has your child] seen or been sent sexual messages on the internet?

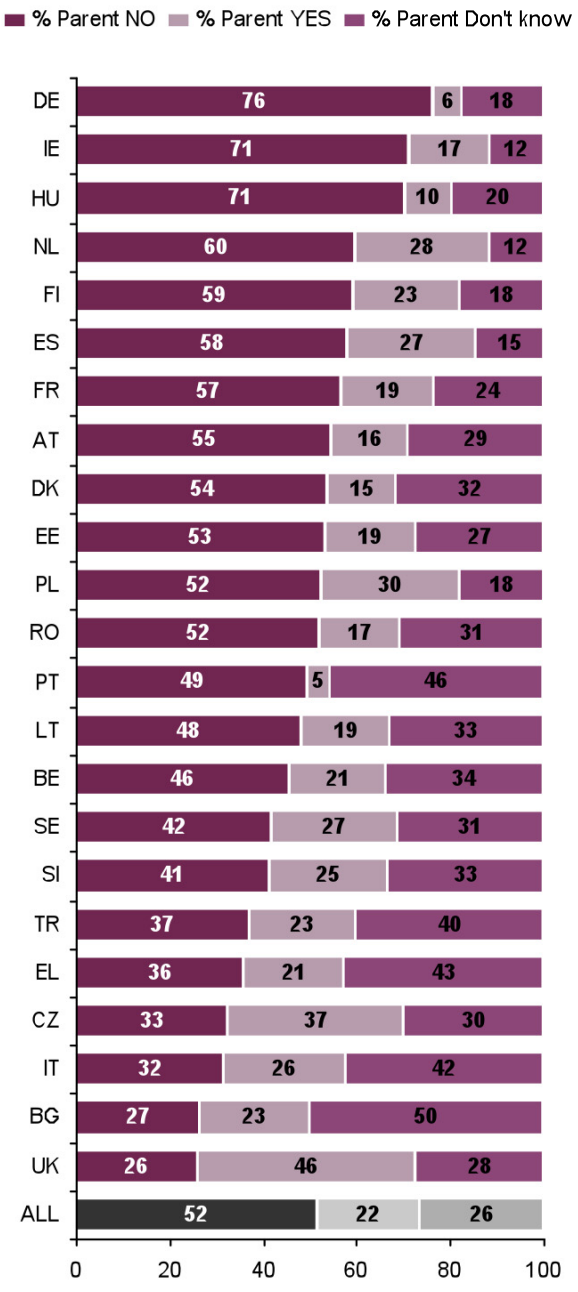
Base: One parent of children aged 11-16 who use the internet and who have seen or received sexual messages online.

- As noted above, among children who have seen or received sexual messages, one fifth (22%) of their parents recognises this but half (52%) do not. Parents' views differ little depending on whether their child is a son or daughter, though they are a little more uncertain regarding sons. However, middle and higher class parents are less likely to recognise that their child has had this experience (partly because more lower SES parents say they don't know).
- Age also matters. Parents of 11-12 year olds are more likely both to recognise (27%) and not to recognise (56%) that their child has seen or been sent sexual messages online.
- This is possible because the parents of 15-16 year olds are particularly likely to say they just don't know – 30%.

These findings are broken down by country in Figure 54.

- As before, this figure shows only those children who have seen/received sexual messages – i.e. 15% of European children overall.
- At the top of the figure are those countries where parents are most likely to underestimate that the child has seen or received sexual messages (i.e. while the child answered 'yes' I have received this, the parent answered 'no').
- In Germany (76%), Ireland (71%) and Hungary (71%), parents are least likely to recognise their child's experience of sexual messaging, contrasting with the UK (26%), Bulgaria (27%) and Italy (32%).
- In the middle section of the country bars are those parents who do recognise that their child has received such messages. This means the greatest agreement on the child's receipt of sexual messaging is to be found in the Czech Republic (37%) and the UK (46%) and the least in Portugal (5%) and the Germany (6%).
- Parents who don't know how to answer this question are also variably distributed across Europe, with many parents in Bulgaria (50%) and Portugal (46%), Ireland (%) saying they don't know if their child has seen or received such message.

Figure 54: Parents' accounts of whether child has seen or received sexual messages online by country (only children aged 11+ who have seen or received such messages)



QP235: [Has your child] seen or been sent sexual messages on the internet?

Base: One parent of children aged 11-16 who use the internet and who have seen or received sexual messages online.

This examination of what parents know, in the cases where the child has received sexual messages on the internet, suggests a considerable degree of misunderstanding. Parents are rather unlikely to consider that their child has received sexual messages when they have not. But they are very likely – half of all cases – not to recognise that the child has received sexual messages when they have.

Parents of boys, of teenagers and parents in lower SES homes are particularly likely to say they don't know, suggesting some parental uncertainty in these cases. Parents of younger children and middle class parents are also most likely to underestimate their child's experience of sexual messaging, saying 'no' this hasn't happened when the child says it has. In some countries, parental underestimation is twice as likely as in others.

8.3. Perceived harm from sexual messaging online

Table 30: Child has seen or received sexual messages online in past 12 months and was bothered by this, by country (age 11+)

	All children who use the internet		Child bothered, of those who have seen or received sexual messages
%	Child has seen or received sexual messages	Child bothered by seeing or receiving sexual messages	
AT	17	3	16
BE	17	2	14
BG	14	2	15
CZ	21	4	24
DE	19	3	18
DK	16	4	15
EE	21	7	25
EL	11	2	32
ES	10	2	18
FI	17	1	25
FR	20	4	7
HU	8	2	18
IE	9	2	30
IT	3	1	20
LT	18	3	34
NL	15	2	17
PL	15	4	15
PT	15	3	20
RO	24	8	28
SE	16	4	22
SI	19	2	35
TR	14	5	25
UK	11	2	8
ALL	15	3	22

QC167: In the past 12 months have you seen or received sexual messages of any kind on the internet? This could be words, pictures or videos. QC171: Has any of the sexual messages that you have seen or received bothered you in any way? For example, made you feel uncomfortable, upset, or feel that you shouldn't have seen it?

Base: All children age 11-16 who use the internet. Children aged 11-16 who have seen or received sexual messages online in the past 12 months.

Table 30 shows national variation in being bothered sexual messaging.

As noted in the discussion of seeing pornography, unless one makes the strong case that any exposure to sexual messages is inevitably harmful in some degree, it must be recognised that some children may receive sexual messages with no negative effects. Others, however, may be upset.

- **Although 15% of children has seen or received a sexual message online, only 3% of children aged 11-16 have both received and been bothered by this experience.**
- **However, looked at differently, nearly a quarter (22%) of the 15% who have received sexual messages were bothered by this.**
- While there is some national variation in the right-hand column, in part this arises because of the low numbers of children who experience sexual messaging in the first place.
- Nonetheless, some variation seems noteworthy: **those children in Estonia, Hungary, Italy, Poland, Romania and Turkey who have received sexual messages appear particularly likely to have been bothered by this experience.** Whether this is because they are less prepared, or because the messages are more explicit or for some other reason is difficult to determine.

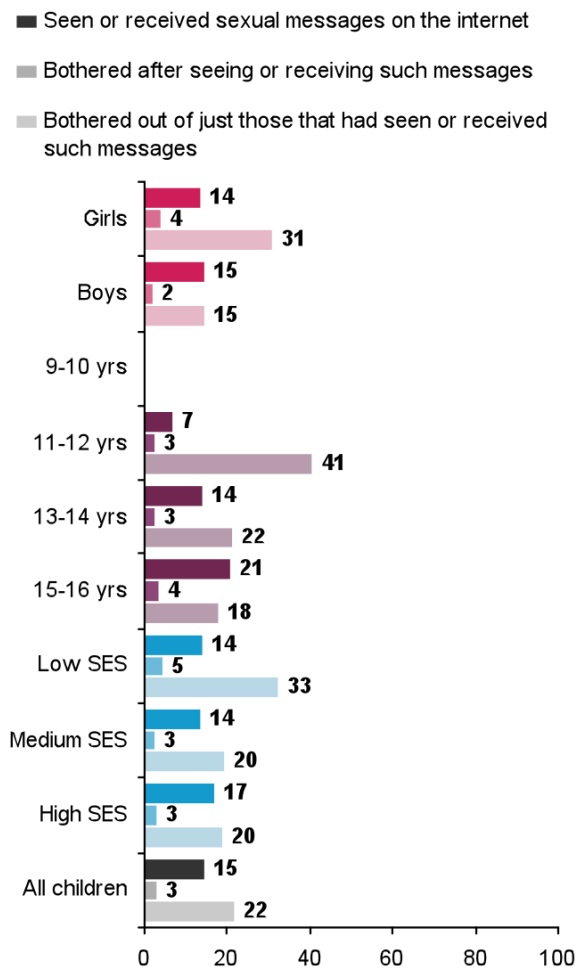
Figure 55 shows the relation between receipt of sexual messages and being bothered by sexual messages, by demographics.

- **Among those who have received sexual messages, girls are much more likely to be bothered (31%) than boys (15%).**
- **Similarly for age, 41% of 11-12 year olds who received sexual messages online were bothered by this experience, compared with 22% of 13-14 year olds and 18% of 15-16 year olds.**
- **Children from lower SES homes are more likely to be bothered by receiving sexual messages (33%) compared with those from medium or high SES homes (both 20%).**

In terms of the risk of harm, then, from the receipt of sexual messages, girls, younger children and less advantaged children report higher levels of subjective harm than do boys, teenagers and better off children. Although the overall level of sexual messaging is found by this survey to be substantially lower than popular media coverage would have one believe, the survey also provides a basis on which to target policy interventions so

as to reach those children who appear particularly vulnerable to its ill effects.

Figure 55: Child has seen or received sexual messages in past 12 months and was bothered by this (age 11+)



QC167: In the past 12 months have you seen or received sexual messages of any kind on the internet? This could be words, pictures or videos. QC171: In the last 12 months, has any sexual message that you have seen or received bothered you in any way?

Base: All children age 11-16 who use the internet. Children who have seen or received sexual messages online in the past 12 months.

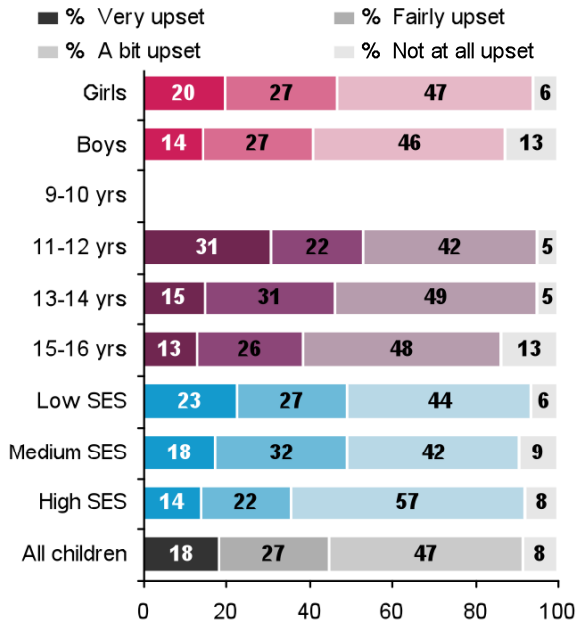
In the remainder of this section, although the sample sizes are sufficient for a breakdown by demographic variables, they are too small for further cross-country analyses.

To pursue what children meant by being bothered, two measures of subjective harm were used (in relation to the LAST TIME the child was bothered by seeing or receiving sexual messages). These measures were severity (how upset were they), shown in Figure 56, and duration (see Figure 57).

Figure 56 shows findings for the severity of harm:

- **Nearly half (45%) of the children aged 11-16 who have been bothered by seeing or receiving sexual messages report being very or fairly upset (but remember these are low numbers overall).**
- Girls are more upset (47% vs. 41% of boys who are very or fairly upset).
- Younger children (here 11-12 year olds) are more inclined to have a stronger negative reaction (53% are very or fairly upset).
- The lower the SES, the more inclined they are to be very or fairly upset, especially very upset.

Figure 56: How upset the child felt after seeing or receiving sexual messages (only children aged 11+ who have been bothered by sexual messages online in past 12 months)



QC172: Thinking about the last time you were bothered by [seeing or receiving sexual messages], how upset did you feel about it (if at all)?

Base: All children aged 11-16 who use the internet and have been bothered after seeing or receiving sexual messages online in the past 12 months.

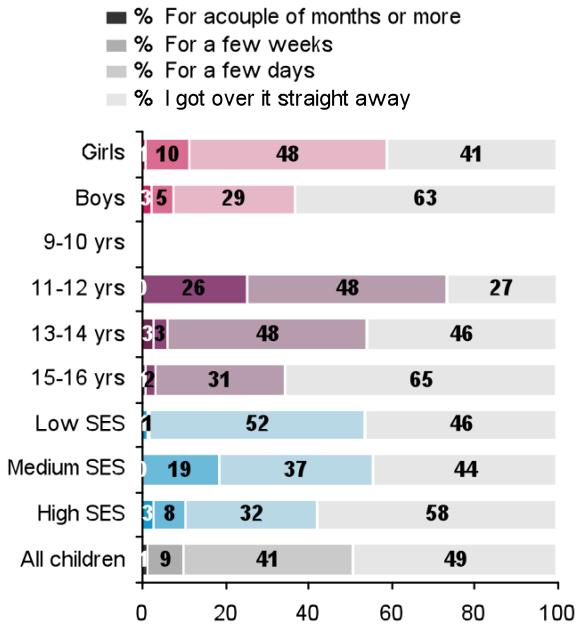
Figure 57 shows findings for children's perception of the duration of harm, again calculated only for those who have been bothered by the experience of seeing or receiving sexual messages.

- **1% claim a long term response, with children upset for at least some months. More say they are upset for some weeks (9%). But for the majority, the reaction seems short lived: nearly a half (49%) said they got over it straight away.**
- For girls, the negative experience lasts slightly longer than boys (11% vs. 8% claim it lasts weeks or longer). Boys are much more likely to say they get over it straight away (63% vs. 41%).
- The younger children answering this question, 11-12 year olds, are distinctly more likely to say that they are upset for some weeks (26%), while 'getting over it straight away' increases with age.
- The picture as regards SES is a little mixed: children from a middle SES background are more likely to say they are upset for longer (19% for up to a few weeks).

One quarter of those who have received sexual messages were bothered by this experience – and nearly half of those (i.e. one in 8 of those who received sexual messages) were fairly or very upset. The proportion who was bothered by sexual messaging is higher in several countries and, further, girls, younger children, and children from low SES homes are twice as likely to have been bothered as boys, older teenagers and higher SES children. These groups all report a greater likelihood of having been upset by sexual messages, with effect also having lasted for longer.

On the other hand, most who received sexual messages were not at all bothered or upset by the experience, presumably either ignoring this or receiving such messages as part of an entertaining or intimate peer-to-peer exchange. This latter seems most likely to account for older teenagers' relative unconcern about such messaging.

Figure 57: For how long the child felt like that after seeing or receiving sexual messages online (only children aged 11+ who have been bothered by sexual messages online in past 12 months)



QC136: Thinking about [the last time you were bothered by seeing or receiving sexual messages], how long did you feel like that for?

