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THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE

Risks and safety on the internet

The perspective of European children

Full findings and policy implications from the
EU Kids Online survey of 9-16 year olds and
their parents in 25 countries



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Kids Online* network

www.eukidsonline.net

ISSN 2045-256X

Risks and safety on the internet: The perspective of European children. Full findings and policy implications from the EU Kids Online survey of 9-16 year olds and their parents in 25 countries. This report, based on the final dataset for all 25 countries, presents the final full findings for *EU Kids Online Deliverable D4: Core findings* to the European Commission Safer Internet Programme (13 January 2011).

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 (Annex 2), as advised by the International Advisory Panel (Annex 1). (An early version of this report, 'Initial findings', was launched at the Safer Internet Forum on 21st November 2010, based on data collection from 23 countries.)

Please cite this report as:

Livingstone, S., Haddon, L., Görzig, A., and Ólafsson, K. (2011). *Risks and safety on the internet: The perspective of European children. Full Findings*. LSE, London: EU Kids Online.

The report includes, as Section 12: Policy Implications, a summary of O'Neill, B., and McLaughlin, S. (2010). *Recommendations on safety initiatives*. LSE, London: EU Kids Online. Available at www.eukidsonline.net

Previous reports and publications from EU Kids Online include:

- de Haan, J. and Livingstone, S. (2009) *Policy and research recommendations*. London: LSE, 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 edn). London: LSE, EU Kids Online (<http://eprints.lse.ac.uk/24368/>)
- Livingstone, S. and Haddon, L. (2009) *EU Kids Online: Final report*. London: LSE, 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 from 2009-11 (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 that 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 use, risk and safety 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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KEY FINDINGS

The EU Kids Online survey

This report presents the full 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 European Commissions' Safer Internet Programme in order to strengthen the evidence base for policies regarding online safety.

- **A random stratified sample of 25,142 children** aged 9-16 who use the internet, plus one of their parents, was interviewed during Spring/Summer 2010 in 25 European countries.
- **The survey investigated key 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' includes any devices by which children go online and any places in which they go online.

Uses and activities online

- **Use is now thoroughly embedded in children's daily lives:** 93% of 9-16 year old users go online at least weekly (60% go online everyday or almost every day).
- **Children are going online at ever younger ages** - the average age of first internet use is seven in Denmark and Sweden and eight in several Northern European countries. Across all countries, one third of 9-10 year olds who use the internet go online daily, this rising to 80% of 15-16 year olds.
- The most common location of internet use is at home (87%), followed by school (63%). But **internet access is diversifying** – 49% use it in their bedroom and 33% via a mobile phone or handheld device. Access via a handheld device exceeds one in five in Norway, the UK, Ireland and Sweden.

- **Children do a range of diverse and potentially beneficial things online:** 9-16 year olds use the internet for school work (85%), playing games (83%), watching video clips (76%) and instant messaging (62%). Fewer post images (39%) or messages (31%) for others to share, use a webcam (31%), file-sharing sites (16%) or blog (11%).
- **59% of 9-16 year olds have a social networking profile** – including 26% aged 9-10, 49% aged 11-12, 73% aged 13-14 and 82% aged 15-16. Social networking is most popular in the Netherlands (80%), Lithuania (76%) and Denmark (75%), and least in Romania (46%), Turkey (49%) and Germany (51%).
- **Among social network users, 26% have public profiles** – more in Hungary (55%), Turkey (46%), and Romania (44%); 29% have more than 100 contacts, although many have fewer.
- Among social network users, 43% 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, 26% report that their profile is public so that anyone can see it.**

Digital skills

- It is likely that **more use facilitates digital literacy and safety skills.** One a third of 9-16 year olds (36%) 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 (33%) 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 (64%) or find safety advice online (64%). Around half can change privacy settings on a social networking profile (56%) compare websites to judge their quality (56%) or block spam (51%).

Risk and harm

Risk does not necessarily result in harm, as reported by children. 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.

- **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.
- **Risks are not necessarily experienced by children as upsetting or harmful.** For example, **seeing sexual images and receiving sexual messages online** are encountered by one in eight children but they are generally not experienced as harmful except by a few of the children who are exposed to them.
- **By contrast, being bullied online** by receiving nasty or hurtful messages is relatively uncommon, experienced by one in twenty children, but it is the risk most likely to upset children.
- **Further, only 1 in 12 children have met an online contact offline, and also this risk rarely has a harmful consequence, according to children.**
- 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.**
- The survey asked about a range of risks, as detailed in what follows. Looking across all these risks, **41% of European 9-16 year olds have encountered one or more of these risks.**
- **Risks increase with age:** 14% 9-10 year olds have encountered one or more of the risks asked about, rising to 33% 11-12 year olds, 49% 13-14 year olds and 63% 15-16 year olds.

Pornography

- **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 television, 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, **younger children are more bothered or upset by sexual images online than teenagers.**
- **53% of those who had been bothered by seeing sexual images online told someone about this the last time it happened – 33% told a friend, 25% told a parent.** However, 25% simply stopped using the internet for a while and few changed their filter or contact settings.

Bullying

- **In relation to online bullying, 6% of 9-16 year olds have been sent nasty or hurtful messages online, and 3% have sent such messages to others.** Over half of those who received bullying messages were fairly or very upset.
- Since 19% have been bullied either online or offline (compared with 6% online), and 12% have bullied someone else either online or offline (compared with 3% online), it seems **more bullying occurs offline than online.**
- Most children who had received nasty or hurtful messages online called on social support: a quarter had not told anyone. Six in ten also used online strategies – deleting hurtful messages or blocking the bully; this last strategy was seen by children as effective.



‘Sexting’

- 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 2% of all children, have been fairly or very upset by sexual messaging.
- Among those who had been bothered by ‘sexting’, about four in ten blocked the person who sent the messages (40%) and/or deleted the unwanted sexual messages (38%). In most cases, the child said that this action helped the situation. Such constructive coping responses could be encouraged among more children.

Meeting online contacts offline

- The **most common risky activity** reported by children online is communicating with new people not met face-to-face. **30% 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 that may be risky but may also be fun.**
- It is more rare for children to meet a new online contact offline. **9% of children have met an online contact offline in the past year. 1% of all children (or one in nine 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 (31% of those who had been to such a meeting).

Other risks

- The second most common risk is exposure to potentially harmful user-generated content. **21% of 11-16 year olds have been exposed to one or more types of potentially harmful user-generated content: hate (12%), pro-anorexia**

(10%), self-harm (7%), drug-taking (7%) or suicide (5%).

- 9% of 11-16 year olds have had their personal data misused – abuse of the child’s password (7%) or their personal information (4%), or they have been cheated of their money online (1%).
- **30% of 11-16 year olds report one or more experiences linked to excessive internet use ‘fairly’ or ‘very often’** (e.g. neglecting friends, schoolwork or sleep).

Differences across countries

- Comparing across countries, encounters with one or more online risks include around six in ten children in Estonia, Lithuania, Norway, the Czech Republic and Sweden. Lower incidence of risk is found in Portugal, Italy and Turkey.
- Children are more likely to say they have been bothered or upset by something on the internet in Denmark (28%), Estonia (25%), Norway and Sweden (23%) and Romania (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 Lithuania, the Czech Republic Estonia, France and Sweden, while the least are undertaken in Ireland and then Turkey. In other words, internet use brings both risks and opportunities, and the line between them is not easy to draw.

Parental awareness

- Among those children who have experienced one of these risks, parents often don’t realise this.
- 40% of parents whose child has seen sexual images online say that their child has not seen them; 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.

Parental mediation

- **Most parents talk to their children about what they do on the internet (70%) and stay nearby when the child is online (58%). But one in eight parents (13%) seem never to do any of the forms of mediation asked about, according to their children.**
- Over half of parents also take over positive steps such as suggesting how to behave towards others online (56%) and talking about things that might bother the child (52%), and a third have helped their child when something arose in the past (36%).
- Parents also restrict children's disclosure of personal information (85%), uploading (63%) and downloading (57%).
- One in two parents monitors their child's internet use (after use), making this the least favoured strategy by comparison with positive support, safety guidance or making rules about internet use.
- **The use of technical safety tools is relatively low: just over a quarter of parents blocks or filters websites (28%) and/or tracks the websites visited by their child (24%).**
- Both children and parents consider parental mediation helpful, especially 9-12 year olds.
- Most parents (85%) are confident about their role, feeling that they can help their child if the latter encounters something that bothers them online. Parents are also confident in their child's ability to cope with things online that may bother them (79%), and 15% claim that they mediate differently because of something that had bothered the child in the past.
- **Two thirds of children (68%) think their parents know a lot or quite a bit about their children's internet use. However, 29% say they ignore their parents a little and 8% of children say they ignore their parents a lot.**
- Less than half (44%) of children think that parental mediation limits what they do online, 11% saying it limits their activities a lot. Children in some countries feel rather more restricted by

parental mediation (e.g. in Turkey, Ireland and Bulgaria) than in others (e.g. Hungary, and the Netherlands). 15% would like their parents to do a little or a lot more and 12% would like their parents to do rather less.

- Many parents (73%) are confident that it is not very or at all likely that their child will encounter anything that bothers them in the next six months.

Other sources of safety advice

- **Around half of children think that their teachers have engaged with their internet use in most of the ways asked about, and 73% of children say their teachers have done at least one of the forms of active mediation asked about.**
- **Age differences are noteworthy: teachers' engagement with children's internet use is least among 9-10 year olds.**
- There is a fair degree of national variation in the role that teachers play, from 97% of teachers in Norway engaging with children's internet use to a low of 65% in Italy.
- Three quarters (73%) of children say their peers have helped or supported their internet use in at least one of the five ways asked about.
- Peers are much more likely to mediate in a practical way, helping each other to do or find something when there is a difficulty.
- **44% of children say they have received some guidance on safe internet use from their friends, and 35% say that they have also provided such advice to their friends.**
- **Comparing across sources of safety advice online, it seems that most advice is received from parents (63%), then teachers (58%), then peers (44%).**
- But for the older teenagers and for children from lower socio-economic status (SES) homes, advice from teachers overtakes that of parents.
- Other relatives (47%), interestingly, are generally as important as peers in providing advice to children on how to use the internet safely.
- Information received by children via the traditional mass media (20%) are less used, with online sources even less frequently used (12% have gained safety advice from websites).

- Parents get internet safety advice first and foremost from family and friends (48%), then traditional media (32%), the child's school (27%), internet service providers (22%) and websites (21%).
- **Only around 9% of parents say that they don't want further information on internet safety. Many parents want far more information on internet safety than they actually get from the child's school, from government or local authorities, from welfare organisations and charities but also, though to a lesser extent, from manufacturers and retailers.**

Policy implications

The findings have implications for multiple stakeholders.

- The priority for awareness-raising for parents should be on alerting parents to the nature of the risks their children may encounter online while encouraging dialogue and greater understanding between parents and children in relation to young people's online activities.
- **Parents would prefer to get information** on internet safety from their child's school, so greater efforts should be undertaken by the education sector. But, since parental and children's use of industry tools (such as online safety information, filters, 'report abuse' buttons etc) is relatively low, greater public awareness, trust and ease of use should also be developed by industry.
- As use of the internet becomes more personalised, the role of parents and teachers becomes difficult. This places **greater responsibility on industry** to manage the nature of the risks children encounter, and to ensure they have the tools they need to prevent or cope with harm. It also burdens children more with the responsibility for their own safety, and thus internet safety messaging should seek to build confidence, resilience and **digital citizenship skills among children**.
- **Industry efforts** to support positive content as well as internet safety should be improved. Technical tools to support blocking, reporting and filtering should also be a cornerstone of industry child protection policy with a need to increase awareness of such mechanisms and to

improve their accessibility and usability to aid better take up by parents and children.

- **Children** should also be encouraged to assume responsibility for their own safety as much as possible with a focus on empowerment, emphasising responsible behaviour and digital citizenship.
- Since many children do not report encountering 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. Indeed, a new policy focus is vital for awareness-raising and support measures designed to suit the needs of much younger internet users, especially by primary schools.
- **Digital skills training** needs continued emphasis and updating in terms of training, safety features and applications operation to ensure that all children reach a minimum basic standard and to prevent digitally isolated and unskilled children. This should also seek to broaden the range of activities undertaken by children, since many make little use of creative opportunities online.
- Moreover, since less than half of 9-16 year olds are very satisfied with levels of online provision available to them, even fewer among younger children, there is a responsibility on all policy actors to ensure **greater availability of age-appropriate positive content** for children, especially in small language communities.

Note on methodology

- This report is **the work of the EU Kids Online network**, coordinated by the London School of Economics and Political Science (LSE), with research teams and stakeholder advisers in each of the 25 countries and an International Advisory Panel.
- Initial findings from this report were presented at the Safer Internet Forum on 21 October 2010. The present report presents full findings from the survey for all 25 countries.
- **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 and availability of the project methodology**, materials, technical fieldwork report and research ethics, see www.eukidsonline.net.

1. INTRODUCTION

1.1. 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, and 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 to 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

1.2. This report

This report presents the 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 European Commission'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 from 25 countries 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 2010-12. It replaces the earlier report of initial findings, based on 23 of the 25 countries in the project, and includes *EU Kids Online Deliverable 7.1: Policy Implications*. Subsequent reports will explore the complex relations among the variables to identify groupings of children and of countries, to test hypotheses, and to 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.

1.3. 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 gives 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's 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 a 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 be 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 be 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 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 several may be 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; second, by taking some degree of risk, children learn to become more 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.

Now consider how the offline parallel applies online. Take 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 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).

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

For older children, it may be judged that, provided protective factors are 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.

EU Kids Online has classified the risks of harm to children from their online activities as follows. The classification distinguishes 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

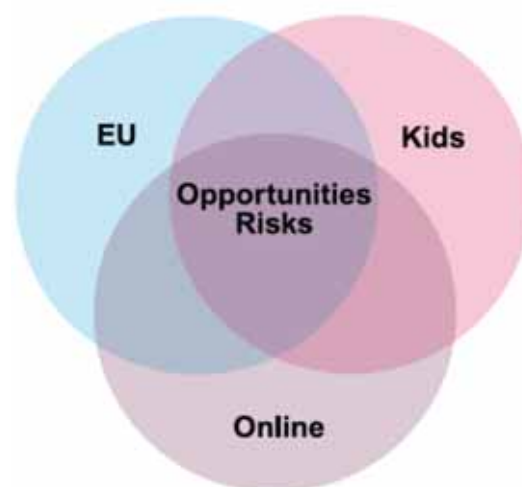
Each of these has been discussed, to a greater or lesser degree, in policy circles, and some have been the focus of considerable multi-stakeholder initiatives. Nonetheless, the nature of the harm at stake is not always clear. In other words, although society tends to be anxious about children's exposure 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.

1.4. 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).

Figure 2: Focus of the EU Kids Online project

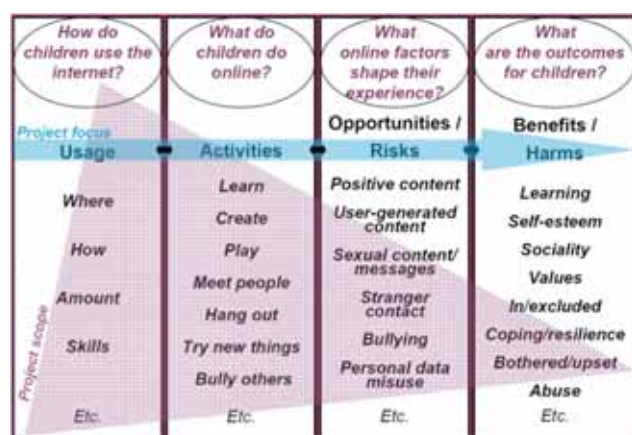


As shown in Figure 3, we propose a path that traces how children's internet use and activities, being shaped by online and online factors, may have harmful as well as beneficial outcomes for children.

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 that, 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. 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.

Figure 3: Possible consequences of online activities



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

Third, it is recognised that when children go online, they do so in a particular environment (see opportunities 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 and 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 to increase the risk of an accident (i.e. the probability of harm). Focusing on the online domain, the survey investigated aspects of the online experience that may increase the risk of harm. These included exposure to pornography and the prevalence of sexual messaging and bullying, and 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 marked by the shaded funnel in the figure, the scope of the *EU Kids Online* project encompasses just part of this larger picture. It traces the path from children's use and activities (experienced by most European children), through their encounters with factors 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 affect an even smaller proportion of children).

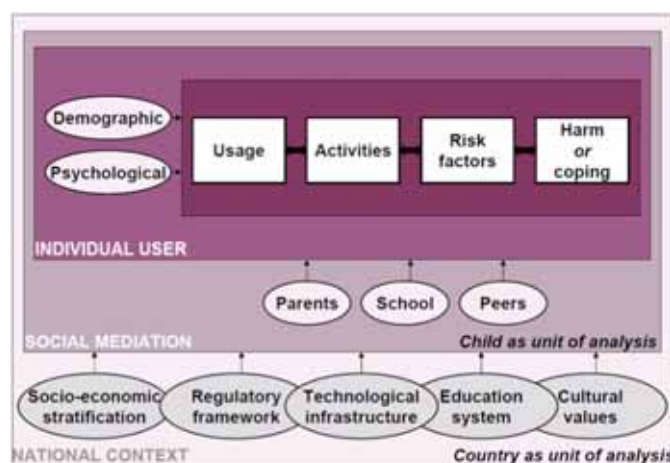
The relation between the third and fourth columns in Figure 3 is complex. For some risks, the harm seems all but inevitable – bullying, for example, may be a factor in a child's life that, if it occurs, seems very likely to result in some degree of harm. Exposure to pornography, however, is considered harmful by some but, for others, whether harm results will 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.

1.5. 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 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.

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



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 are risks linked to 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.

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 and 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.

1.6. Methodology

A total of 25,142 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 (which are 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 some 1000 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 to 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, comparing:

- 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 (see 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 although overlapping with the European Union (EU).

1.7. The population

The population interviewed in the *EU Kids Online* survey is children aged 9-16 years old 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 a 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. SES 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

1.8. 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 country, in order to ensure a standard approach across Europe.

In each of 24 European countries, around 1,000 children aged 9-16 who use the internet were interviewed, as was one of their parents. (In the 25th country, Cyprus, it proved problematic to achieve this sample size and so 800 children were interviewed in that country.) 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 LSE Research Ethics Committee approved the methodology 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.

1.9. 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, to promise anonymity and privacy (including reassuring children that their parents would not see their answers). However, any survey takes place within some social context. Here, the fact that it 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. Confidence intervals have been calculated for the percentages reported throughout the report. For most numbers, the confidence interval is below $\pm 5\%$. Where the confidence interval is between 5-10%, this is marked, meaning that there is a 95% certainty that the interval of $\pm 5-10\%$ around the marked number contains the true percentage in the population. For a few numbers, the confidence interval exceeds 10% and these are also marked, meaning that there is a 95% certainty that the interval of $\pm 10\%$ around this number contains the true percentage in the population); such a number is included only as a mere approximation of the population value not ensuring accuracy. This is further outlined in Annex 3.
- *National data* – the findings for countries combine different regions and urban and rural settings – in some countries the national averages might mask quite diverse patterns within the country.
- *Sample sizes* – although overall the sample size is substantial, some events being measured affect relatively few children. In cases where base sizes are small, the categories shown in tables or graphs with fewer than 15 respondents are omitted as inferences to the population would be unreliable.

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?"

2. USAGE

What do 9-16 year old 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.

2.1. 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.

- **Half (49%) of all children who use the internet use it in their bedroom or other private room at home.**
- **62% use it in the living room or other public room at home.**
- **Overall, 87% use it at home - 49% in their bedroom, 38% elsewhere only at home (Figure 5).**
- 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, after the 87% who use it at home, 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 do 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 (53%), and at a relative's house (42%).
- Less common is the use of the internet in public places, with 12% using it in an internet café, 12% in a public library or other public place and 9% using it generally when 'out and about'.

Table 2: Where children use the internet

% of children who say they use the internet at the following locations	
At school or college	63
Living room (or other public room) at home	62
At a friend's home	53
Own bedroom (or other private room) at home	49
At a relative's home	42
In an internet café	12
In a public library or other public place	12
When 'out and about'	9
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)

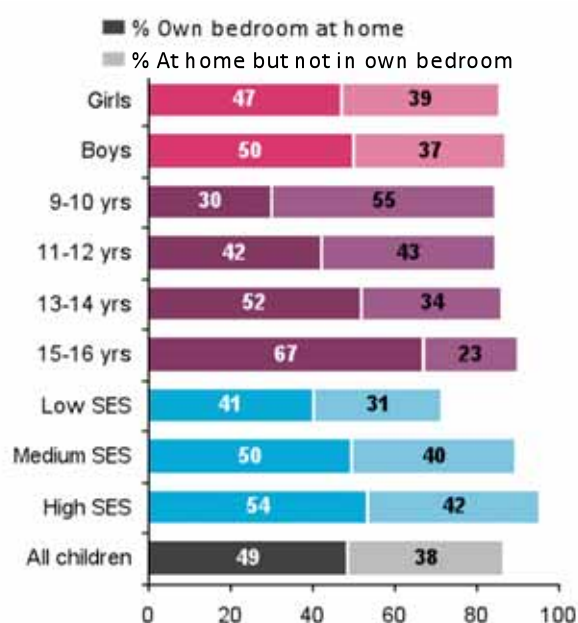
Base: All children who use the internet.

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 percentages for use in public rooms include 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 (although greatly shared with peers): more use it at home in their bedroom (49%) than elsewhere only in the home (38%).** 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 occurs more often in private.**

- The differences in access/use by SES are notable – both the overall difference in access at home (only 72% of children from low homes use the internet at home) compared with 96% of those from high SES homes) and the difference in private/personal access (41% vs. 54%).¹⁹
- 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 digital exclusion and the European Digital Agenda.²⁰

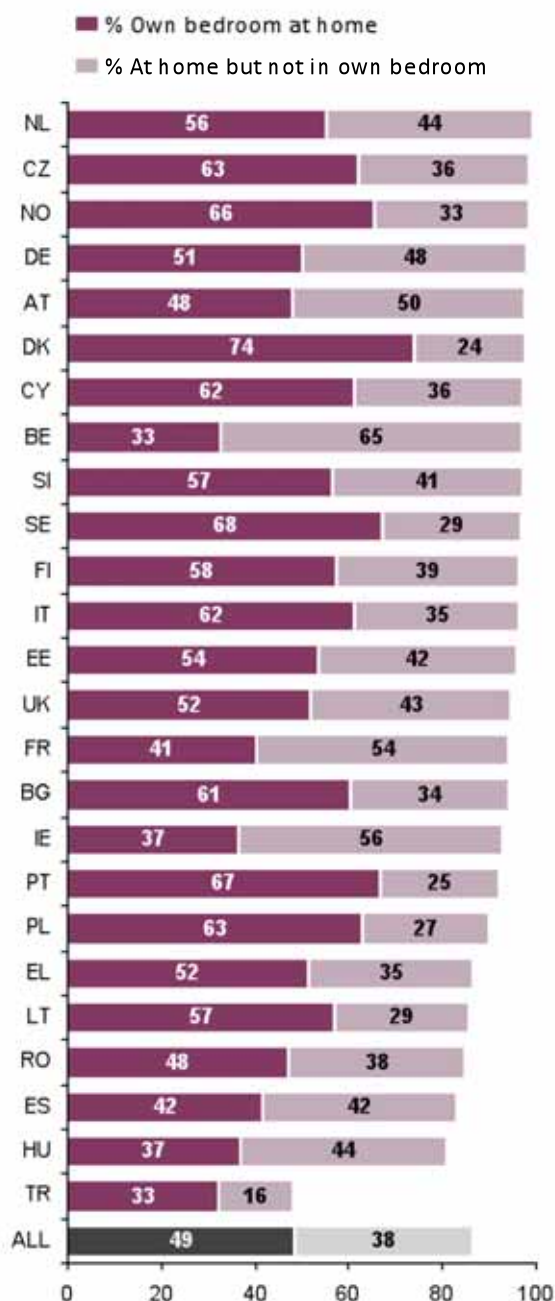
Figure 5: Children's use of the internet at home

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 Annex 2 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 (49%) than in other countries**

- Using the internet in the child's bedroom shows a different pattern, being as low in Belgium as in Turkey (both 33%), with Ireland (37%) and Hungary (37%) close behind; private use is highest in Denmark (74%), Portugal and Sweden (67%), and Norway (66%).
- 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 and Portugal).

Thus most teenagers use the internet at home in the privacy of their own bedroom as opposed to in a public area of their home. So 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.

2.2. 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 (58%) children still access the internet via a shared personal computer (PC), although access via their own PC is next most common (35%).**
- Nearly one third (32%) go online through their television set, around another third do so via a mobile phone (31%), and a quarter access the internet via a games console (26%).** 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 (24%) or a shared laptop (22%), reflecting the**

growth in the use of laptops in general and, clearly, the greater access that children now have to them.

- **12% go online using a handheld or portable device** (e.g. iPod Touch, iPhone or Blackberry).

Table 3: Devices through which children access the internet

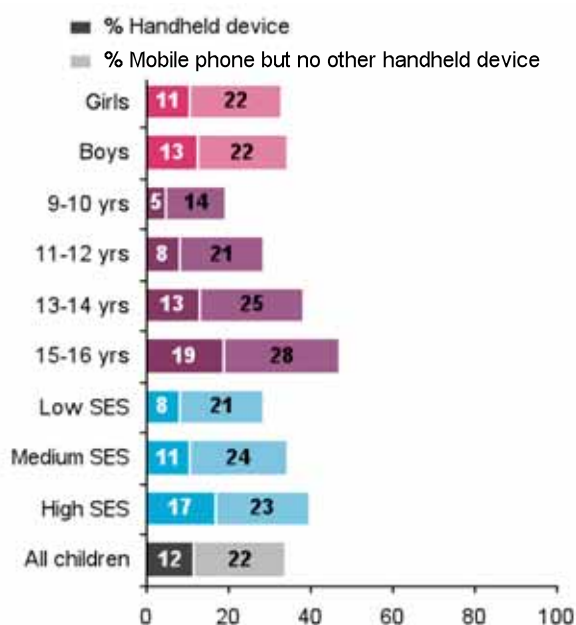
% children who use the internet	
Shared PC	58
Own PC	35
Television set	32
Mobile phone	31
Games console	26
Own laptop	24
Shared laptop	22
Other handheld or portable device (e.g. iPod Touch, iPhone or Blackberry) – hereafter ‘Handheld device’	12
Average number of devices of use	2.5

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, broken down into demographic variables, who access the internet in this way, and Figure 8 shows these findings by country.

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



QC300h, e: Which of these devices do you use for the internet these days? ²¹

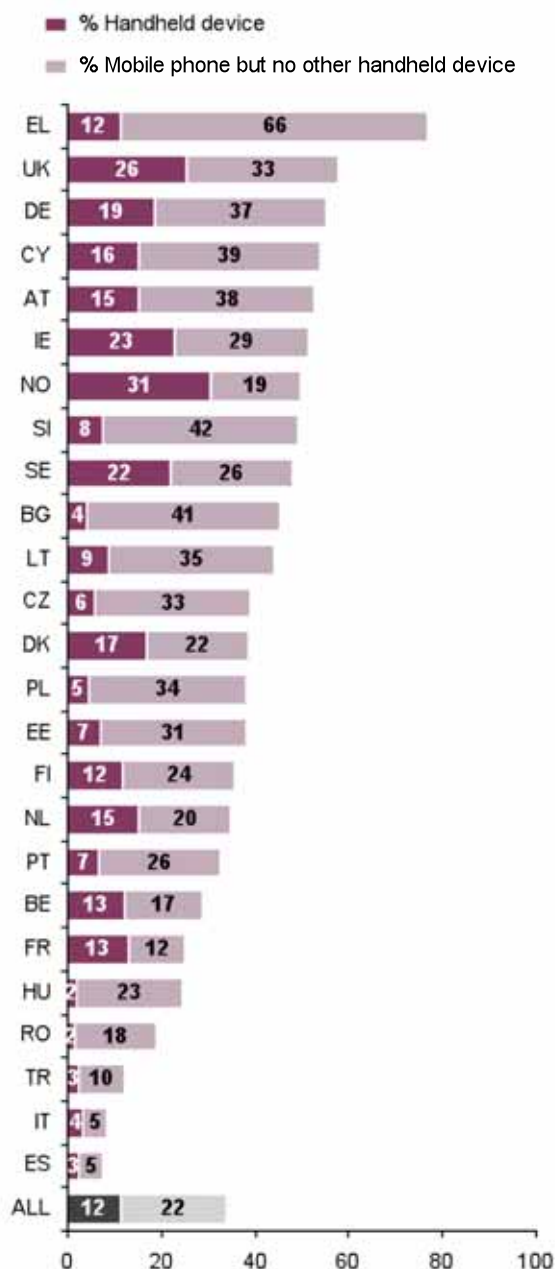
Base: All children who use the internet

- **One in three 9-16 year olds who use the internet goes online via a mobile or handheld device** (33%, comprising 12% via a handheld device and 22% only via an ordinary mobile phone).²²
- Children from higher SES homes are more likely to go online using handheld devices (17%). So too are teenagers, especially those aged 15-16 years old (19%).

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

As for country differences in mobile use of the internet, these are fairly substantial (Figure 8).

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 Norway (31%), the UK (26%), Ireland (23%) and Sweden (22%).

- Children in Southern and Eastern European countries are least likely to have internet access via a 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

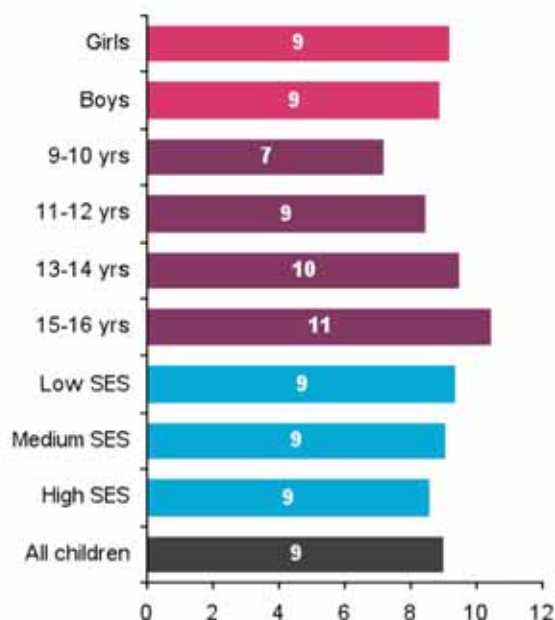
It seems likely that children are increasingly accessing and using the internet from personal communications devices other than home or school computers. This means that their internet access and usage cannot always be monitored by parents and/or teachers. That leaves two strategies for policy makers 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.

2.3. 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.²³ 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 may also indicate digital, and possibly social, exclusion.

The *EU Kids Online* survey measured the amount of use in several ways – the age when children first go online, the frequency of going online and the 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 11 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

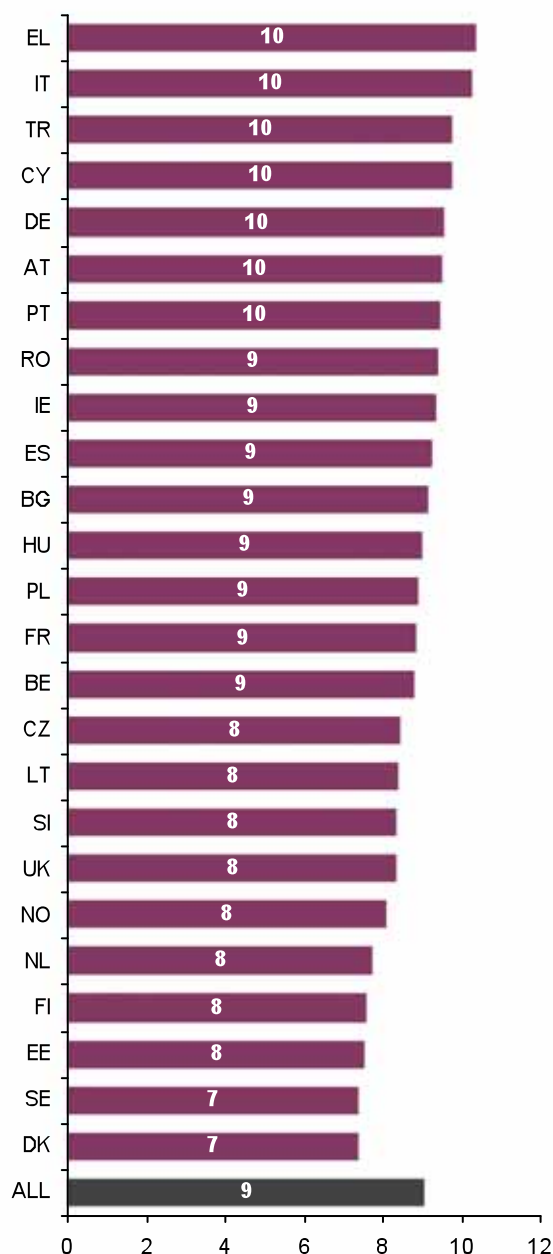
QC302: How old were you when you first used the internet?

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 Denmark and Sweden and eight in several other Northern countries (Norway, Finland, the Netherlands and the UK) as well as in Estonia.
- Average ages are higher (10 years old) in Greece, Italy, Turkey, Cyprus, Denmark, Austria and Portugal.

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

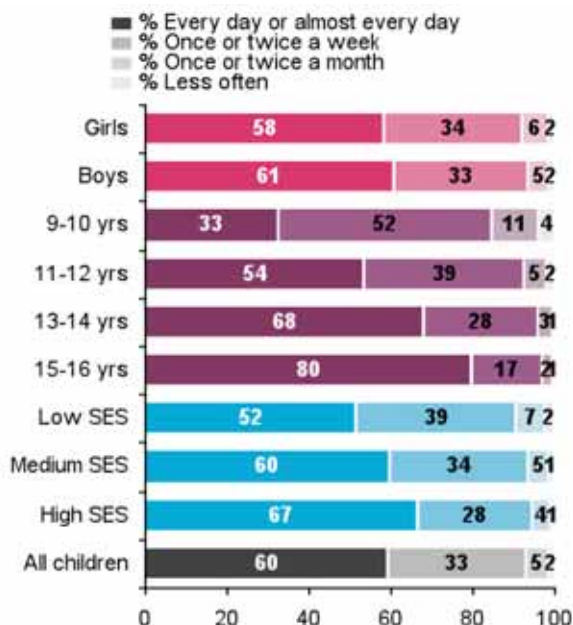
QC302: How old were you when you first used the internet?

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

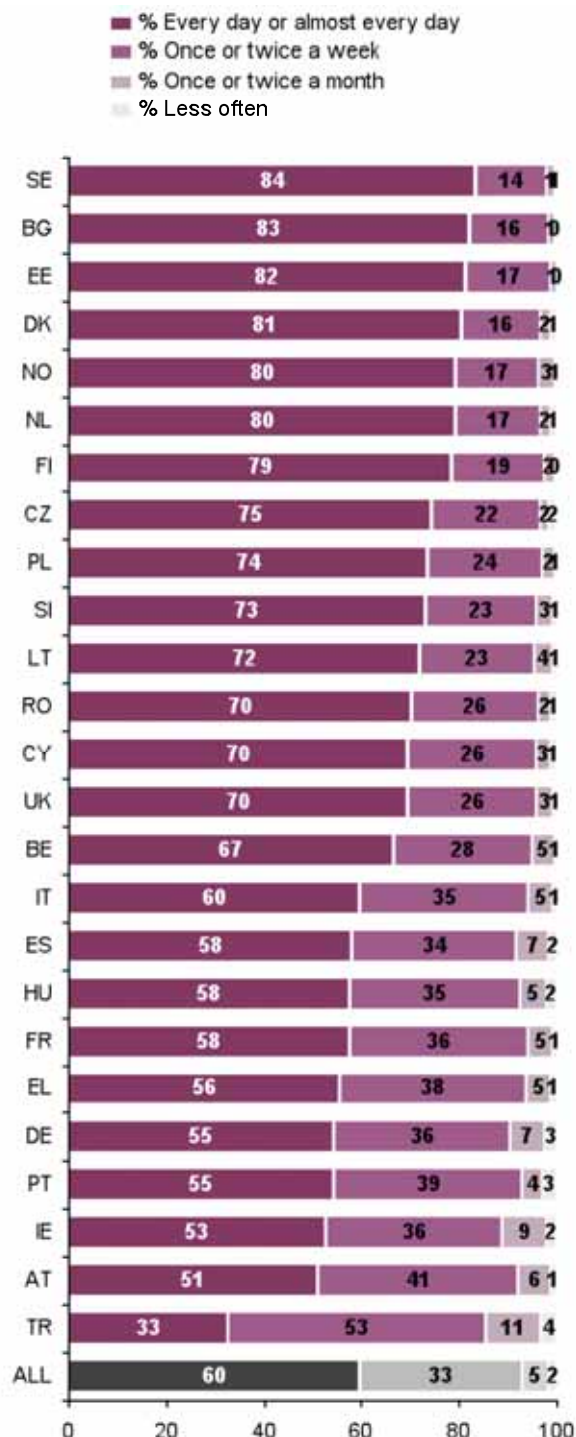


QC303: How often do you use the internet?

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 (60%) and those who use it once or twice a week (33%). Combined, this is 93% of all children who go online at all; 5% go online once or twice a month, 2% less often.
- There is little gender difference in frequency of use, although boys are slightly more likely to be daily users (61%, compared with 58% of girls).
- SES differences are more evident: 67% of children from high SES homes go online daily, compared with 52% 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, four fifths (80%) go online every day.

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



QC303: How often do you use the internet?

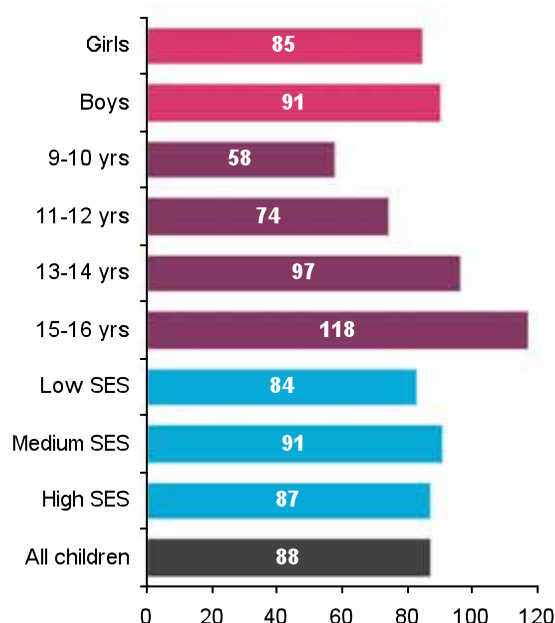
Base: All children who use the internet.

- Four in five children from 9-16 in Sweden, Bulgaria, Estonia, Denmark, Norway and the Netherlands use the internet daily. This applies to fewer than half of the children in Turkey, where 33% 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 (88 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 (118 minutes) twice that of the youngest group (9-10 year olds average 58 minutes per day).

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.

2.4. 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 to 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 represents a 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:²⁴

- Range/depth of online activities.** This 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 (see Section 3 on Activities).
- Self-efficacy** is 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.
- Specific concrete skills** are hypothesised as 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+)

% who say they can...	11-12 year old		13-16 year old		All
	Boys	Girls	Boys	Girls	
Bookmark a website	52	45	72	70	64
Block messages from someone you don't want to hear from	45	46	72	72	64
Find information on how to use the internet safely	51	43	71	69	63
Change privacy settings on a social networking profile	34	35	65	66	56
Compare different websites to decide if information is true	43	37	64	62	56
Delete the record of which sites you have visited	37	29	63	59	52
Block unwanted adverts or junk mail/spam	36	32	61	56	51
Change filter preferences	15	12	41	29	28
Average number of skills	3.0	2.7	4.9	4.6	4.2

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 say they have four of the eight skills asked about. Most 11-16 year olds can bookmark a website (64%), block messages from someone they do not wish to be in contact with (64%) or find safety information online (63%).
- Roughly half can change privacy settings on a social networking profile (56%), compare websites to judge the quality of information (56%), delete their history (52%) or block junk mail and spam (51%).
- Only about a quarter can change filter preferences (28%).

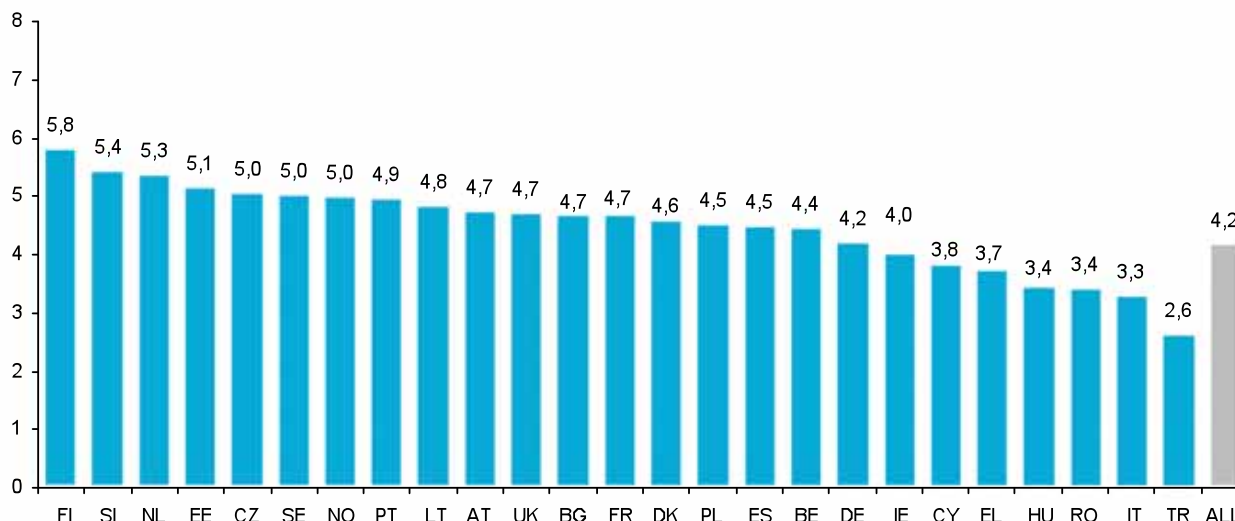
Young people's skills, it seems, include a mixture of critical skills and safety skills. Some skills widely promoted as part of safety programmes are, clearly, not yet in place. For example, the percentage that can change their privacy settings on a social networking profile is lower than those who have such a profile (see Section 3.5), 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 (aged 13-16) claim considerably more skills than the younger children (aged 11-12).
- Boys claim slightly more skills than girls, as is consistent with previous research.²⁵

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, the Netherlands and Estonia.
- Fewest skills are claimed by children in Turkey, Italy, Romania 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 shows their answers by demographic variables:

- **On average, one third of 9-16 year olds (36%) 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 (33%) 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 (38%) are slightly more than girls (34%) 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 – 63% say this statement is 'not true' for them.**
- By contrast, teenagers are confident: 56% 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

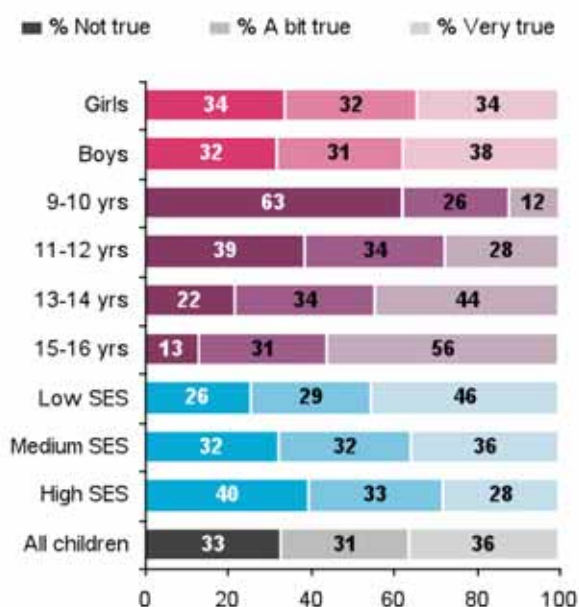
that they know a lot about the internet than those from higher SES homes.