Base: All children aged 11-16 who use the internet and have been bothered after seeing or receiving a sexual message online in the past 12 months.

"A person asked me to show my breasts on the webcam" **(Girl, 11, Belgium)**

8.4. Coping with sexual messaging online

As with pornography and bullying experiences, the next tables pursue how children respond to the experience of being bothered by online sexual messaging. Thus the children included in the remaining tables in this section were only those who had both received or seen a sexual message and been bothered by this.

Table 31: How the child coped after being bothered by seeing or receiving sexual messages online (age 11+)

%	All
Hope the problem would go away by itself	19
Try to fix the problem	23
Feel a bit guilty about what went wrong	5
Try to get the other person to leave me alone	10
Try to get back at the other person	2
None of these things	31
Don't know	10

QC174: The last time this happened, did you do any of these things afterwards?

Base: All children aged 11 to 16 who use the internet and have been bothered by seeing or receiving sexual messages online in the past 12 months.

First, we consider the actions children took on being bothered by seeing or receiving a sexual message on the internet. Table 31 shows that:

- **Nearly a third responded in a pro-active manner, 23% trying to fix the problem and 10% trying to get the person to leave them alone.**
- **However, nearly a fifth (19%) just hoped the problem would go away.**

Then we considered whether these children sought social support from those around them.

Table 32: Who the child talked to after being bothered by seeing or receiving sexual messages online (age 11+)

%	All
Talked to anybody at all	61
A friend	57
My mother or father	54
My brother or sister	14
Another adult I trust	10
Some one whose job it is to help children	4
Someone else	3
A teacher	3

QC175: Thinking about [the last time you were bothered by seeing or receiving sexual messages], did you talk to anyone about what happened? QC176: Who did you talk to?

Base: All children aged 11-16 who use the internet and have been bothered after seeing or receiving a sexual message online in the past 12 months.

On the issue of seeking social support, it is clear from Table 32 that:

- **A majority (61%) talked to someone about it, the most common person talked to being either a friend (57%) or a parent (54%).**
- A few children talk to their siblings (14%) or to another adult they trust (10%).
- As with other risks, few children tell some of the other people who might be expected to support the child – teachers or other responsible adults.

Finally, Table 33 shows that some internet-based strategies appeared relatively more successful than others

- **About a third deleted the unwanted sexual messages (38%) and/or blocked the person who sent (36%). In most cases, the child said that this action helped the situation.**
- Roughly a fifth (22%) try to reset their filter or contact settings and all of these children say it helped to do this.
- Some stop using the internet for a while (18%) but they are less positive that this really helps. A similar picture was found for reporting the problem officially (17% try it but fewer – 11% – tried it and thought that it helped).

Table 33: What the child did after being bothered by seeing or receiving sexual messages online (age 11+)

%	Did this	Did this and it helped
I stopped using the internet for a while	18	13
I deleted any messages from the person who sent it to me	38	36
I changed my filter/ contact settings	22	22
I blocked the person who had sent it to me	36	32
I reported the problem (e.g. clicked on a 'report abuse' button, contact an internet advisor or 'internet service provider (ISP)')	17	11
None of these	8	6
Don't know	28	24

QC177: Thinking about [the last time you were bothered by seeing or receiving sexual messages], did you do any of these things? QC178: Which, if any, of the things you did helped you?

Base: All children aged 11-16 who use the internet and have been bothered after seeing or receiving a sexual message online in the past 12 months.

Children try a range of coping strategies, when faced with upsetting sexual messages online – using individual, social and technical solutions as available. Four in ten children did not tell anyone, however, even though they had been bothered by the experience, and only a minority of children sought a technical solution. In our future analysis, we will examine which children tried these different solutions, and how their coping strategies relate to each other and to how upset they were.

9. MEETING NEW PEOPLE

9.1. Frequency of meeting online contacts offline

Possibly the greatest public and policy concern for children's safety on the internet has focused on the risk that a child will meet someone new online who then abuses them in a subsequent face to face meeting. Such meetings constitute a contact risk, in the terms of our classification in Table 1.

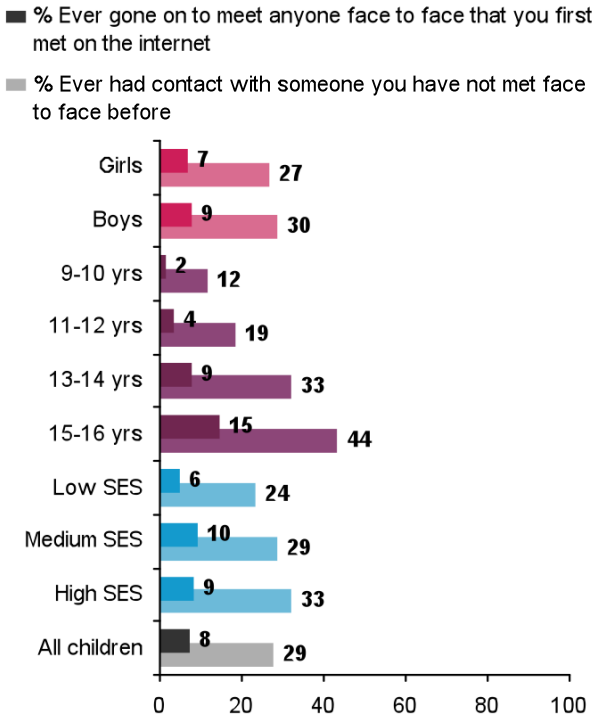
However, previous research suggests that the risk of harm from a face to face meeting with someone whom one first met on the internet is low, not least because children increasingly use the internet to widen their circle of friends, with very few using online communication to meet adults (whether deliberately or inadvertently).[65] Further, although it is possible for contacts with new people online to result in harm, public concern tends leave unclear just what harm might result (online exploitation or deception or offline abuse?).

The *EU Kids Online* questionnaire focused on the practice of making new friends online leads to meetings with such people offline and, then, whether this latter poses a significant risk of harm to children aged 9-16 years old.

The first step was to understand the pattern of children's online contact and/or face to face meetings with people that they have not previously met face to face (Figure 58).

- **More than a quarter of children (29%) has made contact online with someone they did not previously know offline.**
- **The older the child, the more likely they are to have made contact with new people online: 12% of 9-10 year olds vs. 44% of 15-16 year olds have made new contacts this way.**
- Boys are slightly more likely to have done this than girls (30% vs. 27%), and middle class children are more likely to have done this than working class children (24% of children from low SES homes have made new contacts online compared with 33% of children from high SES homes).
- **Overall, 8% of 9-16 year olds have gone to a meeting face to face with someone that they first met on the internet.** Since this 8% is an average of a lower percentage of younger children and a higher percentage of teenagers, this accords with our previous estimate, based on a review of national surveys, that roughly one in ten teenagers have met an online contact offline.[66]
- The demographic differences mirror those for making new contacts online, with boys and higher class children slightly more likely to go to such meetings.
- **The age differences are substantial: only 2% of 9-10 year olds and 4% of 11-12 year olds have met face to face someone that they first met online. However, 9% of 13-14 year olds and 15% (or 1 in 7) 15-16 year olds have gone to such a meeting.**

Figure 58: Child has communicated online with, or gone to an offline meeting with, someone not met face to face before



QC147: Can I just check, have you ever had contact on the internet with someone you have not met face to face before? QC148: Have you ever gone on to meet anyone face to face that you first met on the internet in this way.

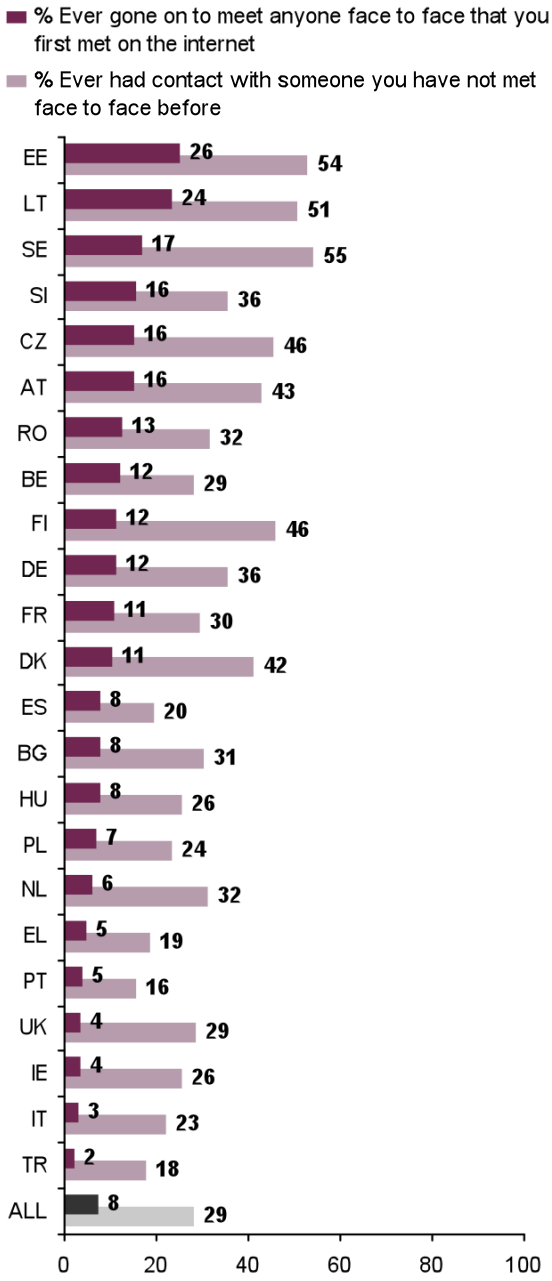
Base: All children who use the internet.

Figure 59 shows national differences in contacts and meetings with people first met online. Countries are ordered by the occurrence of face to face meetings:

> "Chatting to someone you do not know and telling you lies so they can get closer" **(Girl, 15, Ireland)**

- Children are most likely to have gone to an offline meeting with a contact first made online in some of the Baltic countries (26% in Estonia and 24% in Lithuania). Such offline meetings are least common in Turkey (2%), and then Italy (3%), Ireland and the UK (each 4%).
- In many countries, there is an association between the likelihood of making contact with new people online and the likelihood of going to meet such a person or people offline - notably, in Estonia, Lithuania and Sweden. However, there are quite a few exceptions: for example, children in Finland, Denmark, Slovenia and the Netherlands have quite a lot of online contacts that they have not met face to face but they go to relatively fewer offline meetings compared to some other countries.

Figure 59: Child has communicated online with, or gone to an offline meeting with, someone not met face to face before, by country



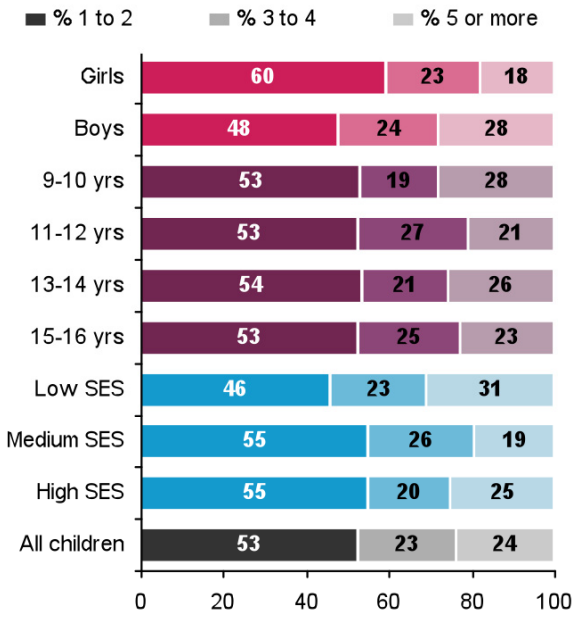
QC147: Can I just check, have you ever had contact on the internet with someone you have not met face to face before? QC148: Have you ever gone on to meet anyone face to face that you first met on the internet in this way?

Base: All children who use the internet.

Following up the experience of going to offline meetings with people first met online, we next asked only those children who had gone to such a meeting, how many people they had met in this way (see Figure 60). It should be borne in mind that these questions are thus asked of only the 8% who say they have met someone this way, a very small minority of the population of children who use the internet.

- **The majority (53%) of those who have gone to a meeting with someone they first met online say that met just one or two people this way in the past year.** 23% say they have met three or four people, and 24% say they have met five or more people this way.
- Apart from a tendency for girls to meet fewer people than boys, the sample sizes are too small to comment on demographic differences.

Figure 60: The number of people the child has met offline in the past 12 months (only children who have met someone offline that they first communicated with online)

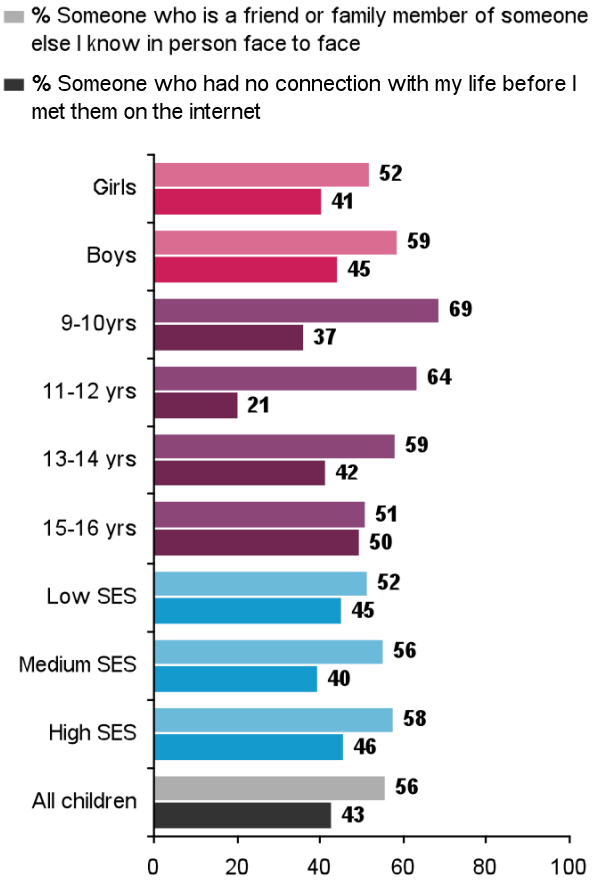


QC149: How many new people have you met in this way in the last 12 months (if any)?

Base: Children who use the internet and who have met offline someone they first met online in the past 12 months.

Figure 61 compares the people that children have met offline in terms of whether they are already part of their social circle or whether they can really be called 'strangers'.

Figure 61: Who the child has met offline in the past 12 months (only children who have met someone offline that they first communicated with online)



QC150: In the last 12 months, which of these types of people have you met face to face that you first met on the internet? *(Multiple responses allowed)*

Base: Children who use the internet and who have met offline someone they first met online in the past 12 months.

- **The majority (56%) say that the person (or people) they have met offline were first met online as part of their social circle – a friend or relative of someone they do know face to face.**
- 43% of those who have gone to a meeting say, however, that the person or people they met have no

connection with their life before they met them online. This is just under 3% of all children surveyed.

- Offline meetings with people met online who are unconnected with the child's social circle are not particularly more common in one demographic group than another, except that such meetings are more experienced by teenagers than younger children.

The next stage in the analysis was to establish the way in which contact is first made with new people who the child subsequently met offline, as shown in Table 34.

Table 34: The way in which child first contacted someone they have met offline (only children who have met someone offline that they first communicated with online in the past 12 months)

%	Age				All
	9-10	11-12	13-14	15-16	
On a social networking site	1	3	7	13	6
By instant messaging	1	2	5	8	4
In a chat room	0	1	1	4	2
Some other way on the internet	0	0	1	3	1
In a gaming website	1	1	1	2	1
By email	0	1	1	2	1
Has ever gone to a meeting with someone first met online	2	4	9	15	8

QC151: Thinking about any people you have gone on a meeting with in the last 12 months who you first met on the internet, in what ways did you first get in contact with them? QC148: Have you ever gone on to meet anyone face to face that you first met on the internet in this way?

Base: All children who use the internet.

- **The most common way in which contact was first made, among children who then went to a meeting, is via social networking sites (6%) followed by instant messaging (4%).** This is not to say that social networking sites are intrinsically more likely to result in meetings than, say, gaming sites. Rather, because more children use social networking sites than gaming sites (60% vs. 44%, as shown in Table 5), this represents a more likely route to such new contacts.
- In general, contact is more common via these routes the older the child; 15-16 year olds are also more likely than younger children to have made first contact in a chatroom.
- New contacts made online in gaming websites or by email appear very rarely to result in offline meetings.

Although one quarter of all children has made new contacts online that they have not met face to face, the percentage who have gone to meet that person offline is far smaller – 8% of all 9-16 year olds. The practice of making new online contacts, and going to meet them offline, is more common among teenagers than younger children. among 15-16 year olds, 44% have made new contacts online, and 15% have subsequently met these contacts offline. Both practices are also more common in Eastern European countries (Estonia, Lithuania, Czech Republic) and also in Sweden.

> "An adult stranger writes to me and asks personal questions"
>
> **(Girl, 10, Germany)**

Among those who have gone to offline meetings with online contacts, over half (53%) have met just one or two people this way and a similar proportion say that although they had not met the person before face to face, it was someone who is part of their social circle – a friend or relative of someone they do know face to face (56%).

Insofar as the conditions that concern policy makers most are meetings involving young children, and meetings involving people outside the child's existing social circle, the findings show that 12% of European 9-10 year olds have made a new contact online, and that 2% of this age group has then met such a person offline.

Among the 8% of 9-16 year olds who met offline with a new online contact, 43% of them met someone who had no other connection with their life. For the 2% of 9-10 year olds who had met an online contact offline, in 37% of cases the person had no connection with their life. It will be appreciated that the absolute number of children in this group is too small for further reliable analysis.

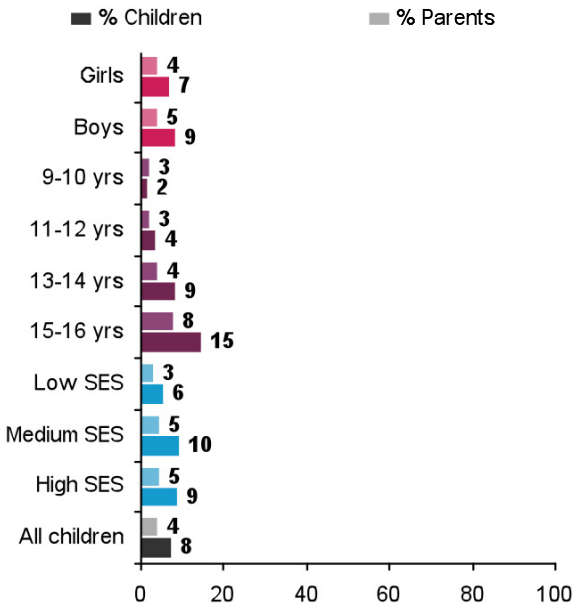
9.2. Children's and parents' accounts of meeting online contacts offline

To what extent are parents aware of such meetings with new contacts made online? The next stage in the analysis compared parents' with children's accounts of whether or not the child had met an online contact offline. First, we examine the overall reporting, by children and their parents, of the incidence of offline meetings with online contacts (Figure 62).

- **Overall, a similar proportion of children and parents report that the child has gone to an offline meeting with an online contact, though parents report slightly fewer such meetings – 4%, compared with the 8% of children who say they have gone to an offline meeting with someone first met online.**
- The percentages are too small to discern any noteworthy differences between children and parents accounts by gender and SES, though, as shown earlier, boys and children from higher SES homes are more likely to meet online contacts offline. Age differences are more noteworthy. It appears that parents of the youngest children slightly overestimated whether meetings had taken place, if we take the child to be telling the truth (3% vs. 2%). On the other hand, parents of the oldest children underestimated such meetings - 8% vs. 15% among 15-16 year olds.

"A man who would tell me shocking things about my external appearance of my breast, who could be old and give me a rendezvous without my parents knowing" **(Girl, 12, France)**

Figure 62: Children's and parents' accounts of whether child has met online contacts offline



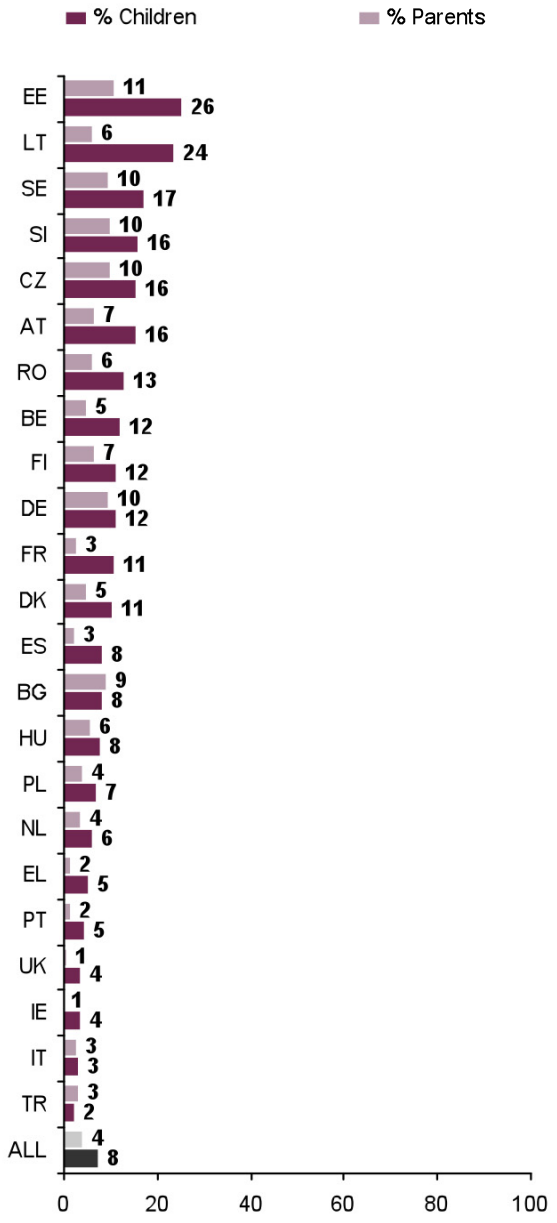
QP235: [Has your child] gone to a meeting with someone face to face that he/she first met on the internet? QC148: Have you ever gone on to meet anyone face to face that you first met on the internet in this way?

Base: All children who use the internet, and one of their parents.

Figure 63 shows the national variation:

- **Parents in most countries underestimate the incidence of offline meetings by children. Exceptions include Germany, Bulgaria and Turkey, where parents slightly overestimate.**
- The degree of underestimation varies by country. There is generally a few percentage points difference, with a more striking gap in Lithuania (6% vs. 24%) and Estonia (11% vs. 26%).

Figure 63: Children's and parents' accounts of whether child has met online contacts offline, by country



QP235: [Has your child] gone to a meeting with someone face to face that he/she first met on the internet? QC148: Have you ever gone on to meet anyone face to face that you first met on the internet in this way?

Base: All children who use the internet, and one of their parents.

Focusing in on those 8% of children who say they have met offline a contact first made online, and remembering that most of these children are teenagers rather than younger, Table 35 provides a more detailed account of what parents know about the activities of their own child. In other words, as for other sections of this report, this table does not compare overall levels of parental and child accounts of meeting online contacts offline but rather compares the parent's answer with that given by the child. The interest, also as before, lies especially in those cases where the child says yes, I have been to such a meeting. What, we explore below, do these children's parents say?

Table 35: Comparison between children's and parents' accounts of whether child has met online contacts offline

Met someone face to face that first met on the internet?	Child's answer	
	Yes	No
% Parent answer:		
Yes	28	4
No	61	89
Don't know	11	7
	100	100

QP235: [Has your child] gone to a meeting with someone face to face that he/she first met on the internet? QC148: Have you ever gone on to meet anyone face to face that you first met on the internet in this way?

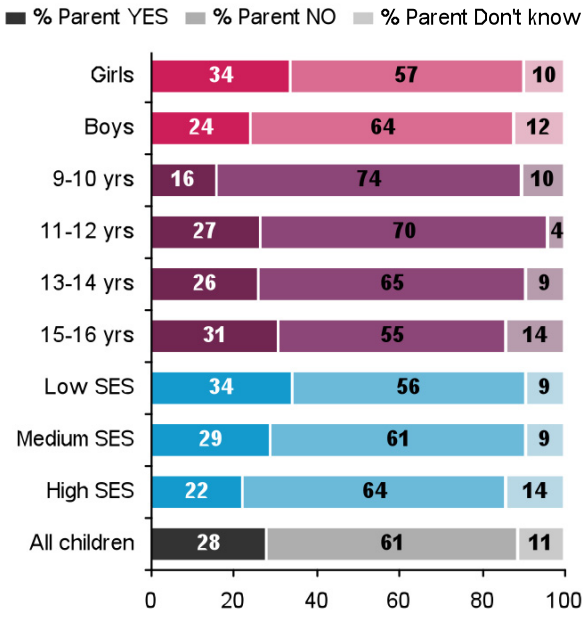
Base: All children who use the internet, and one of their parents.

- **Among children who have met someone face to face who they first met on the internet, 28% of their parents know that they went to such a meeting, while 61% say that their child has not been to such a meeting and 11% say they don't know if this has happened or not.**
- Among children who say they have not gone to a meeting with an online contact, most parents (89%) give the same response, but a few (4%) say that they have. Although 4% of parents is a small percentage, it is 4% of the vast majority of parents (since 94% of children fall into this group who said 'no') and, thus, it is a sizeable number of parents who overestimate such meetings.

"Some adults come to suggest something improper." **(Girl, 14, Finland)**

For only those children who have met someone offline that they first met online, Figure 64 examines the answers parents give according to the demographics of their child.

Figure 64: Parents' accounts of whether child has met online contacts offline (only children who have gone to such a meeting)



QP235: [Has your child] gone to a meeting with someone face to face that he/she first met on the internet?

Base: One parent of children who use the internet and who have gone on to meet anyone face to face that they first met online.

- For one third of girls (34%) but just a quarter of boys (24%), the parent also says that the child has had such a meeting. For over half of girls (57%), and two thirds of boys (64%), it seems that parents are not aware of this.
- **Remembering that very few 9-10 year olds have had such a meeting, it is nonetheless noteworthy that only one in six (16%) of their parents is aware that they have met someone in this way. The proportion of parents who are aware of this rises with the age of the child to one in three (31%) for 15-16 year olds.** From a safety point of view, this is not desirable, for one would surely prefer that parents are more, not less, aware of such meetings in the case of the youngest children.
- Interestingly, parents seem less aware of such meetings in the case of middle class households (22% of parents from high SES homes compared with 34% from low SES homes). Recall that middle class children are also more likely to go to such meetings.

9.3. Perceived harm from meeting online contacts offline

Making new contacts online and then arranging to meet these people offline is, perhaps, one of the more contested activities children may engage in. This may be a harmless means of widening a social circle. Or it may be a risky or even dangerous means of contacting an abusive stranger.

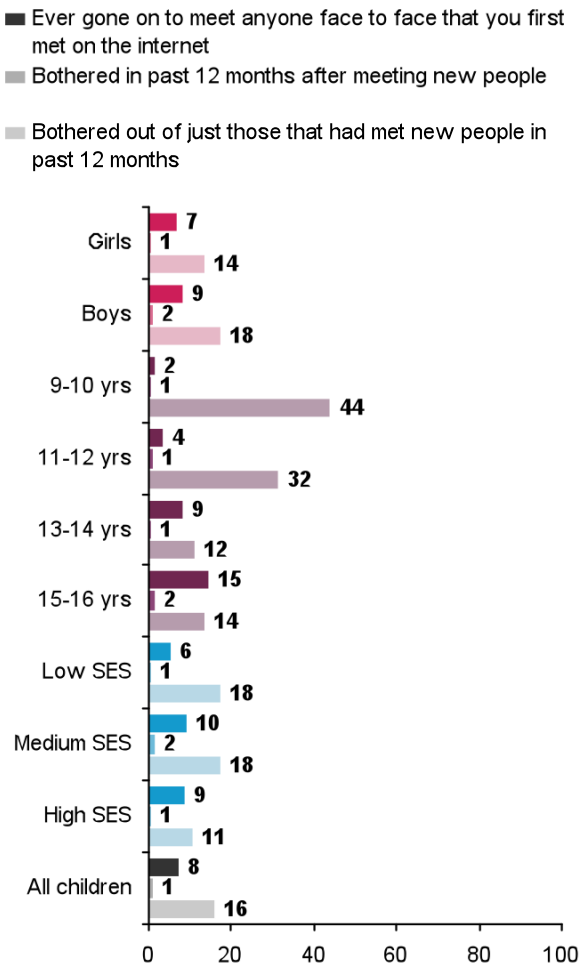
As before, we prefaced questions about subjective harm with the following:

Face to face meetings with people that you first met on the internet may be fine or not fine. In the LAST 12 MONTHS have you gone to a meeting with someone you met in this way that bothered you? For example, made you feel uncomfortable, upset, or feel that you shouldn't have been there?

Their answers to this question are shown in Figure 65.

- Among all children who use the internet, 8% have met an online contact offline, and 1% of children report being bothered by this. To put it another way, among only those who have been to such a meeting, 16% were bothered by what happened.
- Although the youngest group was the least likely to have been to meet an online contact offline, they were the most likely to have been bothered by what happened (44% of those who had been to a meeting).
- Boys and children from lower SES homes were also slightly more likely to have been bothered by offline meetings when they occurred, though it is higher class children who are more likely to go to such meetings at all.
- Of the 1% of children who had been bothered by an offline meeting, about half said that they were very or fairly upset by what happened, while the other half said that they had either been not upset at all or only a bit.

Figure 65: Child has met online contact offline and was bothered by this



QC148: Have you ever gone on to meet anyone face to face that you first met on the internet in this way? QC152: In the LAST 12 MONTHS have you gone to a meeting with someone you met in this way that bothered you?