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 says 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 do 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.

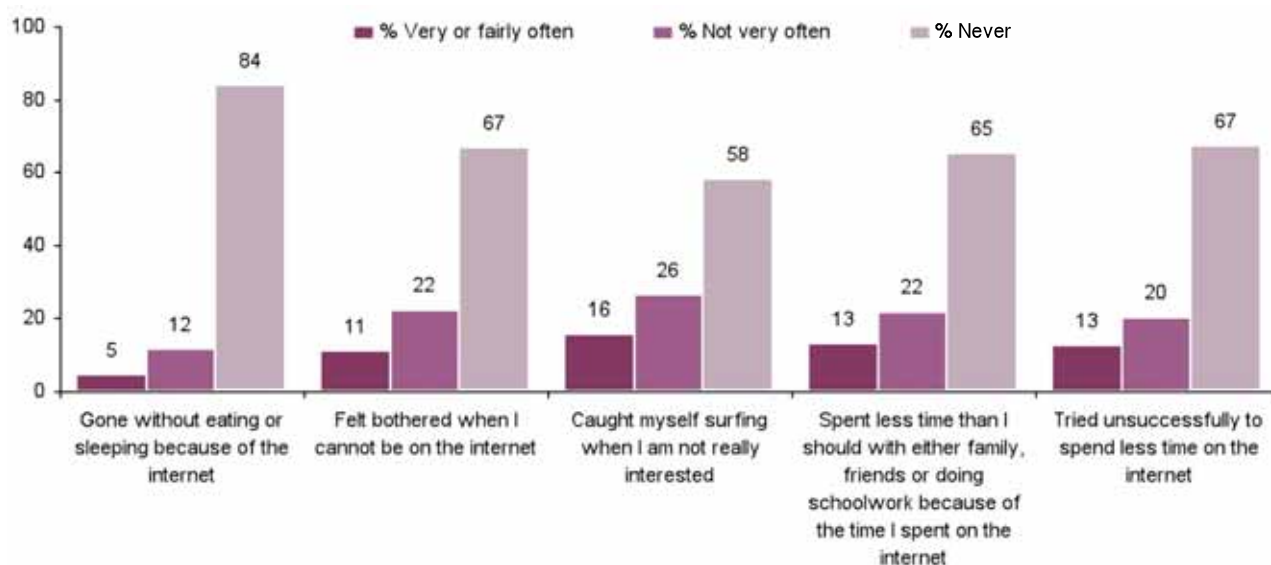
2.5. Excessive use of the internet

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.²⁶

Although the question of 'addiction' remains contested, consensus is growing that 'excessive' use of the internet is worth investigating. Drawing on prior measurement of computer or games 'addiction', such research focuses on circumstances in which the internet displaces children's social or personal needs in a way that they cannot control. Thus a curvilinear relationship is proposed between use and benefit, such that more use is likely to be beneficial up to a point but, if excessive, it may 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.²⁷ 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?

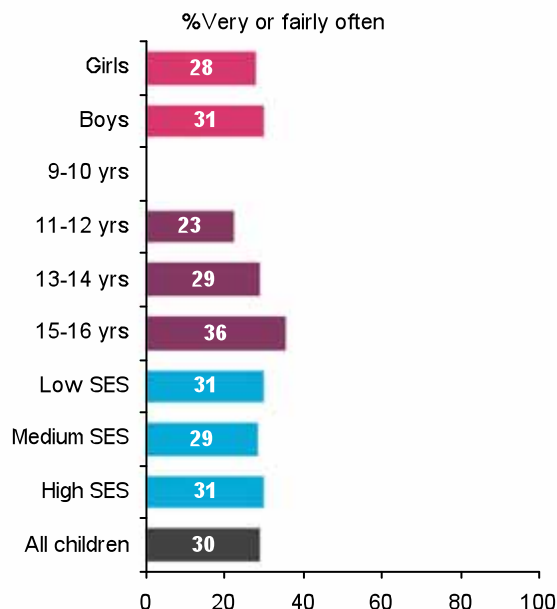
Base: All children aged 11-16 who use the internet.

- Many agree with the statement, "I have caught myself surfing when I am not really interested". Four in ten (42%) 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 (35%). A similar proportion has tried unsuccessfully to spend less time on the internet (33%) and/or they feel bothered when they cannot be on the internet (33%).
- 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 (24%, compared with 22% of girls).
- Differences by age are more marked, with one quarter (23%) 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+)

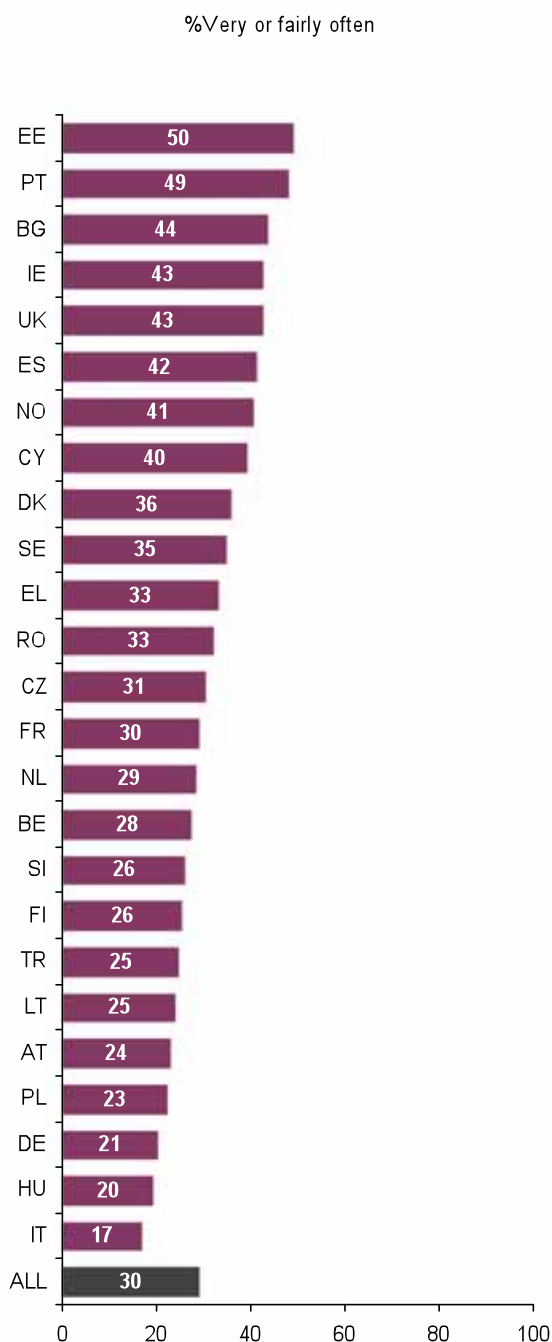


QC144a-e: How often have these things happened to you? The graph shows the percentage of children who answer 'fairly' or 'very often' to one or more of the five statements in Figure 16.

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.

- Almost a third (30%) of children report one or more of the experiences associated with excessive internet use 'fairly' or 'very often'.
- This percentage rises to half of the 11-16 year olds surveyed in Estonia (50%) and over four in ten in Portugal (49%), Bulgaria (44%), Ireland (43%) and UK (43%).
- Fewer children report consequences of excessive internet use in Italy (17%) 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.²⁸

2.6. Parental use of the internet

Popular conceptions of 'digital immigrants' and 'digital natives', although contested by empirical research,²⁹ 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.

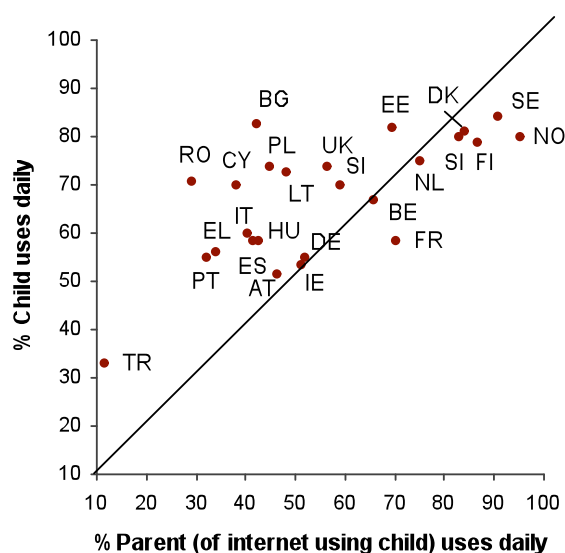
Analysis of the Flash Eurobarometer survey of European parents in 2008 showed that, since the previous Eurobarometer survey in 2005, parents have been 'catching up' with their children in many countries. The 2008 data showed that, in most countries, parents are as likely, or more likely, to use the internet compared with their children.³⁰ 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.³¹

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.

- **Broadly, in countries where more children use the internet daily, their parents are also likely to use the internet daily, and vice versa.**
- 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 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, although 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.³²

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.

3. ACTIVITIES

3.1. Range of children's online activities

What do European children aged 9-16 say 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 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 Section 1, 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.³³ Notably, although access and to a lesser degree amount of use does vary by children's age and household SES,³⁴ 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 (85%),** confirming the importance of incorporating the internet into educational contexts.
- **Playing games (e.g. 83% playing against the computer), receiving content produced by others (e.g. watching video clips, 76%), and communicating (e.g. social networking and instant messaging, 62%) are the next most popular online activities.**
- This contrasts with the various ways of creating user-generated content. **Posting images (39%) or messages (31%) for others to share, using a**

webcam (31%), file-sharing sites (18%), spending time in a virtual world (16%) or writing a blog (11%) are all less common. This is perhaps surprisingly given popular attention to the supposed rise of a more 'participatory culture'.³⁵

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 they play more games against others online; further, teenage boys play games against the computer more than teenage girls.
- 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, a possible age effect is that teenage girls prioritise socialising offline to spending that time in virtual worlds.³⁶ Or, services directed to younger girls (e.g. *Habbo*, *GoSuperModel*, where using an avatar on a social networking site (SNS) 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 than 13-16 year olds to use the internet for watching or posting video clips or messages, reading or watching the news, instant messaging, social networking and email or downloading music or films.**

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 eight or nine activities. As earlier research has suggested, these findings support the 'ladder of opportunities'. This hypothesises that certain basic activities tend to be done first, and by most children. However, more creative or participatory activities come later, and are undertaken by fewer children.³⁷

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

% who have...	9-12 year old		13-16 year old		All
	Boys	Girls	Boys	Girls	
Used the internet for school work	79	82	87	90	85
Played internet games on your own or against the computer	86	84	88	71	83
Watched video clips	66	64	87	85	76
Visited a social networking profile	40	42	80	81	62
Used instant messaging	43	47	76	77	62
Sent/received email	42	47	74	76	61
Read/watched the news on the internet	38	36	60	57	48
Played games with other people on the internet	47	33	63	33	44
Downloaded music or films	27	26	61	56	44
Put (or posted) photos, videos or music to share with others	22	24	54	55	39
Used a webcam	23	25	37	38	31
Put (or posted) a message on a website	18	19	44	40	31
Visited a chatroom	14	14	35	28	23
Used file sharing sites	11	8	30	22	18
Created a character, pet or avatar	20	17	21	13	18
Spent time in a virtual world	15	14	21	12	16
Written a blog or online diary	4	6	15	18	11
Average number of activities	5.7	5.4	9.0	8.1	7.1

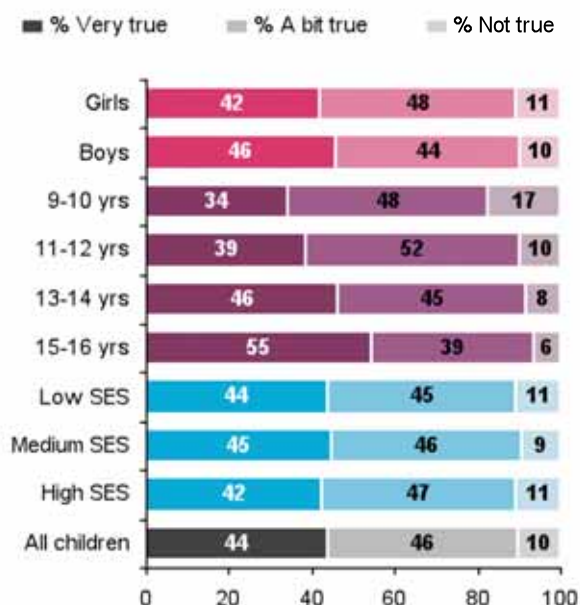
QC102: How often have you played internet games in the past 12 months? QC306a-d, QC308a-f and QC311a-f: Which of the following things have you done in the past month on the internet?³⁸ (Multiple responses allowed)

Base: All children who use the internet.

3.2. 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.

- Over four in ten (44%) 9-16 year olds are very satisfied with the online provision available to them.
- A further half of the population is somewhat satisfied: for 46% of children, it is 'a bit true' that there are lots of good things for children of their age to do online. For one in ten, provision is – in their judgement – insufficient.

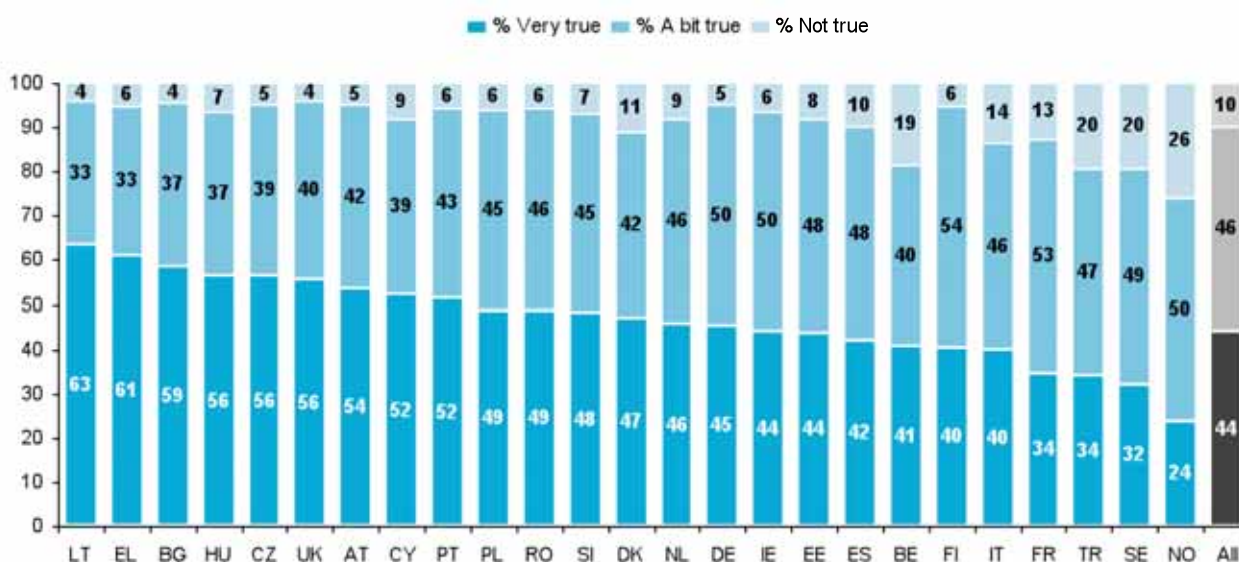
- There appear few notable differences by SES or gender, although perhaps boys are a little more satisfied and children from high SES homes a little less. Some differences by age are intriguing.
- The youngest age group is markedly less satisfied by online provision – only 34% of 9-10 year olds say there are lots of good things for children of their age to do online.** Teenagers, by contrast, are the most satisfied (55%), presumably because they share in wider public provision.
- 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: 56% 'very true' and 40% '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,³⁹ 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 also be that there is little provided for older children also, but they are satisfied with generic content and do not require special provision. There is, second, clearly some improvement in content for children required in several countries, notably France, Turkey, Sweden and Norway.

Figure 21 shows these findings broken down by country.

- The rank order of countries is puzzling, since at least half of the children in some countries with small language communities (Lithuania, Greece, Bulgaria and Hungary) 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 40%, Sweden 32% and Norway only 24%.

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.

3.3. Children's use of SNSs

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.

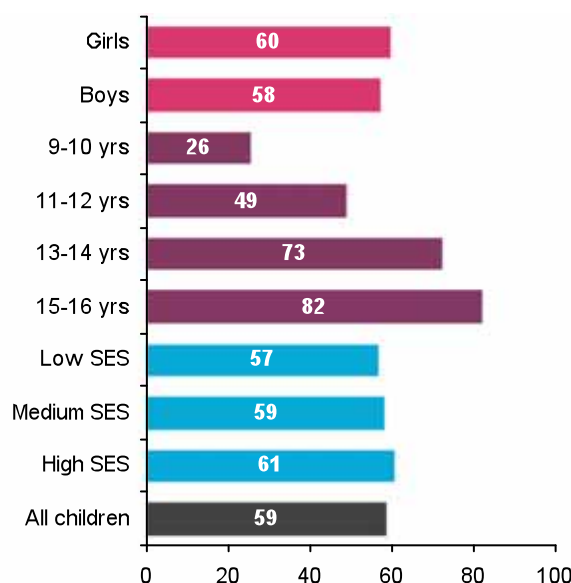
Research thus far has proved contradictory about whether SNSs are more or less risky than instant messaging, chat, or other online communication formats,⁴⁰ and it is as yet unclear whether risks are 'migrating' from older formats to SNSs. Nonetheless, efforts are underway to ensure effective self-regulation of social networking on a European level and beyond.⁴¹

As was seen in Table 5, 62% of European 9-16 year olds use SNSs. Such 'use' may include visiting the profiles of others, so Figure 22 shows which children have their own profile on a social networking site.

- **Among all 9-16 year olds across Europe, 59% report having their own social networking profile.**
- Social networking varies hardly at all by gender, with 58% boys and 60% girls having their own profile.
- It also varies very little by SES also (ranging from 57% for children from low SES homes to 61% 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 (26%) of the 9-10 year olds report having their own profile, compared with half (49%) of 11-12 year olds. For teenagers, percentages are much higher – 73% of 13-14 year olds and 82% 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 SNSs. In future reports, we will analyse findings for SNSs 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?

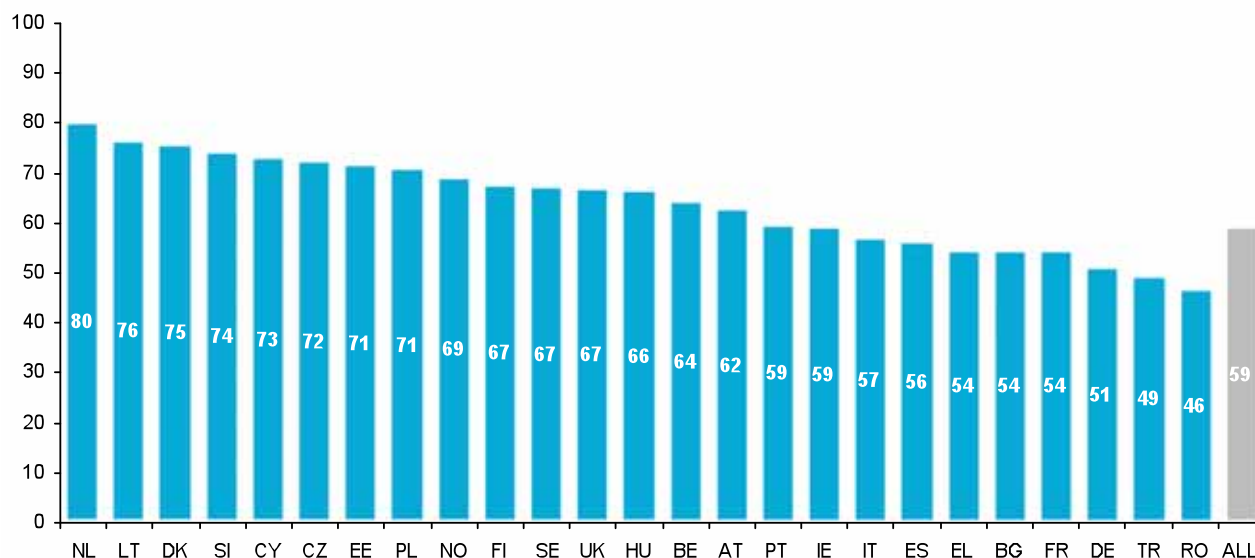
Base: All children who use the Internet.

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

- **Social networking is most popular, it appears, in the Netherlands (80%), Lithuania (76%) and Denmark (75%), and least practised in Romania (46%) and Turkey (49%) and Germany (51%).**
- 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.

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

Figure 23: Children who have a profile on a SNS, 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.

3.4. Nature of children's SNS contacts

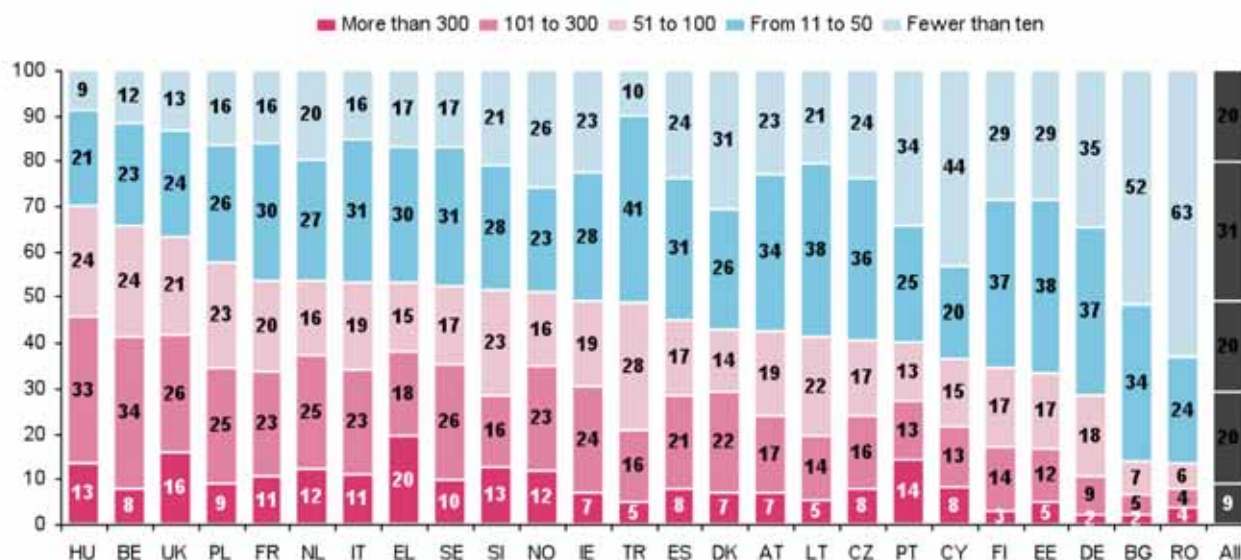
With whom are children in contact via SNSs? Figure 24 shows the number of contacts on children's profiles, interesting insofar as large circles of contacts may constitute as a possible risk factor.

- **Despite popular media stories of children with hundreds of contacts, few overall report having more than 300 contacts on their social**

networking profile (9%), although one in five (20%) has between 100 and 300.

- **Half (51%) have fewer than 50 contacts and 20% have fewer than 10.**
- Considerable country differences are evident in Figure 24, with Greek, British and Portuguese children reporting the most contacts overall. Fewest contacts are reported by children in Bulgaria, Germany, Finland and Romania.
- 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]?

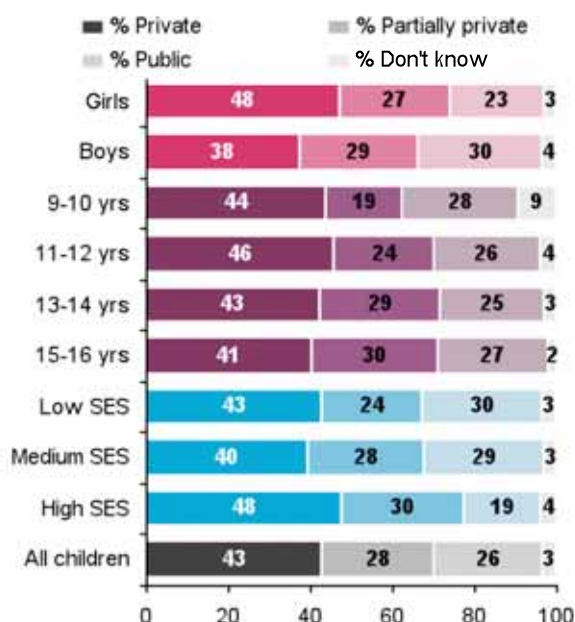
Base: All children who have a profile on a social networking site.

3.5. 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 shows that children care considerably about keeping certain kinds of information private, carefully managing with whom they share particular kinds of information.⁴²

Figure 25 shows that among children with a SNS profile, their privacy settings (for their most used social networking profile) vary by gender, age and SES. Recall that, as shown in Figure 22, this includes one quarter of 9-10 year olds rising to four fifths of 15-16 year olds.

Figure 25: Children's use of SNS privacy settings



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.

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

- Among social network users, 43% 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, 26% report that their profile is public so that anyone can see it.
- Girls, and children from high 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 lower and medium 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 (9%) 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 (55%), Turkey (46%) and Romania (44%) have public profiles.** By contrast, less than a fifth have set theirs to public in the UK (11%), Ireland (12%) and Spain (14%). (Note: the table shows information posted by all those with a SNS profile, not just those whose 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, although in Lithuania, 35% of children have done this, as have 31% in Hungary.

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

	% SNS profile is public	% address or phone number	% shows incorrect age	Average from six identifying features
AT	20	15	14	2.7
BE	28	13	21	2.9
BG	32	10	10	2.3
CY	29	6	23	2.4
CZ	35	20	13	2.7
DE	23	12	9	2.6
DK	22	13	25	2.8
EE	30	27	20	2.7
EL	37	12	19	2.2
ES	14	10	27	2.4
FI	29	7	14	2.4
FR	21	8	18	2.6
HU	55	31	2	3.5
IE	12	8	24	2.4
IT	35	16	20	2.7
LT	31	35	9	2.8
NL	19	16	6	3.1
NO	21	16	17	2.8
PL	39	22	3	3.4
PT	25	7	25	2.1
RO	44	21	12	2.2
SE	33	9	19	2.6
SI	24	16	21	2.7
TR	46	22	18	2.8
UK	11	7	21	2.8
ALL	28	14	16	2.8

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.⁴³ 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 (27%), Denmark (25%), Ireland (24%) and Cyprus (23%).
- 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 2.8 of these on their profile, ranging from 2.1 in Portugal 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, although 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)

3.6. Children's approach to online communication

Drawing the line between activities that facilitate beneficial outcomes and those that 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.⁴⁴ 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	34	11
On the internet I talk about private things which I do not share with people face-to-face	68	24	8
Average	58	32	10

QC103a-c: How true are these of you?

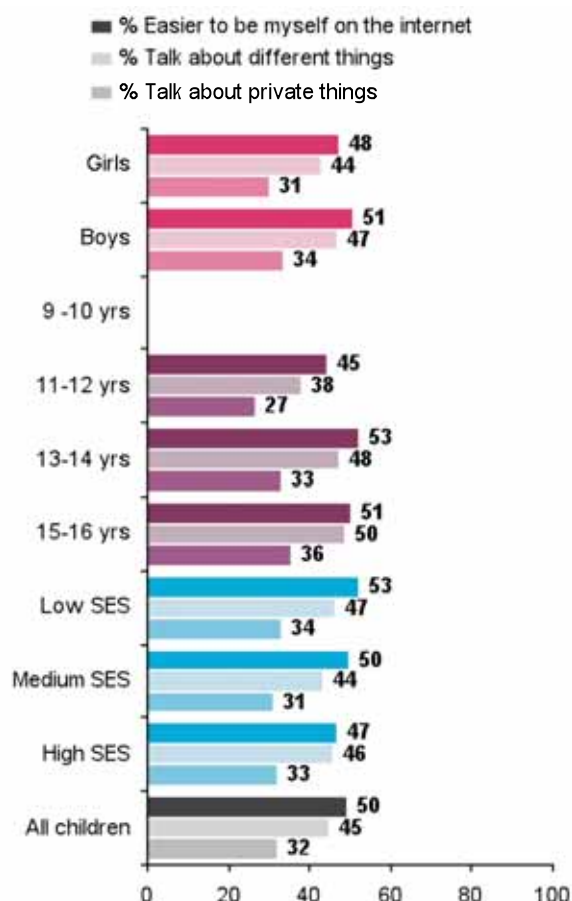
Base: All children aged 11-16 years who use the internet.

- **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.**
- Nearly half (45%) 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 they talk about private things online that they do not discuss 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 shows children's approach to online communication by demographic variables.

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.
- For gender and SES the differences are slight.

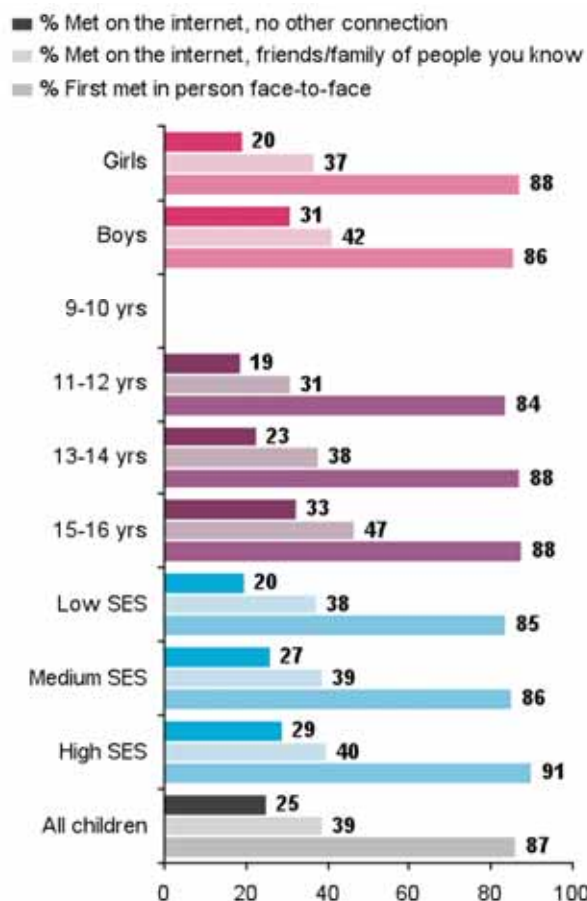
If the internet offers some children an opportunity for more personal or intimate communication, this raises the crucial question, with whom are they communicating? For each platform (email, SNS, chatrooms, instant messaging,

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.⁴⁵

- A sizable minority (39%) are in touch with people who 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 although the child has not met them face-to-face.
- One quarter of children aged 11-16 (25%) say 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 (31%) than girls (20%) communicate online with people who 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 between girls and boys).
- Four fifths of children 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: 31% of 11-12 year olds, 38% of 13-14 year olds and 47% of 15-16 year olds.
- The age difference for communicating with people who they first met on the internet (and who have no other connection with their lives) is striking: 19% of 11-12 year olds, 23% of 13-14 year olds and 33% of 15-16 year olds.
- Differences by SES of household show a similar trend: more children from high SES households 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. 20%).

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.

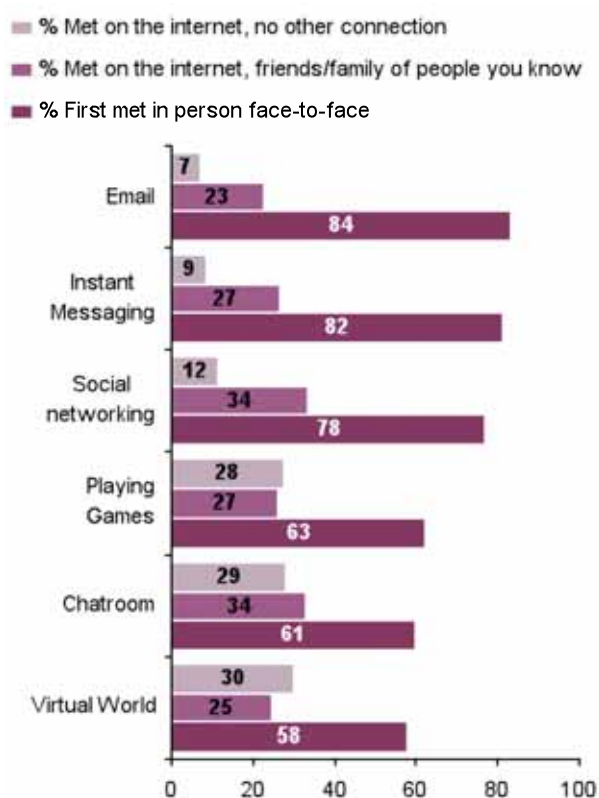
- **Most children who communicate online are in touch with people they already know in person face-to-face (87%).** Thus online communication draws from and complements the communication that occurs in pre-existing social networks in daily life.

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, 84% 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 78%.

- 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 (58%, 63% and 61%).
- 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	66	18	16
Pretended to be a different kind of person on the internet from what I really am	84	10	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	86	9	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 (86%) 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 (84%).
- Two thirds (66%) 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 (34%) 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 (14%) 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)

4. RISK AND HARM

4.1. 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.⁴⁶
- 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 were 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 had 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).⁴⁷
- 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.
- There was 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.⁴⁸
- 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 option⁴⁹.

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 available online at www.eukidsonline.net.⁵⁰ 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)

4.2. 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.⁵¹

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?*

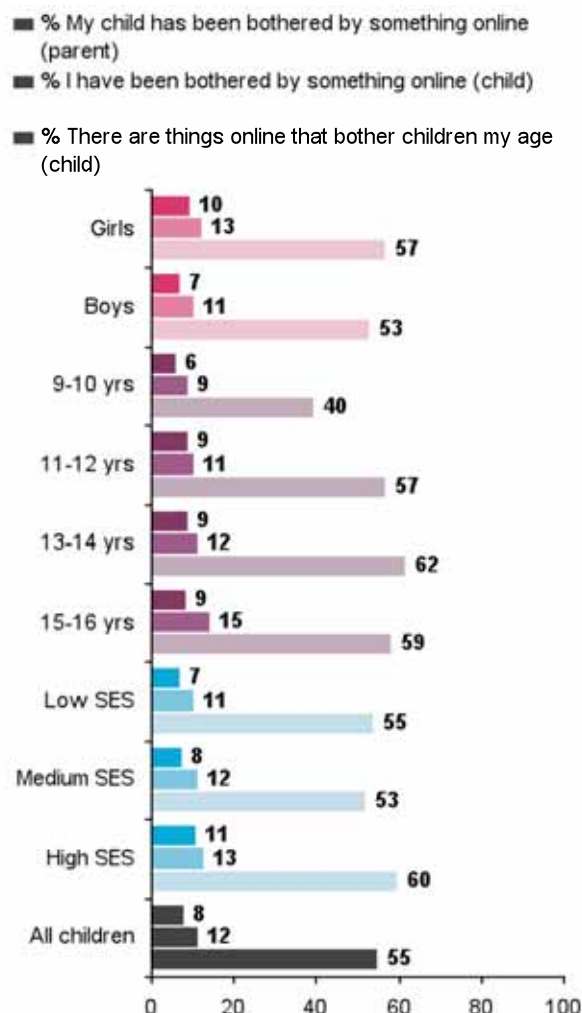
Also parents were asked:

- *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’,⁵² 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 slightly more for teenagers than for 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) – say 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%).

- There are some differences by SES of household, with higher SES parents reporting a greater likelihood that their child has been bothered (around 12% from high and 13% from medium SES homes compared with 7% from low SES homes).
- **The youngest children, aged 9-10 years, are least likely to have been bothered by something online (9%) compared with older children (11-15%). Parents appear most likely to underestimate problems experienced by the oldest age group.**

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 (94% and 92% respectively) to the much lower estimates from children in Slovenia (40%), Bulgaria (41%) and Turkey (42%). 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, although any relationships can be examined further.
- **Around one quarter of children in Denmark (28%), Estonia (25%) and Norway (23%), Romania (23%) and Sweden (23%) 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%) and Germany (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 and France are parents 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 90% think it true that there are lots of things on the internet that are good for children of their age (44%

"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.

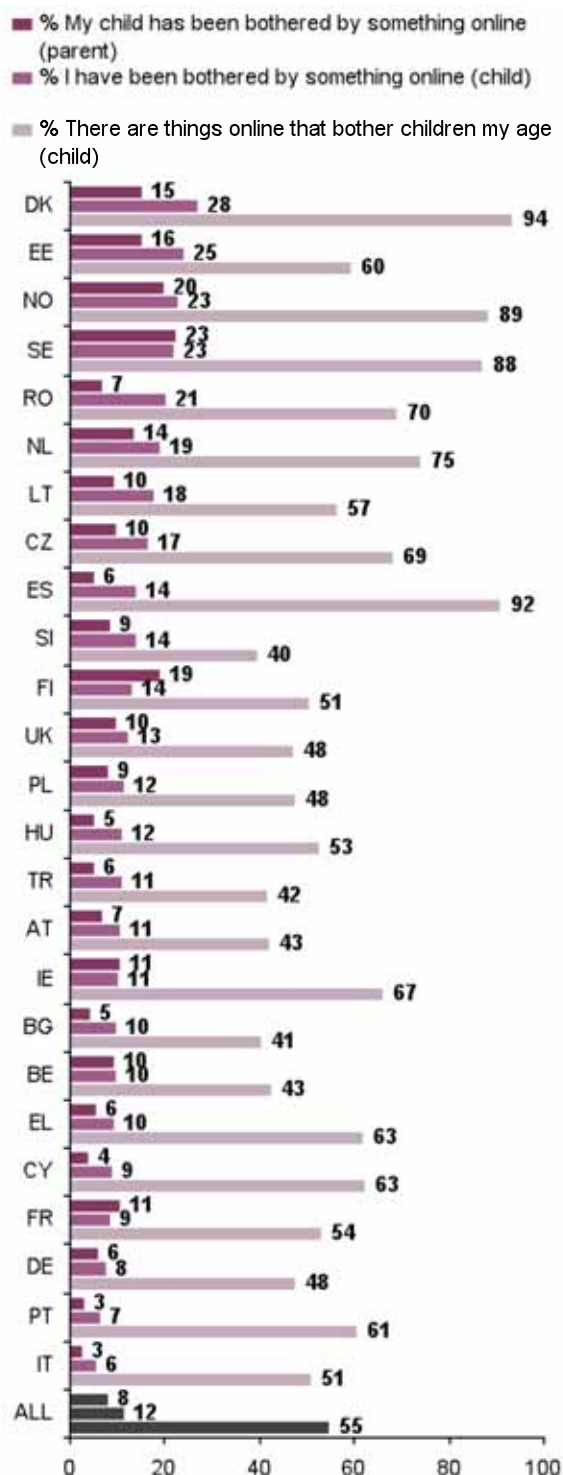
Second, although many children perceive that internet use may be risky, they do not themselves report that they have experienced harms from internet use in any great numbers. One in eight children reporting some problem is noteworthy, and may justify policy attention. But it is, nonetheless, a small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

Third, although previous research has observed a gap in perceptions between parents and children,⁵³ here the gap is relatively small, although 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, but 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



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)

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

5. SEEING SEXUAL IMAGES

5.1. 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 earlier 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.⁵⁴

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.”

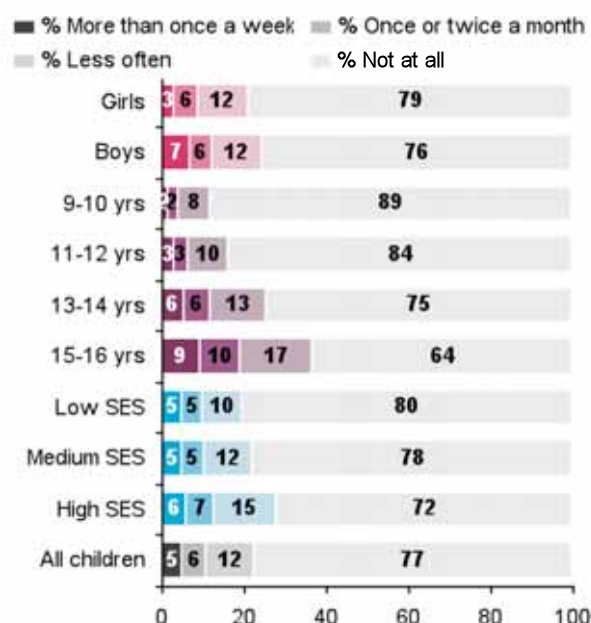
To contextualise online pornography within the wider context of exposure to pornography across any media, children were first asked, *“Have you seen anything of this kind in the past 12 months?”* Figure 31 shows that most 9-16 year olds in Europe say that they have not seen sexual images of any kind:

- 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%).⁵⁵
- Less common is seeing sexual images in magazines or books (7%) and only 3% 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	5	8	16	25	14
On television, film or video/DVD	6	8	13	21	12
In a magazine or book	3	5	7	11	7
By text (SMS), images (MMS), or otherwise on my mobile phone	1	1	3	6	3
By Bluetooth	0	0	1	2	1
Has seen at all, online or offline	11	16	25	36	23

QC128: Have you seen anything of this kind [obviously sexual] in the past 12 months? 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 (24% 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	7	6	24	17	14
On television, film or video/DVD	8	6	18	16	12
In a magazine or book	4	3	10	9	7
By text (SMS), images (MMS), or otherwise on my mobile phone	1	1	5	4	3
By Bluetooth	0	0	2	1	1
Has seen at all, online or offline	15	13	33	28	23

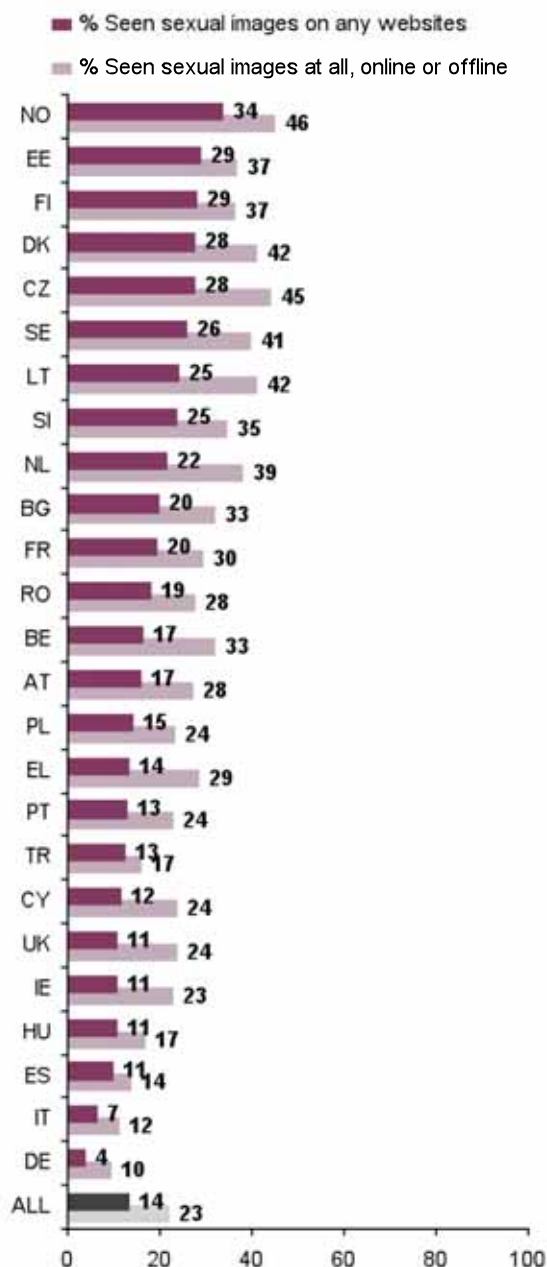
QC128: Have you seen anything of this kind [obviously sexual] in the past 12 months? QC130a-f: In which, if any, of these places have you seen [images, photos, videos that are obviously sexual] in the past 12 months? QC131: Have you seen [images, photos, videos that are obviously sexual] on any websites 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 European countries (Norway, Denmark, Sweden, the Netherlands, Finland) and Eastern European countries (the Czech Republic, Lithuania, Estonia and Slovenia), 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 – possibly countries where technical safety infrastructure is more developed than it is in newer entrant countries.

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.

The overall reported exposure to sexual images in this survey is somewhat lower than found in other surveys, although 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.⁵⁶ 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 nine 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 eight has seen it).

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 – in countries where more children have seen sexual images in general (especially, on television, film or video/DVD), it seems that children in those countries are also more likely 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). This suggests 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 and Spain). National studies are needed to provide an explanation of these differences.

5.2. 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 [my friend] 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	12	7
On a video-hosting site	2	2	4	9	5
On an adult/X-rated website	1	2	4	8	4
On a social networking site	1	2	3	7	3
Some other type of website	1	2	3	5	3
In a gaming website	1	2	2	4	2
On a peer to peer file-sharing website	0	1	2	3	2
Seen sexual images online	5	8	16	25	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 – 11% of all children aged 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 2% of children. Still, one in six 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	5	11	17	11
Images or video of someone having sex	n/a	3	8	13	8
Images or video of someone's 'private parts'	n/a	3	7	12	8
Images or video or movies that show sex in a violent way	n/a	1	2	3	2
Something else	n/a	1	1	3	2
Seen sexual images online	n.a	8	16	25	14

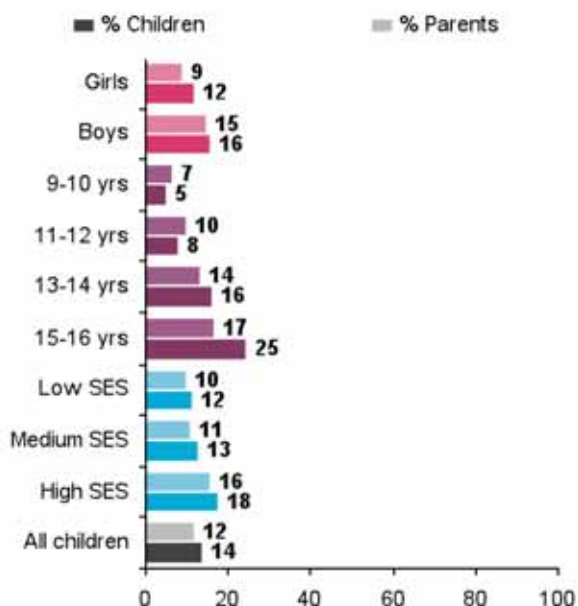
QC131: Have you seen these kinds of things on any websites in the past 12 months? QC133: Which, if any, of these things have you seen on a website in the last 12 months? (Multiple responses allowed)

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

5.3. Children's and parents' accounts compared

Previous research raised questions about how much parents really know about their children's experiences online, finding that parents significantly underestimate the risk reported by children.⁵⁷ Figure 33 compares overall reporting by children and parents of the child's exposure to sexual images online.

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



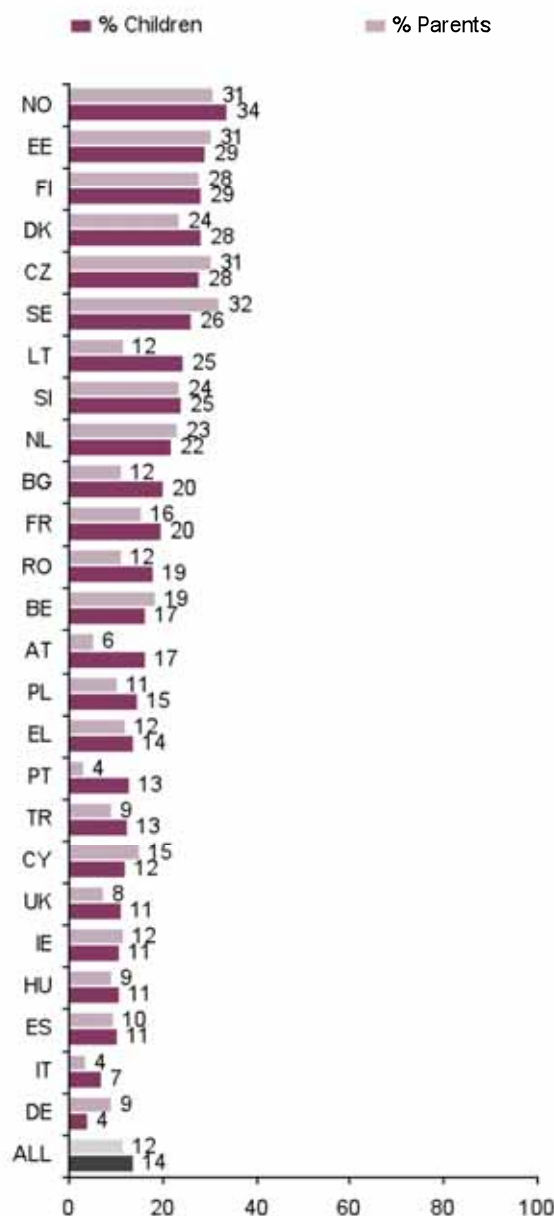
QP235: [Has your child] seen images on the internet that are obviously sexual - for example, showing people naked or people having sex. QC131: Have you seen these kinds of things on any websites in the past 12 months?

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

- Parents and children give similar answers regarding the child's exposure to sexual images online. It seems that there has been a reduction in the generation gap noted in previous research. Possibly, recent improvements in filter and spam controls have reduced children's accidental or unwanted exposure.
- However, 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).**

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, Austria, Portugal, Bulgaria and Romania. 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, Germany, Cyprus and the Czech Republic. This could be for a number of reasons ranging from parental anxiety to less concern about sexual images in these countries, although 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	40	68
Don't know	26	17
	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?

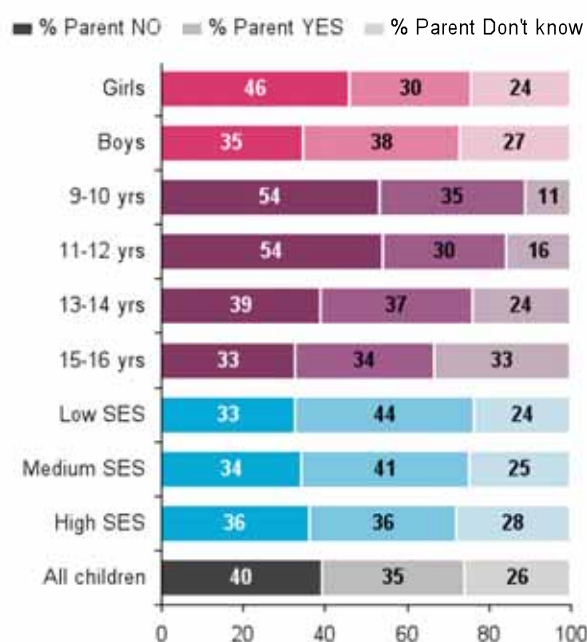
Base: All children who use the internet and one of their parents.

- Among just those children who have seen sexual images online, one in three (35%) of their parents agree this has occurred. One in four (26%) of their parents say that they don't know and, significantly, 40% say their child has not seen sexual images on the internet.
- Among children who have not seen sexual images online, most (68%) parents say the same, although 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.
- There is little difference by SES.

Figure 35: Parents' accounts of whether child has seen sexual images online (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.

Note: 95% confidence intervals for some of the breaks among 9-10 year olds are fairly high at +/- 5-10%.

“Young people in my age can be bothered by announcements of the internet paedophiles and large quantities of pornography.”

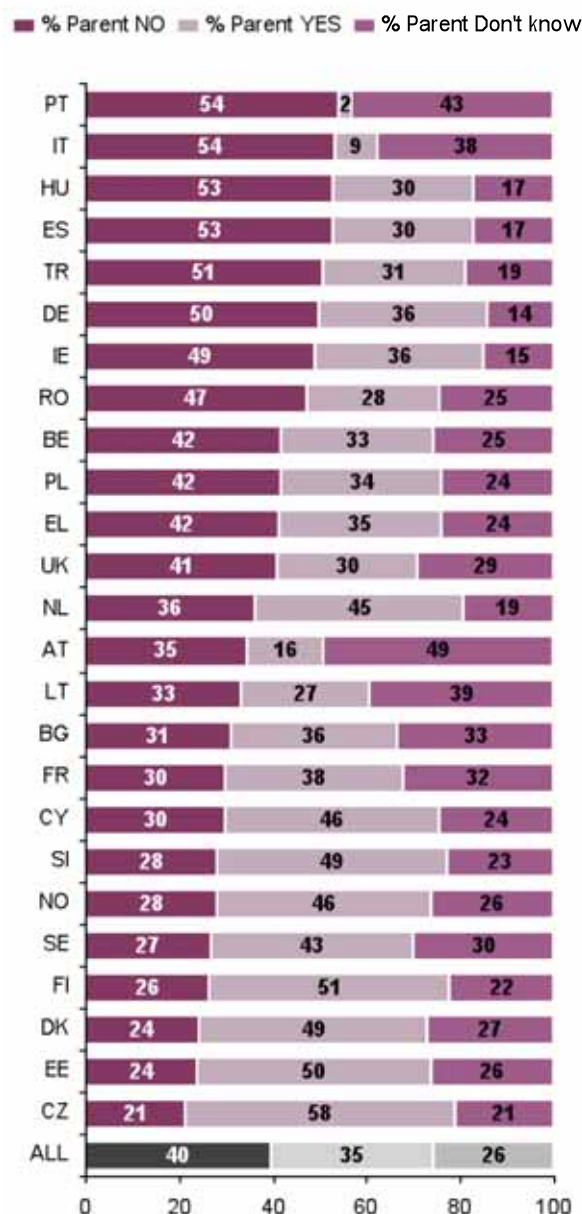
(Boy, 16, Estonia)

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, Hungary and Spain 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, Estonia and Denmark.
- ‘Don't know’ responses among parents differ very substantially, with least knowledge (high number of ‘Don't know’ answers) of children's experience of sexual or pornographic content claimed by parents in Austria, Portugal and Lithuania, and most knowledge claimed in Germany and Ireland (lower numbers of ‘Don't know’ answers).

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

Figure 36: Parents' accounts of whether child has seen sexual images online, by country (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.

Note: The 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) or very high (+/- 10%) and some cell sizes are below 15 respondents. So the numbers for individual countries should be considered as indicative only.

5.4. Perceived harm from 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.⁵⁸

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 seven (14%) of Europe's 9-16 year olds have encountered sexual images online, one in three of those who have seen it (4% of all children) were 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 (20%) had been exposed to sexual images online but fewer than one in five of those children (17%) were bothered by what they saw. By contrast, only around one in nine Irish children (11%) have seen sexual images online, but nearly four in ten (38%) 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

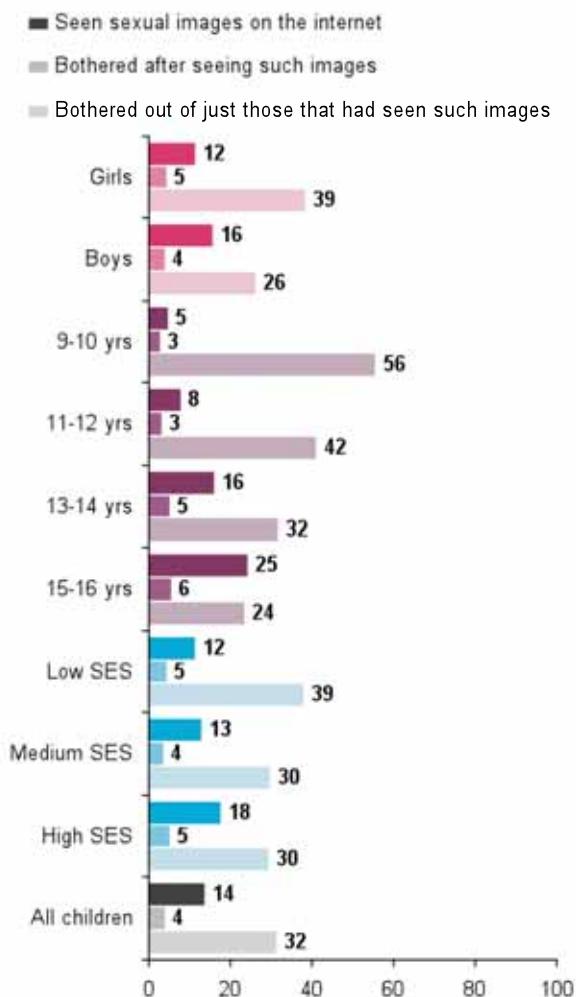
%	All children who use the internet		Child bothered, of those who have seen sexual images online
	Child has seen sexual images online	Child bothered by seeing sexual images online	
AT	17	5	30
BE	17	5	30
BG	20	4	17
CY	12	3	26
CZ	28	6	23
DE	4	2	35
DK	28	8	28
EE	29	14	49
EL	14	2	15
ES	11	3	32
FI	29	6	20
FR	20	6	32
HU	11	3	30
IE	11	4	38
IT	7	2	26
LT	25	6	23
NL	22	5	23
NO	34	9	23
PL	15	5	33
PT	13	3	23
RO	19	8	44
SE	26	7	26
SI	25	4	15
TR	13	6	49
UK	11	3	24
ALL	14	4	32

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.

Note: The 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) or very high (+/- 10%). So the numbers for individual countries should be considered as indicative only.

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.

Note: 95% confidence intervals for some of the breaks among 9-10 year olds are fairly high at +/- 5-10%.

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

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.

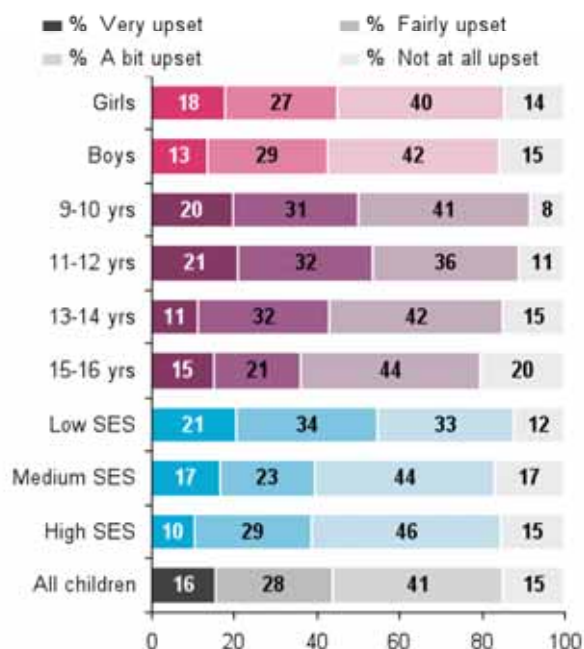
- **Girls are a little less likely to see sexual images online than boys (12% vs. 16%) but they are rather more likely to be bothered by it if they do see it (39% of those who see sexual images vs. 26% of boys).**
- **A similar situation holds for age. Thus 15-16 year olds are by far the most likely to see online sexual images (25%), followed by 16% of 13-14 year olds, 8% of 11-12 year olds and just 5% of 9-10 year olds. But, for those who are bothered by what they saw, the picture is reversed: 56% of those 9-10 year olds who have seen online sexual images were bothered by what they saw, as were 42% of 11-12 year olds. The percentages are lower for teenagers – 32% of 13-14 year olds and 24% of 15-16 year olds.**
- **To keep this in perspective, it means that overall, 3% of 9-10 year olds, rising to 6% 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 (four in ten).

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.⁵⁹

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 (children who have been bothered by sexual images online in past 12 months)



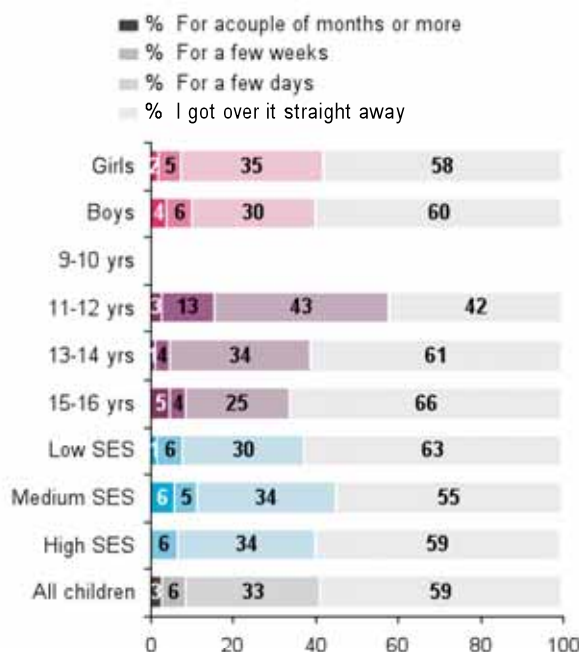
QC135: Thinking about the last time you were bothered by [seeing sexual images online], how upset did you feel about it (if at all)?

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

Note: 95% confidence intervals for some of the breaks among 9-10 year olds are fairly high at +/- 5-10%.

- Among those who have been bothered by sexual images online, almost half were either fairly (28%) or very (16%) upset at what they saw. The remainder were a bit upset (41%) or, despite having said they were bothered in some way, not at all upset (15%).
- Overall there is no significant difference between boys and girls when it comes to how upset they are by the sexual images seen online.
- Younger children aged 9-12 (around 20%), are more likely to be 'very upset' than other groups, as are children from lower SES homes (21%).
- 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 (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.

Note: Some cell sizes are below 15 respondents.

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 (59%) 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.
- 43% of 11-12 year olds, compared with 34% of 13-14 year olds and only 25% of 15-16 year olds, said they felt bothered or upset for a few days.
- 13% of 11-12 year olds said they felt like that a few weeks later and 3% 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.

5.5. Coping with 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,⁶⁰ 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) or 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	26
Try to fix the problem	22
Feel a bit guilty about what went wrong	9
None of these things	44

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

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

- One quarter (26%) of those who had been bothered by sexual images online took what might be called a 'passive' approach, hoping the problem would go away; 22% took a more proactive approach, trying to fix the problem.
- A minority felt a bit guilty (9%) 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 (33%), but one in four (25%) confided in a parent. Children's preference for telling a friend suggests the value of peer-mentoring schemes. Increasing the proportion that 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, 5% another trusted adult, 3% 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 seeing sexual images online (children who have been bothered by such images)

%	All
Talked to anybody at all	53
A friend	34
My mother or father	26
My brother or sister	9
Another adult I trust	5
A teacher	3
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. Note: Cell sizes showing less than 3% are below 15 respondents.

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 coping responses actually improve the situation, notwithstanding the claims made for them. By asking 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).

- **The most common response is to delete messages from whoever sent these images (26%), 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 (25%).**

Unsurprisingly, this helped in most cases, although at a cost of online opportunities.

Table 17: What the child did after seeing sexual images online (children who have been bothered by such images)

%	Did this	Did this and it helped
I deleted any messages from the person who sent it to me	26	19
I stopped using the internet for a while	25	18
I blocked the person who had sent it to me	23	15
I changed my filter/ contact settings	19	12
I reported the problem (e.g. clicked on a 'report abuse' button, contact an internet advisor or 'internet service provider (ISP)')	15	13
None of these	15	9
Don't know	31	25

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.

- About a quarter of children blocked those who had sent sexual or pornographic messages to them (23%) or changed filter or contact setting (19%). Neither appears so helpful but still they helped in most 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.

6. BULLYING

6.1. How often children are bullied

In terms of the classification of risks presented earlier 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:⁶¹

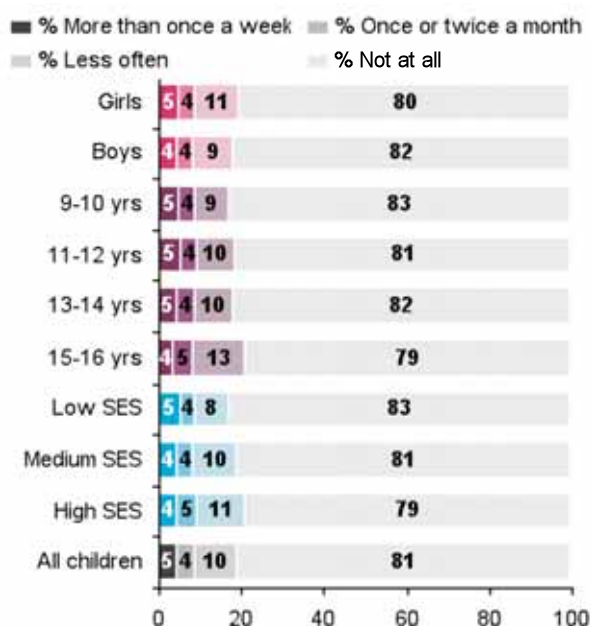
*"Sometimes children or teenagers say or do hurtful or nasty things to someone and this can often be quite a few times on different days over a period of time, for example. This can include: teasing someone in a way this person does not like; hitting, kicking or pushing someone around; leaving someone out of things."*⁶²

The interviewer explained then to the child that 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*.

- **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.

6.2. 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	13	13	12	15	13
On the internet	3	5	6	8	6
By mobile phone calls, texts or image/video texts	1	2	3	6	3
Has been bullied at all, online or offline	17	19	18	21	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.

- **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 6% 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, although it still affects only a small minority. One in 13 of the 15-16 year olds report 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.

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	13	12	13	14	13
On the internet	4	4	6	9	6
By mobile phone calls, texts or image/video texts	2	2	4	6	3
Has been bullied at all, online or offline	18	18	18	21	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.

Country differences are noteworthy (see Figure 41).

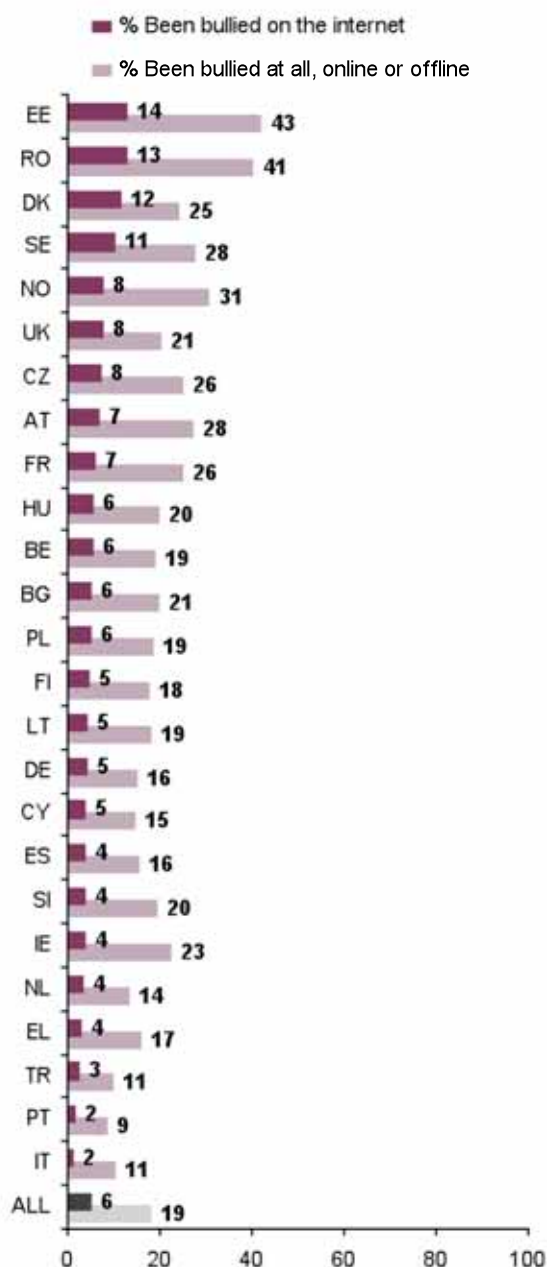
- In Romania and Estonia more than four in ten children report having been bullied, twice the average across all countries, and online bullying in these countries is more than twice the average at one in seven children who use the internet.
- Bullying is lowest in several Southern European countries (Portugal, Italy, Turkey and Greece) and the Netherlands.

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

“Insults that lower our self-esteem and affect us psychologically.”

(Girl, 15, Portugal)

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.

6.3. 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 been bullied online are more likely to have been bullied on a social networking site or by instant messaging than by email, in gaming sites or chatrooms, probably because these are less used applications.

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	2	3	5	3
By instant messaging	1	2	3	4	3
By email	0	1	1	1	1
In a gaming website	0	1	0	0	1
In a chatroom	0	0	1	2	1
Some other way on the internet	0	1	0	0	0
At all on the internet	3	5	6	8	6

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	3	3	6	4
Nasty or hurtful messages about me were passed around or posted where others could see	n/a	1	1	3	2
Other nasty or hurtful things on the internet	n/a	1	1	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	0	1	1	1
Something else	n/a	1	1	1	1
At all on the internet	3	5	6	8	6

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.

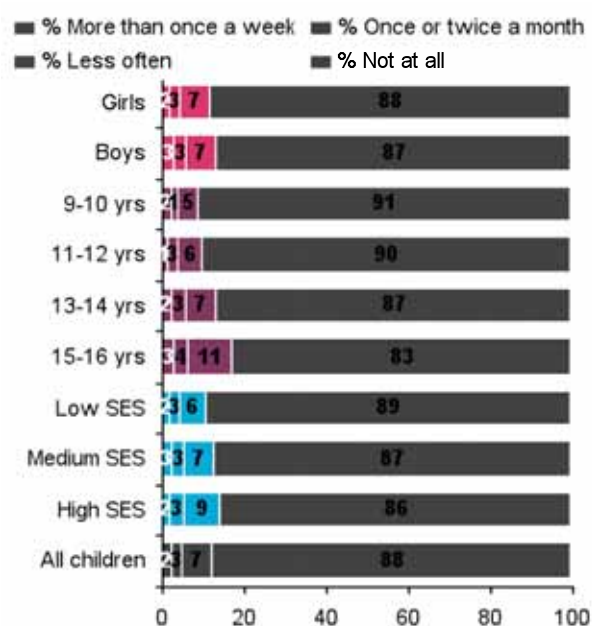
- **Being the target of nasty or hurtful messages is the most common form of online bullying (4% of all 11-16 year olds). Having such messages passed around the peer group or posted where others can see is less common (2%). And only 1% has been threatened online.**
- Although being bullied online is 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)

6.4. 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.⁶³

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 a little more common among older teenagers.
- 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 image/video texts.**
- 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	8	8	11	15	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	13	16	12

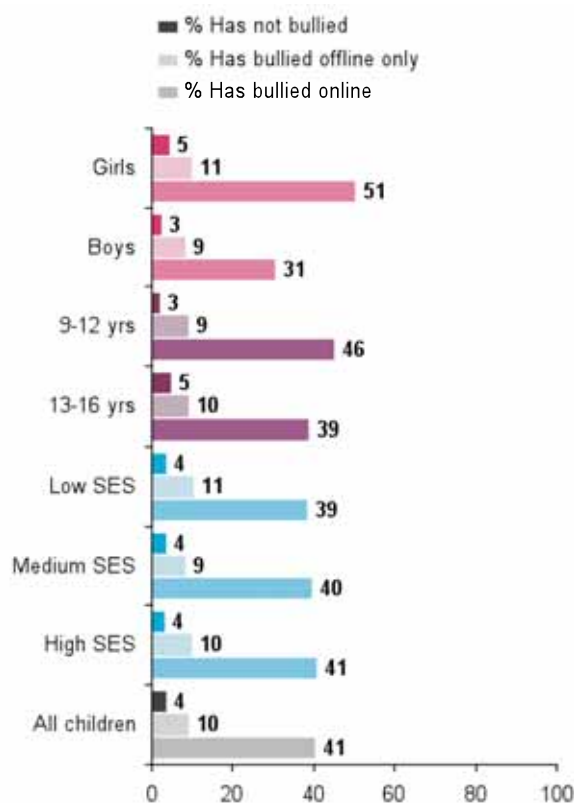
QC125: Have you acted in a way that might have felt hurtful or nasty to someone else in the past 12 months? QC127: In which of the following ways have you [acted in a way that might have felt hurtful or nasty to someone else] in the past 12 months? (Multiple responses allowed)

Base: All children who use the internet.

Overall, being bullied occurs more often face-to-face (13% of 9-16 year olds) than online (6%). 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 being bullied offline may increasingly also include being bullied online (and via mobile phone – see Table 19), a point that requires further research. From Table 22, it seems the same may apply in cases where a child bullies others.

Overall, 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%). Does being bullied make some children retaliate by bullying others? Although a thorough analysis of this question remains, Figure 43 asks whether children have been bullied online, for three separate groups – those who have not bullied others at all, those who have bullied others offline (only), and those who have bullied others online (either online only or online and offline).

Figure 43: Children who have been bullied online, out of those who have bullied others online, offline only or not at all



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: Of all children who use the internet: only children who have not bullied at all, have bullied face-to-face and not online, have bullied online (and possibly face-to-face).

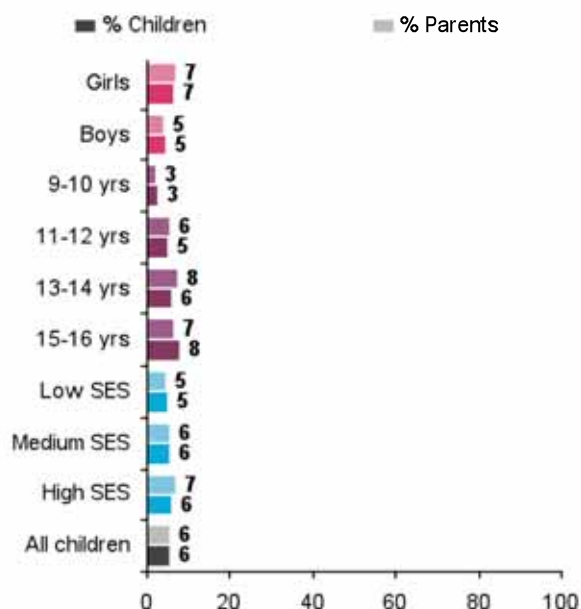
Note: 95% confidence intervals for some of the socio-demographic breaks are fairly high at +/- 5-10%.

- The findings are striking. Among those who have not bullied others, just 4% have been bullied online. Among those who have bullied others offline only, 10% have themselves been bullied online.
- However, among those who have bullied others online, 41% have themselves been bullied online. It appears, therefore, that online bullying may be, in some cases, a two-way phenomenon – in which children both bully and are bullied by others. This is particularly noticeable among girls.

6.5. Children's and parents' accounts compared

In previous projects that compared data from children and their parents, it has been the gap between their accounts that is most striking.⁶⁴ That gap appears to be reducing, as we already saw in the section on sexual images (Section 5).

Figure 44: 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.

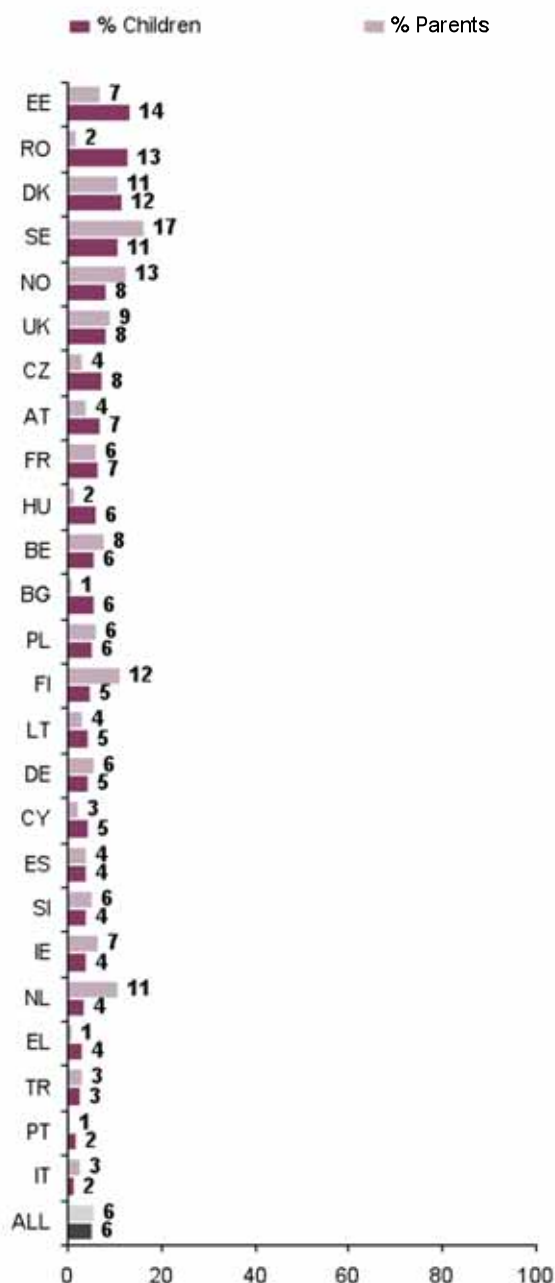
- **Overall, 6% of children and 6% of parents report that the child has been bullied on the internet** (Figure 44).
- Slightly more girls than boys (7% vs. 5%), and slightly more older teenagers (7% of 15-16 year olds) than younger children (3% of 9-10 year olds) say they have been bullied.
- There is 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 45).

- **Overall child/parent agreement is a little lower in the Netherlands, Finland, Sweden and Norway. 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, Bulgaria, the Czech Republic and Hungary, children are more likely to say they have been bullied online than are parents.** This suggests the value of greater parent-child communication in those countries.

Figure 45: 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, focusing 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	29	8
No	56	83
Don't know	15	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.

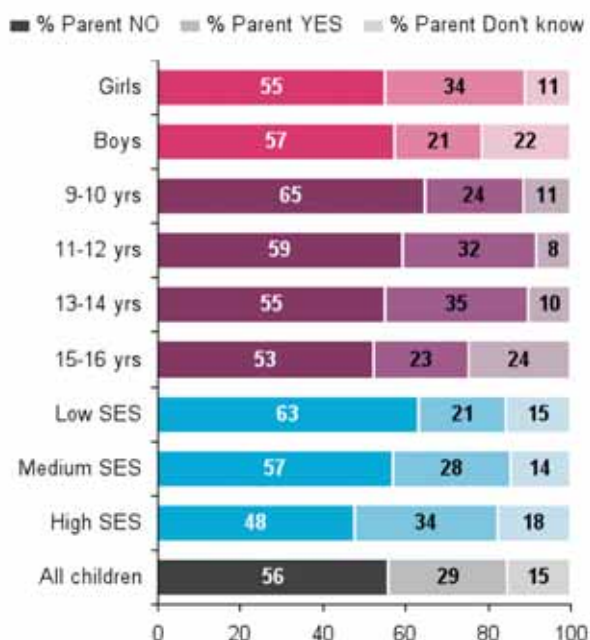
- Among children who say “yes, I have been sent nasty or hurtful messages on the internet”, one third (29%) of their parents also say that their child has been bullied online. But in over half of these cases (56%), parents say that their child has not been bullied, and in a further 15% of cases, the parent doesn't know (Table 23).
- By contrast, in those cases (of which there are many more) in which the child says they have not been bullied, only 8% of the parents think they have been bullied.

Arguably the greatest concern regarding parents' versus children's accounts is whether the parent is aware of bullying in those cases in which the child says they have been bullied. Figure 46 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 46: Parents' accounts of whether child has been bullied online (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?

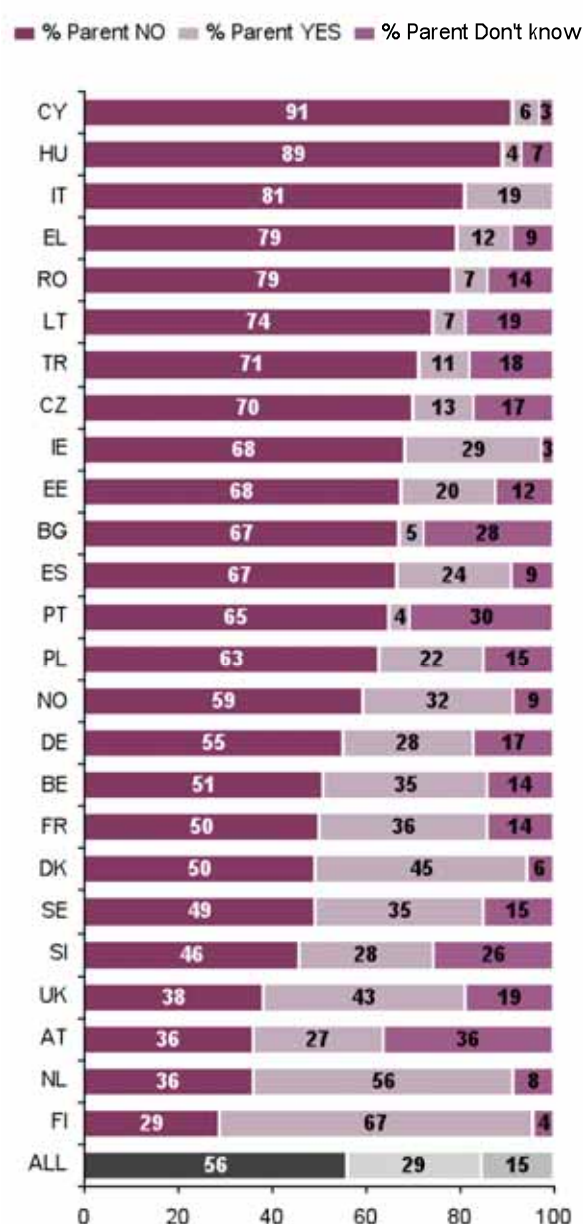
Base: One parent of children who use the internet and who have been sent nasty or hurtful messages online.

Note: 95% confidence intervals for some of the breaks among 9-12 year olds and low SES are fairly high at +/- 5-10%.

- As noted above, among the 3% of European children who report having been bullied on the internet, parents are aware of this in one third (29%) 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 their 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.

Country differences for the same analysis, shown in Figure 47, reveal some striking differences.

Figure 47: Parents' accounts of whether child has been bullied online, by country (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.

Note: The 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) or very high (+/- 10%) and some cell sizes are below 15 respondents. So the numbers for individual countries should be considered as indicative only.

- 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 and the Netherlands) and Austria 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 Cyprus, Hungary, Italy, Greece and Romania.**
- Also interesting is that in Austria and Portugal, roughly 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. But there might be other explanations for these differences – as will be explored in future *EU Kids Online* reports.

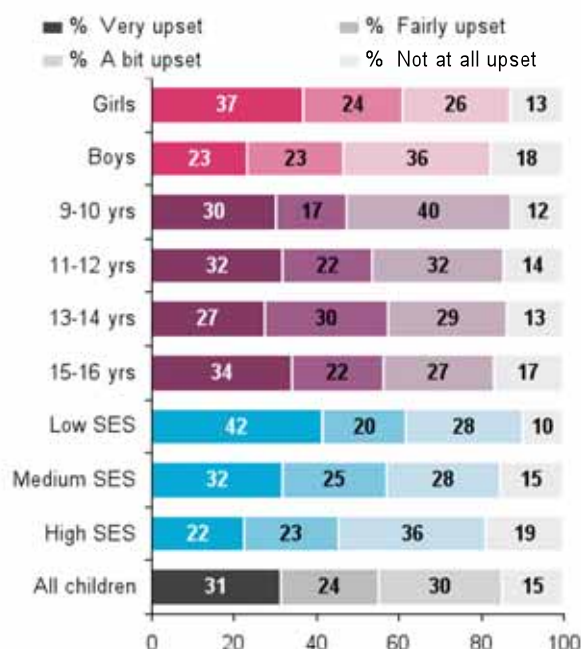
6.6. Perceived harm from being bullied online

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 48 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 48: How upset the child felt after being bullied online (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.

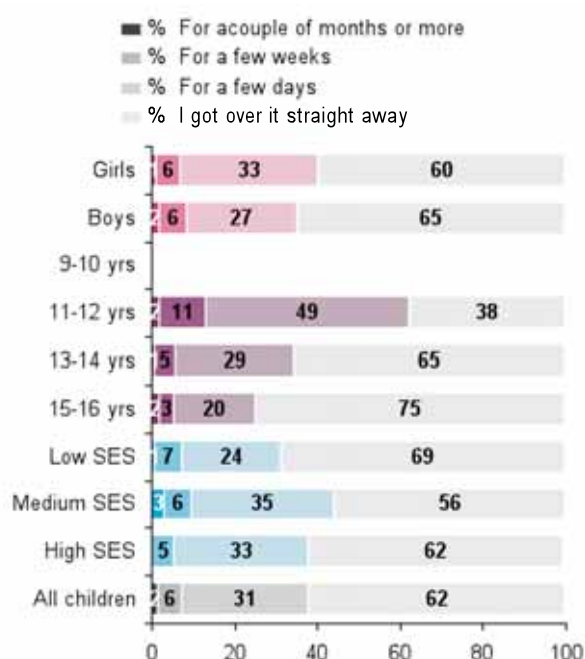
Note: 95% confidence intervals for some of the breaks among 9-12 year olds and low SES are fairly high at +/- 5-10%.

- **The 6% of children who have been bullied online divide fairly evenly into those who were very upset (31%), fairly upset (24%), a bit upset (30%) and, the smallest category, not at all upset (15%).**
- **It appears that children from lower SES homes are considerably more upset – nearly half of them (42%) compared with other groups.**
- **Girls (37%) are more likely to be 'very upset' compared with boys (23%).**

Thus it appears that although rather few children are bullied online, when this does happen it 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 49)

Figure 49: For how long the child felt like that after being bullied online (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.