Base: All children who use the internet. Only those children who have gone on to meet new people offline in the past 12 months.

9.4. Coping with meeting online contacts offline

In all, the *EU Kids Online* survey identified 1% of the entire sample who had not only gone to a meeting offline with a contact made online but had also been bothered or upset by what happened. This was 241 children, in all. Although these children were then asked a series of further questions in the interview, the sample size is generally too small for detailed graphs to present these reliably. The following may be reported, however, as indicative.

- Of this small group, 67% said they met with someone about their own age, 8% met with someone younger, 19% with an older teenager and 8% (10 children in all) said they met with an adult (defined as at least 20 years old).
- Further, 75% of the 241 children said that the last time they went to such a meeting, they told someone where they were going, most often someone their own age, while 25% said they told no-one. Just over half took someone with them to the meeting, nearly always someone their own age.
- Of the 241 children, 28% said that the other person said hurtful things to them, 7 children said they had been hurt physically, and 10 said the other person did something sexual to them; finally, 16 said something else bad happened. It is possible that these answers come from children who were genuinely hurt. It is also possible that this small proportion of children were messing around in answering the questionnaire, not answering truthfully. This we cannot know. All children in the survey were given sources of confidential support and advice from national child welfare and internet safety providers.
- Follow up questions were asked as elsewhere in the questionnaire, but the sample is too small to note their replies in detail here. It can be said, however, that after the meeting, 56% talked to someone about what had happened, more often a friend than a parent.
- In our further analysis, we can examine whether these two groups of children differ in particular ways, and also how the variables measured interrelate (for example, was it the children who were upset who talked to someone about what happened?)

Thus, of the 19345 children stating whether they had contact on the internet with someone they had not met face to face, 8% or just over 1500 children had met someone new offline that they first meet online in the past

12 months. When asked, further, if they had been bothered in some way by this meeting, 1% of all children said yes they were bothered.

Although the consequences for these children should be carefully considered, and although policy consequences may well be judged appropriate, the message for most children must surely be that the internet does not result in a substantial increase in the likelihood of face to face meetings with strangers.

Any policy considerations should bear in mind that, among children who have met someone face to face who they first met on the internet, less than one third of their parents knew that such a meeting occurred, while nearly two thirds said their child had not been to such a meeting.

10. OTHER RISK FACTORS

Pornography, bullying, sexual messaging and meeting new people online have all been explored in some depth because there is already a research literature, and an array of policy initiatives, on which to build. But there are other online experiences that, although identified as potentially harmful to children, have attracted little research as yet.

These include exposure to what one might term potentially harmful user-generated content (essentially harm associated with the content produced not mass produced by commercial organisations but rather generated through peer-to-peer conduct). Other little researched risk factors are associated with the misuse of personal data in various ways, these in turn potentially enabling ill-intentioned others to access children and/or their personal information.

Although both are increasingly discussed in policy circles, the likely incidence of each, as experienced by children, is largely unknown. For this reason, we decided to include measures for the incidence of these only, but not to follow up in terms of resulting harm or patterns of coping. As what follows suggests, follow up questions of this kind should now be included in future research.

10.1. Potentially harmful user-generated content

One of the unique features of the internet as compared to many other media is the potential for almost anyone who is connected to the internet to make all kinds of material available to a large number of people. The term user-generated content is used here to emphasise the often non-institutional, peer-to-peer nature of such material, permitting individuals or small groups to promote values, activities or knowledge which may be harmful for children. In terms of our risk classification (Table 1), this is a form of conduct risk (though it blurs the categories insofar as such content may be produced by adults and consumed by children).

As with other experiences of internet use discussed in this report it was considered difficult to ask the children whether they saw these websites on purpose. It is quite possible for children to come across websites of this kind when looking for information for example on healthy living.

> "When somebody says that he/she is going to commit suicide"
>
> **(Boy, 15, Germany)**

Due to the sensitive nature of the nature of the websites, and given the absence of evidence that young children have ever encountered them, only children aged 11 and older were asked if they had seen the instances of potentially harmful user-generated content shown in Table 36. The question had the following introduction:

On some websites, people discuss things that may not be good for you. Here are some questions about these kinds of things. In the PAST 12 MONTHS, have you seen websites where people discuss…

Table 36 shows that:

- **22% of children aged 11 to 16 years have come across websites one or more of the five types of websites asked about. There is a marked age difference, rising from 13% of 11-12 year olds to 30% of 15-16 year olds.**
- **Children encounter hate messages (12%) and anorexic/bulimic sites (11%) more than they do self-harm sites (8%) or sites where drug taking is discussed (7%) sites. Although a smaller percentage, nevertheless it is noteworthy that one in twenty encounter suicide sites (5%).**[67]
- In general, encountering such sites increases with the child's age. Thus while only one in twenty or so children aged 9-10 has encountered each type of content, one in five (19%) 15-16 year olds has encountered hate content, with 15% seeing pro-anorexic content, 12% self-harm websites, 12% drug-taking websites, and 6% seeing sites that discuss forms of suicide.

Table 36: Child has seen potentially harmful user-generated content on websites in past 12 months (age 11+)

%	Age				All
	9-10	11-12	13-14	15-16	
Hate messages that attack certain groups or individuals	n.a.	6	12	19	12
Ways to be very thin (such as being anorexic or bulimic)	n.a.	6	11	15	11
Ways of physically harming or hurting themselves	n.a.	5	8	12	8
Talk about or share their experiences of taking drugs	n.a.	3	6	12	7
Ways of committing suicide	n.a.	4	5	6	5
Has seen any such material at all on websites	n.a.	13	22	30	22

QC142: In the past 12 months, have you seen websites where people discuss...?

Base: All children aged 11-16 who use the internet.

Table 37 shows the same group of questions but now broken down by both age and gender.

- **Girls, especially those aged 14-16, are much more likely than boys to see pro-anorexic or bulimic content (20% of girls aged 14-16), while younger boys are slightly more likely to encounter hate sites.**
- Exposure to content relating to self harm, suicide or drug taking is not particularly differentiated by gender.

"Bloody movies at YouTube."
(Girl, 9, Norway)

"Videos by people beaten up or harmed" **(Boy, 12, UK)**

Table 37: Child has seen potentially harmful user-generated content on websites in past 12 months, by age and gender (age 11+)

%	Age				All
	11-13 years		14-16 years		
	Boys	Girls	Boys	Girls	
Hate messages that attack certain groups or individuals	8	5	18	17	12
Ways to be very thin (such as being anorexic or bulimic)	5	9	9	20	11
Ways of physically harming or hurting themselves	6	5	11	10	8
Talk about or share their experiences of taking drugs	4	4	10	11	7
Ways of committing suicide	3	4	7	6	5
Has seen such material at all on any websites	14	16	26	32	22

QC142: In the past 12 months, have you seen websites where people discuss...?

Base: All children aged 11-16 who use the internet.

10.2. Personal data misuse

Who has access to personal data available online, with or without the permission or even knowledge of the internet user is gaining increasing policy attention. For the most part, those who misuse personal data without consent are likely to be adults unknown to the user, and thus we have classified it as a contact risk (Table 1).

In the survey, questions on personal data misuse were only asked of children aged 11 years and older. The main reason for not asking this of the youngest children was that they found it difficult to understand generic terms such as 'personal information' without a rather extensive explanation (- we also sought to keep the questionnaire shorter for this age group). In line with other experiences asked about in the survey the children were asked to frame this within the past 12 months and were asked the following question:

In the PAST 12 MONTHS, has any of the following happened to you on the internet?

Table 38 shows that:

- **9% of children aged 11 to 16 years have experienced one or more of the three things asked about within the frame of personal data misuse. The age difference is however much less marked than can often be seen in other parts of this report, with the numbers rising only from 7% of 11-12 year olds to 11% of 15-16 year olds.**
- **The most common misuse was someone using the child's password or pretending to be them (7%), followed by someone misusing their personal information (5%). Despite some mention of being cheated in some qualitative studies, this only appears to affect a small proportion of children (2%).**[68]

Table 38: Child has experienced misuse of personal data in past 12 months (age 11+)

%	Age				All
	9-10	11-12	13-14	15-16	
Somebody used my password to access my information or to pretend to be me	n.a.	5	8	8	7
Somebody used my personal information in a way I didn't like	n.a.	3	5	6	5
I lost money by being cheated on the internet	n.a.	1	2	2	2
Has experienced personal data misuse of any kind	n.a.	7	10	11	9

QC143: In the past 12 months, has any of the following happened to you on the internet?

Base: All children aged 11-16 who use the internet.

"Girlfriends who I thought my friends have been awful. They took my identity to have my boyfriend"

(Girl, 15, France)

Table 39 shows the same group of questions broken down both by age and gender:

Table 39: Child has experienced misuse of personal data in past 12 months, by age and gender (age 11+)

%	Age				All
	11-13 years		14-16 years		
	Boys	Girls	Boys	Girls	
Somebody used my password to access my information or to pretend to be me	5	5	7	10	7
Somebody used my personal information in a way I didn't like	4	3	5	7	5
I lost money by being cheated on the internet	1	2	3	2	2
Has experienced personal data misuse of any kind	7	7	10	13	9

QC143: In the past 12 months, has any of the following happened to you on the internet?

Base: All children aged 11-16 who use the internet.

- Teenage girls are slightly more likely to have experienced misuse of personal data (13%), especially stolen passwords and misuse of information.

"My schoolmate broke into my profile on social networking site, wrote some vulgar things there, changed my password. My parents solved the situation." **(Boy, 14, Czech Republic)**

When designing the EU Kids Online questionnaire, there had been few previous surveys to guide us on the two issues addressed in this section – potentially harmful user-generated content and personal data misuse. The first of these has, undoubtedly, gained considerable popular attention since the advent of widespread use of YouTube and similar peer-to-peer sites. The second has often been mentioned when children are themselves asked what concerns them online.[69]

It is, therefore, interesting to observe that encountering at least one of the types of potentially harmful user-generated content we asked about affects a fair minority of children – 22% of the 11-16 year olds. For those policy makers specifically concerned with online racism, encouragement for drug-taking, anorexia/bulimia, self-harm or even suicide, these findings would bear closer scrutiny. There was not time in the present survey to ask children if they had been bothered or upset by such content or not, nor about what they did about it. Nor, indeed, could we ask children about whether they contributed to such content by posting messages of their own. Clearly, there are grounds for developing further research here.

As for the findings on personal data misuse, these are significant in the context of growing policy interest in matters of private and personal data management, both for the general public and for children in particular. One in eleven children reports one or more types of personal data misuse, the most common being someone using their password improperly or illicitly. It is not surprising that this occurs more among older than younger children but the relatively higher incidence among teenage girls would bear further investigation.

"The internet hackers are bothering, also the abusive use of personal accounts or the untrue information that somebody is spreading for someone else." **(Boy, 12, Bulgaria)**

11. CONCLUSIONS

This report employs a comparative design to reveal:

(i) children's experiences of the internet across locations and devices;

(ii) similarities and differences by children's age, gender and SES;

(iii) a range of risks experienced by children online

(iv) children's perception of the subjective harm associated with these risks;

(v) children's roles as 'victim' and as 'perpetrator' of risks;

(vi) accounts of risks and safety practices reported by children and their parents;

(vii) data across countries for analysis of national similarities and differences.

These points provide the structure for our conclusions. They also provide an opportunity to indicate what further analysis will be undertaken in our future reports.

11.1. Ways of going online are diversifying

Location. What are the implications of diversification in children's place of internet access? **The finding that most (85%) internet-using children going online at home has obvious implications for policy, suggesting that in most cases parents are best positioned to mediate their children's internet usage.** Clearly, this will be managed differently by different parents, in different countries and, especially, for different age groups.[70] **However, the fact that teenagers especially go online at home in the privacy of their own bedroom - albeit with national variation - poses specific challenges to parents.** In households with teenagers, provision of skills to parents and children, and the maintenance of a constructive dialogue within the family, together with some rules to provide guidelines for behaviour, are all crucial if parents are to be neither over-protective nor under-protective.

Since school is the second most common location at which children use the internet (63%), teachers have an important role to play when it comes to educating children about the safe and responsible use of the internet. Only schools have the capability to educate all children on this issue, and their resourcing should support this crucial role. It must not be forgotten, however, that the remaining one third of 9-16 year old users will not be reached by such a policy.

Most children go online in at least one further place, the overall average being three locations of use. Little is known about whether and how use may change in different contexts. In terms of safety policy, therefore, there is a wider range of adults whose potential for guidance and supervision has been little addressed yet – parents of friends, other relatives, librarians, internet café managers, and so forth.

Devices. A key recent and ongoing change is the growth in children's access to the internet via mobile phones or other handheld devices. The different conditions under which these different devices are used, and how these may shape children's online use and exposure to risk of harm, are as yet unknown. What this report makes clear is that, **although the personal computer is still the most common means of accessing the internet, on average children in Europe go online using two devices, and a substantial minority now uses a portable device of one kind or another.** As noted earlier, this leaves two strategies for policy makers to promote – the contribution of educators in teaching children digital literacy and self-protective skills, and the role of self-regulatory and/or co-regulatory management of the online technologies and services.

It is beyond the scope of this report to examine children's exposure to risk of harm as a function of the location of use or device by which they go online. This will be a key feature of our future analysis.

11.2. Children are not all the same – age, gender and SES

Age, gender and SES differences are summarised here examined only on a pan-European level: in subsequent reports, *EU Kids Online* will consider whether these are differentiated by country.

Age. One of the innovations of the survey is that it included children as young as nine, considerably younger than many other surveys. Its detailed findings indicate, further, that over and again it is the age differences in this report that are most striking, showing a considerable variation in experience ranging from the 9-10 year olds up to the 15-16 year olds surveyed.

The differences begin with access and use, since for younger children use is generally in a public place while for older teenagers, use is often private (in their bedroom or on a mobile device). **Although teenagers go online for much longer per day (this tipping over into what some acknowledge as being excessive use) younger children seem to be going online ever earlier in their lives**, having first used the internet at seven, whereas the oldest group went online only by the age of eleven.

Nonetheless, the youngest group is notably less confident that they know a lot using the internet compared with their parents and even among 11-12 year olds, fewer than half say they have the basic skills needed for online safety – on average they report having just one of the eight skills we asked about. Whether this is the cause or effect of their narrower range of online activities is hard to say: certainly teenagers engage in a wider array of online activities than younger children. Since young children are now going online, it seems timely to increase the effort to increase their digital literacy – both through education and by encouraging more diverse internet use. In this context, the notable dissatisfaction of the 9-10 year olds with online provision for their age group also invites policy attention.

Going online early, in advance of adequate skills or online provision, may in itself be risky for the youngest children we surveyed. Some of their activities online should be considered in this context – while it is unsurprising that three quarters of teenagers use social networking, it is less expected, especially given the degree of under-age use this may imply, that one quarter of 9-10 year olds do also, especially as these children are no more likely to keep their profile private than any other age group. While their lack of technical and critical skills may pose risks for younger children, for teenagers it is their orientation to online communication that may pose risks as much as they open up opportunities: as they grow older, children become more likely to see the internet as a means to 'being oneself' or talking about private or intimate matters. Older teenagers are also more likely to communicate online with people they only know online, even though for all age groups, most communication is with people also known face to face.

Older teenagers are four times more likely than the youngest children to have seen pornography, online and offline, and online the sexual images they have seen are more explicit. However, among those who have seen sexual images online, the younger children are more likely to be bothered or upset by this than are older teenagers – and they are more likely to be upset by online bullying. Interestingly, older children are more likely to be bullied on the internet but not face to face, where bullying is as common among 9-10 year olds as among 15-16 year olds. Teenagers are, however, far more likely to say that they have bullied others, on or offline. We did not ask the youngest group about exchanging sexual messages, a decision that seems justified given the finding that very few of those aged 11-12, the next youngest age group, have seen or received such message, this practice being more common (though still only for minority), and also more explicit in terms of content, among teenagers. Finally, we note that children are more likely to encounter potentially harmful user-generated content (such as hate and suicide sites) and, less strongly, personal data misuse as they get older. **Overall, it may be concluded that older children encounter more online risk but are, at the same time, better equipped to deal with them.** Older teenagers should be the focus of safety measures, therefore, because their risk of harm is higher in terms of incidence; younger children should be the focus of safety measures because the potential severity – their subjective perception of harm – tends to be greater, and because they are less well equipped to manage risks themselves.

Gender. In the early days of domestic computing, men and boys had far greater access than did women and girls. **In today's homes, the differences in girls' and boy's access to the internet are visible but minor.** Since boys have slightly better access, this may explain their slightly greater use of the internet, even sometimes using it to excess, and their tendency to claim a few more

digital skills than do girls, but, again, these differences are minor.

What girls and boys do online is generally diverse, but gender differences are small except that boys play more games, both alone and with others. **Interestingly, boys are a little more likely to value the internet for offering an alternative or private mode of communication compared with face to face interaction.** Whether for this reason or because they play more games or, indeed, because they are more likely to keep their social network profile public, boys are also more likely to communicate online with people they do not know offline.

Overall, girls and boys differ little in their reporting of overall experiences online that have bothered them personally in some way. However, girls are generally more likely to be upset by the risks they do experience, and this may explain why they are also a little more likely to think that the internet can bother other children their age. It might be noted, however, that social desirability factors might discourage boys – and, arguably, older children – from reporting that they are upset even when they are. It seems less likely that a reporting bias would work the other way around (i.e. that girls – and younger children - would report distress that they do not feel).

However, boys, especially teenagers, are more exposed to pornography online, while teenage girls are slightly more likely to be bullied online. In relation to other conduct and contact risks – exchanging sexual messages, making new contacts online and meeting them offline – there are few gender differences. Girls are, however, more likely to see pro-anorexic or bulimic content and more likely to have their personal data misused, while boys are slightly more exposed to hate sites.

Socioeconomic status. Possible SES differences were examined throughout this report partly because digital dis/advantage tends to mirror social dis/advantage, as revealed by previous research on the so-called 'digital divide'.71 They were also examined because SES could provide an indicator of risk that could help focus policy interventions. One possibility was that greater internet access afforded by higher-class homes would enable more use and therefore might lead to more risk. An alternative possibility was that the greater difficulties and pressures faced in lower class homes might leave children less well empowered to deal with them. The survey findings showed that, as expected, SES makes a considerable difference to the quality and range of children's access to the internet, especially at home, in their bedroom, and via handheld or mobile devices. In this context it is interesting that SES does not shape the number of years children have used the internet for, nor the time they spend online on an average day, though it does affect the likelihood that they will use it daily.

Children from higher SES homes are more likely to keep their SNS profile public, and to have a wider, more diverse circle of contacts online, including more people that they do not know offline. Does this translate into greater risk? Certainly in their overall assessment of things online that have bothered them, children differ little by SES. However, children from higher SES homes are more likely to see online sexual images and to receive more sexual messages online, but, repeating a pattern already observed in relation to age and gender, subjective harm follows a different pattern from that of risk. Thus **it is children from lower SES homes who are more likely to be bothered or upset by online sexual or pornographic content. They are also more likely to be upset by receiving nasty or hurtful messages online and by seeing or receiving sexual messages.**

11.3. Comparing types of risk

An important feature of the *EU Kids Online* survey is that it encompasses a range of ways in which the internet might lead to children encountering risk of harm. In our future reports, we will examine the relations between these risks, asking whether some children's online experiences are characterised by multiple types of risk or whether there are particular relations among risks (e.g. being bullied is associated with receiving sexual messages). Also important is the question of how risks translate into harm for different children – not only according to demographic factors but also according to factors in their lives that might help protect them or make them more vulnerable.

For this purpose of summarising and comparing findings already discussed in this report, Table 40 reviews the incidence of risk online by age (since this is the major source of differentiation among children) for each of the risks included in the *EU Kids Online* survey. For the exact questions asked, see the previous tables and figures.

Table 40: Summary of online risk factors shaping children's probability of experiencing harm

%	Age				All
	9-10	11-12	13-14	15-16	
Seen sexual images on websites in past 12 months	6	9	17	24	14
Have been sent nasty or hurtful messages on the internet in past 12 months	3	6	6	7	5
Seen or received sexual messages on the internet in past 12 months	n.a.	7	14	21	15
Ever had contact on the internet with someone not met face to face before	12	19	33	44	29
Ever gone on to meet anyone face to face that first met on the internet	2	4	9	15	8
Have come across one or more types of potentially harmful user-generated content in past 12 months	n.a.	13	22	30	22
Have experienced one or more types of misuse of personal data in past 12 months	n.a.	7	10	11	9
Encountered one or more of the above	13	32	49	61	39
Acted in a nasty or hurtful way towards others on the internet in the past 12 months	1	2	3	5	3
Sent or posted a sexual message of any kind on the internet in the past 12 months	n.a.	2	3	5	3
Done either of these	1	3	5	8	4

Note: for the exact questions asked of children, see earlier sections of this report (indicated in the text next to this table).

Base: All children who use the internet.

The most common risk of children's internet use in Europe is associated with communicating online with someone the child has not met face-to-face before – characteristic of 29% of 9-16 year olds (see Figure 58). It will be noted that such communication is, also, an opportunity, for whether the child is thereby making a new friend or being contacted by a stranger is not easy to determine in a survey. Thus this finding should be treated with caution.

Almost as common is exposure to one or more of the types of potentially harmful user-generated content asked about (concerned with hate, pro-anorexia, self-harm, drug-taking or suicide) – this was experienced by 22% of 11-16 year olds (see Table 36).

Rather less common is children's exposure to sexual images online (14% of 9-16 year olds – see Table 9) or to sexual messages (15% of 11-16 year olds – see Figure 49).

Less common still is the misuse of personal data (misuse of the child's password, information or money) – 9% of 11-16 year olds (see Table 38).

This is followed by going to meetings offline with people first met online (8% of 9-16 year olds – see Figure 58).

Last, and least common is 'cyberbullying' – being sent nasty or hurtful messages online is reported by 5% of 9-16 year olds – see Table 18).

All risks are increased by age, as also shown in Table 40. Thus looking across all the risks asked about in the *EU Kids Online* survey, 13% of 9-10 year olds have encountered one or more of these. This percentage rises sharply to 32% of 11-12 year olds and rises again to 49% for the 13-14 year olds. Among the 15-16 year olds 61% report encountering one or more of the risks asked about in the survey, the average across all 9-16 year olds being 39%.

This list includes risks that may be judged intrinsically harmful to a greater or lesser degree (bullying, misuse of personal information). It also includes risks that, as shown earlier, often do not result in harm (pornography, 'sexting', new contacts, offline meetings), although on the minority of occasions when they do, children are indeed upset.

It will be recalled that an important part of the framework for this project has been to emphasise that risk does not necessarily result in harm – rather, risk refers to the probability of harm, whether that probability is high or low, and to the severity of harm, as judged by the child.

For the most common risk – communicating online with people the child has not met face to face, the survey did not include a direct assessment of harm, for the most likely harms were already covered by other parts of the

survey (i.e. that the contact would result in a harmful offline meeting, or that the communication would involve sexual or bullying messages). It has not been shown by the survey that the quarter of children who communicate with new contacts online are significantly at risk.

For the next most common risk – exposure to potentially harmful user-generated content, the survey did not pursue the likelihood or severity of any resulting harm. The same applies to the incidence of misuse of personal data, and both these risks therefore await further research.

In the case of exposure to online pornography, the survey did follow up on the relation between risk and harm, as it did for sexual messaging, meetings with contacts made online and bullying. The findings can be summarised as follows:

- **Of the 9-16 year olds who had been exposed to online sexual images, one in three were bothered by the experience and, of those, half (i.e. one sixth of those exposed to sexual images online) were either fairly or very upset by what they saw.**
- **Of the 9-16 year olds who had received nasty or hurtful messages online, while the survey did not ask if they had been bothered by this experience, it did find that between half and two thirds had been fairly or very upset.**
- **Of the 11-16 year olds who had seen or received a sexual message online, nearly a quarter had been bothered by this, and nearly half (i.e. one eighth of those who received such messages) were fairly or very upset.**
- **Of those 9-16 year olds who had met an online contact offline, one in six were bothered by what happened and about half of those (i.e. approximately 1 in 12 of those who had gone to a meeting) said that they were very or fairly upset by what happened.**

While Table 40 provides a rank ordering of risk, an admittedly simplified rank ordering of harm, then, reveals a rather different picture. It seems that being bullied online – the least common risk – carries the greatest likelihood of harm to the child who experiences it. Sexual risks – seeing sexual or pornographic content and receiving sexual messages – are more commonly encountered but experienced as much less harmful by children, with little or no harm reported in the majority of cases. Meeting online contacts offline is a risk encountered by very few children and, further, is the least likely to result in a harmful experience.

Understanding when and why some risks result in harm for some children bears further investigation, as does the far more common finding that, first, most children do not encounter as many risks online as popularly feared and, second, when they do, they appear able to cope with them.

11.4. Children's roles – victims and perpetrators

Conduct risks are shaped by the peer culture – but for policy makers it is difficult to disentangle and intervene in the resulting practices that occur among children. If one child bullies another, research on bullying needs to understand both the circumstances and consequences of being bullied and also the act of bullying. The same may be said for sending sexual messages, sexual harassment, and other forms of peer activity, whether or not this is problematic. The perspectives of perpetrator and victim may be very different – a bit of fun on the part of one, perhaps, and an upsetting incident for the other; or a malicious act on the part of one, yet ignored by the other.

The EU Kids Online survey has found that, overall, 19% of European 9-16 year olds have been bullied, online or offline, and 12% have bullied someone else, in the past year. Examining online bullying only, 5% have been sent bullying messages while 3% have sent such messages.

A parallel summary may be given for seeing/receiving sexual messages versus posting/sending. The survey found that, for 11-16 year olds only, 15% have seen or received, and 3% have posted or sent a sexual message online in the past year. Note, however, that while hurtful and nasty messaging is always negative (though not always harmful), sexual messaging may be for purposes of entertainment or intimacy and so not necessarily negative in either intent or effect.

Each of these practices – bullying and being bullied online, sending and receiving sexual messages – becomes more common with age. In all, 4% of children aged 9-16 have done one or both of these practices (see Table 40). It remains for our further reports to examine the characteristics of perpetrators and victims more closely. Note, in this context, that the categories of perpetrator and victim have been treated as distinct in this report. But research is increasingly examining the connections between them[72] – are children who are bullied those who,

later, may become bullies? Is sending unwelcome sexual messages sometimes retaliation for having received such a message?

In the next stages of our analysis, we will explore the relations between the role of victim and perpetrator, linking these roles to subjective evaluations of harm and, further, to the indicators included in the survey of psychological and social vulnerability and/or support.

11.5. Perspectives on risk – children and parents

It will be recalled that for each child interviewed, we also asked questions of one of the child's parents or carers. In the case of a two parent family, the parent who was most involved with the child's internet use was selected.

Broadly, the survey asked parents three kinds of question – first about their family, themselves and their internet use, second about their assessment of their child's experience of risk relating to internet use, and third about their domestic practices in supporting or protecting their child. Analysis of the first and third kinds of question must await our further analysis.

As regards parental views on the risks experienced by their children, the results of this survey present a more complex picture than found for previous studies, largely because those studies generally cannot match a particular parent and child. By contrast with past research that has found an overall generational gap in perceptions of risk – with children reporting much more exposure to online risk than do parents, this survey has found that, at the level of overall findings (i.e. for 'all parents' and 'all children'), perceptions are fairly close. Exceptions have been noted throughout, but broadly, parents only underestimate to a moderate degree the risks associated with children's online activities, though this varies by country. It may be surmised that parents are becoming more aware of the experiences their child may have online, even that awareness-raising activities are proving successful. **However, this high level of agreement is largely because both parents and children can agree that children have not encountered the risks asked about in the survey.**

When the focus is just on those children who have experienced a particular risk, a different picture emerges, showing relatively low levels of parental awareness of their children's experiences and also a fair degree of uncertainty on parents' part. Specifically, parents appear less aware when their younger children have seen sexual images online than for their teenagers, and they also underestimate bullying for both the youngest and oldest children.

Parents are also more likely not to recognise when their daughter has seen sexual or pornographic images online, which matters because girls report being bothered or upset by such images more than do boys (they are also more upset by online bullying and 'sexting'). On the other hand, parents are less likely to recognise when their son has been bullied online, and when they meet online contacts offline. Given the gendered pattern of risk noted earlier,, it may be hypothesised that parents are more aware of gender normative risks to their child (i.e. that boys would see pornography, that girls may bully and may be at risk from strangers) than they are aware of the reverse.

In general, in those cases of children who have seen pornography or sexual messaging, by contrast with their experiences of bullying and meeting online contacts offline, parents are particularly likely to say they don't know if this has happened to their child. It seems that sexual matters remain difficult for parents to discuss with their children.

Parents from lower SES homes are generally likely to underestimate their children's experiences of harm, and they are particularly likely to underestimate harm (from pornography) or say they don't know about it (in the case of sexual messaging) in the case of children who have encountered these risks. However, parents from higher SES homes are less likely to recognise when their child has met an online contact offline, something that children from higher SES homes are more likely than others to do.

Since the internet is most used by children at home, Since the internet is most used by children at home, one clear policy priority is to increase levels of parental awareness in the case of those children who do encounter risks through their online activities. Directing awareness raising activities to fill the gaps noted above – to less advantaged parents, to parents of younger children, to raise awareness of risks that don't fit gender expectations – should therefore be high on the policy agenda.

Just what parents could and should do once they are aware of the risks that face child internet users is a further matter. The EU Kids Online survey included a series of

matched question asked of both children and one of their parents regarding parental mediation practices. What, if anything, do parents do to support, guide or protect their children as they go online? Do children give a similar account of their parents' activities or, instead, do they benefit from the support and guidance of teachers, parents or others?

In the full version of this report, to be published in November 2010, these findings will be included. In subsequent reports, we will then pursue the relations between parental mediation and children's experiences of risk and harm. The tendency observed in this report for children in most countries to use the internet more frequently and, most likely, in different ways from their parents complicates parents' task in this regard.