Note: 95% confidence intervals for some of the breaks among 11-12 year olds are fairly high at +/- 5-10% and some cell sizes are below 15 respondents.

- 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 same 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.

6.7. Coping with being bullied online

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 – 36% tried to fix the problem themselves (Table 24).
- The next most common response was perhaps fatalistic – about one quarter (24%) 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 eight (12%) 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
Try to fix the problem	36
Hope the problem would go away by itself	24
Feel a bit guilty about what went wrong	12
None of these things	16

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

Base: Children aged 11-16 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. 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 (Table 25).

- Four in five (77%) children aged 9-16 who had been bullied online talked to someone about it. A common source of social support is the child's friend(s) – 52% talked to a friend about what had happened.
- However, telling a parent is also common – 42% told their mother or father, a higher percentage than in much previous research, and this may explain the considerable child/parent agreement regarding the child's online experiences observed in this report.

- Although other sources of social support are less commonly turned to, one in six talked to a sibling (13%), one in twelve talked to another adult (8%) they trust, and 7% told a teacher.

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

%	All
Anybody at all	77
A friend	52
My mother or father	42
My brother or sister	14
Another adult I trust	9
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 specific to the internet, and these were put to those children who had been bullied online to see how they responded the last time this occurred (Table 26).

- The most common actions taken when being bullied online are to block the person who sent the nasty or hurtful messages (46%) or to delete the nasty or hurtful messages (41%).**
- One fifth (20%) 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 about one in ten (9%) reported the problem to someone (their internet service provider, advisor, or similar) who provides an online support system.**
- As may be seen, in the 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 also effective, helping in over two thirds of cases.

Table 26: What the child did after being bullied online

%	Did this	Did this and it helped
I blocked the person who had sent it to me	46	35
I deleted any messages from the person who sent it to me	41	23
I stopped using the internet for a while	20	13
I changed my filter/ contact settings	18	12
I reported the problem (e.g. clicked on a 'report abuse' button, contact an internet advisor or 'internet service provider (ISP)')	9	5
None of these	13	16
Don't know	16	16

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.

Children's approach to being bullied online is primarily to call on social support: only one fifth had not told anyone. This is encouraging for the success of peer mentoring processes, employed in some countries to tackle online and offline bullying.⁶⁵ 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 use online strategies – deleting hurtful messages or blocking the bully. This last – blocking the person who sent the hurtful messages – is seen by children as effective, and efforts to encourage more children to do this would be beneficial.

Since most children say that, even when bullied online and upset by what happened, they got over it quickly, one might conclude that the bullying is generally minor or, possibly, that children's coping strategies are effective.

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 they may not be aware of but which can be significant for those affected.

7. SENDING/RECEIVING SEXUAL MESSAGES

7.1. Children's experience of 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.⁶⁶

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 Section 5 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 Section 6 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."

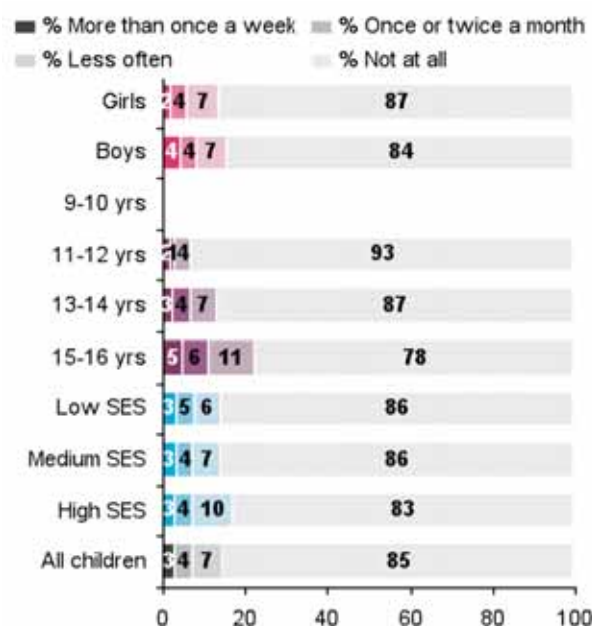
Figure 50 shows the survey findings for seeing/receiving sexual messages on the internet.

- When the decimal points are rounded up, **15% of European children aged 11-16 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, 14% of 13-14 year olds, and 22% of 15-16 year**

olds have 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 5% of 15-16 year olds.

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



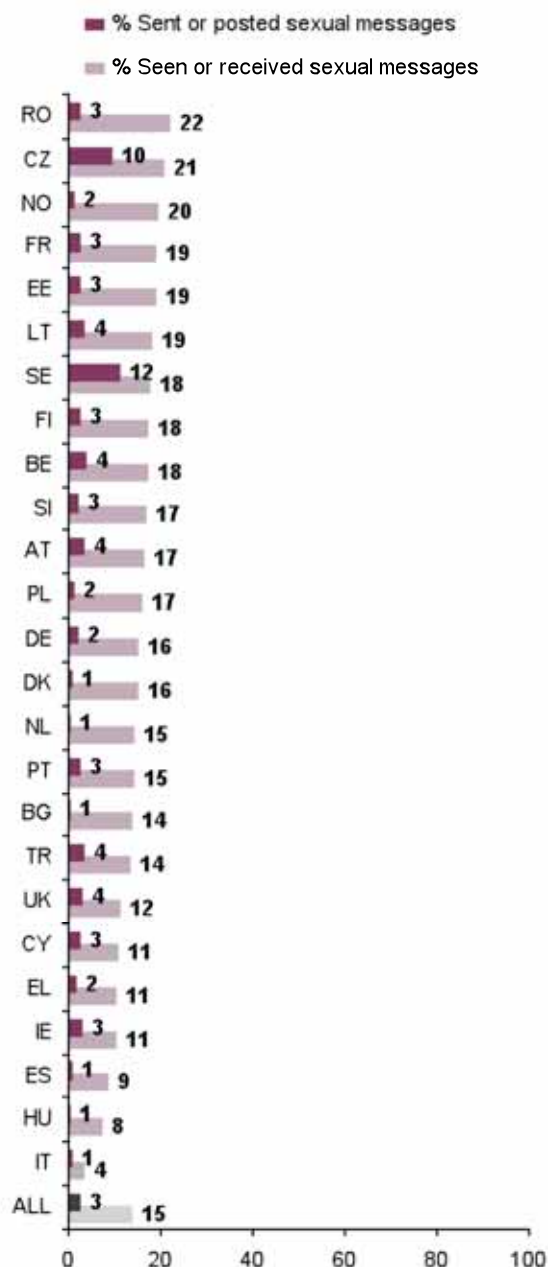
QC167: In the past 12 months have you seen or received sexual messages of any kind on the internet? QC168: How often have you received sexual messages of any kind on the internet in the past 12 months? This could be words, pictures or videos.

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

Countries vary in the practice of sexual messaging. Figure 51 includes the finding for posting or sending sexual messages, as well as seeing or receiving such messages.

- Overall, seeing/receiving is more common (although still a minority practice at 15%) than is posting/sending. Only a 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.

Figure 51: 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.

- 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 and Estonia) and France, and least common in Italy, Hungary and Ireland. Interpreting the pattern of incidence by country is 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%. Sweden and the Czech Republic stand out in this respect, however, with more children (12% and 10% 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)

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	5	11	7
I have seen a sexual message posted where other people could see it on the internet	n/a	2	5	9	6
I have seen other people perform sexual acts	n/a	2	5	8	5
I have been asked to talk about sexual acts with someone on the internet	n/a	1	2	3	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	13	22	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 is reported by over one in ten of the 15-16 year olds.**
- Seeing a sexual message posted where others could see it is 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) say they have seen other people perform sexual acts on the internet, while 2% have 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	7	4
On a social networking site	n/a	1	3	6	4
Some other way on the internet	n/a	1	3	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	1	1	1
Has seen or received at all	n/a	7	13	22	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?

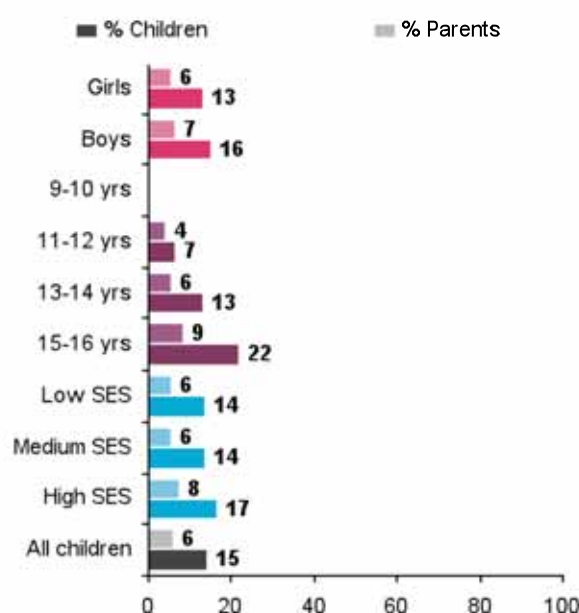
Base: All children aged 11-16 who use the internet.

- Receiving sexual messages in a pop up is most common (5%).
- Receiving them by instant messaging or on a social networking site are 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.

7.2. Children's and parents' accounts compared

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

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



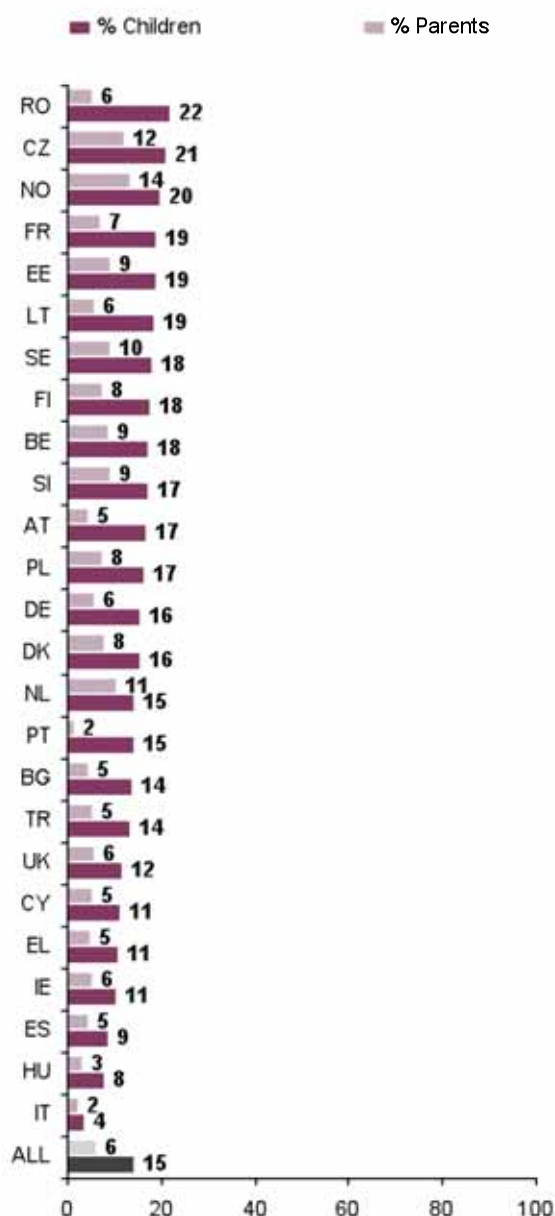
QP235: [Has your child] seen or been sent sexual messages on the internet? QC167: In the past 12 months have you seen or received sexual messages of any kind on the internet? This could be words, pictures or videos?

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 52 shows that:

- Assuming children are telling the truth, parents slightly underestimate the amount of sexual messaging experienced (6% 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 53: 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 53 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 22% in Romania to 4% in Italy, with an average of 15% overall.
- Parents underestimate sexual messaging compared to their children in all countries.**
- The degree of underestimation varies by country – 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 21% of their parents are aware of this. Over half (52%) of their parents say they have not experienced this – a considerable underestimation, and 27% 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 4% of parents estimate that this has occurred when it has not. The majority of parents (84%) 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	21	4
No	52	84
Don't know	27	12
	100	100

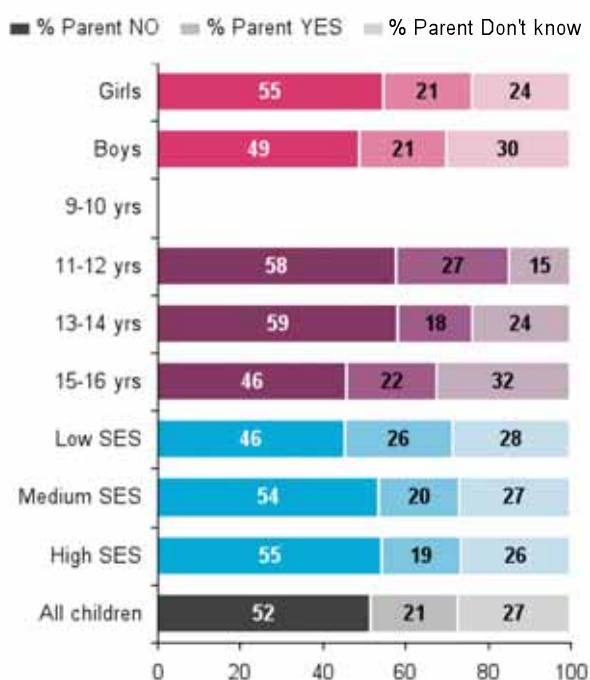
QP235: [Has your child] seen or been sent sexual messages on the internet? QC167: In the past 12 months have you seen or received sexual messages of any kind on the internet? This could be words, pictures or videos?

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.

This finding is examined by demographic factors in Figure 54. Here the answers of parents are shown, just for parents of those 15% of children who have seen or been sent sexual messages on the internet.

Figure 54: Parents' accounts of whether child has seen or received sexual messages online (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.

Note: 95% confidence intervals for some of the breaks among 11-12 year olds are fairly high at +/- 5-10%.

- As noted above, among children who have seen or received sexual messages, one fifth (21%) of their parents recognises this but half (52%) do not. Parents' views differ little depending on whether their child is a son or daughter, although they are a little more uncertain regarding sons. However, middle and

higher SES parents are less likely to recognise that their child has had this experience.

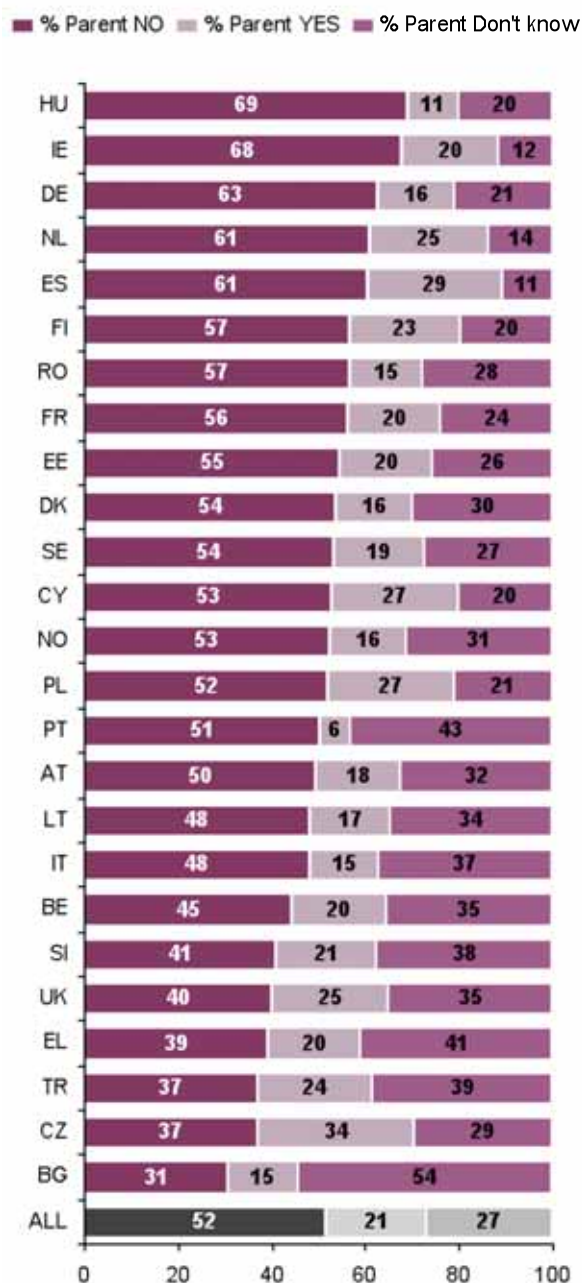
- Age also matters. Parents of 11-12 year olds are more likely both to recognise (27%) and not to recognise (58%) that their child has seen or been sent sexual messages online.
- This is possible because the parents of 15-16 year olds are particularly likely to say they just don't know – 32%.

These findings are broken down by country in Figure 55.

- As before, this figure shows only parents of 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 Hungary (69%), Ireland (68%) and Germany (63%), parents are least likely to recognise their child's experience of sexual messaging, contrasting with Bulgaria (31%), the Czech Republic (37%) and Turkey (37%).
- 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 (34%) and Spain (29%) and the least in Portugal (6%) and Hungary (11%).
- Parents who don't know how to answer this question are also variably distributed across Europe, with many parents in Bulgaria (54%) and Portugal (43%), saying they don't know if their child has seen or received such message.

"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)

Figure 55: Parents' accounts of whether child has seen or received sexual messages online, by country (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. Note: The 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) or very high (+/- 10%) and some cell sizes are below 15 respondents. So the numbers for individual countries should be considered as indicative only.

This examination of what parents know, in 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 higher SES 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.

7.3. Perceived harm from sexual messaging online

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. Table 30 shows national variation in being bothered by seeing or receiving sexual messages.

- Although 15% of children has seen or received a sexual message online, only 4% of children aged 11-16 have been bothered by this experience.
- Looked at differently, one quarter (25%) of the 15% who saw or 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 Turkey, Romania, Estonia, Hungary and Poland 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 is difficult to determine.

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	18	3	15
BG	14	3	18
CY	11	2	19
CZ	21	4	18
DE	16	4	27
DK	16	4	22
EE	19	7	34
EL	11	2	19
ES	9	2	24
FI	18	2	10
FR	19	4	20
HU	8	2	29
IE	11	2	18
IT	4	1	26
LT	19	3	18
NL	15	3	17
NO	20	4	19
PL	17	5	28
PT	15	3	22
RO	22	9	38
SE	18	4	21
SI	17	2	12
TR	14	6	40
UK	12	3	21
ALL	15	4	25

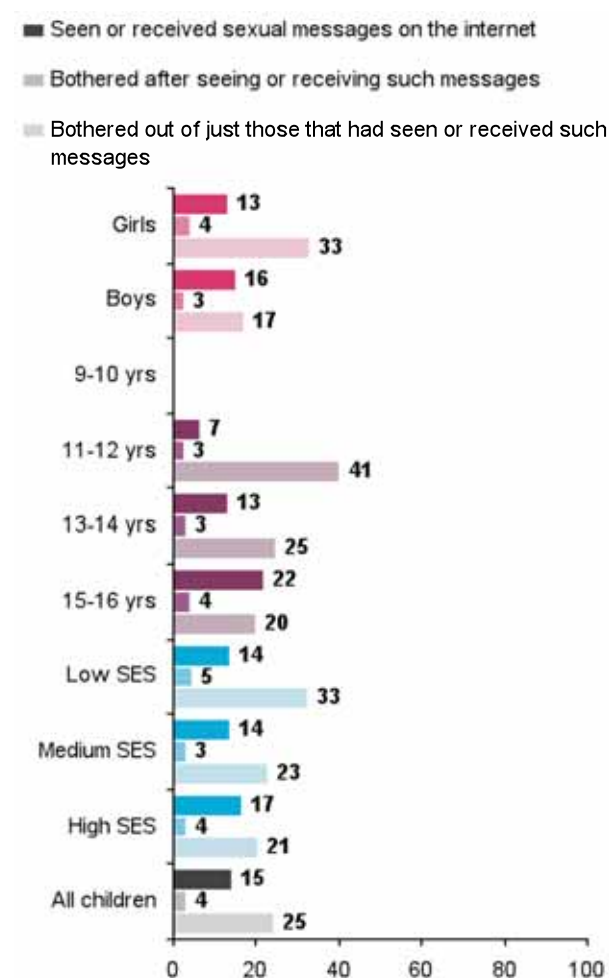
QC167: In the past 12 months have you seen or received sexual messages of any kind on the internet? This could be words, pictures or videos. QC171: Has any of the sexual messages that you have seen or received bothered you in any way? For example, made you feel uncomfortable, upset, or feel that you 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.

Note: The 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) or very high (+/- 10%) and some cell sizes are below 15 respondents. So the numbers for individual countries should be considered as indicative only.

Figure 56 shows the relation between receipt and being bothered by sexual messages, by demographics.

Figure 56: 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.

Note: 95% confidence intervals for some of the breaks among 11-12 year olds are fairly high at +/- 5-10%.

- Among those who have received sexual messages, girls are much more likely to be bothered (33%) than boys (17%).

- Similarly for age, 41% of 11-12 year olds who received sexual messages online were bothered by this experience, compared with 25% of 13-14 year olds and 20% 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 (23%) or high SES homes (21%).

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.

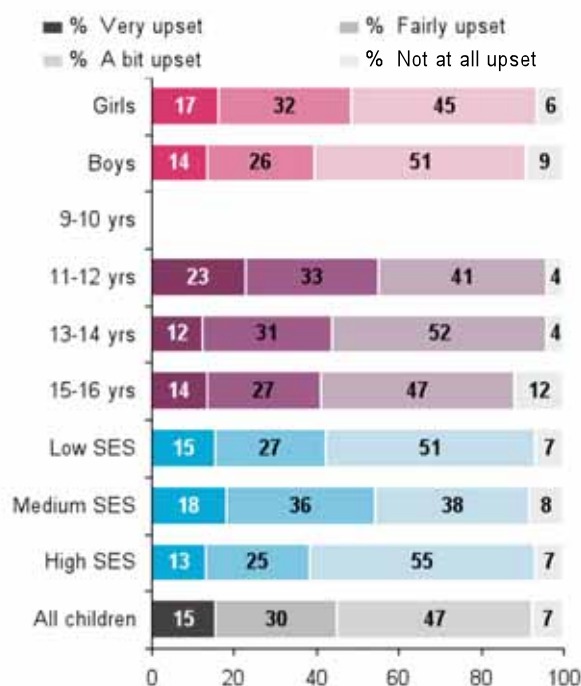
In the remainder of this section, although the sample sizes are sufficient for a breakdown by demographic variables, they are too small for further cross-country analyses.

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 57, and duration (show long did they feel like this; see Figure 58). Figure 57 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 (49% vs. 40% of boys who are very or fairly upset).
- Younger children (here 11-12 year olds) are more inclined to have a stronger negative reaction (56% are very or fairly upset).
- Children from medium SES homes are slightly more inclined to be upset.

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

Figure 57: How upset the child felt after seeing or receiving sexual messages (children aged 11+ who have been bothered by sexual messages online)



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.

Note: 95% confidence intervals for some of the socio-demographic breaks are fairly high at +/- 5-10% and some cell sizes are below 15 respondents.

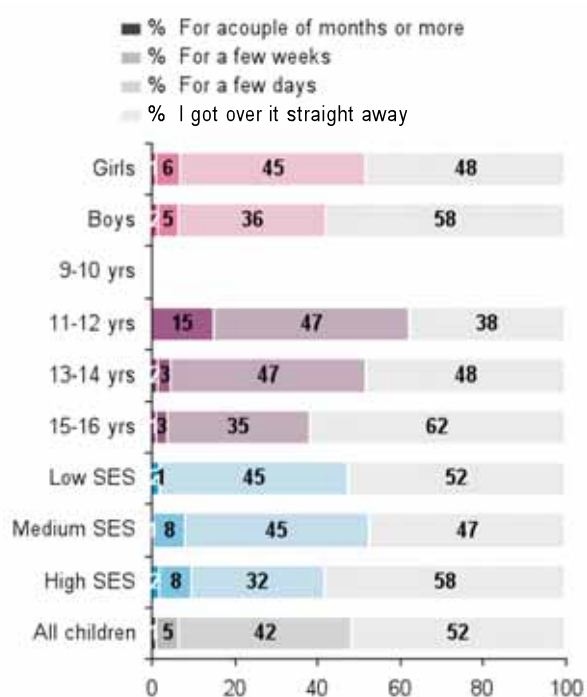
Figure 58 shows findings for children's perception of the duration of harm, again calculated only for those who have been bothered by the experience of seeing or receiving sexual messages.

- **1% claim a long-term response, with children upset for at least some months. More say they are upset for some weeks (5%). But for the majority, the reaction seems short-lived: nearly a half (52%) said they got over it straight away.**
- For girls, the negative experience lasts slightly longer than boys who are slightly more likely than girls to say they got over it straight away (58% vs. 48%).
- The younger children answering this question, 11-12 year olds, are more likely to say that they are upset

for some weeks (15%), 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.

Figure 58: For how long the child felt like that after seeing or receiving sexual messages online (children aged 11+ who have been bothered by sexual messages online)



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.

Note: 95% confidence intervals for some of the socio-demographic breaks are fairly high at +/- 5-10% and some cell sizes are below 15 respondents.

In sum, a quarter of those who have received sexual messages were bothered by this experience – and nearly half of those (i.e. one in ten of those who received sexual messages) were fairly or very upset. The proportion that 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.

7.4. 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
Try to fix the problem	27
Hope the problem would go away by itself	22
Try to get the other person to leave me alone	12
Feel a bit guilty about what went wrong	6
Try to get back at the other person	2
None of these things	32

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

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

Note: Cell sizes showing less than 3% are below 15 respondents.

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

- **About four in ten responded in a proactive manner, 27% trying to fix the problem and 12% trying to get the person to leave them alone.**
- **However, over a fifth (22%) 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 seeing or receiving sexual messages online (children 11+ who have been bothered by such message)

%	All
Talked to anybody at all	60
A friend	38
My mother or father	30
My brother or sister	9
Another adult I trust	5
Some one whose job it is to help children	3
A teacher	2
Someone else	1

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.

Note: Cell sizes showing less than 3% are below 15 respondents.

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

- **A majority (60%) talked to someone about it, the most common person talked to being either a friend (38%) or a parent (30%).**
- A few children talk to their siblings (9%) or to another adult they trust (5%).
- 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 appear relatively more successful than others

- **Four in ten blocked the person who sent (40%) and/or deleted the unwanted sexual messages (38%). In most cases, the child said that this action helped the situation.**
- Roughly a quarter (24%) tried 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 (18% try it but fewer – 11% – tried it and thought that it helped).

Table 33: What the child did after seeing or receiving sexual messages online (children 11+ who have been bothered by such message)

%	Did this	Did this and it helped
I blocked the person who had sent it to me	40	31
I deleted any messages from the person who sent it to me	38	29
I changed my filter/ contact settings	24	20
I stopped using the internet for a while	18	11
I reported the problem (e.g. clicked on a 'report abuse' button, contact an internet advisor or 'internet service provider (ISP)')	18	11
None of these	7	6
Don't know	26	20

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.

8. MEETING NEW PEOPLE

8.1. 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).⁶⁷ Further, although it is possible for contacts with new people online to result in harm, public concern tends to 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 leading to meetings with such people offline and, then, whether this latter poses a significant risk of harm to children aged 9-16 years old.

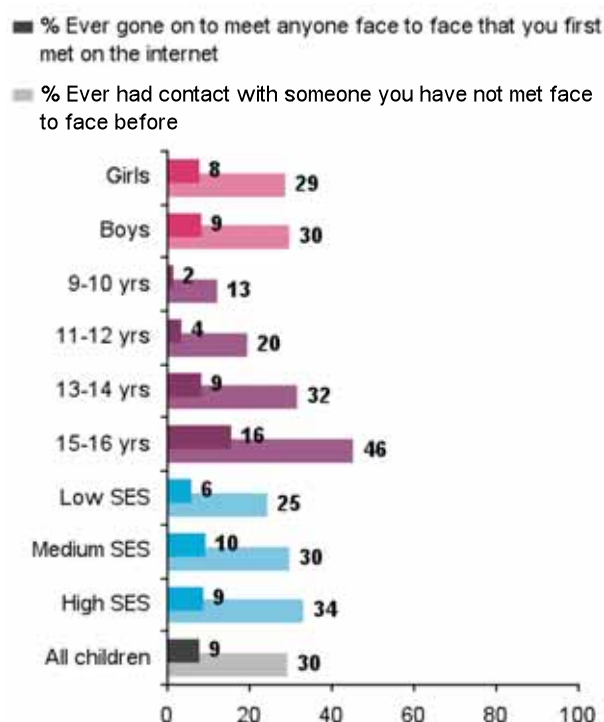
The first step was to understand the pattern of children's online contact and/or face-to-face meetings with people that they have not previously met face-to-face (Figure 59).

- **Three in ten children (30%) have 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: 13% of 9-10 year olds vs. 46% of 15-16 year olds have made new contacts this way.**
- There is no difference between boys and girls when it comes to making contact with new people online but the likelihood increases with SES (25% of children from low SES homes have made new contacts online compared with 34% of children from high SES homes).
- **Overall, 9% of 9-16 year olds have gone to a meeting face-to-face with someone that they first met on the internet.** Since this 9% 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.⁶⁸

- The demographic differences mirror those for making new contacts online, with higher SES 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 16% (1 in 7) of 15-16 year olds have gone to such a meeting.**

Figure 59: 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.

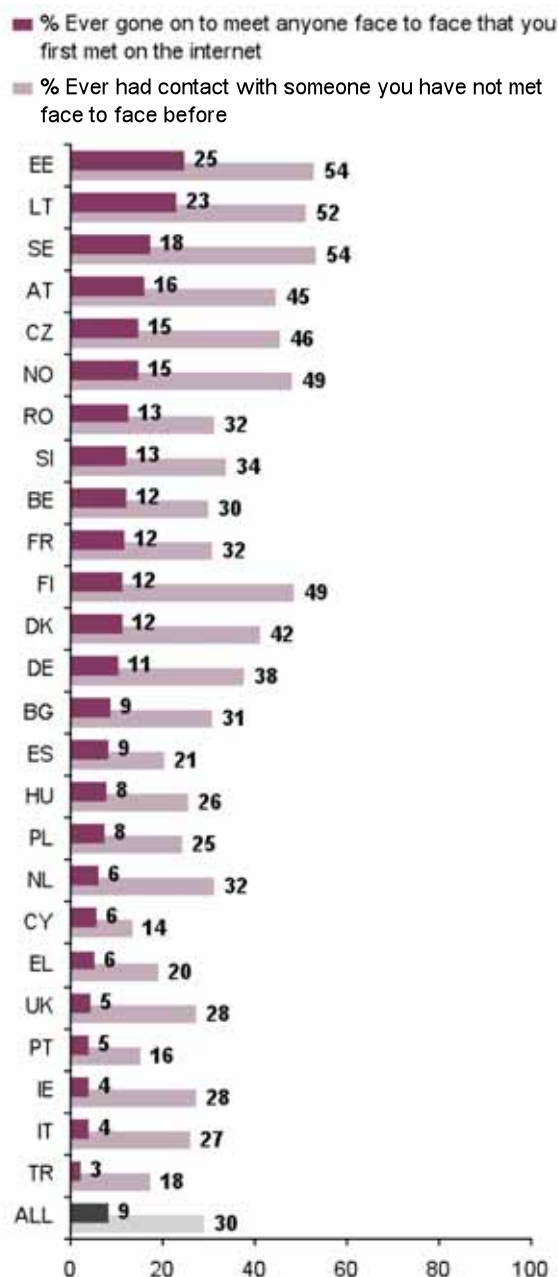
Figure 60 shows national differences in contacts and meetings with people first met online. Countries are ordered by the occurrence of face-to-face meetings:

“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 (25% in Estonia and 23% in Lithuania). Such offline meetings are least common in Turkey (3%), and then Italy and Ireland (each) 4%.
- It appears that in countries where making contact with new people online occurs more often, there is also a greater likelihood that children will have gone 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 high likelihood of having online contacts that they have not met face-to-face but they go to relatively fewer offline meetings compared to some other countries.

In what follows, we examine the findings for meeting online contacts offline. It is not assumed that making new contacts online is necessarily harmful and it may, for many, afford positive opportunities to make new friends. If there are associated risks, this remains for future research.

Figure 60: Child has communicated online with, or gone to an offline meeting with, someone not met face-to-face before, by country



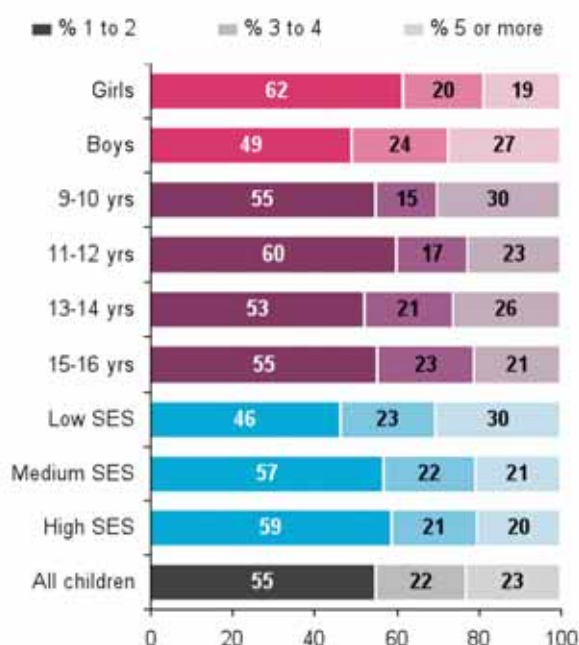
QC147: Can I just check, have you ever had contact on the internet with someone you have not met face-to-face before?
 QC148: Have you ever gone on to meet anyone face-to-face that you first met on the internet in this way?

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 61). It should be borne in mind that these questions are thus asked of only the 9% who say they have met someone this way, a very small minority of the population of children who use the internet.

- The majority (55%) 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. 22% say that they have met three or four people, and 23% 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 61: The number of online contacts that the child has met offline in the past 12 months (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)?

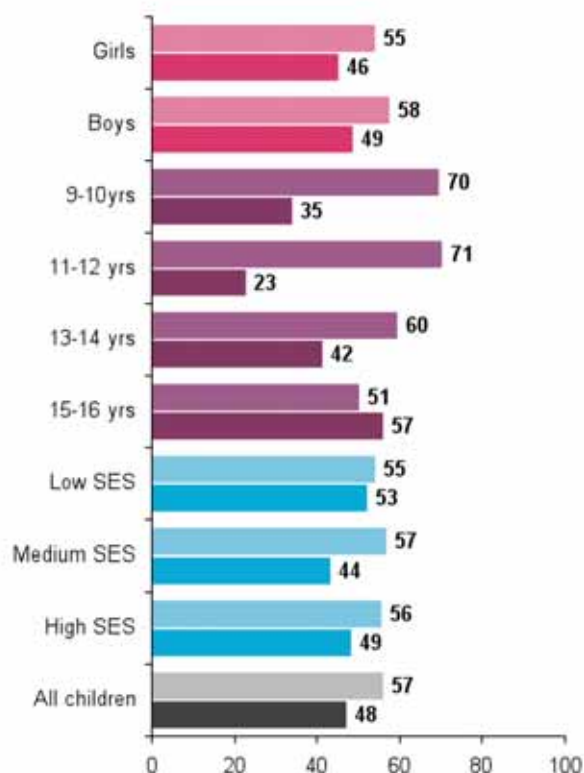
Base: Children who use the internet and who have met offline someone they first met online in the past 12 months.

Note: 95% confidence intervals for some of the breaks among 9-12 year olds and low SES are fairly high at +/- 5-10% and some cell sizes are below 15 respondents.

Figure 62 compares the people children have met offline in terms of whether they are already part of their social circle (i.e. someone who is known to one of the child's friends or relatives) or whether they can really be called a 'stranger'.

Figure 62: Who the child has met offline in the past 12 months (children who have met someone offline that they first communicated with online)

- % Someone who is a friend or family member of someone else I know in person face to face
- % Someone who had no connection with my life before I met them on the internet



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.

Note: 95% confidence intervals for some of the breaks among 9-12 year olds and low SES are fairly high at +/- 5-10%.

- **The majority (57%) 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.**
- 48% 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 around 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 experienced more often 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 (children who met someone offline that they first communicated with online)

%	Age				All
	9-10	11-12	13-14	15-16	
On a social networking site	37	47	64	66	62
By instant messaging	42	38	44	41	42
In a chat room	12	15	14	17	16
Some other way on the internet	10	14	9	12	11
In a gaming website	27	15	10	8	10
By email	17	11	9	7	8
Has ever gone to a meeting with someone first met online	2	4	9	16	9

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 (62%) followed by instant messaging (42%).** 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 (62% vs. 44%, as shown earlier 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.

As already noted, although nearly one third (30%) of all children 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 – 9% 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, 46% have made new contacts online, and 16% have subsequently met these contacts offline. Both practices are also more common in Eastern European countries (Estonia, Lithuania and the Czech Republic) and also in Sweden and Austria.

“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 (55%) 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 (57%).

The conditions that concern policy makers most are meetings involving young children, and meetings involving new people from outside the child's existing social circle. The findings from this section show that, out of the 9% of all 9-16 year olds who have met offline with a new online contact, half (48%) of those meetings were with someone outside their existing social circle.

Regarding younger children, among the 2% of 9-10 year olds who have met an online contact offline, in 35% of these cases the person they met had no connection with their life. The absolute number of children in this group is too small for further reliable analysis.

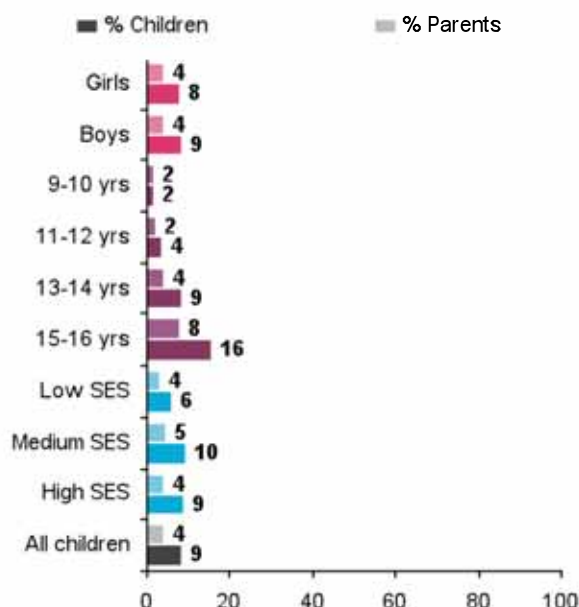
8.2. Children's and parents' accounts compared

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 63).

- Overall, a similar proportion of children and parents report that the child has gone to an offline meeting with an online contact, although parents report slightly fewer such meetings – 4%, compared with the 9% 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. Age differences are more noteworthy. It appears that parents of the oldest children underestimate whether meetings had taken place, if we take the child to be telling the truth (8% vs. 16% 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 63: Children's and parents' accounts of whether child has met an online contact 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?

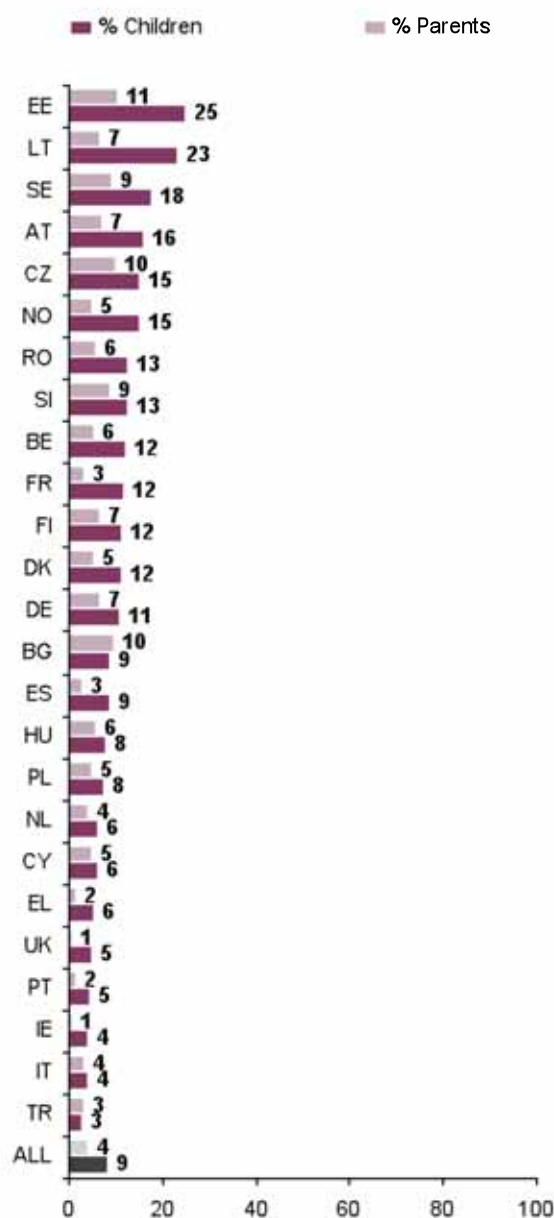
Base: All children who use the internet, and one of their parents.

Figure 64 shows the national variation:

- Parents in most countries underestimate the incidence of offline meetings by children. The exceptions are 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 (7% vs. 23%) and Estonia (11% vs. 25%).

“Some adults come to suggest something improper.” (Girl, 14, Finland)

Figure 64: Children's and parents' accounts of whether child has met an online contact 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 9% 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 children, 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 an online contact 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

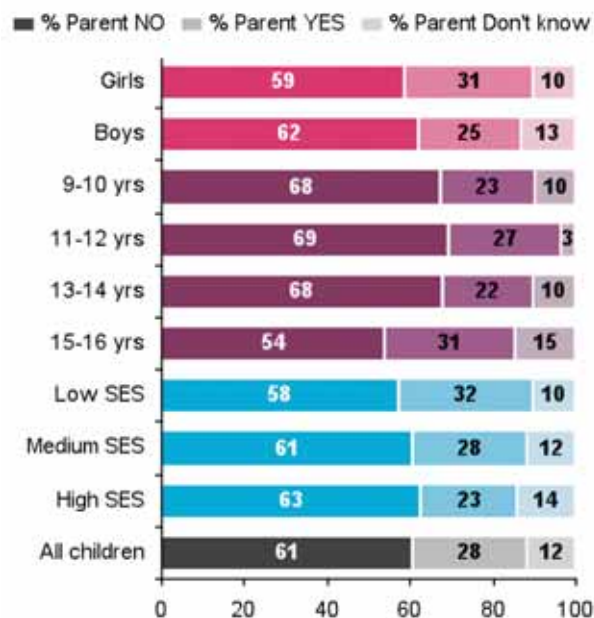
QP235: [Has your child] gone to a meeting with someone face-to-face that he/she first met on the internet? QC148: Have you ever gone on to meet anyone face-to-face that you first met on the internet in this way?

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 91% of children fall into the group who said 'no') and, thus, it is a sizeable number of parents who overestimate such meetings.

For only those children who have met someone offline who they first met online, Figure 65 examines the answers parents give according to the demographics of their child.