More positively, in a further contrast with some previous surveys, a fair proportion of those children who have been bothered or upset by something that happened on the internet say they did discuss this with a parent – 45% of those bothered by bullying online, 41% of those bothered by an offline meeting with an online contact, 54% of those bothered by unwanted sexual messages, and 18% of those bothered by online sexual images. The rank order of these findings suggests that the sexual nature of some online risks particularly impedes constructive parent/child discussion of how to avoid, cope with or otherwise manage these risks of harm.

11.6. Comparing countries

Throughout this report we have compared findings for the countries included in the survey – the 23 countries for which fieldwork is completed or nearly completed (see Annex 3). As noted earlier, in the full version of this report to be published in November 2010, findings for all 25 countries will be included. In the months following, one *EU Kids Online* work package will be devoted to seeking meaningful patterns that compare findings across countries, so as to interpret the often considerable variation observed throughout the present report. In addition to seeking meaningful patterns, we will also consider how best to explain these patterns. To that end, a series of external indicators relevant to children's use of the internet will be brought into the analysis. As shown in Figure 4, these include cross-national variation in socio-economic stratification, regulatory framework, technological infrastructure, education system and cultural values.

It is, therefore, beyond the scope of this report to interpret the variations observed in the foregoing tables and figures. However, in this section we can bring together the observed variation in a series of scatter plots that provide a visual summary of the findings regarding country comparisons.

Having reviewed the findings of some 400 studies conducted in Europe over the past decade, most of them focused on teenagers, *EU Kids Online* had proposed a country classification that crossed the proportion of child internet users in a country with the observed incidence of risk associated with that online use.[73] We had observed a broad correlation, on a country level, between the proportion of internet users and the incidence of risk – defined as the percentage of children who had encountered online pornography, bullying, harassment, contacts that resulted in offline meetings, and so forth. Note that this review had included no measures of actual harm, these being largely unavailable.

In addition to the implication that, as more children go online, the risk of harm will also rise, we had also noted that children in some countries encounter more risks because internet use is so embedded in their culture (labelled 'high use, high risk) while children in other countries encounter more risks because the internet is so new that it has reached children in advance of an infrastructure of safety practices and regulation (labelled 'new use, new risk'). Further, we noted that for an equivalent degree of use, children in some countries encountered more risks than in others.

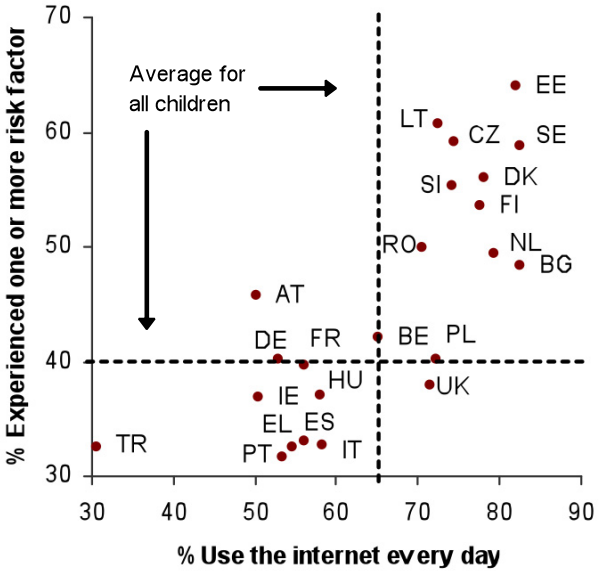
A similar set of conclusions may be tentatively drawn from the present findings. Since the present survey included only internet-using children, the measure of use employed here is the percentage of children who use the internet every day. In Figure 66 countries are plotted according both to the percentage of internet-using children in that country. The second variable by which countries are compared is the percentage of children in each country who have encountered one or more of the seven online risk factors listed in Table 40.[74] It must be borne in mind that the risks thereby referred to may be larger or, often, very small in terms of the associated probability of harm.

The horizontal line shows the average percentage of children in all countries that have experienced one or

more of the risk factors. The vertical line shows the average percentage of children in all countries that use the internet on a daily basis.

The overall finding is that the more children in a country use the internet daily, the more children in that country have encountered one or more of the risks. The same is true on the individual level, that children who use the internet on a daily basis are more likely than those who do not to have experienced one or more of the risk factors.[75]

Figure 66: Children who have encountered one or more online risk factors by children who use the internet daily, by country



In sum, more use of the internet seems to go hand in hand with a higher likelihood of being exposed to one or more of the risk factors. **In Estonia, the Czech Republic, Sweden and several other countries, frequent use is associated with relatively high incidence of risk online. The group of countries in the top right of the figure may be classified still as a combination of 'higher use, higher risk' and 'new use, new risk'**, though which countries fall into these categories differ somewhat from that in *EU Kids Online*'s previous classification. This may reflect changing practices of internet use among children and/or changing awareness and regulatory strategies among industry, government and policy makers in those countries.

A second group of countries may be termed 'medium use, medium risk', shown towards the left of the vertical line (average use) and around or below the horizontal line (average risk). Whether these are heading for a future in the top right – more risk as use increases – cannot be determined and there is, arguably, an opportunity to implement policy interventions in advance of further embedding of the internet in children's daily lives.

The small group of countries characterised by high use, medium risk (Belgium, Poland and the UK) are intriguing, and will form the subject of our further investigation, as will the tendency of Austria, German and France to experience more risk than other countries (below them in the figure) where children use the internet to a similar degree. Finally, it should be noted that Turkey is an outlier in this figure – far lower than other countries included in the survey in terms of both risk and use.

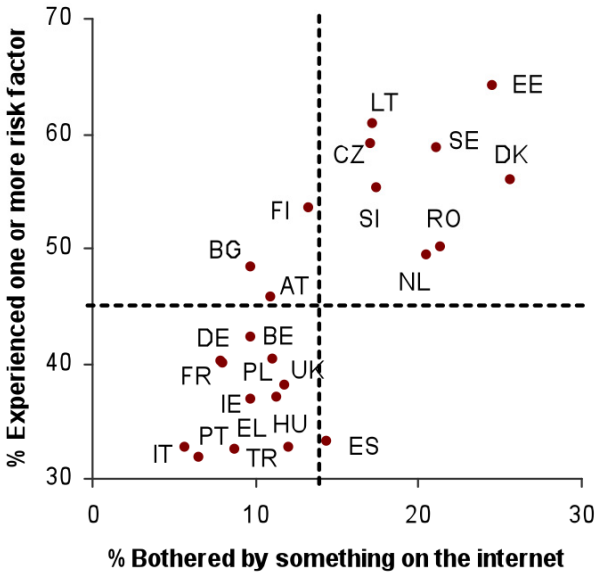
We have been at pains to observe, in the framing of the *EU Kids Online* project, that there is no simple solution to children's exposure to risk of harm on the internet. This framing is substantially supported by the finding, hypothesised from the outset, that **many encounters with risk factors of one kind or another do not, for most children, result in a substantial increase in their experience of actual harm. The risk of harm is, according to present findings, relatively small, though this is not to diminish the distress of the minority who experiences harm associated with internet use.**

The distinction between risk and harm is illustrated in Figure 67. **Although overall levels of harm reported by children are substantially lower than the levels of risk (which, in turn, characterise a minority of children), the correlation between the two is positive**.[76] Thus the bottom right segment shows countries where both risk and harm are below the country average. The top right segment shows countries where both risk and harm are above the country average. What is interesting is the patterning of countries beyond this broad trend.

In Finland, Austria and Bulgaria, it appears that reports of harm (i.e. being bothered or upset by something on the internet) are distinctively lower than in other countries where children report a similar level of risk (compare with the Netherlands, Romania and Slovenia). Similarly, in Spain, Turkey, Hungary and the UK, children report somewhat more harm than other countries where exposure to risk is similar (compare with Italy, Portugal, France and Germany).

Looking at the graph a different way, it seems that a similar proportion of children in the Netherlands and Sweden have been bothered by something online though children in Sweden have been exposed to more risks. Or, again, it seems that children in Denmark are more bothered by risks they encounter than, say, children in the Czech Republic: is this because they experience more subjective harm, or because they are more used to expressing their concerns publically? Disentangling why these patterns should occur, and identifying the external factors that account for this, is a task for our future research.

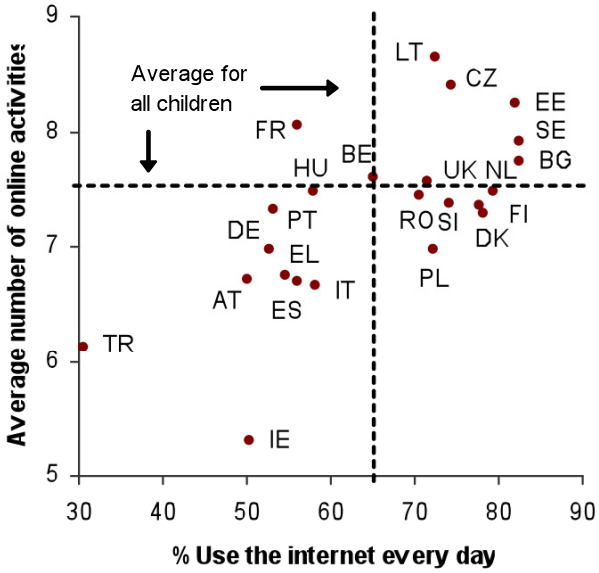
Figure 67: Children who have encountered one or more online risk factors by children who have been bothered by something online, by country



As we also emphasised in the framing of the project, risk reduction achieved by reducing internet use should not be the overarching goal for policy because internet use is also associated with many benefits for many children. A more nuanced approach to harm reduction must, therefore, be sought.

The positive association between internet use and online opportunities – and, ultimately, actual benefits – is shown in Figure 68. Using the same measure of use (the percentage of children in each country who uses the internet daily), we now compare countries in terms of online activities. The measure used is the average number of online activities undertaken by children in a country (out of the 17 as defined in Table 5).

Figure 68: Average number of online activities by children who use the internet daily, by country

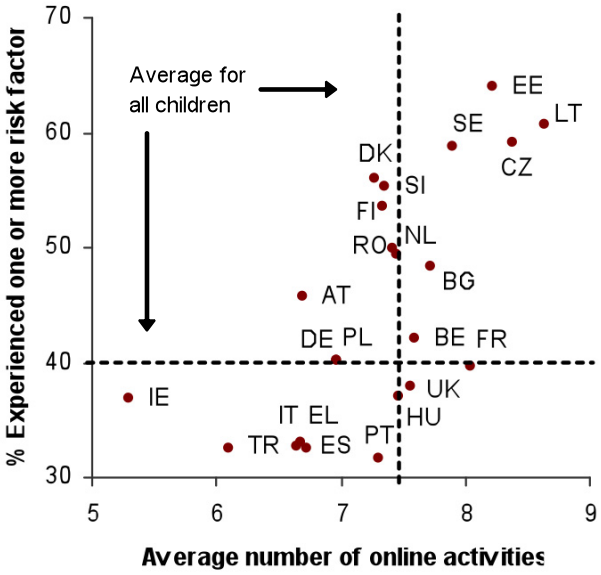


Here we see that, for the most part, **the more children use the internet, the more opportunities they enjoy. A similar correlation is also present at the individual level.**[77] In the top right are shown the countries where children make the most of the internet in every sense. Just below them in the bottom right segment are countries where children use the internet as much but their range of activities is a bit narrower. In the top left are countries where children do a wider range of activities than one might expect given their frequency of use. And in the bottom left are those countries where, in educational or civic spheres, efforts might be appropriately devoted to increasing the range of children's online activities. In this segment, two outliers exist – Turkey, noted earlier to be distinctly low in terms of use and, it seems, in terms of the range of online activities; and Ireland, where children have a narrower range of activities than have children in other countries for an equivalent degree of usage.

So, if more children in a country use the internet daily, this is, broadly speaking, associated with both more risk and more opportunities. Since beneficial uses of the internet will surely develop digital skills and build competence and resilience to manage online risks, this poses a conundrum to policy makers.

To bring the present analysis to a close, Figure 69 plots countries in terms of the percentage of children who have encountered one or more risks and, additionally, the average number of online opportunities enjoyed by children in that country.

Figure 69: Children who have encountered one or more online risk factors by average number of online activities, by country



More than any particular country groupings, what stands out from Figure 69 is the broad positive association between risks and opportunities, as experienced by children on a country level.[78] The more of one, the more of the other, it appears – a simple finding but one that demands a complex explanation, to be pursued in future reports from *EU Kids Online*.

In this context, it will be interesting to understand not only in which countries a high proportion of children has experienced one or more of the risk factors but also, in which countries is this percentage higher or lower than would be expected given the range of online activities of children in that country – and why. For example, the low number of children in Ireland that have experienced one or more of the online risks seem to come at the cost of their range of online activities. In Portugal, by contrast, low levels of risk do not appear to be at the expense of the range of activities. Similarly, in Estonia and Lithuania children enjoy a wide range of online activities but, the same time, they also encounter higher levels of risk.

11.7. Keeping risks in perspective

For a careful account of children's risk of harm associated with internet use, and so as to enable proportionate policy initiatives and interventions, several means of keeping risks in perspective can be attempted. First, throughout this report we have kept our conclusions closely based on the actual questions asked to children and the percentage of children overall who reported particular risks, in order to avoid vague statements that could lead to over-generalised conclusions. The second is to retain a focus on the relation, albeit difficult to investigate empirically, between risk (the probability of harm) and measures of harm itself (here, examined using measures of subjective harm).

A third is to compare risk of harm associated with internet use by comparison with the other risks faced by children in their daily lives. We attempted two such comparisons in this report. For pornography, it was found that, overall, 21% of children have seen sexual images in one way or another, and 14% have seen them on the internet. Thus the internet has become, just, the most common way children see sexual images followed by 12% on television, films or videos, then 7% on magazines or books and 2% on their mobile phone. A second comparison of offline and online was undertaken in relation to bullying – this found that overall, 19% of children have been bullied in one way or another. The most common form of bullying is (still) in person face-to-face (13%), compared with 5% on the internet and 3% by mobile phone calls or messages.

A further comparison will be the focus of a future analysis, drawing on questions in the survey about other areas of children's (offline) lives and the risks they may encounter there.

Also in the coming months, *EU Kids Online* will compare the findings presented here with those of other surveys. This will require careful comparisons in terms of both question wording and sampling (especially by age). It may be immediately seen, however, that a number of the present findings are rather similar to those obtained in other surveys:

- For example, in terms of peer practices, the 15% of European 11-16 year olds found to have received sexual messages on the internet matches the 15% of American 12-17 year olds found by Pew Internet to have received sexual messages on their mobile phone.[79]

- In terms of overall subjective harm, the 12% of 9-16 year olds who have encountered something on the internet that bothered or upset them is similar to the British finding that 16 per cent of 8-15 year olds claim to have come across something 'nasty, worrying or frightening' online.[80]

For some of the risks discussed in this report – exposure to pornography especially, and possibly the incidence of bullying - the findings resulting from the *EU Kids Online* survey may seem low compared to some other surveys. In this context, several points should be noted.