Figure 65: Parents' accounts of whether child has met an online contact offline (children who have gone to such a meeting)



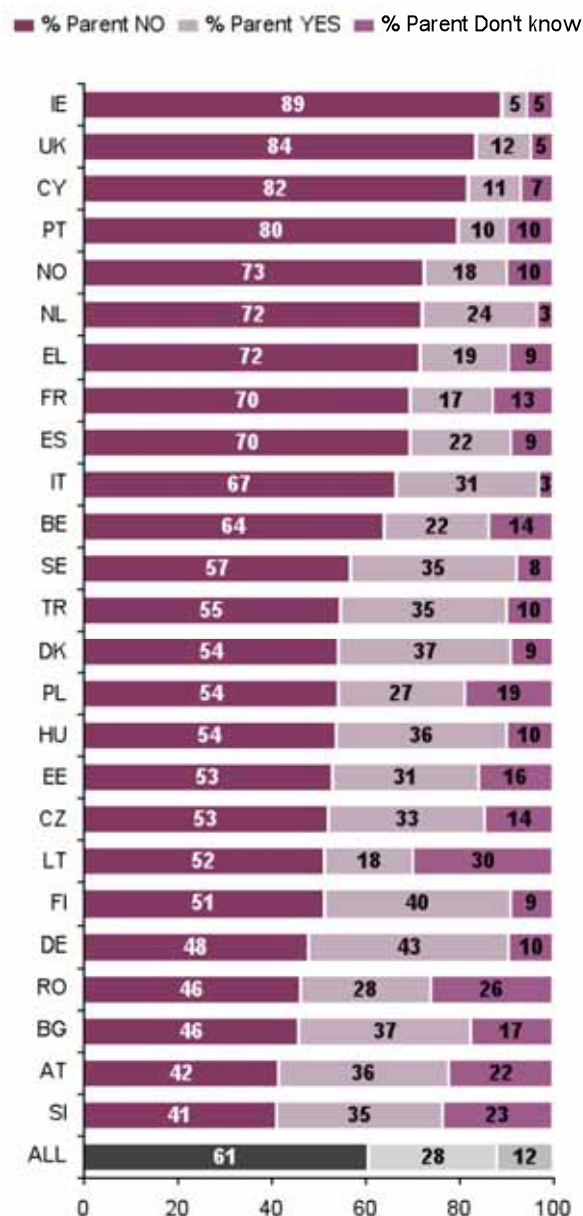
QP235: [Has your child] gone to a meeting with someone face-to-face that he/she first met on the internet?

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.

Note: 95% confidence intervals for some of the breaks among 9-12 year olds and low SES are fairly high at +/- 5-10% and some cell sizes are below 15 respondents.

- For one third of girls (31%) and a quarter of boys (25%), the parent also says that the child has had such a meeting. For over half (59% girls, 62% boys), it seems that parents are not aware of this.
- Remembering that very few 9-10 year olds have had such a meeting, it is noteworthy that only one in four (23%) of their parents is aware that they have met someone in this way. The proportion of parents aware of this rises with the child's age to one in three (31%) 15-16 year olds. From a safety point of view, this is not desirable: one would 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 higher SES households (23% of parents from high SES homes compared with 32% from low SES homes). Recall that higher SES children are also more likely to go to such meetings.

Figure 66: Parents' accounts of whether child has met an online contact offline, by country (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.

Note: The 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) or very high (+/- 10%) and some cell sizes are below 15 respondents. So the numbers for individual countries should be considered as indicative only.

As shown in Figure 66, bearing in mind the national differences in frequency of children meeting online contacts offline (as shown in Figure 64), parents vary considerably in their awareness of their own children's experiences of such meetings.

- Least aware of their children's offline meetings with online contacts are parents in Ireland (unaware of such meetings in 89% of cases), the UK (84%) and Cyprus (82%). By contrast, fewer parents from Slovenia (41%), Austria (42%) and Bulgaria (46%) are unaware of such meetings (although many in these countries are also likely to say they don't know).
- Those countries where parents are most likely to say they are aware of their child's meeting are Denmark and Bulgaria (37%) and Hungary and Austria (both at 36%).

8.3. Perceived harm from meeting online contacts

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?

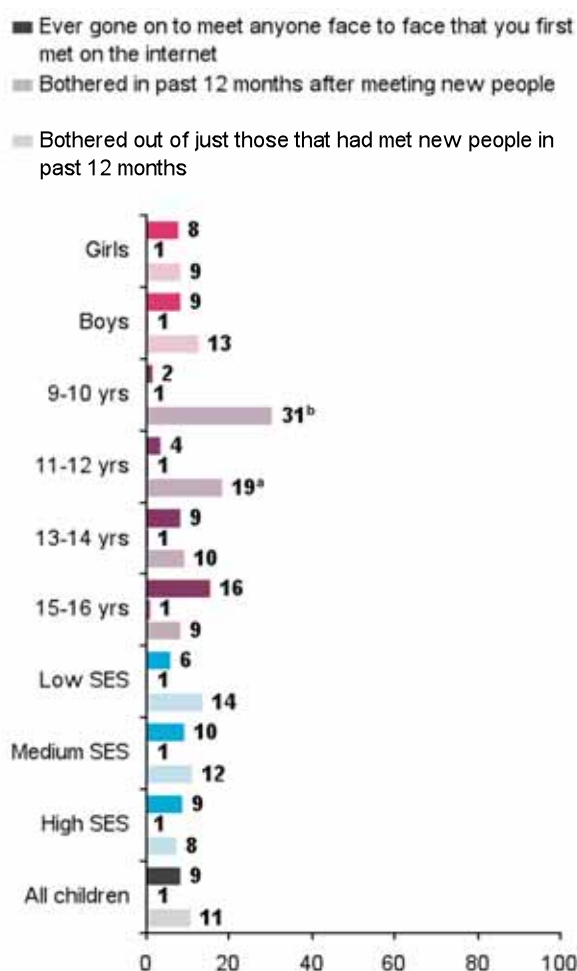
Their answers to this question are shown in Figure 67.

- **Among all children who use the internet, 9% have met an online contact offline, and 1% of children report being bothered by this. To put it another way, among just those who have been to such a meeting, one in nine (11%) were bothered by what happened.**
- Although the youngest group is the least likely to have been to meet an online contact offline, they are the most likely to have been bothered by what happened (31% of those who had been to a meeting).
- Boys and children from lower and medium SES homes are also slightly more likely to have been

bothered by offline meetings when they occurred, although it is higher SES children who are more likely to go to such meetings at all.

- **Of the 1% of children who have 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 67: 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.

Note: 95% confidence intervals for some of the breaks among 9-12 year olds are fairly high at +/- 5-10%.

The following tables examine the nature of these meetings with online contacts, focusing on just the 1% of the overall population who has been bothered or upset by such a meeting. Table 36 reports that age of the person that they child says they met the last time this happened.

Table 36: Age of the online contact that the child met offline (children who have been bothered by such a meeting)

%	All
I met with someone about my age	63
I met with an older teenager (younger than 20 years old)	22
I met with an adult (aged 20 years or older)	8
I met with someone younger than me	7

QC153: Thinking about [the last time you were bothered by meeting an online contact offline], how old was the person you actually met?

Base: All children who use the internet and have been bothered after meeting an online contact offline in the past 12 months.

Note: Some of the 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) and cell sizes that show less than 8% are below 15 respondents.

- Of this small group, 63% said they met with someone about their own age, 7% met with someone younger, 22% with an older teenager and 8% said they met with an adult (defined as at least 20 years old).

Next we asked if they told anyone where they were going (Table 37).

- Most children did tell someone when they were going to meet an online contact offline (70%), usually telling a peer. However, nearly one third did not tell anyone in advance, and only one in seven told a trusted adult.
- Among children who have been bothered by meeting an online contact offline, about half (53%) took someone with them to the meeting.
- This was almost always someone of their one age – 46% of all that have been bothered by a meeting (or 89% who had been bothered and who took someone with them). It seems that very few took an older teenager or an adult they trusted with them.

Table 37: Who the child told about going to meet an online contact offline (children who have been bothered by such a meeting)

%	All
Told anybody at all	70
I told someone my age	42
I told an older teenager (aged under 18)	11
I told an adult I trust (aged 18 or over)	14
I told someone else	1

QC155: Thinking about [the last time you were bothered by meeting an online contact offline], did you talk to anyone about where you were going? QC156: Who did you talk to?

Base: All children who use the internet and have been bothered after meeting an online contact offline in the past 12 months.

Note: Some of the 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) and cell sizes that show less than 8% are below 15 respondents.

What happened at such meetings? Table 38 reports whether children went alone or with someone else.

- Half took someone with them, usually a peer. Nearly half, however, of those who had been bothered by a meeting with an online contact offline went alone.

Table 38: Whether the child took someone with them when they went to meet an online contact offline (children who have been bothered by such a meeting)

%	All
Took someone with me at all	53
I went with someone about my age	46
I went with an older teenager (aged under 18)	2
I went with an adult I trust (aged 18 or over)	3

QC157: Thinking about [the last time you were bothered by meeting an online contact offline], did you take somebody with you when you went to that meeting? QC158: Who did you take with you?

Base: All children who use the internet and have been bothered after meeting an online contact offline in the past 12 months.

Note: Some of the 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) and cell sizes that show less than 8% are below 15 respondents.

Table 39: What happened when the child met an online contact offline (children aged 11+ who have been bothered by such a meeting)

%	All
The other person said hurtful things to me	22
Prefer not to say	22
The other person did something sexual to me	11
Something else bad happened	10
The other person hurt me physically	3
Don't know	37

QC159: Thinking about [the last time you were bothered by meeting an online contact offline], which, if any of these things happened?

Base: All children aged 11-16 who use the internet and have been bothered after meeting an online contact offline in the past 12 months.

Note: Some of the 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) and cell sizes that show less than 8% are below 15 respondents.

- Of those children age 11-16 who had been bothered by an offline meeting, 22% of those said that the other person said hurtful things to them, 11% said the other person did something sexual to them and 10% said something else bad happened. Finally, 3% of this group (a very small number of children) said they had been hurt physically.

All children in the survey were given sources of confidential support and advice from national child welfare and internet safety providers.

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?)

8.4. 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. 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.

As for other risks, the survey examined how children said they coped with online risks that bothered or upset them.

Table 40: How the child coped after going to meet an online contact offline (children aged 11+ who have been bothered by such a meeting)

%	All
Hope the problem would go away by itself	30
None of these things	30
Try to fix the problem	18
Feel a bit guilty about what went wrong	12
Try to get back at the other person	6
Try to get the other person to leave me alone	6

QC162: The last time this happened, did you do any of these things afterwards?

Base: All children aged 11-16 who use the internet and have been bothered after meeting an online contact offline in the past 12 months.

Note: Some of the 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) and cell sizes that show less than 8% are below 15 respondents.

- Table 40 shows that, among those aged 11+ who have been bothered by meeting an online contact offline, only a minority found an active coping strategy – mainly they hoped the problem would go away, and only one in five tried to fix things.

Table 41: Who the child talked to after going to meet an online contact offline (children who have been bothered by such a meeting)

%	All
Talked to anybody at all	62
A friend	35
My mother or father	28
My brother or sister	11
Another adult I trust	10
A teacher	6
Someone else	4
Some one whose job it is to help children	2

QC163: Thinking about [the last time you were bothered by meeting an online contact offline], did you talk to anyone about what happened? QC164: Who did you talk to?

Base: All children who use the internet and have been bothered after meeting an online contact offline in the past 12 months.

Note: Some of the 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) and cell sizes that show less than 8% are below 15 respondents.

- Two thirds (62%) did tell someone where they had been, however (Table 41) – generally a friend or, a little less often, a parent.
- Online, common coping strategies were to delete messages or block the person sending messages, and in the majority of cases where the children did this, they found it helpful (Table 42).
- Some simply stopped using the internet for a while, some changed their contact settings; few reported the problem to an online advisor or service provider.

In sum, 30% of children have had contact on the internet with someone they have not met face-to-face, and 9% have met someone new offline who they first met 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. Of those who were bothered, most (63%) met someone their own age, half of them took someone their own age with them and most told someone their own age where they were going. This suggests that the majority of offline meetings, even if upsetting, happen with peers. However, the numbers are too low to draw final inferences and more complex analyses are needed to reveal patterns among variables.

Table 42: What the child did after going to meet an online contact offline (children who have been bothered by such a meeting)

%	Did this	Did this and it helped
I stopped using the internet for a while	28	13
I deleted any messages from the person who sent it to me	37	23
I changed my filter/ contact settings	19	12
I blocked the person who had sent it to me	34	25
I reported the problem (e.g. clicked on a 'report abuse' button, contact an internet advisor or 'internet service provider (ISP)')	10	3
None of these	21	15
Don't know	18	14

QC165: Thinking about [the last time you were bothered by meeting an online contact offline], did you do any of these things? QC166: Which, if any, of the things you did helped you?

Base: All children who use the internet and have been bothered after meeting an online contact offline in the past 12 months.

Note: Some of the 95% confidence intervals for the numbers behind this graph are fairly high (+/- 5-10%) and cell sizes that show less than 8% are below 15 respondents.

The consequences for the children who meet online contacts offline and have been bothered or upset by this should be carefully considered. A range of policy interventions, both proactive and reactive, may be appropriate. However, most of these meetings were with other children about their own age and that although a few were with unknown adults. It seems, therefore, unlikely that the internet is responsible for 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 had occurred, while nearly two thirds said their child had not been to such a meeting. Also, although over two thirds of children going to such meetings do tell someone where they are going and half take someone with them, there are still children who take neither of these precautions.

9. 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 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.

9.1. 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 that may be harmful for children. In terms of our risk classification (Table 1), this is a form of conduct risk (although 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.

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 43. 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 43 shows that:

- **21% of children aged 11-16 have come across one or more of the five types of websites asked about. There is a marked age difference, rising from 12% of 11-12 year olds to 29% of 15-16 year olds.**
- **Children encounter hate messages (12%) and anorexic/bulimic sites (10%) more than they do self-harm sites (7%) or sites where drug taking is discussed (7%). Although a smaller percentage, nevertheless it is noteworthy that one in twenty encounter suicide sites (5%).⁶⁹**
- 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 (18%) 15-16 year olds has encountered hate content, with 14% seeing pro-anorexic content, 10% self-harm websites, 12% drug-taking websites, and 6% seeing sites that discuss forms of suicide.

"Bloody movies at YouTube."

(Girl, 9, Norway)

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

Table 43: 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	18	12
Ways to be very thin (such as being anorexic or bulimic)	n/a	5	10	14	10
Ways of physically harming or hurting themselves	n/a	4	7	10	7
Talk about or share their experiences of taking drugs	n/a	2	6	12	7
Ways of committing suicide	n/a	3	5	6	5
Has seen any such material at all on websites	n/a	12	22	29	21

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

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

Table 44 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 (19% of girls aged 14-16).**
- Exposure to content relating to self-harm, suicide or drug taking is not particularly differentiated by gender.

“When somebody says that he/she is going to commit suicide”

(Boy, 15, Germany)

Table 44: Child has seen potentially harmful user-generated content on websites in past 12 months, by age and gender (age 11+)

%	Age				All
	11-13		14-16		
	Boys	Girls	Boys	Girls	
Hate messages that attack certain groups or individuals	8	6	16	17	12
Ways to be very thin (such as being anorexic or bulimic)	5	8	7	19	10
Ways of physically harming or hurting themselves	6	4	10	9	7
Talk about or share their experiences of taking drugs	4	4	10	10	7
Ways of committing suicide	3	3	6	6	5
Has seen such material at all on any websites	14	15	25	31	21

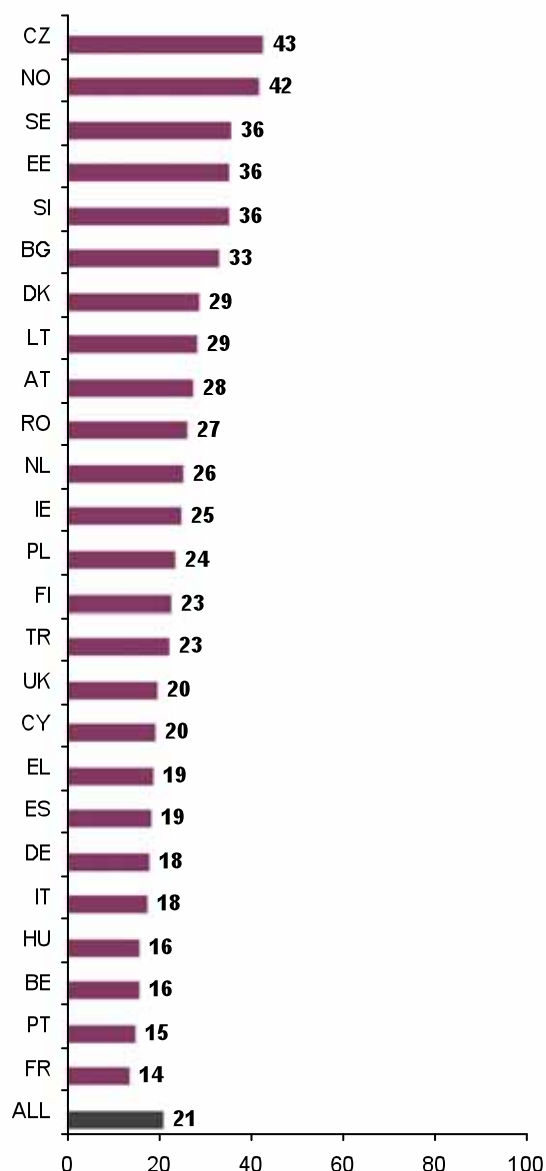
QC142: In the past 12 months, have you seen websites where people discuss...?

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

Figure 68 shows these findings by country, revealing considerable cross-national variation in children's exposure to potentially harmful user-generated content.

- In the Czech Republic and in Norway, four in ten children aged 11-16 have seen potentially harmful user-generated content of one or more of the five types asked about. Thus in some countries, exposure is double the European average of 21%.
- Fewer than one in six have seen it in Portugal, France, Belgium or Hungary.

Figure 68: Child has seen potentially harmful user-generated content on websites in past 12 months (age 11+), by country



QC142: In the past 12 months, have you seen websites where people discuss...? Bars show percentage of children who have seen any such material at all on websites (i.e. bottom row of Table 43).

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

9.2. 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 45 shows that:

- **9% of children aged 11-16 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 (4%). Despite some mention of being cheated in some qualitative studies, this only appears to affect a small proportion of children (1%).⁷⁰**

Table 45: 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	6	7	8	7
Somebody used my personal information in a way I didn't like	n/a	3	5	5	4
I lost money by being cheated on the internet	n/a	1	1	2	1
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.

“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)

“Girlfriends who I thought my friends have been awful. They took my identity to have my boyfriend” (Girl, 15, France)

Table 46 shows the same group of questions broken down both by age and gender.

Table 46: Child has experienced misuse of personal data in past 12 months, by age and gender (age 11+)

%	Age				All
	11-13		14-16		
	Boys	Girls	Boys	Girls	
Somebody used my password to access my information or to pretend to be me	6	6	6	9	7
Somebody used my personal information in a way I didn't like	3	3	4	6	4
I lost money by being cheated on the internet	1	1	2	1	1
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?

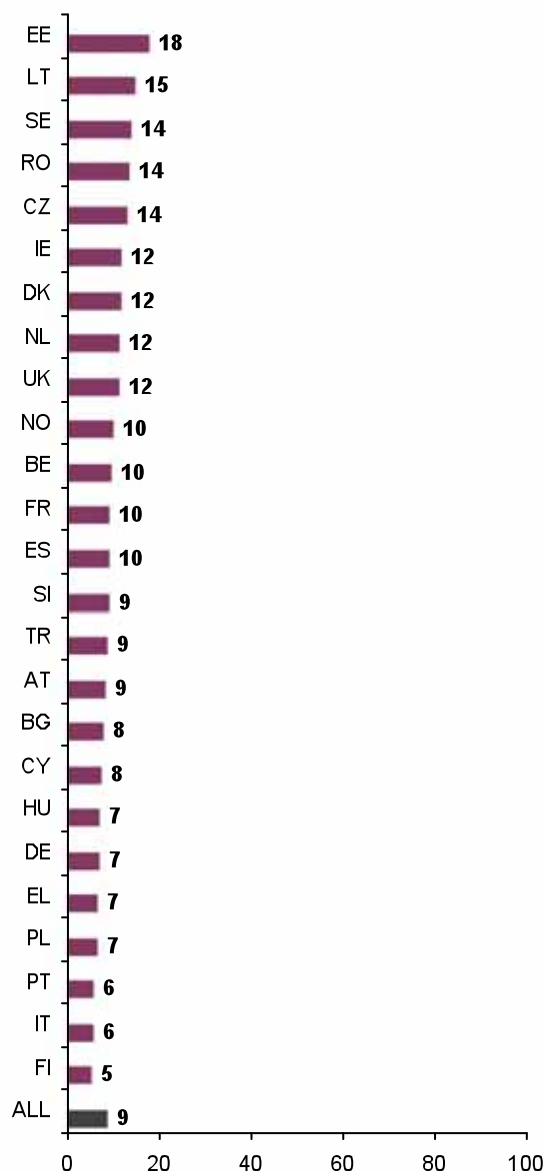
Base: All children aged 11-16 who use the internet.

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

Figure 69 shows children's experience of misuse of personal data by country, revealing moderate cross-national differences.

- While overall, 9% of 11-16 year olds report at least one of the three types of misuse of personal data asked about, twice as many report this in Estonia, and only half as many in Finland.

Figure 69: Child has experienced misuse of personal data in past 12 months (age 11+), by country



QC143: In the past 12 months, has any of the following happened to you on the internet? Bars show percentage of children who have experienced personal data misuse of any kind (i.e. bottom row of Table 45).

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

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.⁷¹

It is interesting, therefore, 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 – 21% 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 report 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)

10. MEDIATION

Notwithstanding the popular image of the lone child in front of the computer, children live much of their lives embedded in various kinds of social interaction, some of which may mediate their use of the internet.

Research has long examined the role of parents in relation to their children's media use, typically distinguishing (i) co-use – the parent is present, even sharing the activity with the child, (ii) active mediation – the parent talks about content (e.g. interpreting, critiquing) to guide the child, (iii) restrictive mediation – the parent sets rules that restrict the child's use (e.g. by time or activities), (iv) monitoring – the parent checks available records of the child's internet use afterwards and (v) technical restrictions – use of software to filter, restrict or monitor the child's use.⁷²

A distinctive feature of the *EU Kids Online* survey is that it asked children about several types of mediation as practised by parents, teachers and peers. In practice, it is difficult to distinguish co-use from active mediation, since sharing an activity generally involves talking about it. Thus, in the present analysis we join these together, instead distinguishing 'active mediation' of internet use in general and active mediation of internet safety in particular. Together these reveal the main sources of support available to children. In terms of policy, this may pinpoint children's need for further support, differentiated by demographic factors and by country.

Both forms of active mediation may also be practised by teachers in school and, further, children may support each other through discussing and sharing internet use; although informal, this constitutes a potentially valuable form of peer mediation.⁷³

In sum, this section analyses eight sources of social support and mediation available to children:

- *Active mediation of the child's internet use* - the parent is present, staying nearby, encouraging or sharing or discussing the child's online activities.
- *Active mediation of the child's internet safety* – whether before, during or after the child's online activities, the parent guides them in using the internet

safely, also possibly helping or discussing what to do in case of difficulty.

- *Restrictive mediation* – the parent sets rules that restrict the child's use (of particular applications, activities, or of giving out personal information).
- *Monitoring* – the parent checks available records of the child's internet use afterwards.
- *Technical mediation of the child's internet use* – the parent uses software or parental controls to filter, restrict or monitor the child's use.
- *Teachers' mediation* – these questions included a mix of active mediation of the child's internet use and internet safety, plus a question on restrictive mediation.
- *Peer mediation of the child's internet safety* – it was assumed that children talk about their online activities in general, so here the focus was on peer mediation of safety practices in particular. These questions were asked bi-directionally – do the child's friends help them, and also do they help their friends?
- *Other sources of safety awareness* – both parents and children may benefit from a range of sources of guidance - from the media or from experts in their community. Use of such sources was also included.

Note: in this section, we prioritise children's age, recognising that little has been known of parent's role in relation to the younger age group and also that parents particularly struggle in managing teenagers' use.

10.1. Parents

A strength of the *EU Kids Online* project was to interview the child and one of his or her parents. This section compares answers to matched questions asked of the child and the parent most involved in the child's internet use.

Previous research has revealed a considerable generation gap, with parents reporting more mediating activities than are recognised by their children.⁷⁴ This gap has, in turn, been interpreted as a sign of the barriers to parents' taking responsibility for their children's internet safety – whether because parents and teenagers find it difficult to talk to each other, or because parents feel ill-

equipped to understand the internet, or because children fiercely guard their privacy online and so evade parental oversight.

Note that questions about active mediation of use and safety practices are asked of all children, and all parents of these children. Questions regarding parental restriction, monitoring and use of technical tools are asked only for children who use the internet at home.

Table 47 examines parental mediation, focusing first on broadly encouraging and supportive forms of active mediation (and co-use). These figures show the child's perception of the parent-child interaction.

Table 47: Parent's active mediation of the child's internet use, according to child

% who say that their parent does...	9-12 years		13-16 years		All
	Boys	Girls	Boys	Girls	
Talk to you about what you do on the internet	71	76	64	69	70
Stay nearby when you use the internet	68	69	46	50	58
Encourage you to explore and learn things on the internet on your own	50	53	45	43	47
Sit with you while you use the internet	52	54	34	37	44
Do shared activities together with you on the internet	49	51	35	36	42
One or more of these	89	91	83	84	87

QC327: Does your parent / do either of you parents sometimes...
(Multiple responses allowed)

Base: All children who use the internet.

- **Most parents talk to their children about what they do on the internet (70%), making this the most popular way to actively mediate children's internet use.**
- **Second most popular is staying nearby (58%), with the other strategies being adopted by what is a substantial minority of parents (over four in ten).**
- Overall, it seems that there is a fair amount of general positive mediation taking place.
- Gender differences are small, if existing at all.
- More substantially, parents do considerably more active mediation of younger children's use of the internet.
- Since only 87% of parents do one or more of these things, leaving **one in eight parents (13%) who seem never to do any of these forms of mediation, according to their children.** It should be recalled that, in cases where the child has two parents, we interviewed the parent most involved in the child's internet use.

Table 48: Parent's active mediation of the child's internet use, according to child and parent

% who say that their parents sometimes...	Child no		Child yes	
	Parent no	Parent yes	Parent no	Parent yes
Talk to you about what you do on the internet	12	19	7	63
Stay nearby when you use the internet	31	12	11	47
Encourage you to explore and learn things on the internet on your own	34	18	11	37
Sit with you while you use the internet	42	15	10	34
Do shared activities together with you on the internet	43	15	10	32

QC327 and QP220: Does your parents/do either of your parents sometimes [which of the following things, if any do you (or your partner/other carer) sometimes do with your child]...

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

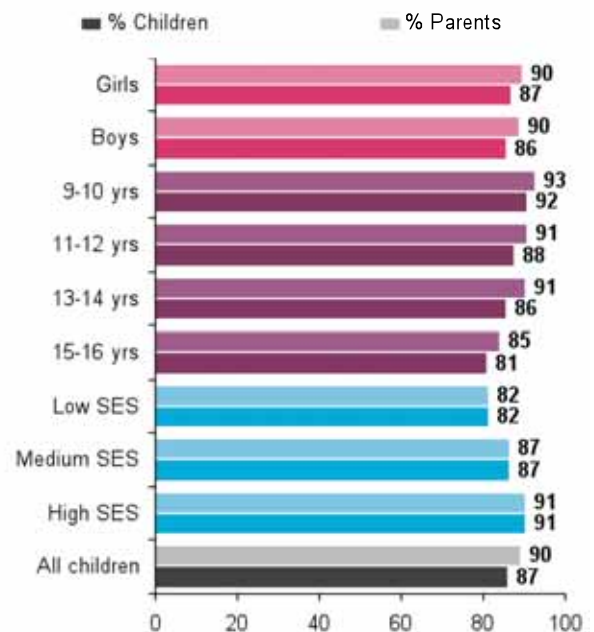
Previous research has suggested that parents more often claim that they mediate their child's internet use than the child themselves recognises. Table 48 compares the accounts of parents and children, examining the relation between the child's answers (yes or no) and those of their parent.⁷⁵

- **It seems that the extent to which parents claim a practice that their child does not acknowledge (second column) occurs in around one in six cases, signalling generally high agreement between parent-child pairs.**
- Interestingly, in around one in ten homes, the child perceives parental mediation that the parent themselves does not report (the third column).
- There could be a social desirability effect on the part of parents who may wish to present themselves to the interviewer as 'good parents'. Or, parents may be more aware of their practices while children simply might not notice or might forget. Perhaps, too, children wish to represent their parents as doing more than they really do, or maybe, they recognise that a practice occurs when, for the parent, it is so routine as to go unnoticed.
- Adding the percentages in the second and third column suggests that **around one quarter of parents and children disagree about whether these different forms of mediation are taking place. Notably therefore, in three quarters of homes they agree.**

To show the demographic and country differences, the next two figures are based on the row, 'One of more of these' responses in Table 47 – in other words, it combines the various forms of active mediation.

- **Active mediation by parents is highest for young children and steadily reduces as children grow older:** 93% of parents do one of more of the activities shown in Table 10 in relation to their 9-10 year olds, according to the child, dropping to 85% for 15-16 year olds (see Figure 19).
- Perhaps most notable is that even for the oldest group, most parents pursue some form of active mediation with their teenagers.
- **There are few differences for sons and daughters, but there is an effect by SES:** 82% of children in lower SES homes receive active parental mediation, rising to 91% in higher SES homes, according to children.

Figure 70: Parent's active mediation of the child's internet use, according to child and parent



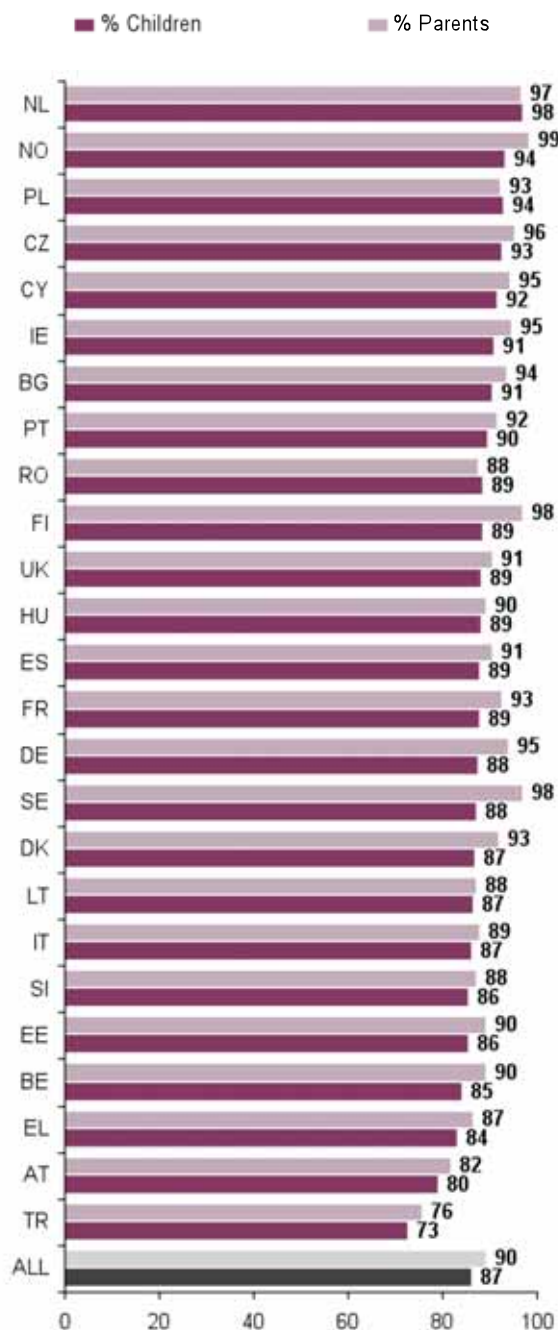
QC327 and QP220: Does your parents/do either of your parents sometimes [which of the following things, if any do you (or your partner/other carer) sometimes do with your child]...

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

What of national differences?

- Figure 71 shows they range from virtually all parents in the Netherlands (98% according to children) followed by Norway, Poland and the Czech Republic who do one or more form of active mediation, down to just 73% in Turkey.
- With the exception of Turkey, however, country differences are small, a matter of a few percentage points.
- Also interesting is that parents and children disagree about whether active parental mediation is taking place in some countries more than others: disagreement is for example relatively high in Sweden (10%) and Finland (9%).

Figure 71: Parent's active mediation of the child's internet use, according to child and parent, by country



QC327 and QP220: Does your parents/do either of your parents sometimes [which of the following things, if any do you (or your partner/other carer) sometimes do with your child]...

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

Turning to active mediation of the child's internet safety in particular, the survey asked a series of questions about the role parents might play, with answers given by children shown in Table 49.

Table 49: Parent's active mediation of the child's internet safety, according to child

% who say that their parent does...	9-12 years		13-16 years		All
	Boys	Girls	Boys	Girls	
Explained why some websites are good or bad	71	73	62	64	68
Helped you when something is difficult to do or find on the internet	73	76	58	60	66
Suggested ways to use the internet safely	66	69	59	60	63
Suggested ways to behave towards other people online	56	59	53	55	56
Talked to you about what to do if something on the internet bothered you	53	57	47	53	52
Helped you in the past when something has bothered you on the internet	36	38	32	36	36
One or more of these	88	89	82	84	86

QC329 Does your parent / do either of your parents sometimes... (Multiple responses allowed)

Base: All children who use the internet.

- Explaining why websites are good or bad (68%) and helping when something is difficult to do or find (66%) are the most common strategies, closely followed by suggesting how to use the internet safely (63%).

- Over half of parents also take positive steps such as suggesting how to behave towards others online (56%) and talking about things that might bother the child (52%), and third have helped their child when something arose in the past (36%).
- Once again, gender differences are small, although older girls receive a little more support regarding things that have or might bother them online.
- Younger children, it seems, receive guidance in more critical mediation – in evaluating websites, and in managing internet use effectively.

As before, the answers given by children and parents can also be compared (see Table 50).

Table 50: Parent's active mediation of the child's internet safety, according to child and parent

% who say that their parents sometimes...	Child no		Child yes	
	Parent no	Parent yes	Parent no	Parent yes
Explained why some websites are good or bad	18	15	9	59
Helped you when something is difficult to do or find on the internet	24	10	11	56
Suggested ways to use the internet safely	22	14	11	53
Suggested ways to behave towards other people online	26	18	10	46
Talked to you about what to do if something on the internet bothered you	29	18	10	43
Helped you in the past when something has bothered you on the internet	50	14	12	24

QC329 and QP222: Has your parent/either of your parents [have you] ever done any of these things with you [your child]?

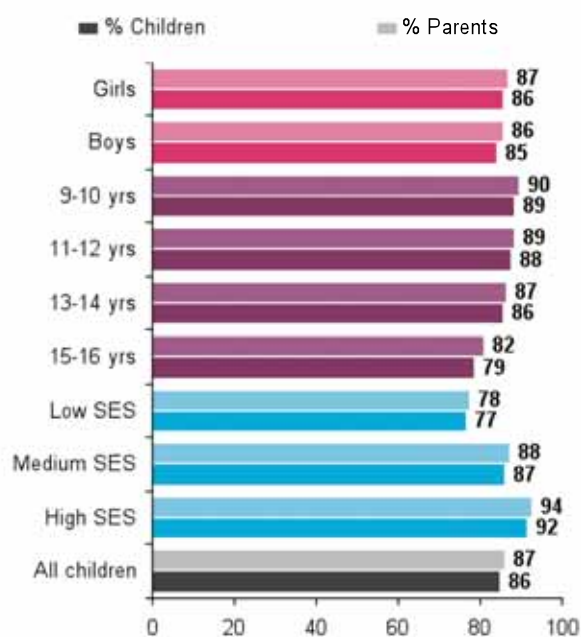
Base: All children who use the internet and one of their parents.

- Parents and children generally agree with each other whether or not safety mediation is occurring.
- Parents and children disagree about a quarter of the time, with parents a little more likely to over-claim compared with their children (particularly in relation to

suggesting ways to behave to others, or how to deal with things that bother the child).

Figure 72 shows the demographic differences in parental mediation of the child's internet safety.

Figure 72: Parent's active mediation of the child's internet safety, according to child and parent

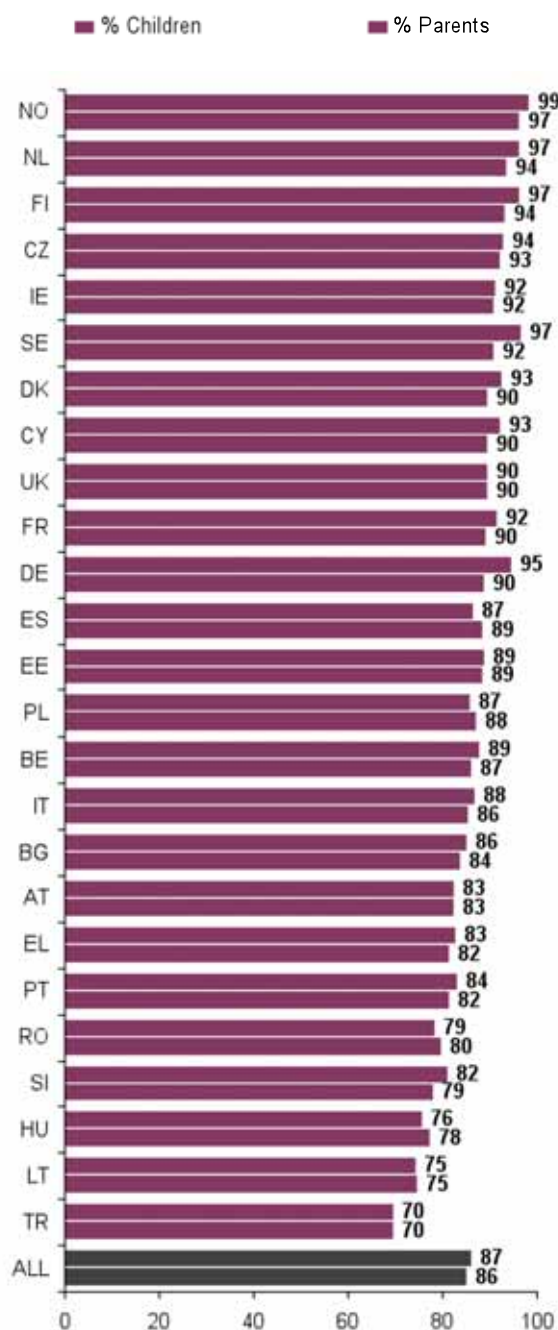


QC329 and QP222: Has your parent/either of your parents [have you] ever done any of these things with you [your child]?

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

- Figure 72 shows few gender differences in parental safety mediation, according to the child, and a small but steady decline in mediation with the age of the child. The difference by SES is slightly larger than in Figure 70, suggesting higher SES parents do more in this regard than those from lower SES homes.
- Figure 73, showing the national differences, reveals a wider range of responses compared to Figure 71, with Norway the highest (97% according to children) and Turkey, again and distinctively, the lowest (70%).
- National differences are slightly greater than in the case of active mediation of the internet in general, up to 20% even excluding Turkey as an outlier.
- Once again, parents and children disagree in some countries more than others – disagreeing more in Germany and Sweden (5% disagreement).

Figure 73: Parent's active mediation of the child's internet safety, according to child and parent, by country



QC329 and QP222: Has your parent/either of your parents [have you] ever done any of these things with you [your child]?

In addition to active mediation, which enables both opportunities and enhances safety, parents have long been advised to set rules or restrictions in order to

manage their child's internet use. These may be simple bans – telling the child they are not permitted to undertake a particular online activity - or the child may be permitted to do that activity only with permission or under supervision. Both these were treated as measures of restrictive mediation, compared with children for whom no restrictions apply (Table 51).

Table 51: Parents' restrictive mediation of the child's internet use, according to child

% who say that rules apply about...	9-12 years		13-16 years		All
	Boys	Girls	Boys	Girls	
Give out personal information to others on the internet	94	95	74	81	85
Upload photos, videos or music to share with others	81	83	45	48	63
Download music or films on the internet	75	78	38	42	57
Have your own social networking profile	69	70	26	29	47
Watch video clips on the internet	57	58	21	23	39
Use instant messaging	59	59	20	22	38
One or more of these	93	94	75	81	85

QC328: For each of these things, please tell me if your parents CURRENTLY let you do them whenever you want, or let you do them but only with your parent's permission or supervision, or NEVER let you do them.

Note: The latter two options are combined to calculate the percentage for whom rules or restrictions apply.

Base: All children who use the internet.

- Table 51 shows that most rules apply to disclosing personal information, where 85% say that they are either not allowed to do this or that restrictions apply.
- Next most regulated is uploading material (63%), although possibly this reflects rules in cases where photos or videos are of the children themselves.

- **Downloading is also strongly regulated or restricted (57%), which is interesting given the wider discussions about copyright issues and illegal downloads.**
- Roughly half of children (47%) are restricted in their use of social networking sites, 39% experience rules as regards the second most popular online activity identified in this survey, watching video clips, and 38% are restricted in the use of instant messaging.

Compared to the different types of active mediation, Table 51 also shows stronger gender differences in the case of 13-16 year olds, with girls being a little more restricted than boys. There are less striking, of sometimes no, gender differences for 9-12 year olds, although 9-12 year olds experience for each activity far more restrictions in general than 13-16 year olds.

Table 52: Parents' restrictive mediation of the child's internet use, according to child and parent

% who say that their parents sometimes...	Child no		Child yes	
	Parent no	Parent yes	Parent no	Parent yes
Give out personal information to others on the internet	82	5	7	7
Upload photos, videos or music to share with others	57	6	11	25
Download music or films on the internet	51	6	10	33
Have your own social networking profile	41	6	9	43
Watch video clips on the internet	33	6	11	51
Use instant messaging	34	5	10	51

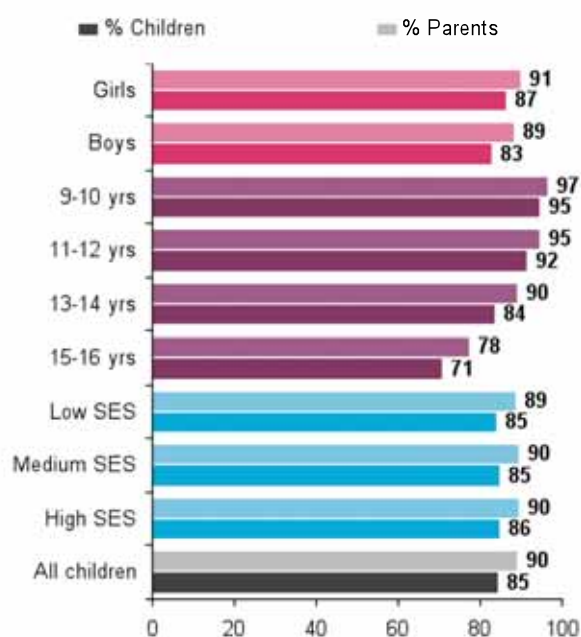
QC328 and QP221: For each of these things, please tell me if your parents CURRENTLY let you [your child is allowed to] do them whenever you want, or let you do them but only with your parent's permission or supervision, or NEVER let you do them.

Note: The latter two options are combined to calculate the percentage for whom rules or restrictions apply.

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

- Compared to the two types of active mediation discussed early, Table 52 shows that there is more agreement between parents and children about whether rules exist - 89% (i.e. 7% + 82%) – regarding rules related to giving out personal information, dropping to 82% in the case of uploading material.

Figure 74: Parents' restrictive mediation of the child's internet use, according to child and parent



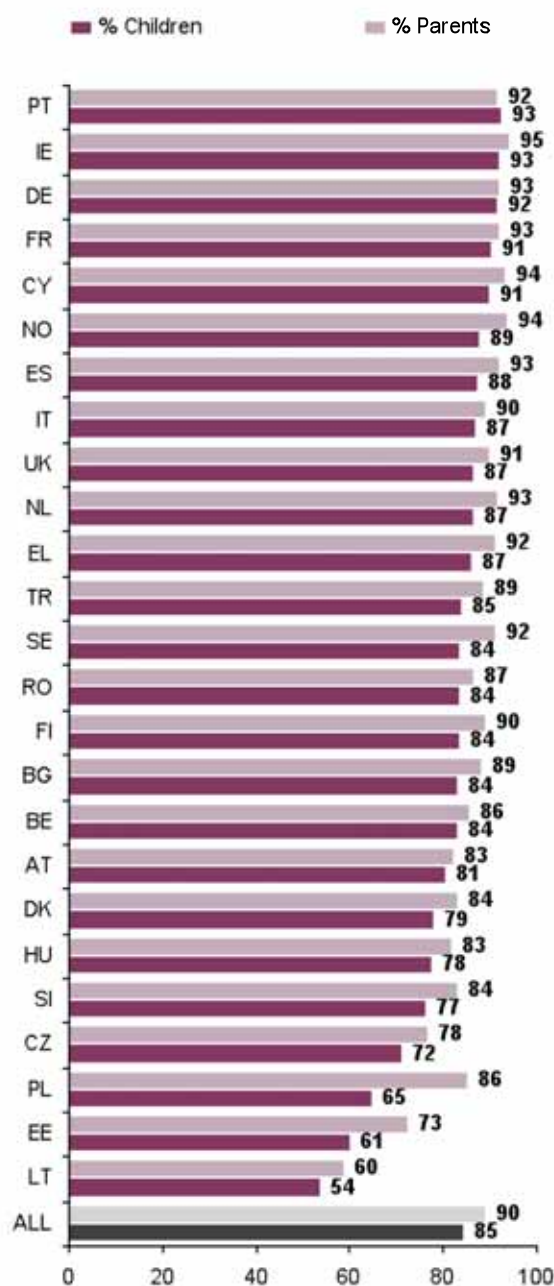
QC328 and QP221: Whether your parents let you [your child is allowed to] do this all of the time, only with permission/supervision or never allowed.

Note: The latter two options are combined to calculate the percentage for whom rules or restrictions apply.

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

- Compared with the various forms of active mediation (shown in Figure 19), **the decline in restrictive mediation with age is more dramatic, falling from 95% for 9-10 year olds to 71% for 15-16 year olds.**
- Still, the majority of teenagers are still expected to follow rules when using the internet. Girls are slightly more restricted than boys, but the difference is only 4%. This time there is very little difference by SES.

Figure 75: Parents' restrictive mediation of the child's internet use, according to child and parent, by country



QC328 and QP221: Whether your parents let you [your child is allowed to] do this all of the time, only with permission/supervision or never allowed.

Note: The latter two options are combined to calculate the percentage for whom rules or restrictions apply.

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

- Looking at national differences, Figure 75 shows the range is from a high level of restrictions in Germany (92%) and France (91%) to only 54% in Lithuania – indicating country differences in restrictive mediation are substantial.
- There are also some major differences among countries in terms of how much children and parents agree that rules exist, with disagreement between the children's and parents' answers highest in Poland (21% disagreement) and Estonia (12%).

The internet is distinctive insofar as it keeps a record of previous activity, making it possible for parents to monitor or check on their children during or, more often, after use of the internet (Table 53). While restrictive mediation can be difficult insofar as it causes arguments at home, monitoring is difficult insofar as it seems to undermine the trust relation between parent and child.

Table 53: Parent's monitoring of the child's internet use, according to child

% who say parents check...	9-12 years		13-16 years		All
	Boys	Girls	Boys	Girls	
Which websites you visited	60	59	36	36	46
Your profile on a social network or online community	55	59	30	35	40
Which friends or contacts you add to social networking profile	50	54	27	29	36
The messages in your email or instant messaging account	42	40	17	19	25
One or more of these	58	57	43	45	50

QC330: Does your parent/either of your parents sometimes check any of the following things?

Base: All children who use the internet at home.

- It seems that the **monitoring strategies are adopted by one in two parents, making this the least favoured strategy by comparison with positive support, safety guidance or making rules about internet use.**

- Checking which websites children visit is the most common form of monitoring (46%), perhaps reflecting the relative ease of doing this.
- Checking social networking profiles (40%) or the friends who are added to those profiles (36%) is less common, although still more practised than actually checking the content of children's messages.
- There are notable age differences and it seems that parents are trying to respect a teenager's privacy especially.

Table 54: Parent's monitoring of the child's internet use, according to child and parent

% who say that their parents sometimes...	Child no		Child yes	
	Parent no	Parent yes	Parent no	Parent yes
Which websites you visited	39	15	9	37
Your profile on a social network or online community	45	16	9	31
Which friends or contacts you add to social networking profile	48	16	9	27
The messages in your email or instant messaging account	62	13	8	18

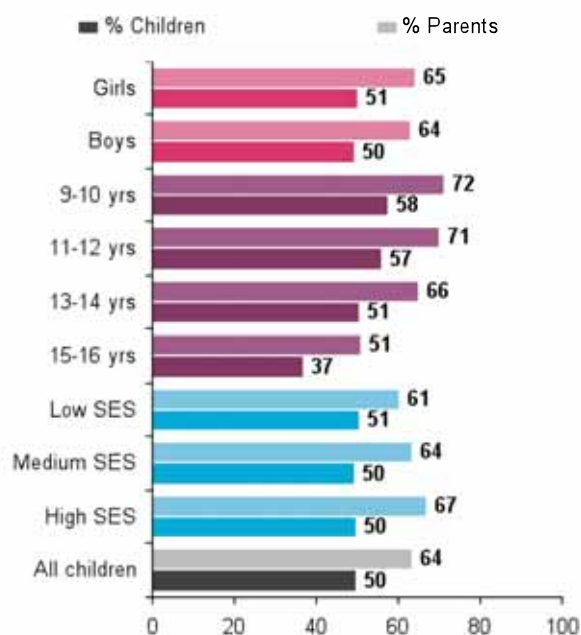
QC330 and QP223: Does your parent/either of your parents sometimes check any of the following things?

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

- From Table 54, it can be seen that parents and children are mostly in agreement about whether parents monitor what their children do on the internet and that this applies both to things that parents are more likely to do (such as checking on which websites the children visit) and things that parents are unlikely to do (such as checking the messages in the children's email or instant messaging account).
- For the 15% of parents who say they monitor websites when their child says they do not, it may be that children simply do not know what monitoring parents undertake.
- As with other mediation activities parents are more likely than their children to claim that they do certain

things themselves rather than their children saying that their parents do something that the parents themselves claim that they do not do.

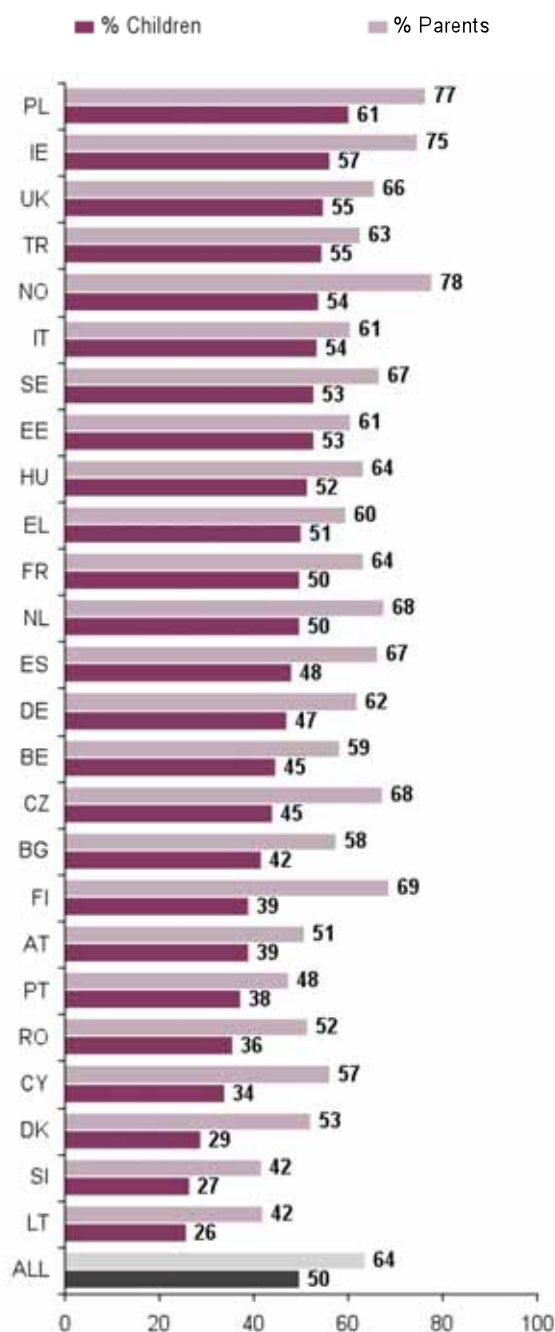
Figure 76: Parent's monitoring of the child's internet use, according to child and parent



QC330 and QP223: Does your parent/either of your parents sometimes check any of the following things?

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

- Figure 76 shows few gender differences but a substantial decline in monitoring as children grow older: 58% of the parents of 9-10 year olds use one or more forms of monitoring, but only 37% do so for their 15-16 year olds. There is virtually no difference by SES.
- Country differences, shown in Figure 77, are substantial, ranging from 61% of parents monitoring children's activities (according to the child) in one or more ways in Poland down to only 26% doing this in Lithuania.
- Also substantial are the disagreements between children and parents over whether monitoring is taking place, with most disagreements in Finland (30% disagreement), Norway and Denmark (both 24%) and Cyprus (23%). Lesser, but still striking, degrees of disagreement exist in a number of other countries.

Figure 77: Parent's monitoring of the child's internet use, according to child and parent, by country

QC330 and QP223: Does your parent/either of your parents sometimes check any of the following things?

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

For the internet in particular, 'parental tools' have been developed as technical solutions to the challenge of parental mediation. Thus, last, parents and children were asked if the parents use any technical means to monitor what the child does online (Table 55).

Table 55: Parents' technical mediation of the child's internet use, according to child

% who say parents check...	9-12 years		13-16 years		All
	Boys	Girls	Boys	Girls	
Software to prevent spam/junk mail or viruses	74	74	72	73	73
Parental controls or other means of blocking or filtering some types of website	38	35	24	26	28
Parental controls or other means of keeping track of the websites you visit	35	31	20	21	24
A service or contract that limits the time you spend on the internet	18	15	13	10	13
One or more of these	76	74	75	75	75

QC331: Does your parent/either of your parents make use of the following?

Base: All children who use the internet at home.

- The major form of technical intervention, occurring in nearly three quarters of households (73%) does not relate to safety concerns but rather to security, being used to control spam and viruses (Table 55).
- Beyond this, use of technical tools is relatively low, especially by comparison with other parental mediation strategies. Still, roughly a quarter of parents blocks or filters websites (28%) and/or tracks the websites visited by their children (24%).

Table 56: Parents' technical mediation of the child's internet use, according to child and parent

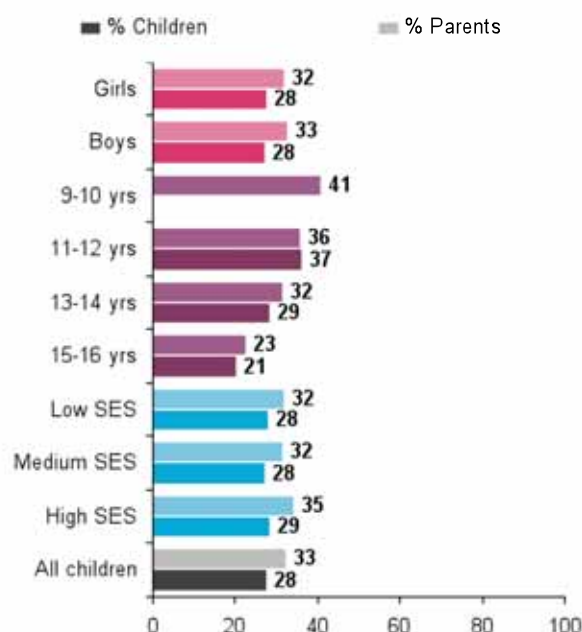
% who say that their parents sometimes...	Child no		Child yes	
	Parent no	Parent yes	Parent no	Parent yes
Software to prevent spam/junk mail or viruses	17	9	8	67
Parental controls or other means of blocking or filtering some types of website	63	9	8	21
Parental controls or other means of keeping track of the websites you visit	67	9	8	15
A service or contract that limits the time you spend on the internet	83	5	6	7

QC330 and QP223: Does your parent/either of your parents sometimes check any of the following things?

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

- Unlike for the use of monitoring software, it seems children and parents agree over whether parents use technical tools to mediate their children's internet use (Table 56).
- In Figure 78 parents claim to use controls to filter or block sites their child can visit just slightly more than do their children (33% vs. 28%). There is little difference by gender and SES. But filtering tools are used less, the older the child – and they are used by only a fifth (21%) of parents of 15-16 year olds .

Figure 78: Parents' use of parental controls or other means of blocking or filtering some types of websites

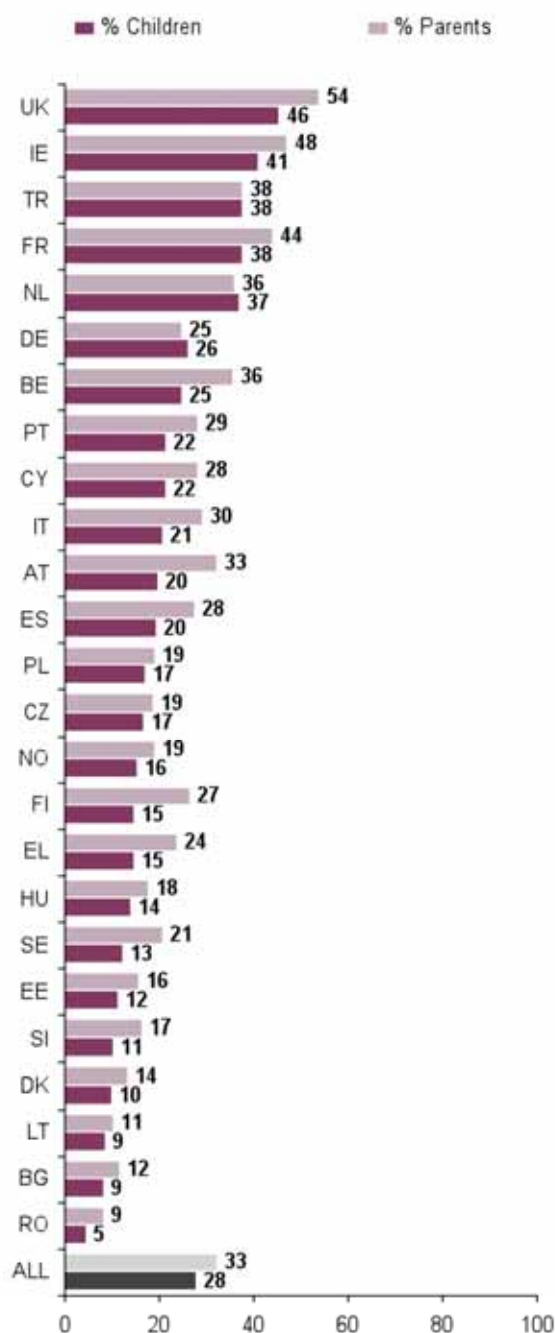


QC331: Does your parent/either of your parents make use of the following? Use of parental controls or other means of blocking or filtering some types of websites. QP224: Do you make use of any of the following? Parental controls or other means of blocking or filtering some types of website

Base: All children who use the internet at home and one of their parents. Note: 9-10 year olds were not asked if their parents used blocking or filtering technology.

- Figure 79 shows very considerable variation by country in use of filtering technology, ranging from 46% in the UK, according to children, to 5% in Romania. In general, filtering is less used in Eastern European countries and most used in English-speaking countries. Apart from in Germany, the Netherlands and Turkey, parents claim to use controls more than the children say they do, markedly so in a few countries (Austria, Finland, Sweden, Belgium and Greece).

Figure 79: Parents' use of parental controls or other means of blocking or filtering some types of websites, by country



QC331: Does your parent/either of your parents make use of the following? Use of parental controls or other means of blocking or filtering some types of websites. QP224: Do you make use of any of the following? Parental controls or other means of blocking or filtering some types of website

Base: All children who use the internet at home and one of their parents. Note: 9-10 year olds were not asked if their parents used blocking or filtering technology.

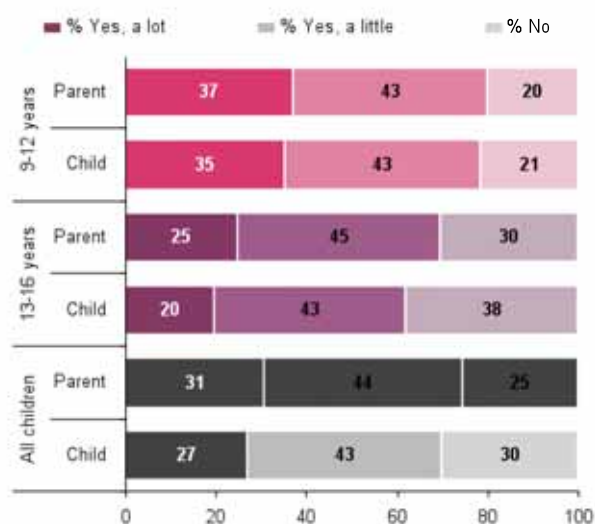
10.2. Judging parental mediation

Does parental mediation work? It is possible, although difficult, to determine whether parental mediation works in the sense of reducing children's exposure to online risk or experiences of harm.⁷⁶ More straightforwardly, although less objectively, one can also ask parents and children for their judgements.

The *EU Kids Online* survey asked children and parents to reflect directly on the role played by parents, to throw some light on what seems to work and, if not, why not. In future analysis, *EU Kids Online* will pursue the statistical relations among parental knowledge of the internet, parental mediation and children's experiences of harm.

Thus the survey asked children and parents whether parental mediation activities are generally helpful or not (Figure 80).

Figure 80: Whether parental mediation is helpful, according to child and parent



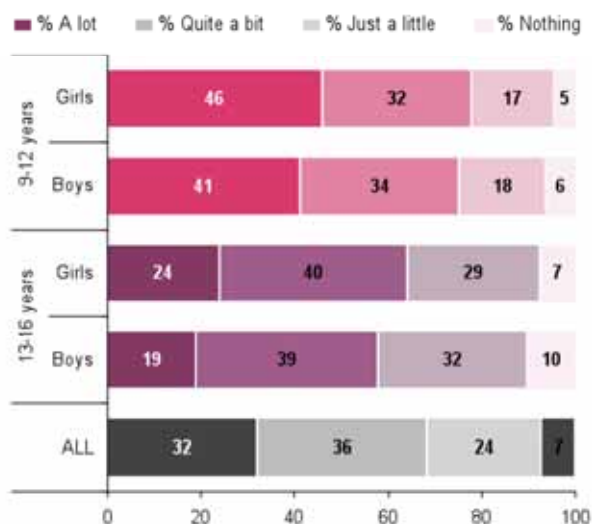
QC332: Do the things that your parent does/parents do relating to how you use the internet help to make your internet experience better, or not really? QP225: Do the things that you (and your partner/other carer) do relating to how your child uses the internet help to make his/her internet experience better, or not really?

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

- Both children and parents consider parental mediation helpful to some degree, it seems. Over two thirds of children (70%) say it helps a lot or a little.
- 9-12 year olds are more positive, perhaps reflecting their relative lack of skills; for them, parental mediation may indeed be more helpful.
- Generally, parents and children agree in their evaluation of parental mediation, although teenagers (13-16) are a little more critical than their parents (38% say it does not help vs. 30% of parents saying this).

Why, overall, might only one quarter of children find parental mediation very helpful, over four in ten find it a little helpful, and nearly a third consider it not helpful? The EU Kids Online survey pursued several possibilities, including (i) whether children consider that their parents really know enough about the child's internet use, (ii) whether parental mediation is seen as more restrictive of online opportunities than beneficial, or (iii) whether parental mediation is just something that children ignore.

Figure 81: How much parents know about their child's internet use, according to child



QC325: How much do you think your parent(s) knows about what you do on the internet?

Base: All children who use the internet.

- Figure 81 shows that **two thirds of children (68%) think their parents know a lot or quite a bit about**

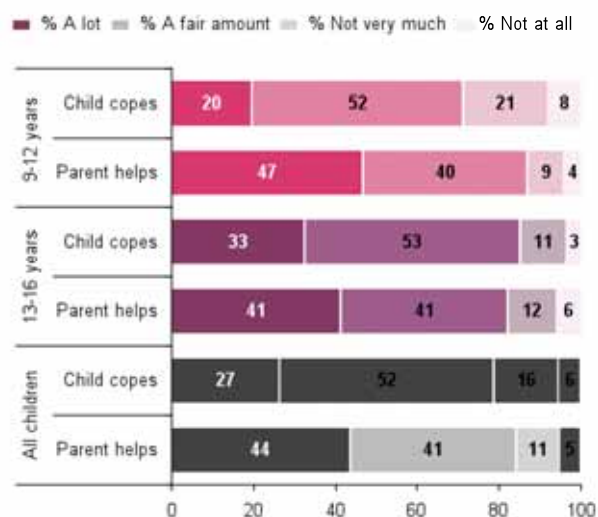
their children's internet use, only 7% claiming that their parent knows nothing.

- Younger children are more likely to think their parents know more, in line with the finding that parents mediate their experiences more than for teenagers.
- Girls are a little more inclined than boys to think that their parents know a lot.

The balance between well-judged parental intervention in the child's internet use and trusting the child to deal with online experiences themselves is difficult for any parent.

Not all parents may feel confident that they can help their child deal with anything on the internet that bothers them. And they may feel that their child is themselves better able to cope with their own online experiences.

Figure 82: Parents' ability to help their child and child's ability to cope, according to parent



QP233: To what extent, if at all, do you feel you are able to help your child to deal with anything on the internet that bothers them?

QP234: To what extent, if at all, do you think your child is able to deal with things on the internet that bothers them?

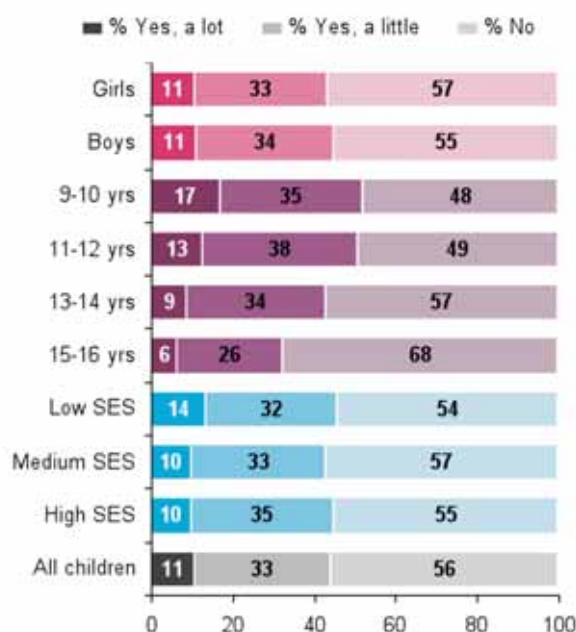
Base: Parents whose child uses the internet.

- Figure 82 shows that **the majority of parents (85%) are confident about their role, feeling they can help their child a lot or a fair amount if their child encounters something that bothers them online.**
- Parents of younger children are somewhat more inclined to say they can help a lot.
- Parents are also confident in their child's ability to cope with things online that may bother them, with

over three-quarters (79%) indicating that they have a lot or fair amount of confidence in their child – this is more the case for parents of older children.

Another source of doubt regarding the value of parental mediation is the possibility that parental mediation may limit opportunities as well as support online safety. Thus, children and parents were asked whether parental activities limit what the child can do online (Figure 83).

Figure 83: Whether parental mediation limits the child's activities on the internet, according to child



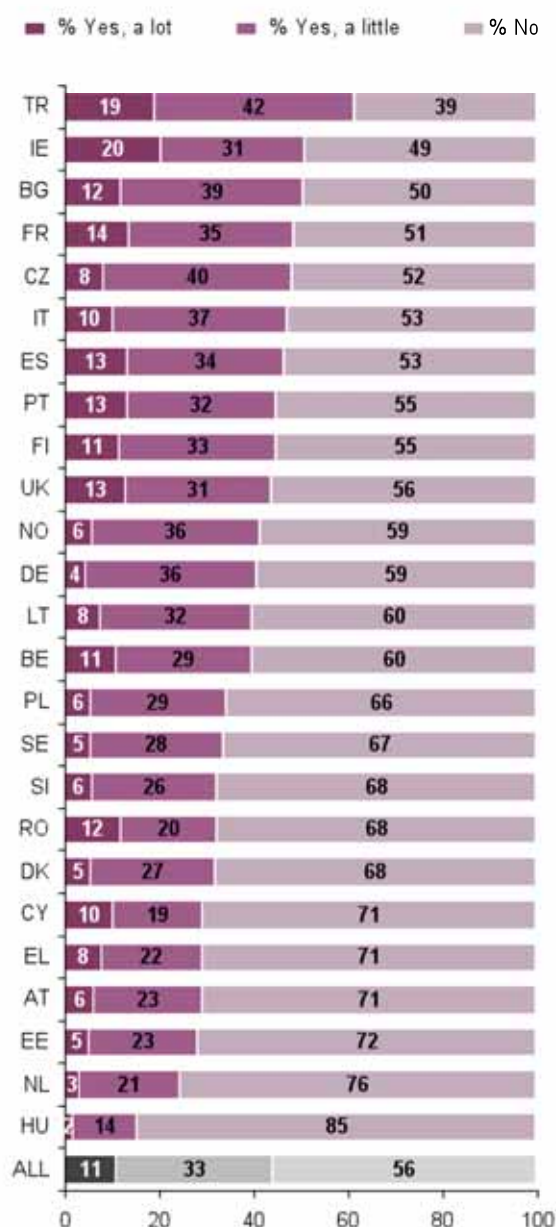
QC333: Do the things that your parent does (parents do) relating to how you use the internet limit what you can do on the internet or not really?

Base: All children who use the internet.

- **Just under half (44%) of children think that parental mediation limits what they do online, 11% saying it limits their activities a lot.**
- As might be expected given greater parental mediation, the younger children are somewhat more likely to say it limits them, and that it limits them a lot. It is worth noting, however, that the opposite result might have been predicted, namely that teenagers would feel more restricted by parental activities than younger children.
- Figure 83 shows that there are few gender and SES difference, although a few more children from lower

SES homes who think parental mediation limits them a lot. As already noted, there are clear age differences: the older the child, the less parental mediation limits them.

Figure 84: Whether parental mediation limits the child's activities on the internet, according to child, by country



QC333: Do the things that your parent does (parents do) relating to how you use the internet limit what you can do on the internet or not really?

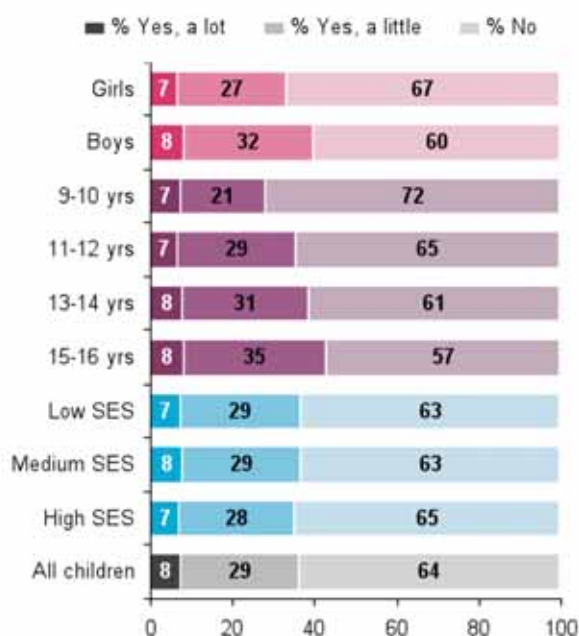
Base: All children who use the internet.

- Responses by country (shown in Figure 84) indicate that children in some countries feel rather more restricted by parental mediation (e.g. in Turkey, Ireland and Bulgaria) than in others (e.g. Hungary, and the Netherlands).

Examining the link between parental mediation and children's sense of restriction remains for future research.

So, do children say that they simply ignore parental efforts to mediation their internet use, as is popularly supposed?

Figure 85: Whether child ignores what parents say when they use the internet, according to child

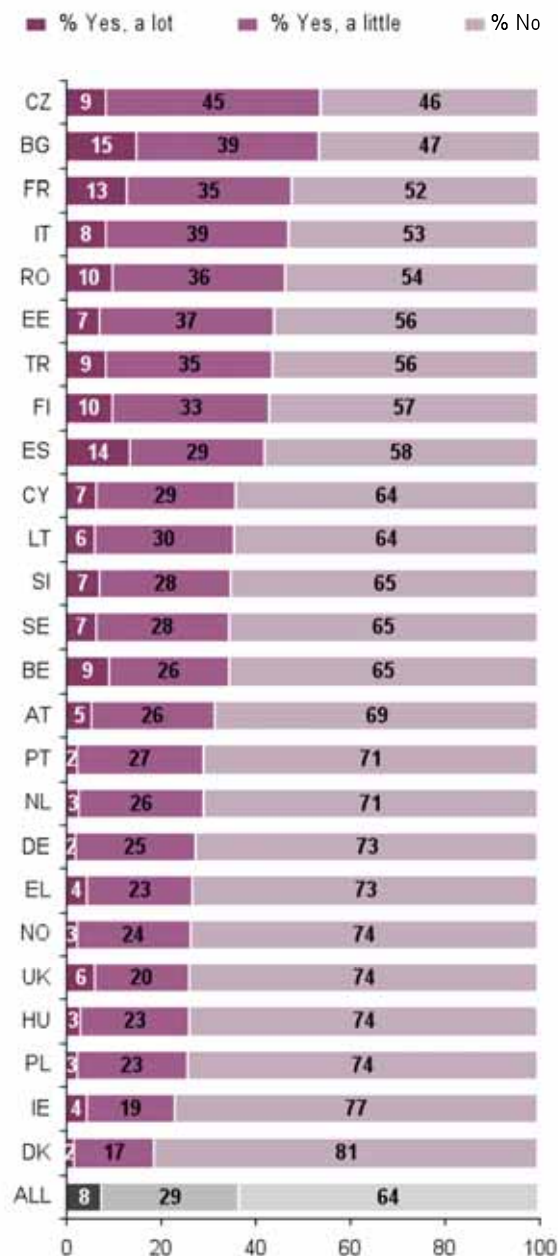


QC334: And do you ever ignore what your parent(s) tell you when use the internet, or not really?

Base: All children who use the internet.

- Figure 85 shows that nearly two-thirds (64%) say they do not simply ignore their parents' efforts to mediate their internet use. **However, 29% say they ignore their parents a little and 8% of children say they ignore their parents a lot.**
- Teenagers are more likely than 9-10 year olds especially to say they ignore what their parents do or say about their internet use, although only a little.
- Boys are a little more likely to say they ignore their parents (possibly a social desirability effect).

Figure 86: Whether child ignores what parents say when they use the internet, according to child, by country



QC334: And do you ever ignore what your parent(s) tell you when use the internet, or not really?

Base: All children who use the internet.

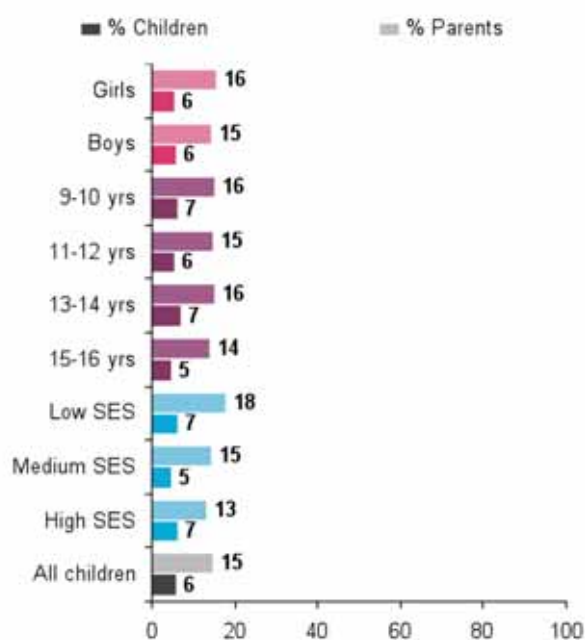
- Figure 86 reveals a substantial amount of national variation. The percentage of children saying they do

not ignore parental mediation ranges from 46% in the Czech Republic to 81% in Denmark.

Whether effective or not, there is clearly a considerable amount of parental mediation of different kinds being practised in European families. In a cross-sectional survey, it is not possible to determine whether this mediation reduces the risk of harm to children online. Indeed, it may be that parents act as they do precisely because something has already upset their child.

In other words, the mediating activities may be a response to problematic experiences in the past. Or it may be that parents do what they do because they anticipate future problems, and seek to prevent them. The *EU Kids Online* survey asked children and parents about this possibility.

Figure 87: Whether parents do anything differently because the child has been bothered by something on the internet, according to child and parent

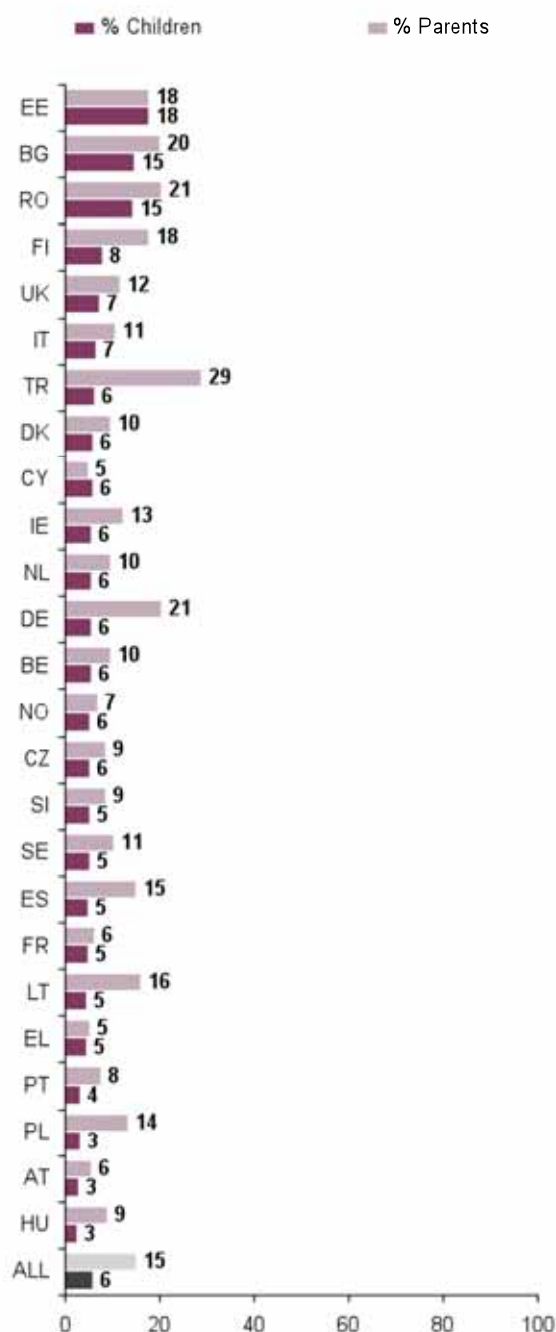


QC335: Does your parent / Do your parents do anything new or different these days because you have been bothered by something on the internet in the past, or not really? QP227: Do you (or your partner/other carer) do anything different these days because your child has been bothered by something on the internet in the past or not really?

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

- Figure 87 shows that **15% of parents claim that they mediate differently because of something that had bothered the child in the past**. Only 6% of children give this explanation for parental mediation.

Figure 88: Whether parents do anything differently because the child has been bothered by something on the internet, according to child and parent, by country

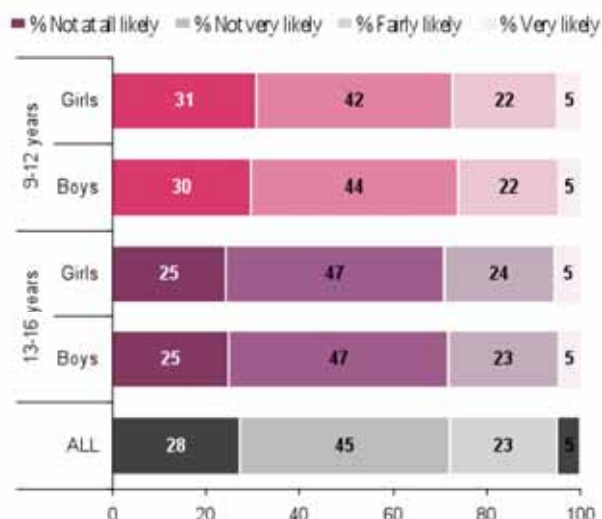


QC335: Does your parent / Do your parents do anything new or different these days because you have been bothered by something on the internet in the past, or not really? QP227: Do you (or your partner/other carer) do anything different these days because your child has been bothered by something on the internet in the past or not really?

- National variation is more noteworthy (see Figure 88): 18% of children claim that their parents mediate differently because of something that upset them in Estonia, compared with just 3% in Hungary. Claims by parents reveal even greater national variation, from 29% in Turkey to 5% in Greece.

It may not be past problems but rather the anticipation of future problems that stimulates parents to mediate their children's internet use – see Figure 89 for parental anticipation of future problems encountered by their children online.

Figure 89: Whether parent thinks their child will experience problems on the internet in the next six months



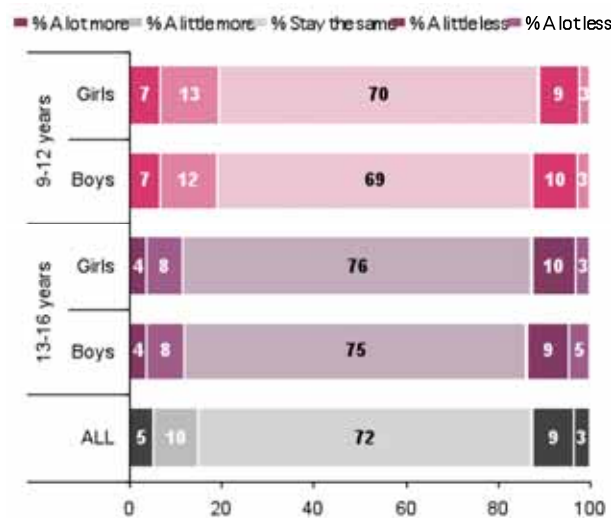
QP232: In the next six months, how likely, if at all, do you think it is that your child will experience something on the internet that will bother them?

Base: Parents of children who use the internet.

- Figure 89 suggests **many parents (73%) are confident that is not very or at all likely that their child will encounter anything that bothers them in the next six months.**
- However, 28% think it fairly or very likely that their child will experience something that bothers them online in the next six months.
- There seems little variation in this regard by the age or gender of the child.

Last, it may be asked whether children and parents think the level of parental mediation they receive is about right. We asked children if they would like their parents to take more or less interest in what they do online. And we asked parents if they think they should do more or not.

Figure 90: Whether the child would like their parent(s) to take more or less interest in what they do online



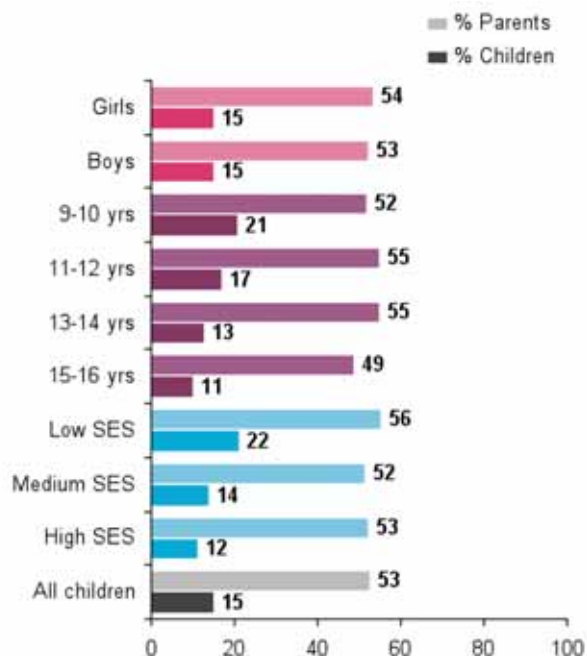
QC326: Overall, would you like your parent(s) to take more or less interest in what you do on the internet, or stay the same?

Base: All children who use the internet.

- Figure 90 shows that from the perspective of most children (72%), and even more for teenagers, parents have got it about right, since these children think the level of parental interest in their online activities should stay the same.
- 15% would like their parents to do a little or a lot more, however. On the other hand, 12% would like their parents to do rather less.**

Figure 91 and Figure 92 examine more closely those children who would like their parents to take a bit or a lot more interest in their internet use, by demographics and by country. We also compare these with the proportions of parents who say that they should do a bit or a lot more.