- A random rather than convenience or self selected or quota sample was used. Surveys based on telephone interviewing miss the many households that lack a land line. Surveys conducted in school may not achieve random probability samples. We are confident that the present survey permitted a random sample of children to give careful, private answers.
- The findings for 'all children' (including those presented by demographics) are based on the particular combination of 25 countries included in the EU Kids Online project, including some countries relatively new to the internet (e.g. Turkey) which may have dampened overall averages.
- Children were asked to complete sensitive questions in a private, self-completion mode (either with the computer screen turned to face them alone or in a pen and paper questionnaire, with a sealed envelope). Surveys conducted at school may be influenced by the presence of the peer group (likely to increase reporting of risk/harm events). Surveys conducted at home may be influenced by the presence of parents (likely to reduce reporting) though informally, yet systematically, every effort was made to give the child privacy and keep the parent out of the room.
- Surveys are often conducted with teenagers. The age trends in the present findings are generally strong, and thus the inclusion in overall findings of 9-12 year olds (half the sample) generally reduces the averages (hence the systematic presentation of findings broken down by age).
- Intriguingly, one answer may be time: in recent years, the considerable increase in awareness raising, investment in and improvement of safety tools, and sheer familiarity with the internet among families may be resulting in safer use. Comparisons with surveys conducted earlier may thus reflect a genuine improvement in the context within which children engage with the internet. The tendency for countries newer to safety initiatives (e.g. in Eastern Europe) often to have higher findings for risk of harm to children supports this tentative hypothesis.

A last means of keeping risks in perspective, as argued for when framing the project and illustrated in the previous section, is to keep in mind the vital interdependencies between internet use, online benefits and online risks. In short, our approach has recognised that, although the internet and online technologies afford an array of interlinked opportunities and risks, there is no necessary mapping of opportunities onto benefits or risks onto harms as experienced by children. Instead, what the internet makes available to children interacts with a range of individual and contextual factors to determine outcomes. These may be positive or negative in ways yet to be fully understood.

Table 41: Online affordances for children

	Opportunities on the internet	Risks on the internet
Negative outcomes for children	If not realised (i.e. digital exclusion)	Upset (subjective) Harm (objective)
Positive outcomes for children	Benefits of internet use	Learning to cope (resilience)

As shown in Table 41 (see left-hand column), online opportunities may or may not produce beneficial outcomes. Notably, while gaining access to online opportunities is wonderful for many children, increasing the opportunities on offer will exacerbate the problem that disadvantaged children will miss out. Moreover (right-hand column), while some risks result in harm (since a risk can be defined as the probability of harm[81]), not all risks necessarily result in harm for all children. In relation to the internet, the probability that online risk results in harm to a child is often low. Further, under certain circumstances children learn to cope, becoming resilient precisely because of their exposure to a degree of risk.

ANNEX 1: EU KIDS ONLINE

Overview

EU Kids Online II: Enhancing Knowledge Regarding European Children's Use, Risk and Safety Online is funded from 2009-2011 by the EC Safer Internet Programme.[82]

The project aims to enhance knowledge of European children's and parents' experiences and practices regarding risky and safer use of the internet and new online technologies, in order to inform the promotion of a safer online environment for children among national and international stakeholders.

Adopting an approach which is child-centred, comparative, critical and contextual, *EU Kids Online* has conducted a major quantitative survey of children's experiences (and their parents' perceptions) of online risk in 25 European countries. The findings will be disseminated through a series of reports and presentations during 2010-2.

Objectives

- To design a robust survey instrument appropriate for identifying the nature of children's online access, use, risk, coping and safety awareness.
- To design a robust survey instrument appropriate for identifying parental experiences, practices and concerns regarding their child's internet use.
- To administer the survey in a reliable and ethically-sensitive manner to national samples of internet users aged 9-16 and their parents in Europe.
- To analyse the results systematically to identify core findings and more complex patterns among findings on a national and comparative basis.
- To disseminate the findings in a timely manner to a wide range of relevant stakeholders nationally, across Europe, and internationally.
- To identify and disseminate key recommendations relevant to the development of safety awareness initiatives in Europe.
- To identify remaining knowledge gaps and methodological guidance to inform future projects on the safer use of online technologies.

Work packages

WP1: Project Management and Evaluation: ensure effective conduct and evaluation of work packages.

WP2: Project Design: design a robust survey instrument and sampling frame for children and parents.

WP3: Data Collection: tender, select and work with the subcontractor appointed to conduct the fieldwork.

WP4: Data Reporting: cross-tabulation, presentation and report of core findings.

WP5: Statistical Analysis of Hypotheses: analysis and hypothesis testing of relations among variables.

WP6: Cross-National Comparisons: interpretation of similarities and differences across countries.

WP7: Recommendations: guide awareness and safety initiatives and future projects in this field.

WP8: Dissemination of Project Results: dissemination to diverse stakeholders and the wider public.

International Advisory Panel

- María José Cantarino, Corporate Responsibility Manager, Telefonica, Spain.
- Dieter Carstensen, Save the Children Denmark, European NGO Alliance on Child Safety Online.
- Prof. David Finkelhor and Janis Wolak, Crimes against Children Research Center, University of New Hampshire, USA.
- Will Gardner, CEO of Childnet International, UK.
- Dr Ellen Helsper, Department of Media and Communications, London School of Economics, UK.
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ANNEX 3: SURVEY DETAILS

Sampling

- For each country, samples were stratified by region and level of urbanisation.
- Sampling points were selected from official and complete registers of geographical/administrative units.
- Addresses were selected randomly by using Random Walk procedures in most countries. In a few countries we used an alternative approach to recruitment which fitted better with local standard practice, keeping to the principle of random selection.
- At each address which agreed to interview we randomly selected one child from all eligible children in the household (i.e. all those aged 9-16 who use the internet) on the basis of whichever eligible child had the most recent birthday. If a household contained more than one parent/carer, we selected the one who knew most about the child and their internet use.

Fieldwork

Fieldwork was carried out between April and August 2010. A parent interview was conducted for every child interviewed.

The child interview was conducted face to face, with a self-completion component for the sensitive questions on online risks as well as the interviewer-administered one. Incentives were used to encourage participation in some countries.

The questionnaires were developed by *EU Kids Online* with guidance from Ipsos MORI. They were tested and refined by a two-phase process of cognitive interviewing and pilot testing.

- Phase one cognitive testing involved 20 cognitive interviews (14 with children and six with parents) in England using English language questionnaire. Several refinements were then made to the questionnaires.
- The amended master questionnaires were then translated and cognitively tested via four interviews in each of 16 other countries, to ensure testing in all main languages. A small number of parent interviews were also conducted in some cases. Again, amendments to the questionnaires were made for the final versions.
- Before the main fieldwork, a pilot survey was conducted to test all aspects of the survey including sampling, recruitment and the interview process. A total of 102 pilot interviews were carried out across five countries: Germany, Slovenia, Ireland, Portugal and the UK.

Data processing

- The questionnaires, with all response options and full interviewer instructions, are online at www.eukidsonline.net.
- Weighting: three forms of weighting have been applied to the data – (i) design weights which adjust for unequal probabilities of selection; (ii) non-response weights which correct for bias caused by differing levels of response across different groups of the population; (iii) a European level weight which adjusts for country level contribution to the overall results according to population size. As there are no available data on the population of children aged 9-16 who use the internet by country, these percentages were estimated using data from Eurobarometer and Eurostat.
- Socio-economic status (SES): information relating to the head of household's (designated as the chief income earner) level of education and occupation was collected during the screening process. Responses to level of education and employment were then grouped and cross-referenced with each other to calculate one of three levels of SES: low, middle and high. Note that, as is often the case with European research, a uniform approach was taken to the calculation of SES across all 25 countries; thus SES is not relative to the differences between the socio-demographic make up of each country.

Accuracy of the findings

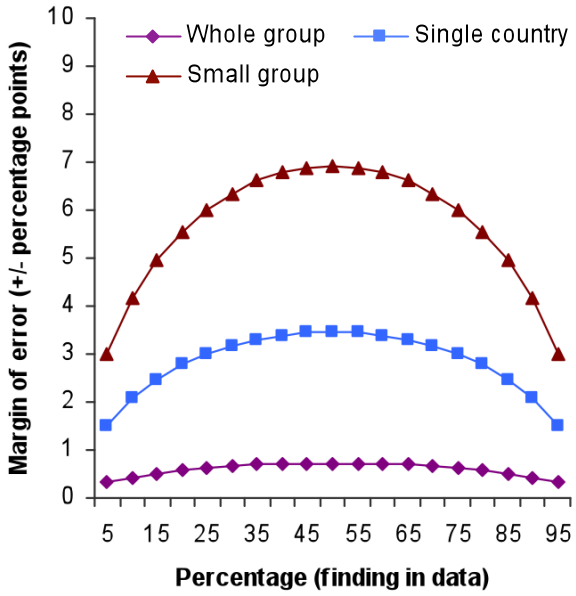
To judge the accuracy of numbers in studies like the one carried out in the EU Kids Online project it is first necessary to distinguish between two types of error: random error and systematic error (or bias). All numbers presented in this report are to some extent affected by these and are thus essentially estimates of some true (but unknown) values.

Systematic error (or bias) occurs when the estimates provided in the study are systematically higher or lower than the true value. This can for example be the result of sampling procedures or measurements (e.g. question wording). The EU Kids Online survey has been carefully designed to avoid such error. The cognitive testing of the survey instruments is an example of efforts taken to minimise systematic bias.

Random error is the result of the fact that not all children in all of the 25 countries have been interviewed. The results obtained from the samples of approximately one thousand children in each country will invariably depart slightly from the findings that would have been obtained had it been possible to interview all children in these countries. In most cases this difference is small and gets smaller the more children there are in the sample. At the same time however, the smaller the group that is being analysed, the greater the random error. Another property of the random error is that very small (or very large) percentages (such as when a small number of children has experienced a particular risk) are more accurate than percentages that are closer to 50%.

Figure 69shows how the random error behaves for three typical kind of groups in the EU Kids Online study. The lowest line shows approximately how the margin of error varies for estimates based on the whole data set (all children in all countries). The middle line shows how the margin of error varies for estimates based on data from all children in a single country. The top line shows how the margin of error varies for analysis based on small groups (for example just children that have experienced a certain kind of risk and been bothered).

Figure 70: Estimated margin of error for analysis based on groups of different size in the EU Kids Online study



To give an example of how this works it is possible to look at the number of children who have seen sexual images on any websites which is estimated at 14% in the report. This estimate is based on answers from over 23 thousand respondents and thus has a very small margin of error (only around ± 0.4 percentage points). In Turkey approximately the same number of children (13%) say that they have seen sexual images on any websites but as this estimate is based on answers from about one thousand respondents in Turkey the margin of error becomes larger (around ± 2.4 percentage points). The margin of error is then lower for Germany (5% ± 1.6 percentage points) but higher for Estonia (30% ± 3.4 percentage points) where the same number of respondents has participated in the survey in each country but where the lower figure (5%) has a lower margin of error than the higher figure (30%).

These examples show that that when working with the overall findings from all children in all countries or for all children within each country the random error is in most cases very small. For analysis of some parts of the dataset, however, the groups that are being examined can get quite small. For the findings that are presented in the report due care has been taken not to exceed the analytical possibilities of the data but readers of the report should also take care not to over generalise from any findings based on small subsets of the data. This applies for example about those children that have experienced particular risk factors (such as the 14% who have seen sexual images on any websites) and then go on and answer questions about that experience.

Research materials

Materials and resources associated with the research process summarised above are available at www.eukidsonline.net.

- Full Technical Report on the fieldwork process
- Original questionnaires (for children, for parents)
- Letters to parents and safety leaflets for children
- Research ethics procedures

These are freely available to interested researchers and research users, provided the following credit is included:

> This [article/chapter/report/presentation/project] draws on the work of the 'EU Kids Online' network funded by the EC (DG Information Society) Safer Internet plus Programme (project code SIP-KEP-321803); see www.eukidsonline.net.

If outputs result from the use of these resources, we request that an email is sent to inform us of this use, to Eukidsonline@lse.ac.uk. When the final version of this report is published in November, the cross-tabulations will also be posted on the website. The dataset itself will be made public in late 2011.

Details of main fieldwork, by country

Country	Children in population 9-16 years[83]	Estimated children online[84]	Number of interviews	Interview methodology	Method of address selection	Fieldwork dates 2010
Austria (AT)	739,722	86%	1,000	PAPI	Random Walk	24 April – 25 July
Belgium (BE)	974,461	78%	1,006	PAPI	Random Walk	6 May – 14 July
Bulgaria (BG)	554,032	92%	1,088	PAPI	Random Walk	6 May – 24 June
Cyprus (CY)	82,059	68%	532[85]	PAPI	Random Walk	17 May – TBC
Czech Republic (CZ)	809,443	90%	1,009	PAPI	Pre-selected households - telephone recruitment	21 May – 2 July
Denmark (DE)	558,236	97%	1,023	CAPI	Pre-selected households - telephone recruitment	30 April – 14 June
Estonia (EE)	105,460	96%	1,005	CAPI	Random Walk	10 May – 14 July
Finland (FI)	501,387	98%	1,017	CAPI	Random Walk	28 April – 2 July
France (FR)	6,005,850	87%	1,000	PAPI	Random Walk	6 May – 3 July
Germany (DE)	6,419,300	86%	1,023	CAPI	Random Walk	20 May – 7 July
Greece (EL)	862,481	59%	1,000	PAPI	Random Walk	10 May – 2 July
Hungary (HU)	854,406	93%	1,000	PAPI	Pre-selected households with children aged 9-16	10 May – 15 June
Italy (IT)	4,516,646	55%	1,021	CAPI	Random Walk	28 April – 3 July
Ireland (IE)	458,260	93%	937[86]	CAPI	Random Walk	5 May – 24 July
Lithuania (LT)	320,821	96%	1,004	PAPI	Random Walk	23 April – 6 July
Netherlands (NL)	1,582,903	96%	1,004	PAPI	Pre-selected households - telephone recruitment	3 May – 5 August
Norway (NO)	503,160	98%	323[3]	CAPI	Pre-selected households - telephone recruitment	21 May – TBC
Poland (PL)	3,490,271	97%	1,034	PAPI	Pre-selected households	6 May – 26 July
Portugal (PT)	871,444	78%	1,000	PAPI	Random Walk	29 April – 30 July
Romania (RO)	1,821,471	78%	1,041	PAPI	Random Walk	16 May – 25 June
Slovenia (SI)	154,063	95%	650[3]	CAPI	Random Walk and Pre-selected households with children aged	3 May – TBC
Spain (ES)	3,401,338	80%	1,024	CAPI	Random Walk	10 May – 15 July
Sweden (SE)	861,183	98%	651[3]	CAPI	Pre-selected households with children 9-16 - telephone	27 May – TBC
Turkey (TR)	10,297,791	89%	1,018	CAPI	Random Walk	3 May – 17 June
United Kingdom (UK)	5,861,598	96%	1,032	PAPI	Random Walk	1 May – 21 June

12. ENDNOTES

[1] See Livingstone, S., & Haddon, L. (2009) *EU Kids Online: Final Report*. LSE, London: EU Kids Online. http://eprints.lse.ac.uk/24372/ See also Livingstone, S., & Haddon, L. (2009a). *Kids online: Opportunities and risks for children*. Bristol: The Policy Press.