Figure 91: Children who would like their parent(s) to take more interest in what they do online, and parents who think they should do more



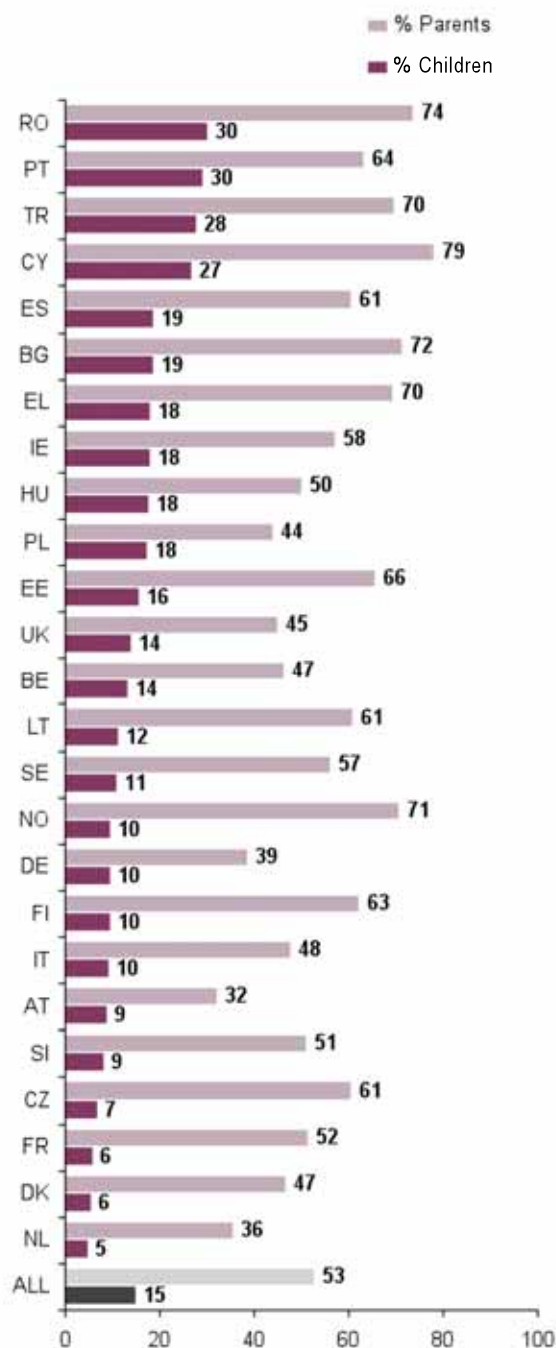
QC326: Overall, would you like your parent(s) to take more or less interest in what you do on the internet, or to stay about the same? And is that a lot/little more/less? QP226: Speaking of things you do in relation to your child's internet use, do you think you should do more, or not really?

Note: graph shows children who say yes, a bit or a lot more, and parents who say yes, a bit or a lot more.

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

- Of the 15% of children who would like their parents to take more of an interest in their internet use, most strikingly this call comes from younger children (21% of 9-10 year olds say this) and children from lower SES homes (also 22%). (See Figure 91).
- Older teenagers and higher SES children are least likely to wish for more parental interest, although whether this is because they find it intrusive or they already have 'enough' is hard to determine.
- Strikingly, half of parents (53%) think they should do more in relation to their children's internet use. Here it is the absence of significant differences by age or SES that is noteworthy – half of parents seem to feel generally that they should do more but this is not obviously linked to children's own sense of need.

Figure 92: Children who would like their parent(s) to take more interest in what they do online, and parents who think they should do more, by country



QC326: Overall, would you like your parent(s) to take more or less interest in what you do on the internet, or to stay about the same? And is that a lot/little more/less? QP226: Speaking of things you do in relation to your child's internet use, do you think you should do more, or not really? *Note: graph shows children who say yes, a bit or a lot more, and parents who say yes, a bit or a lot more.* Base: All children who use the internet and one of their parents.

- Country differences in children's desire for more parental input are noteworthy, with children in Eastern and Southern Europe greatly wishing that their parents would show more interest in what they do online – especially Romania, Portugal, Turkey and Cyprus (see Figure 92).
- By contrast, children in the Netherlands, Denmark and France wish for little or no further input from their parents.
- Parents in these and most other countries take a different view, and their views show little relation to children's wishes. Parents in Cyprus (79%) and Romania (74%) are most likely to think they should do more, while parents in the Austria (32%) and the Netherlands (36%) are least likely to think this.

11.3. Teachers

Parents are not the only adults with a responsibility to mediate children's internet use or safety. To aid comparison, **children (although not their teachers) were asked about the kinds of mediating activities undertaken by their teachers at school.**

One question asked about active mediation of internet use ('have your teachers ever talked to you about what you do on the internet?'), another asked about restrictive mediation ('have your teachers ever made rules about what you can do on the internet at school?'),⁷⁷ and the remainder asked about active mediation of internet safety, using the items also asked about parents (Table 57).

- Around half of children think that their teachers have engaged with their internet use in most of the ways asked about, and 73% of children say their teachers have done at least one of the forms of active mediation of internet safety asked about (and 81% have done any of the forms of mediation asked about).**
- Only one quarter (24%) say their teachers have helped when something bothered them on the internet, but doubtless this reflects the relatively few incidents that bother children.

Table 57: Teachers' mediation of child's internet use, according to child

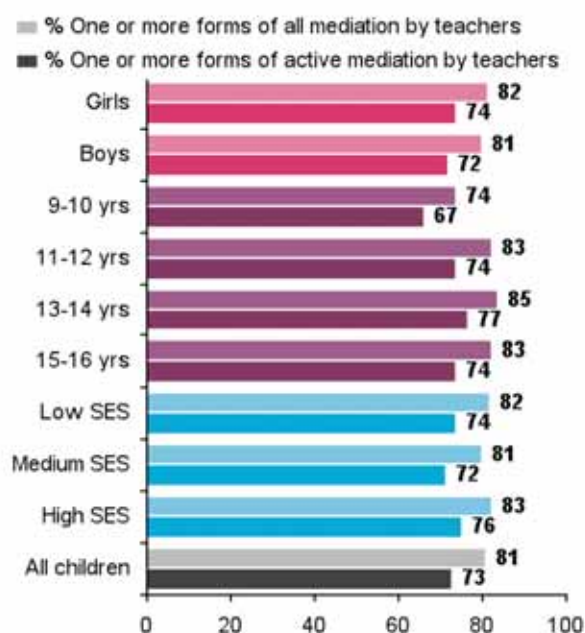
% who say teachers at their school have ever...	9-12 years		13-16 years		All
	Boys	Girls	Boys	Girls	
Helped you when something is difficult to do or find on the internet	55	58	58	60	58
Explained why some websites are good or bad	55	56	60	60	58
Suggested ways to use the internet safely	53	56	60	62	58
Suggested ways to behave towards other people online	45	45	51	50	48
Talked to you about what to do if something on the internet bothered you	38	40	42	42	40
Helped you in the past when something has bothered you on the internet	24	26	24	23	24
One or more forms of active mediation of internet safety	69	72	75	76	73
Made rules about what you can do on the internet at school	57	60	66	66	62
Talked to you about what you do on the internet	52	54	52	54	53
One or more of all of the above	78	80	83	84	81

QC338: Have any teachers at your school ever done any of these things? (*Multiple responses allowed*)

Base: All children who use the internet.

- Older children report more mediation by teachers, except there is no age difference in relation to being bothered by something online. There are few or no significant gender differences.
- By comparison with forms of active mediation, children report slightly more mediation from teachers in terms of rule making.
- Just over half (53%) say that their teachers talk to them about what they do on the internet.
- Overall, therefore, four in five (81%) report some mediation of their online activities from their teachers.
- Still, it is noteworthy that one in five of children who use the internet report that their teachers have not engaged with them in any of these ways at all.
- Figure 93 reveals few differences by gender or SES in children's experience of mediation by teachers.

Figure 93: Teachers' active mediation of child's internet safety, according to child



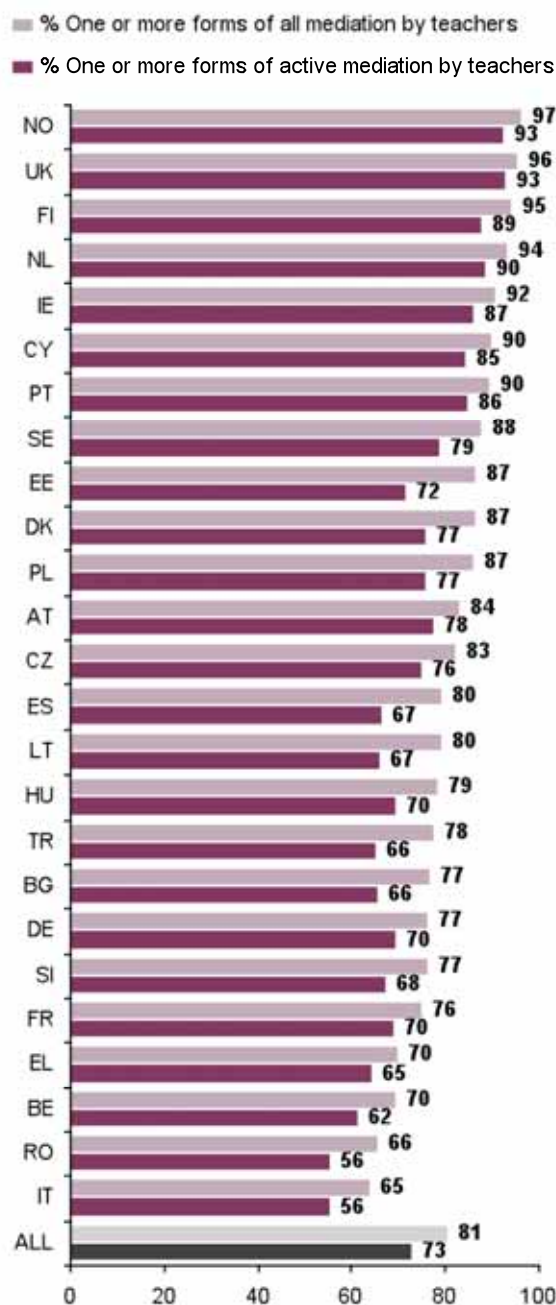
QC338: Have any teachers at your school ever done any of these things? (Multiple responses allowed)

Base: All children who use the internet.

- Age differences are noteworthy: teachers engage least with 9-10 year olds internet use.**
- Figure 94 shows national variation in the role that teachers play, from 97% of teachers in Norway down to 56% in Italy practising at least one of the forms of active mediation of internet safety asked about, according to children).

practising at least one form of mediation (and 93% of teachers in Norway down to 56% in Italy practising at least one of the forms of active mediation of internet safety asked about, according to children).

Figure 94: Teachers' mediation of child's internet use, according to child, by country



QC338: Have any teachers at your school ever done any of these things? (Multiple responses allowed)

Base: All children who use the internet.

11.4. Peers

Some of the same questions regarding forms of mediation can also be asked of children's friends. Previous research has often shown that children would rather turn to their friends than to an adult when something online bothers or worries them.⁷⁸ But little is known about whether or how children really support each other in terms of internet safety.

Five of the questions on active mediation of internet safety were also asked of friends (see Table 58).

Table 58: Peers' active mediation of child's internet safety, according to child

% who say friends at their school have ever...	9-12 years		13-16 years		All
	Boys	Girls	Boys	Girls	
Helped you when something is difficult to do or find on the internet	57	59	66	71	64
Suggested ways to use the internet safely	39	41	47	47	44
Explained why some websites are good or bad	39	40	42	45	41
Suggested ways to behave towards other people online	33	35	39	42	37
Helped you in the past when something has bothered you on the internet	26	25	28	33	28
One or more of the above	68	69	77	79	73

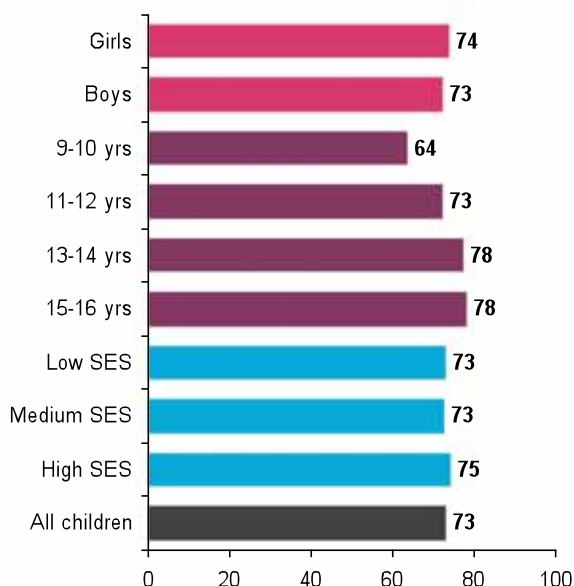
QC336: Have your friends ever done any of these things? (Multiple responses allowed)

Base: All children who use the internet.

- **Three quarters (73%) of children say their peers have actively helped or supported their internet safety in at least one of the five ways asked about** (Table 58).

- As with teachers, this suggests that children do consider other children quite supportive in general, more so in the case of older children.
- **Peers are much more likely to mediate in a practical way, helping each other to do or find something when there is a difficulty (64%).** Fewer say that peers help when they are bothered by something (28%), but as noted before, this may reflect the fact that few are bothered. Moreover, this finding is slightly higher than in the case of teachers (Table 57).
- **Also compared with help from teachers, it seems peers are less likely to give safety or ethical advice.**
- Generally, older children claim their peers help them more than do younger children.
- The main gender difference is found specifically with older girls claiming that their peers help them more in a variety of ways compared to boys of that age – although the gaps are just a few percentage points.

Figure 95: Peer mediation of child's internet safety, according to child

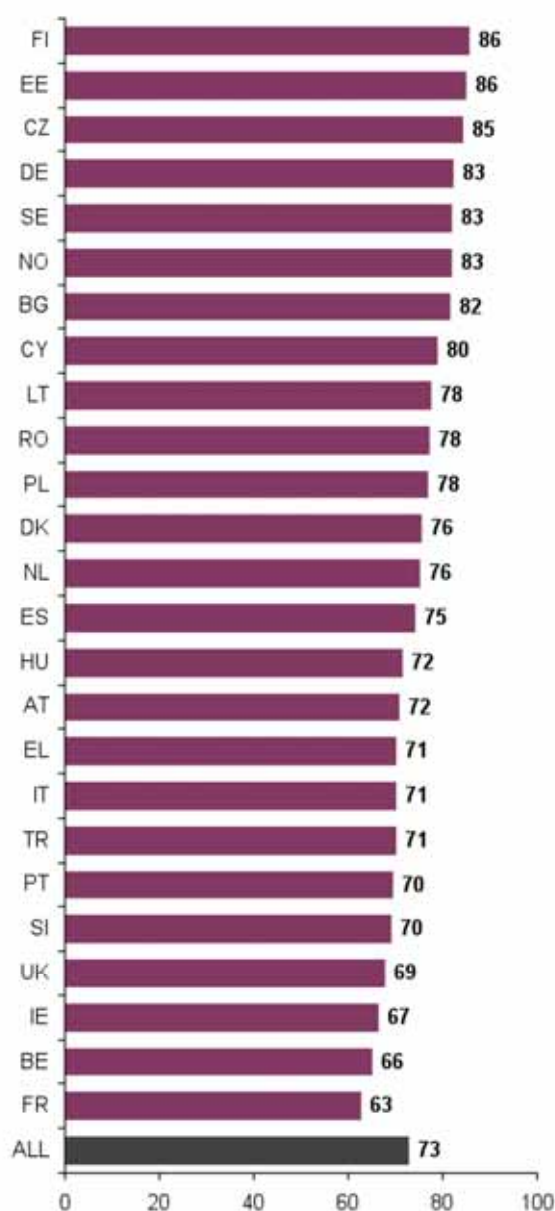


QC336: Have your friends ever done any of these things? (Multiple responses allowed)

Base: All children who use the internet.

- Figure 95 indicates few gender or SES differences in peer support, but it reaffirms the finding that older children think their peers mediate more, especially compared with the youngest group of 9-10 year olds.

Figure 96: Peer mediation of child's internet use, according to child, by country



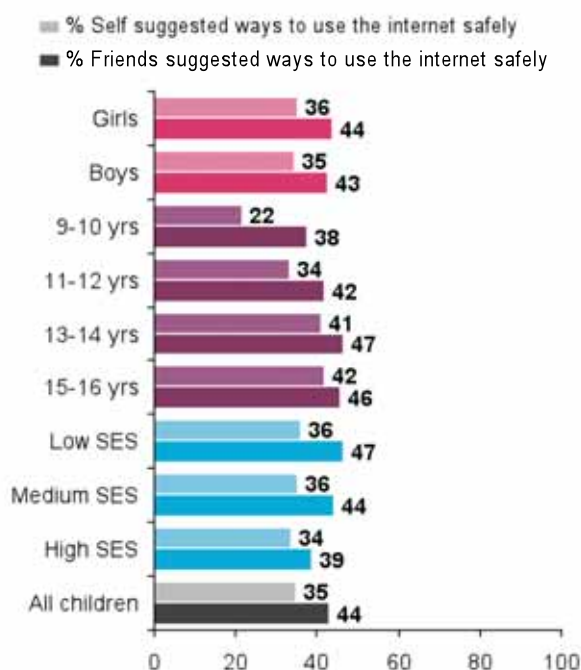
QC336: Have your friends ever done any of these things?
(Multiple responses allowed)

Base: All children who use the internet.

- Figure 96 shows that country differences in peer support are, as with teachers, substantial. They range from 86% of children in Finland and Estonia receiving guidance from their peers to 63% in France.
- Interestingly, in some of the countries where parents and children were found to disagree about how much parental mediation takes place, children report more support from their peers (e.g. Finland and Sweden).

Distinctively, peer mediation can work both ways. Thus children were also asked if they advise friends online in similar ways, specifically as regards how to use the internet safely.

Figure 97: Peer mediation of child's safe internet use, according to child



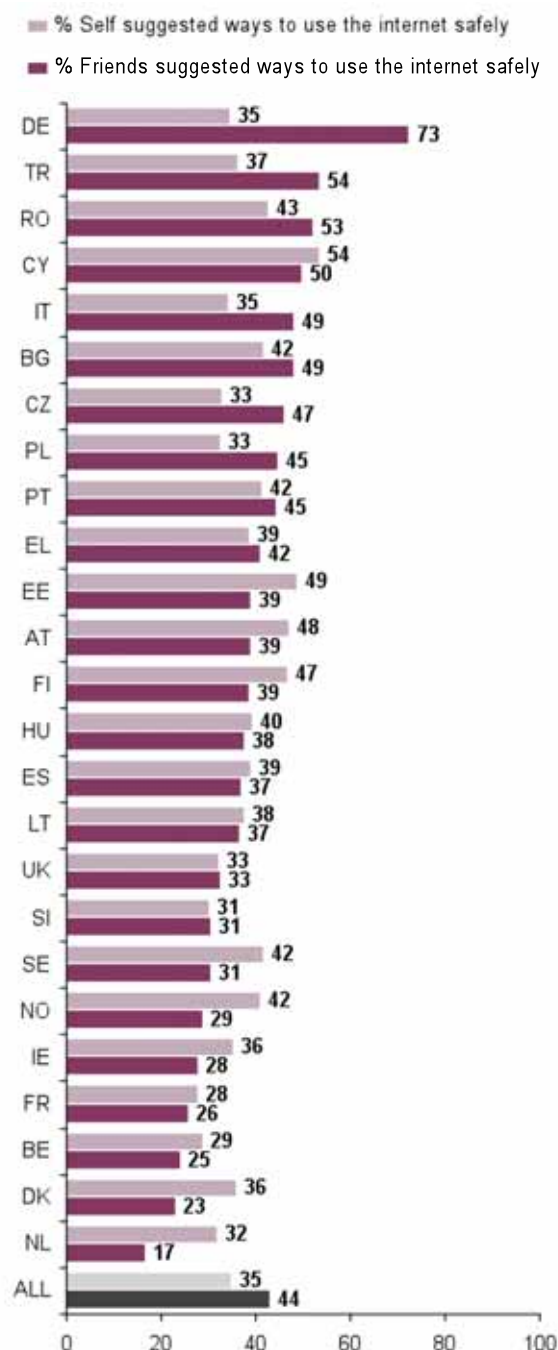
QC337: Have you ever suggested ways to use the internet safely to your friends. QC336c: Have your friends ever done any of these things – suggested ways to use the internet safely.

Base: All children who use the internet.

- Overall, 44% of children say they have received some guidance on safe internet use from their friends, and 35% say that they have also provided such advice to their friends (Figure 97).**

- Older children both help and are helped by peers in how to be safe online, suggesting a constructive peer culture among those aged 11 and over.
- For the youngest group, children say they benefit from the support of others more than they themselves provide such help.
- The lower the SES the greater the degree to which children say peers help.
- Considerable national differences are evident in the degree of peer support (Figure 98). About half report guiding their friends in Cyprus, Estonia, Austria and Finland, while less than a third claims this in Belgium and France.
- Countries are fairly evenly split as to whether more children say they give or receive advice, although in Germany it is noticeable that far more say they receive advice.

Figure 98: Peer advice on how to use the internet safely, according to child, by country



QC337: Have you ever suggested ways to use the internet safely to your friends. QC336c: Have your friends ever done any of these things – suggested ways to use the internet safely.

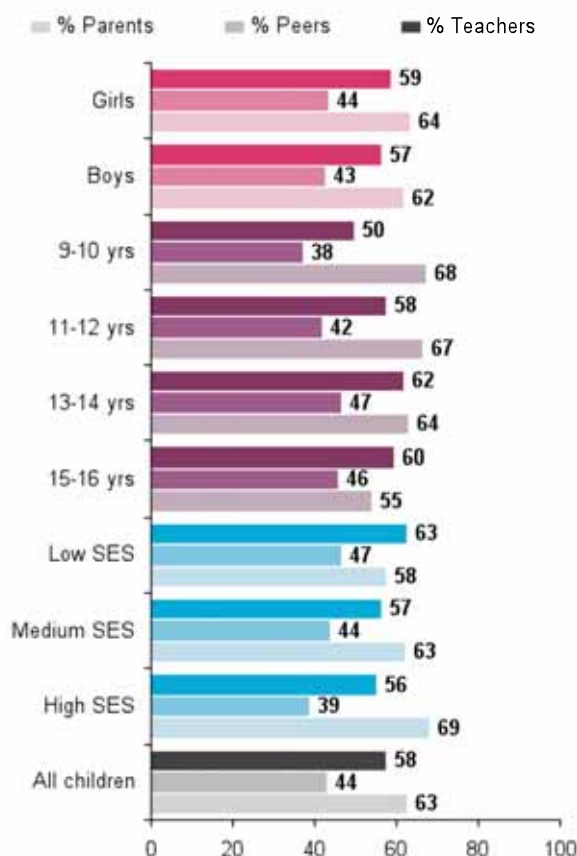
Base: All children who use the internet.

11.5. Parent, teacher and peer mediation compared

In designing the questionnaire, for reasons of both interview length and question repetition (which is useful for making comparisons but boring for the child respondent), not all questions were asked of all forms of mediation. However, one question was repeated across all the contexts discussed above: have your parents/teachers/friends 'suggested ways to use the internet safely?'

Figure 99 compares children's receipt of internet safety advice from parents, teachers and peers.

Figure 99: Whether parents, peers or teachers have ever suggested ways to use the internet safely, according to child

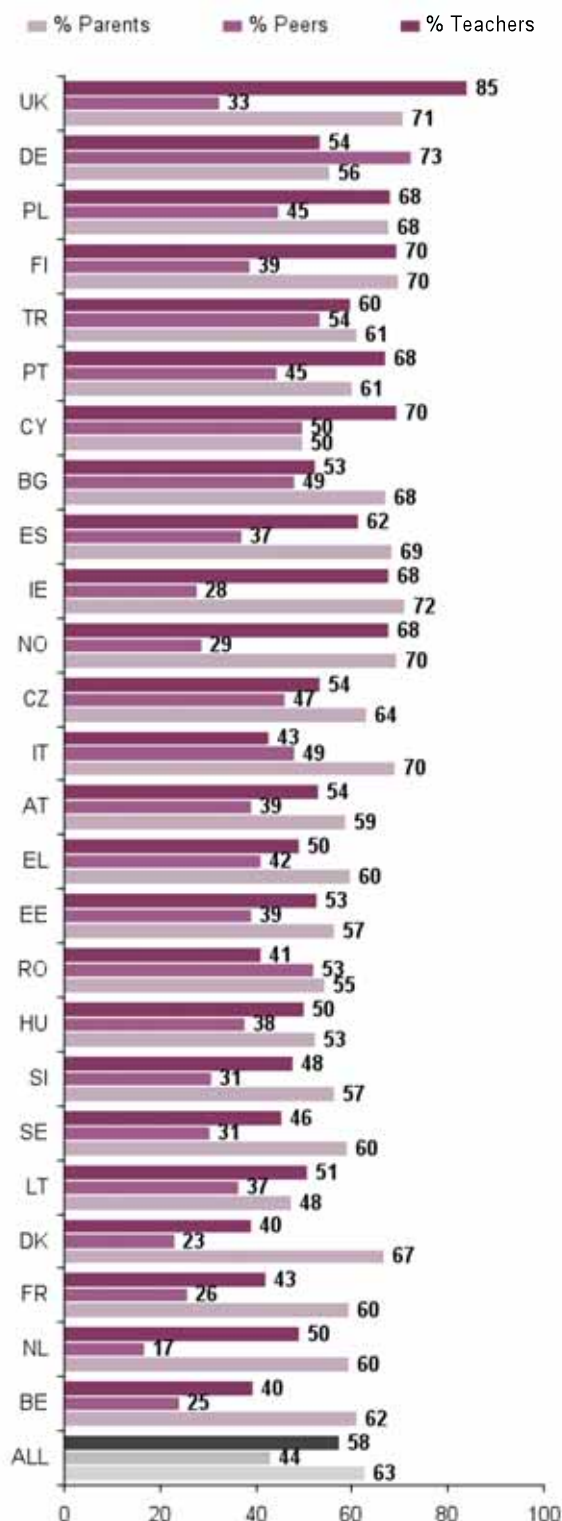


QC329c: Have your parents ever suggested ways to use the internet safely? QC336c: Have your friends ever suggested ways to use the internet safely? QC338d: Have your teachers ever suggested ways to use the internet safely?

Base: All children who use the internet.

- It seems that internet safety advice is received first from parents (63%), then teachers (58%), then peers (44%).
- Interestingly, the rank order varies by demographics. So, for most groupings, the order is as for children overall (most from parents, then teachers, then peers). **But for the older teenagers and for children from lower SES homes, advice from teachers overtakes that of parents.**
- In the case of older teenagers, this appears to be because parents have reduced their guidance, while teachers maintain their guidance across the age range.
- In the case of children from lower SES homes, this appears to be because their parents provide rather less guidance than do those of higher SES parents.
- However, the picture is more varied when we look at different countries (Figure 100). While in most countries the order is the same, in Portugal teachers give more safety advice, in Italy and Romania peers (after parents) give more advice than teachers, and in Germany it is peers who noticeably give the most advice.

Figure 100: Whether parents, peers or teachers have ever suggested ways to use the internet safely, according to child, by country



QC329c: Have your parents ever suggested ways to use the internet safely? QC336c: Have your friends ever suggested ways to use the internet safely? QC338d: Have your teachers ever suggested ways to use the internet safely?

Base: All children who use the internet.

11.6. Sources of safety awareness

Parents, teachers and peers are clearly important, but there are also additional sources of information available to children regarding how to use the internet safely. How important are these? Use of a range of further sources is reported in Table 59.

Note that the response options in these tables did not include parents, teachers or friends, as these are reported above.

Table 59: Children's sources of advice on internet safety (other than parents, teachers or friends)

%	9-12 years		13-16 years		All
	Boys	Girls	Boys	Girls	
Other relative	44	50	45	47	47
Television, radio, newspapers or magazines	15	16	22	25	20
Websites	8	6	19	15	12
Someone whose job is to give advice over the internet	7	6	11	12	9
Internet service provider	4	3	11	7	6
Youth or church or social worker	5	5	7	8	6
Librarian	5	5	6	6	6
I haven't received advice from any of these	39	37	31	31	34

QC339: Have you EVER received advice about how to use the internet safely from any of these people or places? (Multiple responses allowed)

Base: All children who use the internet.

- **Other relatives (47%), interestingly, are generally as important as peers in providing advice to children on how to use the internet safely.**
- **Information received via the traditional mass media (20%) are less used, with online sources even less frequently used (12% have gained safety advice from websites).**
- Few reports turning to other adults for guidance, although some get advice from online advisors, youth workers, their internet service provider or a librarian.
- Older children get more advice from more other sources, with the exception of relatives. There are few gender differences, although it seems girls get more advice from the media.
- Most significant in Table 59 is that **around one third of children (34%) report that they have not received safety guidance from any of these sources, and that younger children report receiving less advice than do teenagers.**

Similar questions were also asked of parents, although a somewhat different list of advice sources was provided (Table 60). Additionally the *EU Kids Online* survey asked parents where they would like to get information and advice about internet safety from in the future, so as to focus further awareness-raising activities (Table 61).

- Table 60 indicates that **parents get internet safety advice first and foremost from family and friends (48%), then traditional media (32%), the child's school (27%), internet service providers (22%) and websites (21%).**
- Those with younger children (9-12 years) are a little more likely to get advice from their child's school.
- Interestingly, 13% say they have received safety information from their own child.
- One in seven parents (13%) reports getting no advice from any of these sources.

Table 60: Parents' actual sources of information on internet safety, by age of child

%	Age of child				All
	9-10	11-12	13-14	15-16	
Family and friends	50	49	49	44	48
Television, radio, newspapers or magazines	31	32	33	33	32
Your child's school	28	31	25	24	27
Internet service providers	23	22	22	20	22
Websites with safety information	21	19	22	20	21
From my child	8	11	14	16	13
Manufacturers and retailers selling the products	10	10	10	9	10
Other sources	9	8	8	9	8
Government, local authorities	7	8	7	6	7
Children's welfare organisations/charities	4	4	5	4	4
None, I don't get any information about this	13	12	13	16	13

QP238: In general where do you get information and advice on safety tools and safe use of the internet from? (*Multiple responses allowed*)

Base: Parents whose child uses the internet.

When asked where they want advice from (Table 61):

- **The child's school is the most popular choice for parents at 43%, while friends and family drop to third place at 29%.**
- **Only around 9% of parents say that they don't want further information on internet safety.**
- Online sources are not unpopular – about one quarter (26%) would like to receive safety information from their internet service provider or from websites, and one in five (20%) would like such information from the government or local authorities.

Table 61: Parents' desired sources of information on internet safety, by age of child

%	Age of child				All
	9-10	11-12	13-14	15-16	
Your child's school	47	47	42	36	43
Television, radio, newspapers or magazines	31	31	33	31	32
Family and friends	30	29	29	27	29
Internet service providers	28	27	25	24	26
Websites with safety information	25	25	24	23	24
Government, local authorities	21	20	19	18	20
Manufacturers and retailers selling the products	17	16	16	16	16
Children's welfare organisations/ charities	13	13	12	11	12
From my child	9	11	13	14	12
Other sources	6	7	6	7	6
None, I don't want more information about this	8	7	8	10	9

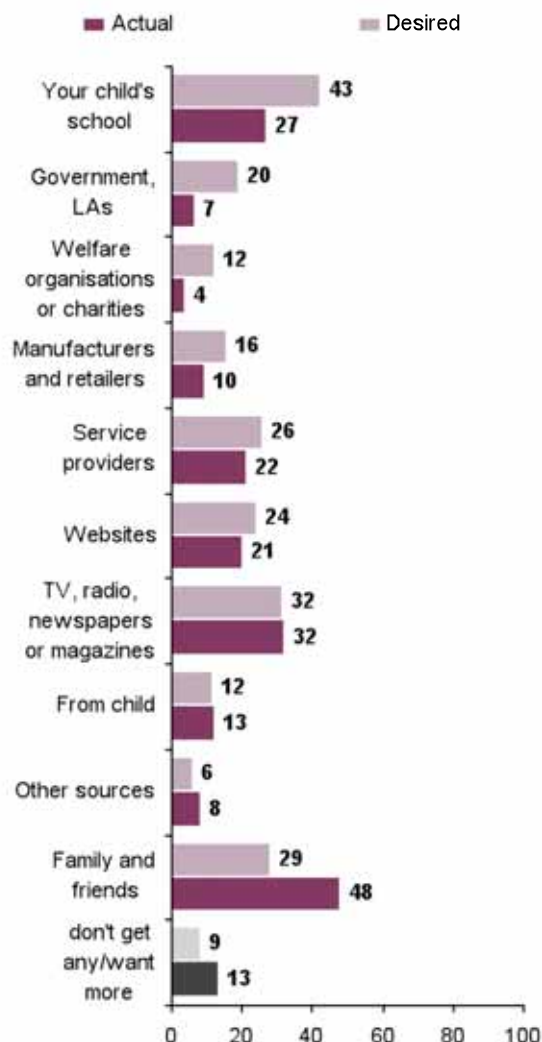
QP239: In general where would you like to get information and advice on safety tools and safe use of the internet from in the future? *(Multiple responses allowed)*

Base: Parents whose child uses the internet.

Figure 101 shows in a more striking way the gap between the sources that parents actually get information from compared to the sources they would like to get this information from.

- Many parents want far less information from, the child's school (16% gap), from Government and local authorities (13% gap), Welfare organisations and charities (8% gap) and, to a lesser extent, from manufacturers and retailers (6% gap).

Figure 101: Parents' actual and desired sources of information on internet safety, all children



QP238: In general where do you get information and advice on safety tools and safe use of the internet from? QP239: In general where would you like to get information and advice on safety tools and safe use of the internet from in the future? *(Multiple responses allowed)*

Base: Parents whose child uses the internet.

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 and 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 (87%) 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.⁷⁹ **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- 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. Differences by age, gender and SES

Age, gender and SES differences summarised here are 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 over 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 the age of 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 older teenagers – and they are more likely to be upset by online bullying. Interestingly, older children are slightly more likely to be bullied on the internet but not face-to-face, where bullying is almost as common among 9-10 year olds as among 15-16 year olds. These older teenagers are, however, more likely than 9-10 year olds 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 (although 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 risks 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 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 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 (SES). 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’.⁸⁰ 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 SES 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 SES 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, although it does affect the likelihood that they will use it daily.

Children from high SES homes are more likely to have a wider, more diverse circle of contacts online, including more people 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 62 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 62: 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	5	8	16	25	14
Have been sent nasty or hurtful messages on the internet in past 12 months	3	5	6	8	6
Seen or received sexual messages on the internet in past 12 months	n/a	7	13	22	15
Ever had contact on the internet with someone not met face-to-face before	13	20	32	46	30
Ever gone on to meet anyone face-to-face that first met on the internet	2	4	9	16	9
Have come across one or more types of potentially harmful user-generated content in past 12 months	n/a	12	22	29	21
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	14	33	49	63	41
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	2	5	3
Done either of these	1	3	4	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 30% of 9-16 year olds (see Figure 59). 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 21% of 11-16 year olds (see Table 43).

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 50).

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 45).

This is followed by going to meetings offline with people first met online (9% of 9-16 year olds – see Figure 59).

Last, and least common is 'cyberbullying' – being sent nasty or hurtful messages online is reported by 6% of 9-16 year olds – see Table 18).

All risks are increased by age, as also shown in Table 62. Thus looking across all the risks asked about in the *EU Kids Online* survey, 14% of 9-10 year olds have encountered one or more of these. This percentage rises sharply to 33% of 11-12 year olds and rises again to 49% for the 13-14 year olds. Among the 15-16 year olds 63% report encountering one or more of the risks asked about in the survey, the average across all 9-16 year olds being 41%.

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 thus:

- **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 62 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 previous year. Examining online bullying only, 6% 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 previous year. Note, however, that while hurtful and nasty messaging is always negative (although 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 62). 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 them⁸¹ – 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 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. Children's and parents' perspectives on risk

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 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 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, although 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 the 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 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, 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.

11.6. Varieties of safety mediation

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 contrast to 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 an offline meeting with an online contact, 40% of those bothered by bullying online, 29% of those bothered by unwanted sexual messages, and 25% 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.

Although knowing about the experiences children have online is important, parental mediation strategies can be applied whether or not parents know exactly what their children do online. Moreover, these strategies are expected to improve the chance of parent-child understanding regarding the internet. Overall, Section 10 of this report ('Mediation') reveals a range of strategies being pursued by most parents.

Parents appear to prefer active mediation of children's internet use to restrictive or monitoring strategies – nearly nine out of ten do something with their child to share and guide the experience of using the internet (talking to their child, staying nearby, encouraging them, and so forth). The consequences for children of receiving no such input – claimed by one in eight children – remain to be understood, but it should be noted that this group of children may need alternative sources of support, and that parental mediation cannot be relied on by policy makers in all cases. Parental mediation tends to decline as children get older, suggesting that the youngest children – who arguably most need support – do generally get the guidance they need. Nonetheless, older teenagers tend to encounter more risks online and are, still, in need of particular kinds of support. Whether there are further reasons that prevent some parents engaging with their children's internet use remains to be understood.

A similar proportion of parents (over four fifths) also actively mediates their child's internet safety – explaining, helping, guiding in terms of safety practices, talking about

problems encountered, and so forth. This suggests some degree of success for awareness-raising campaigns in Europe, since over half of parents have discussed with their child how to behave with others online or what to do if something problematic is encountered. Again, just one in eight children claims their parent does none of these things, and in future research, *EU Kids Online* will examine which children, and which parents, these are.

Applying rules (whether simple bans or more complex forms of restriction) is, again, practised by nearly nine in ten parents, according to children, with more rules applied to the disclosure of personal information and, then, to the uploading of content. Monitoring the child's internet use in their absence (e.g. checking the websites they visited or their social networking profile) is less popular among parents, practised by two thirds of parents (according to the parent, although only half of all children are aware of such practices). Clearly, monitoring internet use raises some challenges for families in terms of trust, for checking up on people may seem, unless well understood, an abuse of trust.

In part because of the demands that the above strategies place on parents, considerable efforts in recent years have been devoted to the development of parental tools – particularly the filtering of content accessible online. Interestingly here, only around one quarter of parents uses a filter online, a relatively low level of take-up. Since three quarters use software to prevent spam, junk mail or viruses, this does not reflect a blanket rejection of technical tools. If filters are considered desirable, further development is required to promote this – possibly to update the public on the improved operation of filters (compared with the clumsiness of the early software), or to package it as part of the set-up when obtaining a new computer or internet service (as is commonly the case with spam filters and virus controls).

As with the earlier discussed findings of risks, findings for parents and children reveal a relatively high degree of agreement within parent-child pairs. By contrast with earlier findings of a considerable generation gap, it appears that parents and children now understand each other better – in terms of the risks encountered, the safety practices in operation, and the family norms and expectations that exist. Nonetheless, some level of difference in perception persists – generally with parents claiming to do more mediation than is recognised by the child.

The *EU Kids Online* survey asked parents and children to reflect on the effectiveness of parental mediation, with some interesting findings. Younger children especially are positive that their parents help with their internet use. Nonetheless, across the age range, only a quarter of children say their parents are very helpful, and nearly a third say that parental efforts are not helpful. Two thirds of children think their parents know a fair amount about their internet use – again, a significant change from research findings of just a few years ago. Further, the majority of parents are confident that they can help their child if something upsetting is encountered although, as often claimed too, parents are also confident that their child can cope by themselves in such situations. Still, over one quarter of parents expects that something will occur online in the coming six months that will bother or upset their child, a far from satisfactory situation.

There are, it seems, some grounds for resistance, with nearly half of children thinking that parental mediation is restrictive in terms of their online activities. Moreover, and possibly relatedly, nearly a third of children say they ignore their parents to some degree in terms of online advice or rules. Younger children are, interestingly, both the most likely to feel restricted by parental mediation but also the most likely to wish for more parental engagement with their internet use.

In looking beyond parents to encompass additional sources of support and safety guidance for children, the *EU Kids Online* survey sought to examine the range of support available to children. Three quarters of children have received some form of mediation of their internet use from their teachers, although this varies considerably by country. Since this is somewhat less evident among the younger internet users, it seems clear that, as younger children become internet users their teachers should offer internet advice and guidance. Peers can be another source of guidance and, indeed, a similar proportion of peers are claimed by children as supportive – around three quarters, although such support is often rather practically focused on managing to do something the child finds difficult and rather less on safety or critical skills.

In terms of safety in particular, the findings show that internet safety advice is received first from parents, then from teachers and from then peers and other relatives. However, for older teenagers and for children from lower SES homes, advice from teachers overtakes that of parents. This suggests that the importance of teachers in

compensating for parental support, where this latter is absent, should be recognised especially for these groups, as well as in certain countries. One in five European children say they get safety advice from the mass media, interestingly almost twice as many as get such advice from online sources.

Parents, similarly, get safety guidance from a range of sources, although their preferred source is their child's school. Although only one quarter of parents say they have received information on internet safety from the school, while almost twice as many have relied on family and friends and, even, the mass media, nearly half would prefer to receive such guidance from the school. Online sources are less popular, but still, a quarter wish for guidance from their internet service provider or from websites, and one in six wish for such information from manufacturers and retailers. Few say they have all the information they need already.

11.7. Comparing countries

Throughout this report we have compared findings for the 25 countries included in the survey. 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 use⁸² 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.

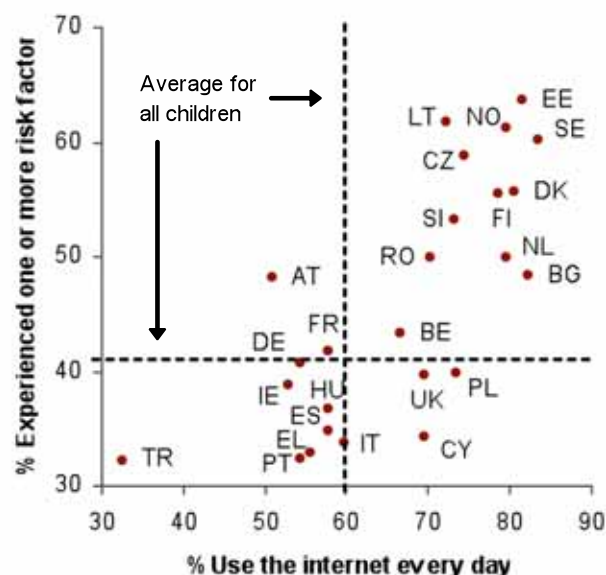
In addition to the implication that, as more children go online, the risk of harm will also rise, we had also noted that children in some countries encounter more risks because internet use is so embedded in their culture (labelled ‘high use, high risk’) while children in other countries encounter more 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 102 countries are plotted according 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 62.⁸³ 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.⁸⁴

Figure 102: 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’,** although 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, although this is not to diminish the distress of the minority who experiences harm associated with internet use.**

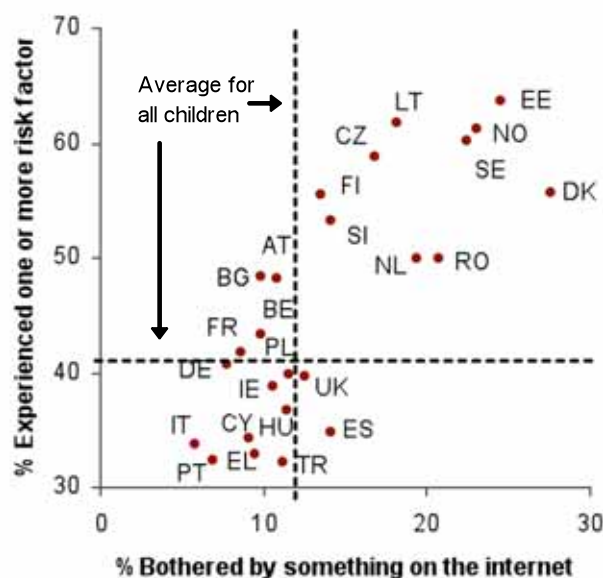
The distinction between risk and harm is illustrated in Figure 103. **Although overall levels of harm reported by children are substantially lower than the levels of risk (which, in turn, characterise a minority of children), the correlation between the two is positive.**⁸⁵ Thus the bottom right segment 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 although 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.

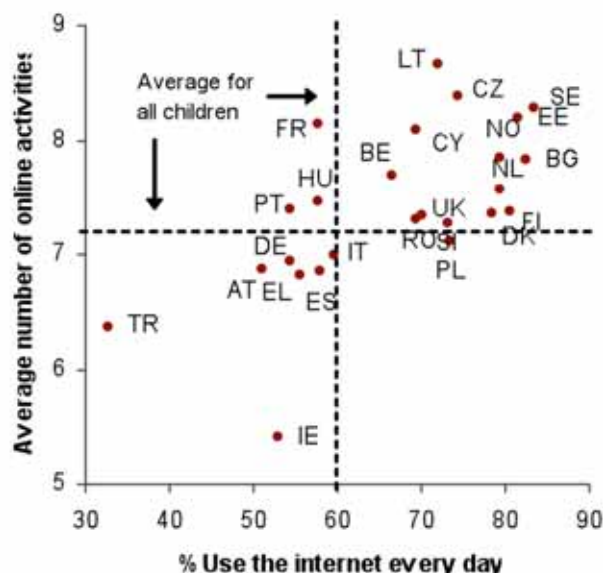
Figure 103: Children who have encountered one or more online risk factors by children who have been bothered by something online, by country



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 104. Using the same measure of use (the percentage of children in each country who use 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 104: Children's average number of online activities by children's daily use of the internet, by country

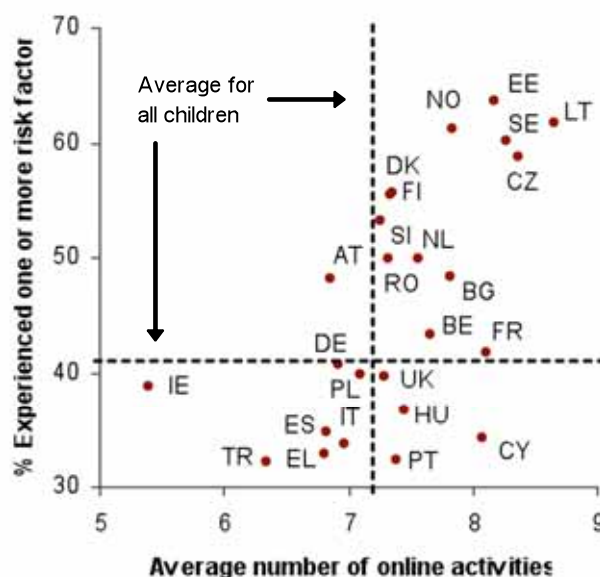


Here we see that, for the most part, **the more children use the internet, the more opportunities they enjoy. A similar correlation is also present at the individual level.**⁸⁶ In the top right are shown the countries where children make the most of the internet in every sense. Just below them in the 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 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 105 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.

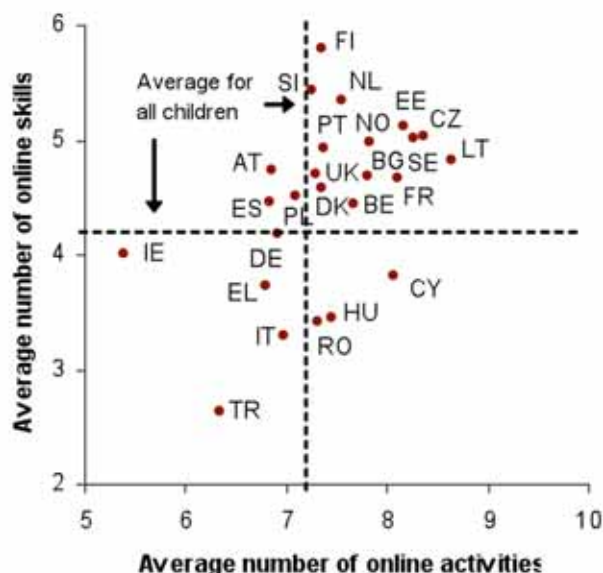
Figure 105: Children who have encountered one or more online risk factors by children's average number of online activities, by country



More than any particular country groupings, what stands out from Figure 105 is the broad positive association between risks and opportunities, as experienced by children on a country level.⁸⁷ 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 who 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.

Figure 106: Children's average number of online skills by children's average number of online activities, by country

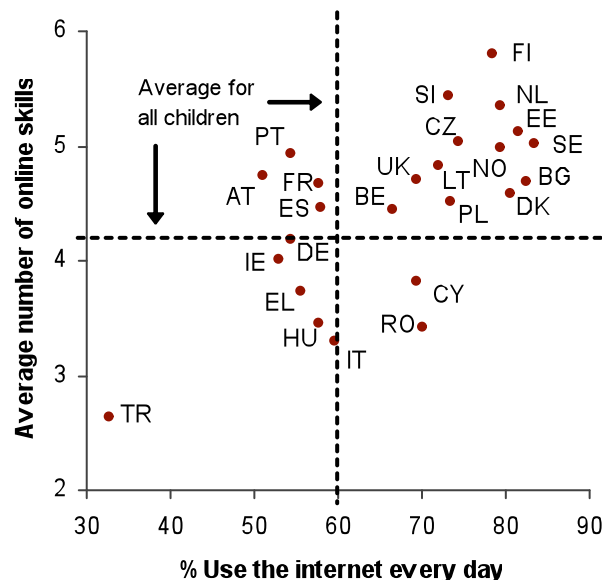


A positive association across countries is also evident from Figure 106.⁸⁸ This shows that **in countries where children do a wider range of activities online they also have more digital skills**. However, the association is less strong, with countries somewhat bunched in the top right quadrant.

Moreover, there are some thought-provoking contrasts shown in the table – for example, in Finland and Hungary, children claim a similar number of online activities, but Finnish children are considerably more skilled. In countries where children do a fair amount online but claim fewer skills (e.g. Cyprus, Hungary and Romania), further educational support to develop digital skills would seem vital.

This point is underlined also by the country scatterplot shown in Figure 107.⁸⁹ **This suggests that, for the most part, as children use the internet more frequently, they gain more skills**. But, in some countries, frequent use is not associated with such high levels of skills – notably, Cyprus, Romania and Italy. Some investigation, and consequently action, regarding why use does not result in greater skill would seem warranted in these countries in particular.

Figure 107: Children's average number of online skills by children's daily use of the internet, by country



In our final country scatterplot, we compare children's overall assessment of the internet in terms of the positive opportunities it offers them and the negative or upsetting experiences it poses children of their age (Figure 108). Here the correlation is still statistically significant, if weaker than the foregoing, showing a fair spread of national experiences.⁹⁰

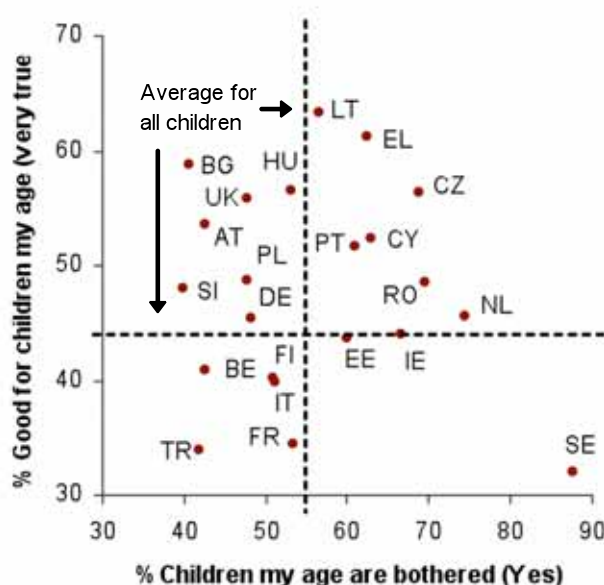
Broadly speaking, children's experiences of online opportunities and risks go hand in hand – the more of one tends to mean the more of the other. This correlation holds both across countries and across individuals. However, the countries may be meaningfully divided into four groups:

- (i) countries where children report lots of good things and where most do not think there are things to bother children of their age online (e.g. Bulgaria, UK and Austria);
- (ii) countries where children report lots of good things to do online but also a fair proportion think there are things online that bother people their age (e.g. Greece and the Czech Republic);
- (iii) countries where children think there are quite a few things to bother children their age online, and are less positive about the internet's benefits (e.g. Sweden, Ireland and Estonia).

- (iv) Countries where children perceive relatively fewer benefits or risks of internet use (e.g. Turkey, Belgium, France).

The explanation for such country groupings is likely to prove complex, and will be a focus of the upcoming analysis by the *EU Kids Online* network.

Figure 108: Children who say that there are a lot of good things on the internet by children who have been bothered by something online, by country



11.8. 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, 23% 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 3% 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 6% 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 US 12-17 year olds found by Pew Internet to have received sexual messages on their mobile phone.⁹¹
- 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.⁹²

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) that may have dampened overall averages.

- Children were asked to report the incidence of risk in the past year (to aid the accuracy of their memory) rather than, as is common in surveys, whether they have 'ever' experienced a risk. So, for example, if a child had a phase of looking at pornography but has stopped some time ago, they will not be included in these estimates.
- 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) although 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 63: 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 63 (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 harm⁹³), 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.

12. POLICY IMPLICATIONS

This section provides a summary of EU Kids Online Report D7.1: Recommendations on Safety Initiatives, by Brian O'Neill and Sharon McLaughlin. The full report is available at www.eukidsonline.net.

12.1. Main policy priorities

Five main policy priorities arise from the findings of the EU Kids Online survey and which suggest new areas of interest and policy focus for the multiple stakeholders involved in policy making and implementation.

1. Parental awareness

One important overall finding from the EU Kids Online survey concerns the lack of awareness that many parents have regarding risks children face online. 40% of parents, for instance, were unaware of their children's exposure to sexual images online; 56% did not know that their child had been bullied; 52% were unaware that their children had received sexual messages; and 61% had no knowledge of offline meetings their children had with online contacts. A significant challenge arises for policy makers however in addressing the gaps in understanding between parents and children about young people's experience online. At the same time, given that the household remains the most prominent location for internet use (87%), parents are best positioned to offer mediation and support for children online.

Parental awareness of risks and safety online needs to be enhanced. The priority for awareness raising for parents should be on alerting parents to the nature of the risks their children may encounter online while encouraging dialogue and greater understanding between parents and children in relation to young people's online activities. Parents need to be alerted to the risks involved while avoiding an alarmist or sensationalist approach. Increasing parental understanding of the risks has to be a key focus for awareness-raising, particularly in those countries where awareness of children's risk experience is lowest.

At the same time, the role of parents in providing internet safety support is central, reinforced by the fact that the majority of internet use is at home and hence parents are the potential first point of contact when children experience difficulties online. **In order to assist them in this respect, emphasis should be given to the preeminent role parents occupy in supporting safer internet use for children.**

Parents' preferred sources of information on internet safety are firstly the child's school, followed by traditional media, other family and friends, internet service providers (ISPs) and other online sources. The fact that the use of industry tools (safety information, abuse buttons etc.) is low implies a lack of awareness and/or trust on the public's part. **Such awareness and trust is something that industry should seek to raise in order to improve take up of industry solutions by parents. Industry can also work closely with Awareness Centres to develop resources aimed at parents providing up-to-date advice on the latest technologies, risks and safety advice. Relevant stakeholders might also strengthen home-school initiatives such as training programmes, workshops and information dissemination.**

2. Focus on younger users

Children are going online at ever younger ages. Across Europe, one third of the 9-10 year olds using the internet go online daily. The average age of first internet use in some Northern European countries is seven. Younger children also lack skills and confidence in areas of internet use that are especially important for safety. **Accordingly, there needs to be a new policy focus on promoting awareness-raising and support measures designed to suit the needs of much younger internet users.** This means that not just secondary schools where the traditional focus has been but **primary schools need to develop new ways of reaching younger children as users of the internet providing age-appropriate training and advice.** Online resources aimed at younger children, for instance, must not assume reading competence. Teacher training also needs to equip

teachers, particularly within the primary sector where it is relatively new, with the skills to support younger children.

3. Industry support for internet safety

The essential role of industry is consistently emphasised in European internet safety policy and expressed through self-regulatory codes developed to promote good practice in safer internet safety use. Based on the findings of EU Kids Online, there are a number of areas in which such industry efforts should be improved. **In keeping with existing industry voluntary codes, internet service companies, especially social networking providers, should provide the maximum amount of security and highest level of privacy by default for children using their services.** Children are not always able to use existing technical features and the number of children, for instance, who are able to change their privacy settings is less than the number with a social networking profile. There is also little evidence of availability of online information regarding internet safety: only 15% of children have received such information from online sources, and just 4% from ISPs. Nearly four in ten overall did not receive advice from any of these sources. There is a clear need for reliable and accessible online information and **industry should ensure that authoritative internet safety resources are prominently displayed and accessible. Information about safety features, for instance, should be available to all users and their parents before signing up to a service. Parental controls as well as technical tools to support blocking, reporting and filtering should also be a cornerstone of industry child protection policy with a need to increase awareness of such mechanisms and to improve their accessibility and usability to aid better take-up by parents and children.**

4. Digital citizenship

Children and young people are increasingly going online independently of adult supervision. While the majority of internet use takes place at home (87%), 49% of young people go online in their own room. Moreover, 31% access the internet on a mobile phone and 24% on their own laptop. The widely promoted internet safety message of locating the PC used by children in a public space within the home remains important but is being overtaken by alternative means of internet access which are less amenable to adult supervision. Given the increasing trend towards more privatised use of the internet, the increasing prominence of mobile access, as well the ever younger

age of children's first internet use, awareness raisers are consequently urged to focus efforts on developing self-protection and self-responsibility among children. **It is important, therefore, to encourage children to be responsible for their own safety as much as possible rather than rely on restrictive or adult forms of mediation. The focus of internet safety messaging should be on empowerment rather than restriction of children's usage, emphasising responsible behaviour and digital citizenship. Similarly, the development of policy, child safety practices and positive online content should also focus on children as a competent, participatory group.**

Digital citizenship can also be supported through a focus on developing children's digital skills. While most children have a basic level of internet skills, more creative aspects of online activity are actually not as common as some more enthusiastic visions of children's online expertise. Only 16% of children spend time in a virtual world, and just 11% have experience of writing a blog. **Digital skills training should, therefore, also focus attention on broadening the range of activities undertaken specifically, more creative aspects including content development, to ensure children avail of all the opportunities for learning and communicating online.**

5. Positive content

Less than one half (44%) of 9-16 year olds are very satisfied with levels of online provision available to them. Younger children are the least satisfied with the perceived quality of online provision – only 34% 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.

At the same time, over half of European children aged 9-16 think that there are things on the internet that will bother children of their age. One in eight children say that they themselves have been bothered by something on the internet in the past year, a fact not recognised by all parents interviewed. On balance, while it may be said that children see the internet positively (90% think it true that 'there are lots of things on the internet that are good for children of my age'), the overall perception of negative aspects of the internet requires attention from policy makers.

There is a responsibility, therefore, on all policy actors to ensure greater availability of age-appropriate positive content for children. National initiatives, given the multi-lingual context of the internet across Europe are particularly important in this regard. Responses from children in several large language communities (France and Spain) were less than positive about the availability of high quality online opportunities suitable for their age. Locally produced content of relevance and accessible to children in their own language is an interest and concern of children and merits a strong response from regulatory and industry groups.

12.2. Action at regulatory and government level

Findings of the EU Kids Online survey highlight areas of action appropriate at the highest European and governmental policy levels, including the policy priorities of the EC's Safer Internet Programme'. At a general policy level, it is recommended that

- **Cooperative arrangements with industry should be continued and strengthened to bring about more effective safer online practices, and to continue to monitor their implementation on an independent basis.** Specifically, based on the findings of this survey in the sections that follow, we identify opportunities for industry to develop greater positive content for younger children, greater support for implementing safety features in social networking sites used by children, as well as the role of industry in developing resources for digital safety education. At a policy level, evaluation of the effectiveness of self-regulatory approaches for industry needs to be maintained and implemented on an on-going basis.
- **Digital divides based on inequalities of access, usage and knowledge need to be further understood and addressed through policy action.** Children from high SES homes enjoy a wider range of access to the internet, especially at home, in their bedroom, and via handheld or mobile devices. Children from lower SES homes are more likely to be bothered or upset by online sexual or pornographic content, as well as more upset by receiving nasty or hurtful messages online and by seeing or receiving sexual messages.
- A digital divide is more pronounced in Southern and Eastern European countries where children are less likely to have the level of access enjoyed by children in other parts of Europe. Research has shown that

parents' level of internet use is catching up with that of children in most European countries. However, children's use exceeds that of parents, conforming to the 'digital natives' model, in the Eastern European countries of Romania, Bulgaria, Poland, Lithuania and Turkey. **As such, targeted initiatives need to be undertaken, particularly in those predominantly Eastern Europe countries where parental use of the internet lags significantly behind that of children.**

- 21% of children have encountered websites containing potentially harmful user generated content such as sites containing hate messages, anorexic/bulimic sites, sites promoting self-harm or which discuss drug taking. Approximately 10% of children have experienced some form of personal data misuse. **Little is known about the effects of such experiences. The experience of mental health practitioners and allied professionals in this field may be valuable in addressing how such potentially negative features of children's online experience should be addressed through policy.**

At the national level, governments are responsible for legislative and regulatory controls, especially in relation to illegal content but also in relation to issues of protection of minors, data protection, ensuring freedom of expression and information, privacy, industry regulatory arrangements and educational policy and they are responsible for supporting internet safety initiatives at governmental level.

Many of the policy issues identified in this report as relevant at the European level apply also at national level.

- **Governments and regulators, for instance, can encourage the development of positive online content through production funding programmes and incentive schemes.**
- **While the density of information and communications technology (ICT) regulation at national level varies across Europe, the available degree of oversight or control that national governments have in relation to internet safety should be utilised to ensure effective regulation and evaluation of industry compliance with agreed codes of practice and national self-regulatory schemes.**
- The need for more extensive digital skills training and internet safety education arises directly from findings in relation to skills gaps, particularly among younger children, where on average children say they have just three of the eight skills asked about. **National**

governments should therefore ensure that digital skills and internet safety are prioritised within the national educational curriculum particularly in countries such as Turkey, Romania, Italy and Hungary where a skills deficit is particularly pronounced.

12.3. Actions from industry

Industry – whether this refers to Internet Service Providers (ISPs), content developers, service developers, or representative industry associations – all have a crucial role to play in facilitating and promoting online safety. Industry also has a strong interest in ensuring children have positive experiences online. As participants in co-regulatory agreements and codes of practice, SNS providers, and mobile communications operators undertake to support internet safety through information dissemination, through technical supports and child protection policies.

- In the EU Kids Online survey, only 56% of children are able to change their privacy settings, as a core digital skill. **In keeping with co-regulatory agreements and codes, therefore, operators should provide the maximum amount of security and highest level of privacy by default for children using their services.**
- Given that one quarter (26%) of children aged 9-10 report having their own social networking profile, and with the likelihood that many of these are 'underage' for the services they use, **special attention needs to be given by SNS providers to the data protection and privacy issues surrounding the large number of younger children using SNS.**
- It is also clear, given the increasingly privatised use of the internet found in this survey, that children and young people will not always have adult supervision available. **Industry can assist in this regard by ensuring that prominent internet safety advice and user-friendly internet tools that encourage children to be self-governing should be promoted by all service providers.**
- In response to the finding that just 44% of young people are satisfied with the provision of online content, **industry, including both public and private sector companies, is encouraged to develop more positive online content, especially for younger users. Awareness Centres and NGOs can assist in fostering partnerships with industry groups in developing dedicated content for younger children.**

- Despite the major policy emphasis on the use of parental controls or filters as a means of monitoring children's internet use, just one third of parents actually use them. **Industry developers can support greater uptake of such tools by developing more innovative approaches to the development of parental controls that are effective and meet the needs of parents and children.**

12.4. Actions related to awareness-raising

Awareness-raising is a central element of European internet safety policy and Insafe's extensive network of Awareness Centres is the principal platform by which internet safety is promulgated. Many of the issues arising from findings in the EU Kids Online survey unsurprisingly relate to awareness-raising activities, relating variously to the form and content of internet safety messaging, priority target groups and areas of risk that require particular attention.

A general theme arising from the survey's findings is that empowerment rather than restriction of children's usage and activities online is likely to be a more effective focus of internet safety messaging. Given the increasing trend towards more independent and privatised uses of the internet through increasing mobile access, as well as the ever younger age of children's first internet use, Awareness Centres may need to focus efforts on fostering a sense of self-responsibility among children while targeting. Specific safety messages with regard to mobile devices and other platforms are required as is a special focus on younger children as internet users and with appropriate resources tailored to their needs.

The following emerging trends regarding internet usage also imply new areas of focus for awareness-raising:

- Nearly one quarter of children report one or more experiences associated with excessive internet use rising to over a third of 11-16 year olds in countries such as Estonia and Portugal. **Greater awareness, therefore, of the potential dangers of excessive internet use should be incorporated into internet safety awareness-raising initiatives.**
- About 12% of children access the internet in cybercafés or other public locations. This is particularly important in countries with less home access. **As such internet safety advice should also be available in those public locations for**

internet access used by young people (internet café, public libraries etc.) and safety messages should be prominently displayed for internet users. A case may be made for regulation of venues offering public internet access with responsibility for provision of internet safety provision placed on owners and service providers.

In relation to the content of internet safety messages and awareness-raising campaigns, specific issues arising from the findings of the EU Kids Online survey include the following:

- In recognition of the children who have been bothered by something on the internet in the past year (12% of all children), schools and parents should reinforce the importance of reporting abuse while also encouraging children and young people to speak to an adult when they come across upsetting content.
- The most common way in which children come across sexual images online is through images that pop up accidentally (7% of all children; 12% of 15-16 year olds). **In order to avoid such accidental exposure to any unwanted content online, safety awareness messages need to give greater emphasis to the filter and safety settings of browsers and websites (including search engines and video hosting sites), informing parents and children about how to block such content.**
- The easy availability of pornography online causes much public debate and anxiety with respect to children's use of the internet. The finding that the internet is now the most common way for children to see sexual images (14%), marginally more than on television, films or videos (12%), may fuel further concern in this regard. The only observable gender difference is that teenage boys are more likely than girls to see pornography on websites, suggesting that when it comes to teenage boys, there is at least some degree of deliberate exposure, at least for a minority (24%). **The principal implication arising is that safety messaging should be measured in approach, avoiding implications of harm and seeking to empower parents and children to talk about the subject of sexual images online.**

With regard to wide concern about cyberbullying, a number of specific implications arise for awareness-raising policy. Social networking and instant messaging are the most common online channels in which children are the targets of nasty or hurtful messages. As such, awareness-raising should focus on SNS sites and IM.

Given that 12% of children also report that they have bullied others, education programmes should address the child as both victim and perpetrator.

- **Given that face-to-face bullying was found to be more common than cyberbullying, anti-bullying messages should avoid over-sensationalising online features.**
- **Awareness raising in countries where bullying is more prominent should prioritise this as one of the key risks of children online.**

Of the 6% who have been bullied online, this is fairly upsetting or very upsetting for over half (54%), more so for younger children for whom the effect was longer lasting and for children from lower SES homes. Bullying is rarely trivial, in other words, and more vulnerable children need targeted support to enable them to cope more effectively. With regard to internet-specific responses to cyberbullying, deleting the hurtful messages and blocking the person who sent the hurtful messages was seen by children as being effective. Blocking unwanted contacts is clearly beneficial and should be encouraged. However, children require the knowledge and confidence to do this. The small proportion that changed their filter settings (18%) or reported the problem online (9%) suggests that such technical features require greater promotion on the part of service providers as well as better training in digital skills programmes. In summary:

- **Internet safety awareness dealing with cyberbullying should include responses and coping strategies targeted at children of different ages, enabling them to cope with situations that may arise in online communication and social networking.**
- **Awareness Centres and educational authorities should provide teachers with resources enabling them to be alert to, and be able to respond to, incidents of cyberbullying.**

With respect to some of the targeted messages that may be needed:

- A quarter (25%) of the children who have received sexual messages were bothered by this. Girls, younger children and children from lower SES homes appear to be more affected and it is these groups who should be the main target of policy interventions. **Internet safety for older children should also foster an understanding of privacy and the harm, inadvertent or otherwise, that can be caused by sexual messaging.**

- **Since instant messaging and social networking sites are the most common platforms for encountering sexual messages online, educational and awareness-raising initiatives should focus on these.**
- There is an overall under-utilisation of parental controls, with just under a third (28%) of parents preferring to use these. **Awareness Centres are well positioned to disseminate information about parental controls and to ensure that information for parents about available technologies and services is available in an accessible and user-friendly form.**

12.5. Education and schools

Schools are uniquely placed to address all children on internet safety and are regarded by parents as the most trusted source of information about internet safety information. Schools, as the second most common location for going online after the home, also provide children with important access opportunities. The pivotal role of schools in supporting ICT education and internet safety as such needs to be adequately resourced. Teachers and other educators are charged with considerable responsibility for digital skills and e-safety education and need to be supported to carry out this role. Actions relevant to the educational system include:

- With the age of first internet use as low as seven, **schools need to develop new ways of reaching younger children as users of the internet providing age-appropriate training and advice.** Teacher training needs to equip teachers, particularly within the primary sector where it is relatively new, with the skills to support younger children.
- Schools should provide special programmes aimed at educating and including those who do not have Internet access outside schools, making sure they do not miss out on peer-group opportunities and have sufficient skills.
- While most children have a basic range of skills relating to safe practices online, there are clear gaps particularly in relation to skills concerning privacy settings, the focus of extensive awareness-raising campaigns. **Digital skills training for young people needs to be emphasised on an ongoing basis, to include both internet safety skills as well as more creative aspects of internet use, to ensure that all children reach a minimum basic standard.**

- The significant proportion of children (26%) reporting that their social networking profile is public so that anyone can see it raises a number of public concerns. More restrictive privacy settings may, from the child's point of view, be associated with inhibiting the expansion of one's list of contacts. Therefore, advice regarding privacy settings must carefully balance children and young people's desires to socialise and interact online while prioritising keeping safe. **Education should pay particular attention to the child's self-management of online content and behaviour, enabling young people to become more critically aware of the benefits and risks associated with posting content online.**
- **Significant potential for peer-to-peer education and intervention programmes in appropriate settings including schools has been identified in this survey.** For instance, of those children aged 9-16 who had been bothered by seeing sexual images online, it was more likely that they would tell a friend about the last time it happened (33%). An even greater number (37%) confide in a friend if bothered by sexual messages they had received.
- With reference to cyberbullying, the low proportion of children who had been bullied who told a teacher (7%) raises questions as to why the educational environment is not conducive to dialogue. **Teachers need to be alert to the risks of bullying online and to be able to respond when incidents arise.**
- Parents express a clear preference for schools as the best source of safety information (43% over and above other sources of information). **In order to support and develop the effectiveness of parental mediation, schools should strengthen home-school initiatives such as training programmes, workshops and information dissemination.**

12.6. Issues and advice for parents

The need for greater levels of parental awareness of risks faced by children online is referred to above. A priority for awareness-raising for parents should be on alerting parents to the nature of the risks their children may encounter online while encouraging dialogue and greater understanding between parents and children in relation to young people's online activities.

Specific advice for parents includes:

- **As they are not always available or able to supervise their children's online activities,**

parents should seek to promote self-management skills for their children.

- **Parents should discuss issues of excessive internet use with their children and agree limits of screen time and internet use at home.**
- With a significant proportion of children (26%) reporting that their social networking profile is public, **parents should discuss privacy settings with their children, being respectful of their children's privacy while being alert to the risks involved.**
- Face-to-face meetings with online contacts has been a matter of policy concern. In the EU Kids Online survey, 11% of children who had gone on to meet new people offline were bothered by the experience. Significantly, 31% of 9-10 year old children were bothered or upset by some aspect of it. **This suggests that, despite the relatively low occurrence of such meetings, contact risks should remain a priority in child safety strategies and parents, teachers and other responsible adults should be made alert to the risks involved.**
- Parents should encourage their children to experience positive content online and to develop digital skills through participation.

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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's Safer Internet Programme.⁹⁴

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 that is child-centred, comparative, critical and contextual, *EU Kids Online* has conducted a major 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 2010-12.

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.

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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 that 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/carers, 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 an 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 and (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

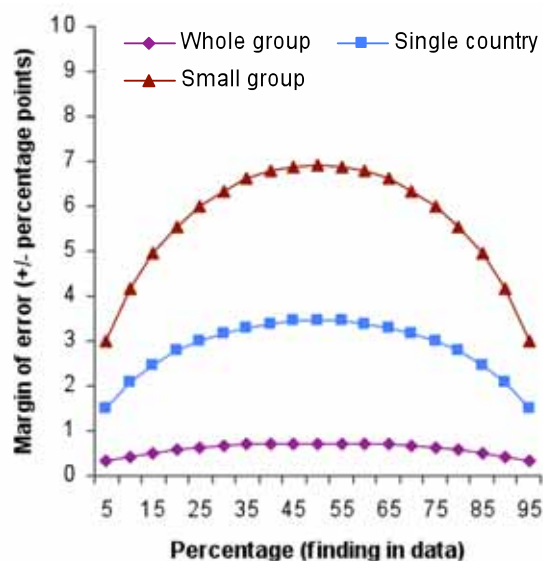
To judge the accuracy of numbers in studies like the one carried out in the EU Kids Online project it is first necessary to distinguish between two types of error: random error and systematic error (or bias). All numbers presented in this report are to some extent affected by these and are thus essentially 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 occurs because not all children in all of the 25 countries were interviewed: the results from the samples of 1,000 children in each country will invariably depart slightly from the findings that would have been obtained had it been possible to interview all children. This difference is small and gets smaller the more children there are in the sample. However, the smaller the group being analysed, the greater the random error. Further, very small (or very large) percentages (e.g. when few children have experienced a particular risk) are more accurate than percentages closer to 50%.

Figure 109 shows how the random error behaves for three typical groups. The lowest line approximates 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 (e.g., just children who have experienced a certain kind of risk and been bothered).

Figure 109: 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 website which is estimated at 14% in the report. This estimate is based on answers from over 25,000 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 website but as this estimate is based on answers from about 1,000 respondents in Turkey the margin of error becomes larger (around ± 2.4

percentage points). The margin of error is then lower for Germany ($5\% \pm 1.6$ percentage points) but higher for Estonia ($30\% \pm 3.4$ percentage points) where the same number of respondents has participated in the survey in each country but where the lower percentage (5%) has a lower margin of error than the higher percentage (30%).

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 some parts of the dataset, the groups being examined are small and thus due care has been taken not to exceed the analytical possibilities of the data. Readers of the report should take care not to over generalise from findings based on small subsets of the data.

Confidence intervals for the percentages in this report are reported as follows. For most numbers, the confidence interval is below $\pm 5\%$. Where the confidence interval is between 5-10%, this is marked, meaning that there is a 95% certainty that the interval of $\pm 5-10\%$ around the marked number contains the true percentage in the population. For a few numbers, the confidence interval exceeds 10% and these are also marked, meaning that there is a 95% certainty that the interval of $\pm 10\%$ around this number contains the true percentage in the population). Such percentages are included as an indicative approximation of the population value not ensuring accuracy.

Research materials

Materials and resources associated with the research process summarised above are available at www.eukidsonline.net.

- Technical report on the fieldwork process
- Original questionnaires (for children, for parents)
- Letters to parents and safety leaflets for children
- Research ethics procedures
- Cross tabulations of core findings

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 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. The dataset will be made public in late 2011.

Details of main fieldwork, by country

Country	Children in population 9-16 years ⁹⁵	Estimated children online ⁹⁶	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	91%	1,088	PAPI	Random Walk	6 May-24 June
Cyprus (CY)	82,059	68%	806	PAPI	Random Walk	17 May-20 Sept
Czech Republic (CZ)	809,443	90%	1,009	PAPI	Pre-selected households - telephone recruitment	21 May-2 July
Denmark (DE)	558,236	97%	1,001	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%	990	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%	1,019	CAPI	Pre-selected households - telephone recruitment	21 May-19 Oct
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%	1,000	CAPI	Random Walk and pre-selected households with children aged	3 May-27 August
Spain (ES)	3,401,338	80%	1,024	CAPI	Random Walk	10 May-15 July
Sweden (SE)	861,183	98%	1,000	CAPI	Pre-selected households with children 9-16 - telephone	27 May-20 Sept
Turkey (TR)	10,297,791	65%	1,018	CAPI	Random Walk	3 May-17 June
United Kingdom (UK)	5,861,598	98%	1,032	PAPI	Random Walk	1 May-21 June

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, 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/>.
- 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 As already noted, there is an association between the SES classification and countries, since an absolute measure of SES was used. Thus throughout this report, SES differences may reflect country differences also.
- ²⁰ European Commission. (2010) *A digital agenda for Europe*. Brussels.
- ²¹ 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.
- ²² Since children may go online via a handheld and also a mobile phone, or since their handheld device may also be a mobile phone, pulling these categories apart is tricky, especially in an interview with a child. So, 31% go online via a mobile, 12% go online via a handheld device, and 33% go online via either or both of a mobile and handheld device. By implication, 9% go online via a mobile and another handheld device.
- ²³ Livingstone, S. & Helsper, E. (2010) Balancing opportunities and risks in teenagers' use of the internet. *New Media & Society*, 12(2): 309-329.
- ²⁴ Hargittai, E., & Shafer, S. (2006) Differences in actual and perceived online skills. *Social Science Quarterly*, 87(2), 432-448.
- ²⁵ Hargittai, E., & Shafer, S. (2006) Differences in actual and perceived online skills. *Social Science Quarterly*, 87(2), 432-448.
- ²⁶ Widyanto, L., & Griffiths, M. (2007) Internet Addiction. In J. Gackenbach (Ed.), *Psychology and the internet* (2nd ed., pp. 127-149). Amsterdam: Elsevier/Academic Press.

- ²⁷ 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.
- ²⁸ Livingstone, S. & Helsper, E. (2010) Balancing opportunities and risks in teenagers' use of the internet. *New Media & Society*, 12(2): 309-329.
- ²⁹ 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, R. (2010) 'Digital natives: where is the evidence?' *British Educational Research Journal*, 36(3): 502-50.
- ³⁰ 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., 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/>.
- ³¹ 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/>.
- ³² See 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/> for an analysis of the Eurobarometer findings.
- ³³ 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/>.
- ³⁴ Tsatsou, P., Pruulmann-Vengfeldt, P. and Murru, M.F. Digital divides. In S. Livingstone and L. Haddon, *Kids online: Opportunities and risks for children*. Bristol: The Policy Press.
- ³⁵ Jenkins, H. (2006) *An Occasional Paper on Digital Media and Learning*. Chicago: The John D and Catherine T MacArthur Foundation.
- ³⁶ McQuillan, H. And D'Haenens, L. Young people online: gender and age influences. In S. Livingstone and L. Haddon, *Kids online: Opportunities and risks for children*. Bristol: The Policy Press.
- ³⁷ 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>
- ³⁸ To be sure that children understood these questions, most options included national examples. For instance, in the UK questionnaire, option 14 was phrased: "Used file sharing sites (peer-to-peer) (e.g. Limewire, Kazaa)."
- ³⁹ 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>
- ⁴⁰ 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.
- ⁴¹ See Safer Social Networking Principles for the EU (2009), at http://ec.europa.eu/information_society/activities/social_networking/docs/sn_principles.pdf
- ⁴² 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>
- ⁴³ 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>).
- ⁴⁴ Peter, J., & Valkenburg, P. M. (2006) Adolescents' Exposure to Sexually Explicit Material on the Internet. *Communication Research*, 33(2), 178-204.
- ⁴⁵ Finkelhor, D. (2008) *Childhood victimization*. Oxford: Oxford University Press.
- ⁴⁶ 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.
- ⁴⁷ Hansson, S. O. (2010) Risk: objective or subjective, facts or values. *Journal of Risk Research*, 13(2), 231-238.
- ⁴⁸ 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
- ⁴⁹ 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.
- ⁵⁰ 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.

⁵¹ 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.

⁵² Davison, W. P. (1983) The third-person effect in communication. *Public Opinion Quarterly*, 47(1), 1-15.

⁵³ 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/>

⁵⁴ 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.

⁵⁵ 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.

⁵⁶ 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.

⁵⁷ ⁵⁷ See 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* (pp 93-113). Mahwah, NJ: Erlbaum (<http://eprints.lse.ac.uk/9013/>). Also Staksrud, E. (2005) *SAFT Project final report: Safety, awareness, facts and tools*.

⁵⁸ See 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 (<http://eprints.lse.ac.uk/27849/>).

⁵⁹ 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.

⁶⁰ See Coleman, J. and Hagell, A. (eds) (2007) *Adolescence, risk and resilience*. Chichester: Wiley. Also Schoon, I. (2006) *Risk and resilience*. New York: Cambridge University Press.

⁶¹ 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>

⁶² 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.

⁶³ Shariff, S., & Churchill, A. (Eds.). (2010) *Truths and Myths of Cyber-bullying*. New York: Peter Lang.

⁶⁴ See 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* (pp 93-113). Mahwah, NJ: Erlbaum (<http://eprints.lse.ac.uk/9013/>).

⁶⁵ Examples include Teenangels in the US (<http://teenangels.org/>) and Cybermentors in the UK (cybermentors.org.uk)

⁶⁶ 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, D.T., Argudin, R., Maguire, J. and Tallon, K. (2010) *Sexting: Youth practices and legal implications*. Cambridge, MA: Berkman.

⁶⁷ Wolak, J., Finkelhor, D., Mitchell, K., & Ybarra, M. (2008). Online ‘predators’ and their victims. *American Psychologist*, 63(2), 111-128.

⁶⁸ 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/>.

⁶⁹ 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.

⁷⁰ Optem (2007) *Safer Internet for Children: Qualitative Study in 29 European Countries*. Luxembourg: EC.

⁷¹ Optem (2007) *Safer Internet for Children: Qualitative Study in 29 European Countries*. Luxembourg: EC.

⁷² See Livingstone, S., & Helsper, E. J. (2008). Parental mediation of children’s internet use. *Journal of Broadcasting & Electronic Media*, 52(4), 581-599. Nathanson, A. I. (2001). Parent and child perspectives on the presence and meaning of parental television mediation. *Journal of Broadcasting & Electronic Media*, 45(2), 201-220. Valkenburg, P. M., Krcmar, M., Peeters, A. L., & Marseille, N. M. (1999). Developing a scale to assess three different styles of television mediation: ‘Instructive mediation’, ‘restrictive mediation’, and ‘social coviewing’. *Journal of Broadcasting and Electronic Media*, 43(1), 52-66.

⁷³ In practical terms, it was not possible also to ask teachers or friends matched questions; nor was it appropriate to ask children about restrictive, monitoring or technical forms of mediation for teachers or friends.

⁷⁴ Livingstone, S., & Bober, M. (2006). Regulating the internet at home: Contrasting the perspectives of children and parents. In D. Buckingham & R. Willett (Eds.), *Digital Generations* (pp. 93-113). Mahwah, New Jersey: Lawrence Erlbaum Associates.

⁷⁵ Note that four possibilities exist – the child perceives that a particular practice occurs (e.g. that the parent talks to them about what they do on the internet) and the parent also perceives this; neither the child nor the parent perceive this practice to occur; the child perceives it

but the parent does not; the parent perceives it but the child does not. In the first two of these four situations, child and parent are in agreement, in the second two they disagree.

⁷⁶ Kirwil, L. (2009). Parental mediation of children's internet use in different European countries. *Journal of Children and Media*, 3(4), 394-409.

⁷⁷ Note that, to be consistent with the following items on active mediation of internet safety, these two summary questions were asked in the form, *have your teachers ever ...* They are, therefore, not exactly equivalent to the earlier questions to parents, which took the form, *do your parents...*

⁷⁸ Livingstone, S. (2009). *Children and the Internet: Great Expectations, Challenging Realities*. Cambridge: Polity. Nathanson, A. I. (2001). Parents versus peers: Exploring the significance of peer mediation of antisocial television. *Communication Research*, 28(3), 251-274.

⁷⁹ Kirwil, L., Garmendia, M., Garitonandia, C., and Fernandez, G. Parental mediation. In S. Livingstone and L. Haddon, *Kids online: Opportunities and risks for children*. Bristol: The Policy Press.

⁸⁰ Livingstone, S. and Helsper, E.J. (2007) 'Gradations in digital inclusion: children, young people and the digital divide.' *New Media & Society*, 9(4): 671-96 (<http://eprints.lse.ac.uk/2768>).

⁸¹ Hinduja, S. & Patchin, J. (2009) *Bullying beyond the schoolyard*. Thousand Oaks, CA: Sage.

⁸² 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/>.

⁸³ 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.

⁸⁴ Correlation on a country level, $r=0,74$ and on an individual level, $r=0,30$; both are statistically significant, $p<0,001$.

⁸⁵ Correlation on a country level, $r=0,79$ and on an individual level, $r=0,28$; both are statistically significant, $p<0,001$.

⁸⁶ Correlation on a country level, $r=0,64$ and on an individual level, $r=0,49$; both are statistically significant, $p<0,001$.

⁸⁷ Correlation on a country level, $r=0,59$ and on an individual level, $r=0,44$; both are statistically significant, $p<0,001$.

⁸⁸ Correlation on a country level, $r=0,49$ and on an individual level, $r=0,55$; both are statistically significant, $p<0,001$.

⁸⁹ Correlation on a country level, $r=0,66$ and on an individual level, $r=0,42$; both are statistically significant, $p<0,001$.

⁹⁰ Correlation on a country level, $r=-0,30$, statistically significant at $p<0,001$ and on an individual level, $r=0,02$; statistically significant at $p=0,002$.

⁹¹ 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.

⁹² Ofcom (2006) *Media Literacy Audit: Report on Children's Media Literacy*. London: Office of Communications.

⁹³ 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) 'e-Youth: (future) policy implications: risk, harm and vulnerability online.' Keynote at *e-Youth: Balancing between opportunities and risks*. University of Antwerp, May (<http://eprints.lse.ac.uk/27849/>).

⁹⁴ As noted above, Finnish participation was funded by Finnish Ministry of Education and Culture and of Transport and Communications.

⁹⁵ Population figures taken from Eurostat.

⁹⁶ Figures for internet penetration are estimated from a combination of data from the Eurobarometer (percentage of children using the internet in 2008) and Eurostat (change in internet penetration, as measured among 16-24 year olds in 2008-09). 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 2009-10. As 2009 data were unavailable for the UK and Belgium, estimates for the 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 16-24 year olds were unavailable, the average rate of change of two percentage points was assumed. Generally figures were rounded up rather than down, since the change in internet use among 9-16 year olds was assumed to be higher than among 16-24 year olds. Note that figures for Norway were unavailable and so were estimated based on the data for Sweden. Figures for Turkey were estimated from two local sources: the Ministry of Social and Family Research, whose data showed 67.2% of children aged 13-18 use the internet, and results from the 'ICT Usage in Households, 2004-2010' from the Turkish Statistical Institute (2010), which showed 62.9% of 16-24 year olds had used the internet in the last three months. An average of these two figures was taken and used as the internet penetration rate for 9-16 year olds.





Co-funded by the European Union



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The EU Kids Online network has received funding from the European Community's Safer Internet Programme. The authors are solely responsible for the contents of this report. It does not represent the opinion of the Community and nor is the Community responsible for any use that might be made of information contained in it.

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