[2] Optem (2007) *Safer Internet for Children: Qualitative Study in 29 European Countries*. Luxembourg: EC.

[3] Livingstone, S. & Helsper, E. (2010) Balancing opportunities and risks in teenagers' use of the internet. *New Media & Society*, 12(2): 309-329.

[4] Helsper, E., & Eynon, R. (2010) Digital natives: where is the evidence? *British Educational Research Journal, 36*(3), 502-520.

[5] Livingstone, S. (2009) *Children and the Internet: Great Expectations, Challenging Realities*. Cambridge: Polity.

[6] Finnish participation was separately funded by the Finnish Ministries of Education and Culture and of Transport and Communications.

[7] Lupton, D. (Ed.). (1999) *Risk*. London: Routledge.

[8] Schoon, I. (2006) *Risk and resilience*. New York: Cambridge University Press.

[9] Coleman, J., & Hagell, A. (Eds.). (2007) *Adolescence, risk and resilience*. Chichester: Wiley.

[10] Hasebrink, U., Livingstone, S., Haddon, L., & Olafsson, K. (2009) *Comparing children's online opportunities and risks across Europe: Cross-national comparisons for EU Kids Online*. LSE, London: EU Kids Online. 2nd ed. At http://eprints.lse.ac.uk/24368/ . Note: not all cells in the table were included in the EU Kids Online survey, just those in bold face.

[11] Bakardjieva, M. (2005) Conceptualizing user agency. In *Internet Society: The Internet in Everyday Life* (pp. 9-36). London: Sage.

[12] Hasebrink et al. (2009) *op cit.*

[13] Livingstone, S. (2010) 'e-Youth: (Future) Policy Implications: Risk, harm and vulnerability online.' Keynote at *e-Youth: balancing between opportunities and risks*, University of Antwerp, May 2010. http://eprints.lse.ac.uk/27849/

[14] The term originated in relation to mobile phone practices and was later applied to online messages. See Sacco, D. T., Argudin, R., Maguire, J., & Tallon, K. (2010) *Sexting: Youth Practices and Legal Implications*. Cambridge, MA: Berkman.

[15] Note that the EU Kids Online survey included a range of questions concerned with children's psychological strength/vulnerability (self-efficacy, emotional problems, peer conduct problems, sensation-seeking, and so on) which will, in future analysis, be examined as possible predictors of online risk and harm.

[16] Note that since levels of education also vary across countries, the measure of SES used throughout this report, which is an absolute not a relative measure, varies by country. In short, what appear as country differences may also or instead reflect SES differences and vice versa. For a fuller account, see the Technical Report at www.eukidsonline.net.

[17] European Commission. (2009) *Key data on education in Europe 2009*. Brussels.

[18] For all tables and figures, the exact question number on the questionnaire is reported. Where younger and older children's questionnaires use different numbers, that for the older children is reported (questionnaires may be found at www.eukidsonline.net).

[19] European Commission. (2010) *A digital agenda for Europe*. Brussels.

[20] Note that in Table 3, the percentage for 'mobile phone' may overlap with handheld device as multiple responses were permitted. In Figure 7, these have been recalculated as mutually exclusive.

[21] Livingstone, S. and Helsper, E.J. (2010) *op cit*.

[22] Hargittai, E., & Shafer, S. (2006) Differences in actual and perceived online skills. *Social Science Quarterly, 87*(2), 432-448.

[23] Hargittai, E.and Shafer, S. (2006) *op cit.*

[24] Widyanto, L., & Griffiths, M. (2007) Internet Addiction. In J. Gackenbach (Ed.), *Psychology and the internet* (2nd ed., pp. 127-149). Amsterdam: Elsevier/Academic Press.

[25] Šmahel, D., Ševčíková, A., Blinka, L., & Veselá, M. (2009) Addiction and Internet Applications. In B. Stetina & I. Kryspin-Exner (Eds.), *Gesundheit und Neue Medien* (pp. 235-260). Berlin: Springer.

[26] Livingstone, S. and Helsper, E.J. (2010) *op cit*.

[27] This approach contrasts those who have not grown up with the internet (immigrants) to those who have (natives). See Prensky, M. 2001. Digital natives, digital immigrants. *On the Horizon, 9* (5): 1-2. For a critique, see Helsper, E.J. and Eynon, E. (2010) *op cit.*

[28] See Eurobarometer. (2008) *Towards a Safer Use of the Internet for Children in the EU: A Parents' Perspective*. Luxembourg: European Commission. Analysis comparing parents and children is reported in Hasebrink, U. et al. (2009) *op cit.*

[29] Hasebrink, U. et al. (2009) *op cit.*

[30] See Hasebrink, U. et al. (2009) *op cit.* for an analysis of the Eurobarometer findings.

[31] Hasebrink, U. et al. (2009) *op cit.*

[32] Tsatsou, P., Pruulmann-Vengefeldt, P. and Murru, M.F. Digital divides. In Livingstone, S., & Haddon, L. (2009a) *op cit.*

[33] Jenkins, H. (2006) *An Occasional Paper on Digital Media and Learning.*Chicago: The John D and Catherine T MacArthur Foundation.

[34] McQuillan, H. And D'Haenens, L. Young people online: gender and age influences. In Livingstone, S., & Haddon, L. (2009a) *op cit.*

[35] Livingstone, S., and Helsper, E. J. (2007) Gradations in digital inclusion: Children, young people and the digital divide. *New Media & Society*, 9(4): 671-696. http://eprints.lse.ac.uk/2768

[36] To be sure that children understood these questions, most options included national examples. For instance, in the UK questionnaire, option 15 was phrased: "Used file sharing sites (peer-to-peer) (e.g. Limewire, Kazaa)."

[37] See paragraph 10, DECISION No 1351/2008/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (16 December 2008).http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:348:0118:0127:EN:PDF

[38] Ybarra, M. L., & Mitchell, K. J. (2008) How Risky Are Social Networking Sites? A Comparison of Places Online Where Youth Sexual Solicitation and Harassment Occurs. *Pediatrics, 121*(2), e350-e357.

[39] See Safer Social Networking Principles for the EU (2009), at http://ec.europa.eu/information_society/activities/social_networking/docs/sn_principles.pdf

[40] Livingstone, S. (2008) Taking risky opportunities in youthful content creation: teenagers' use of social networking sites for intimacy, privacy and self-expression. *New Media & Society,* 10(3): 393-411. http://eprints.lse.ac.uk/27072

[41] Livingstone, S. (2008) *op cit.*

[42] Peter, J., & Valkenburg, P. M. (2006) Adolescents' Exposure to Sexually Explicit Material on the Internet. *Communication Research, 33*(2), 178-204.

[43] Finkelhor, D. (2008) *Childhood victimization*. Oxford: Oxford University Press.

[44] In countries, shown in Annex 3, where survey administration was computer assisted (CAPI), the computer was turned to face the child for sensitive questions. In other countries, the child completed a private pen-and-page questionnaire, putting this into a sealed envelope.

[45] Hansson, S. O. (2010) Risk: objective or subjective, facts or values. *Journal of Risk Research, 13*(2), 231-238.

[46] Particular thanks are due to Karl Hopwood and Janice Richardson for working with us on this. The leaflets were printed in full colour, using child-friendly language, and checked by the *EU Kids Online* network. They are available at www.eukidsonline.net

[47] In the findings reported here, the response options, "don't know" and "prefer not to say" have been treated as missing and therefore taken out of the base for calculating percentages. For example, in relation to children's reports of exposure to sexual images online, 4% said that they don't know and 2% preferred not to say, suggesting that only for a few was this too uncomfortable a question to answer. There is no clear age or country difference in the percentage of children that choose the "don't know" and the "prefer not to say" options. Don't know answers have been included (and shown in the graphs/tables) when there was a theoretical rationale for reporting them as a distinct category of response option. For example, in the parent/child comparisons, parental "don't know" answers have been included in the base, since they reflect significant uncertainty on parents' part that is worthy of interpretation.

[48] For a review of research methodology, see Lobe, B., Livingstone, S., Olafsson, K., & Simoes, J. A. (2008) *Best Practice Research Guide: How to research children and online technologies in comparative perspective.* LSE, London: EU Kids Online.

[49] As noted at the outset, children were asked about "the sorts of things on the internet that you feel might bother people about your age". They were then provided with a pen and paper, and a self-sealed envelope for their answer.

[50] Davison, W. P. (1983) The third-person effect in communication. *Public Opinion Quarterly, 47*(1), 1-15.

[51] Livingstone, S., and Bober, M. (2006) Regulating the internet at home: Contrasting the perspectives of children and parents. In D. Buckingham and R. Willett (Eds.), *Digital Generations* (93-113). Mahwah, NJ: Erlbaum. http://eprints.lse.ac.uk/9013/

[52] We are aware that there could be some slippage of meaning between pornographic and other kinds of sexual images (e.g. biological, health-related), but in a survey of this kind, there is little way of pursuing this distinction with children. In interpreting the findings, a degree of caution is appropriate. When it comes to parents, it is easier to be clear that parents understood that the question referred to pornography, though other issues arise in relation to where adults draw the line between what they do or do not call pornographic.

[53] As media converge, clear distinctions become difficult, especially in a survey to children. The possibility that the videos referred to here were watched online by children cannot be ruled out.

[54] When reviewed in Hasebrink, U. et al. (2009) *op cit.*, the average exposure to pornography *on the internet* among *teenagers* was around four in ten. Clearly the inclusion of younger children in the *EU Kids Online* survey has reduced the average overall.

[55] See Livingstone, S. and Bober, M. (2006) *op cit.* Staksrud, E. (2005) *SAFT Project Final Report*: Safety, Awareness, Facts and Tools.

[56] See Livingstone, S. (2010) *op cit.*

[57] Although the proportion of children who have seen sexual images is fairly small, and the proportion bothered by this is even smaller, the latter group is still some one thousand children in the overall database. The large sample size means first of all that the overall estimate of how many children have been bothered after seeing sexual images on the internet is fairly accurate (the margin of error for this point estimate is around ± 0,25 percentage points). A similar point may be made regarding risk estimates reported elsewhere in this report.

[58] See Coleman, J. and Hagell, A. (2007), and Schoon (2006), *op cit.*

[59] See Smith, P. K., Mahdavi, J., & Carvalho, M. (2008) Cyberbullying: its nature and impact in secondary school pupils. *Journal of Child Psychology and Psychiatry, 49*(4), 376-385. Also see http://www.olweus.org/public/bullying.page

[60] For 9-10 year olds, the texts introducing each section were shorter than for 11-16 year olds and just for the younger children, the interviewer ensured the child understood the topic before the child completed those questions privately.

[61] Shariff, S., & Churchill, A. (Eds.). (2010) *Truths and Myths of Cyber-bullying*. New York: Peter Lang.

[62] See Livingstone, S. and Bober, M. (2006) *op cit.*

[63] Examples include Teenangels in the US (http://teenangels.org/) and Cybermentors in the UK (*cybermentors.org.uk)*

[64] Lenhart, A. (2009) Teens and Sexting: How and why minor teens are sending sexually suggestive nude or nearly nude images via text messaging. Washington, D.C.: Pew Internet & American Life Project. Also see Sacco et al. (2010) op cit.

[65] Wolak, J., Finkelhor, D., Mitchell, K., & Ybarra, M. (2008). Online 'predators' and their victims. *American Psychologist, 63*(2), 111-128.

[66] See Hasebrink, U., et al. (2010) *op cit.*

[67] It is recognised that distinguishing pro-health sites that discuss drugs or anorexia from those which promote such activities in an unhealthy, self-destructive or even illegal way is neither easy to determine nor easy to put to teenagers. While the sense of the question was partially signalled by the framing of the question, further research is needed to ask more subtle questions.

[68] See Optem (2007) *op cit.*

[69] See Optem (2007) *op cit.*

[70] Kirwil, L., Garmendia, M., Garitonandia, C., and Fernandez, G. Parental mediation. In Livingstone, S., & Haddon, L. (2009a) *op cit.*

[71] Livingstone, S., and Helsper, E.J. (2007) *op cit.*

[72] Hinduja, S. & Patchin, J. (2009) *Bullying beyond the schoolyard*. Thousand Oaks, CA: Sage.

[73] Hasebrink, U., et al. (2010) *op cit.*

[74] In other words, the measure is the percentage of children in each country who have encountered one or more of online pornography, bullying, receipt of sexual messages, contact with those not known face to face, offline meetings with online contacts, potentially harmful user-generated content, personal data misuse. In effect, this is to treat the seven factors as a risk index, though it must be acknowledged that the decision about which risks are included in this index may affect the results.

[75] Correlation on a country level, r=0,77 and on an individual level, r=0,29; both are statistically significant, p<0,001.

[76] Correlation on a country level, r=0,78 and on an individual level, r= 0,28; both are statistically significant, p<0,001.

[77] Correlation on a country level, r=0,66 and on an individual level, r= 0,49; both are statistically significant, p<0,001.

[78] Correlation on a country level, r=0,67 and on an individual level, r= 0,44; both are statistically significant, p<0,001.

[79] Lenhart, A. (2009) *op cit.*

[80] Ofcom (2006) *Media Literacy Audit: Report on Children's Media Literacy*. London: Office of Communications.

[81] Klinke, A., & Renn, O. (2001) Precautionary principle and discursive strategies: classifying and managing risks. *Journal of Risk Research, 4*(2), 159-174. See also Livingstone, S. (2010) *op cit.*

[82] As noted above, Finnish participation was funded by Finnish Ministry of Education and Culture and of Transport and Communications.

[83] Population figures taken from Eurostat.

[84] Figures for internet penetration are estimated from a combination of data from the Eurobarometer (% children using the internet in 2008) and Eurostat (change in internet penetration, as measured among 16-24s 2008-2009). Internet penetration for 2010 was estimated by taking the actual penetration in 2008 and extrapolating the rate of growth in internet use measured by Eurostat across 2009-2010. As 2009 data were unavailable for the UK and Belgium, estimates for UK and Belgium are based on 2008 data, scaled up by the average population change across the countries where 2009 data are available. Eurostat gives figures for the changing proportion of 16-24 year olds who have used the internet in the past year, and those who have ever used the internet. The change in internet penetration was estimated at being between these two figures. Where data on the change in internet penetration among 16-24s were unavailable, the average rate of change of 2 percentage points was assumed. Generally figures were rounded up rather than down, since the change in internet use among 9-16s was assumed to be higher than among 16-24 year olds. Note that figures for Norway and Turkey were unavailable and so were estimated based on the data for Sweden and Bulgaria/Romania respectively.

[85] Fieldwork is ongoing: the total number of interviews will increase in the final dataset.

[86] Data processing is ongoing: the total number of interviews will increase in the final dataset.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