UKCCIS
UK COUNCIL FOR **CHILD INTERNET SAFETY**

CHILDREN'S ONLINE ACTIVITIES
RISKS AND SAFETY

The UK Evidence Base

Prepared for the UK Council for Child Internet Safety
by the UKCCIS Evidence Group

Report authors

Sonia Livingstone, Julia Davidson,
Joanne Bryce, Andrea Millwood Hargrave
and Julie Grove-Hills, with contributions
from Evidence Group Members

CONTENTS

PREFACE

The UK Council for Child Internet Safety brings together over 140 organisations and individuals to help children and young people stay safe on the internet. Launched by the Prime Minister in September 2008, it encompasses companies, government departments and agencies (including the devolved governments in Scotland, Wales and Northern Ireland), law enforcement, charities, parenting groups, academic experts and others.

The Council was formed following the recommendation in Tanya Byron's report 'Safer Children in a Digital World' that:

> "In the fast-changing sphere of the internet research quickly goes out of date [… there should] be a Research Sub-Group of the Council to establish a rolling programme for research and to ensure that robust evidence informs the Council's work … This research should be made publicly available and be conducted according to robust standards to ensure its credibility with all parties"

Initially called the Expert Research Group, then re-organised as the Evidence Group, the group provides UKCCIS with a timely, critical and rigorous account of the relevant research. It reports to the Board via its Evidence Champion, and its aims are to:

- Set a research strategy for the Council and advise on priorities
- Establish an evidence base for the Council
- Work with other Champions and working groups as appropriate
- Keep a watching brief on ongoing research in the UK and internationally

During 2010-2012, the Evidence Group published several reports:

- Report of parents' attitudes to internet safety (2010)
- Children's online risks and safety: A review of the available evidence (2010)
- Internet and mobility: Youth technology trends (2011)
- The protection of children online: a scoping review to identify vulnerable groups (2012)
- Identifying vulnerable children online and what strategies can help them (2012)

It has also produced a series of Research Highlights which provide succinct summaries of recent findings from UK based research relevant to the UKCCIS evidence base.[1] Having initially focused on the experiences of children, parents, schools and offenders. more recently we have examined the particular risks that the internet affords to vulnerable children so as to inform targeted safety initiatives.

The present literature review updates the 2010 review, *Children's online risks and safety*, recognising how children's engagement with the internet is changing, as is the body of evidence designed to track and understand it. We thank those who notified us of new research, Graham Ritchie for his earlier work on this report, and the UKCCIS secretariat for supporting our work.

For further information on the Evidence Group, as well as its reports and the Research Highlights series, see http://www.saferinternet.org.uk/research/ukccis-evidence-group

---

[1] The Research Highlights referred to throughout the text are listed at the end of this report and available online at the above url.

EVIDENCE-BASED MESSAGES FOR STAKEHOLDERS

Government

- A sustained and up to date programme of awareness-raising about online risks and safety is vital, and this should be addressed to both the general public and to the professionals who work with children (teachers, social workers, clinicians, youth services, etc).
- Tailored advice and resources to recognise online risk and improve safety should be embedded in the training and practice of all professional groups working with children, especially those working with children who are vulnerable or with special needs.
- Independent evaluation of awareness raising initiatives, educational provision for internet safety, industry guidelines and professional practice is vital.
- Encourage a multi-stakeholder approach – users turn to a range of sources for advice and guidance, so it is a shared responsibility to create a safe, positive online environment.
- Government should ensure that industry provides clear, prominent and accessible tools for parents across all devices and services, especially where parents are not aware of these tools. Prompting parents to make an active choice to use parental controls may positively engage parents.

Industry

- Young people use a wide range of different devices to access the internet, including laptops, games consoles, mobile phones, portable media players and tablets, and parents need to be informed of the risks these devices can bring, and of helpful tools and safety messages.
- To manage their online reputations and safety, children and young people should be provided with easy-to-use, effective tools.
- Findings that parents lack confidence in guiding their children through the safety mechanisms of smartphones and other internet-enabled devices highlights the need for increased promotion of available parental controls mechanisms.
- Recognising that children, especially those most vulnerable, may not cope with extreme content and potentially harmful contact, this should be prevented from children.
- Reporting mechanisms need to be transparent, and give users feedback about the decision taken and manage expectations about the time it will take to action the report.
- There needs to be continued effort to provide effective age verification solutions.
- It is vital for all to stay abreast of the latest technological trends, and industry is best placed to ensure that the public and those who work with children are aware of safety issues regarding new developments.

Schools

- Schools play a crucial role in raising awareness and delivering safety messages to young people and their parents. Each should develop an e-safety policy, and each should support the development of functional and critical digital literacy and internet safety skills across the curriculum.
- It is important that all pupils receive e-safety education at school, beginning at primary school and

continuing throughout their education as technology use changes, with pupils taught about safety and ethical behaviour online, especially for social networking sites and mobile phones.

- Since girls are more likely than boys to be victims of cyberbullying and harassment, and boys are more likely to play online games, schools need to use the research in order to understand how to purpose their online safety messages and teaching so that they have maximum impact.
- Schools should enable pupils to discuss the expression of sexuality online and to recognise that technology may amplify problems. This should include teaching pupils to recognise and respond to an online sexual grooming approach and informing children and parents of sources of help.
- Parental engagement is important. When pupils are encouraged to sign the Acceptable Use Policy parents could be sent a letter explaining what their children have signed up to and what information/teaching they will receive.
- Many teachers feel they need further training to ensure they have the knowledge and confidence to deliver e-safety education and respond to any safety issues.

Law enforcement

- An understanding of the modus operandi employed by online child sexual abusers is an essential component in effective offender risk assessment.
- Police experience should inform educational awareness programmes, either through agencies such as CEOP or directly with schools through community officers at local level.

- Achieving best evidence interview guidelines should take into account children's extensive use of digital media and should allow for exploration of the potential role of this in offences perpetrated.
- On a more positive note, the police could explore the potential for the use of digital media as an aid to interviewing child victims.

Children's workforce

- Professionals who work with children should maintain an active awareness of the array of internet-enabled devices that children use and the risks that they may pose, and they should become familiar with technologies, sites and services commonly used by children.
- Those working with vulnerable children should recognise that offline vulnerability may have an online dimension, and they should actively embed an examination of children's online practices in their understanding of the difficulties faced by a child offline.
- Professionals should explore how the internet can be used positively in assessment, treatment and support.

Parents

- As soon as children start to use the internet, parents need to be involved in what they are doing online and begin teaching young people how to be positive and respect others online. They should spend time themselves gaining digital literacy and safety skills, as well as going online with their child to become familiar with the sites and services used by their child. They should remain aware of the changing array of risks as well as opportunities that the internet affords their children.

- Children value their parents' involvement in their internet use. Having a conversation about internet use and keeping channels of communication open is the most important step a parent can take in protecting their child online. Parents should discuss ethical norms of digital citizenship with their child just as they do norms and rules for behaviour offline.
- Parents should speak to their children about what information they share and with whom. Parents should familiarise themselves with the sites their child uses and make sure they and their child know how to change privacy settings, block people and use reporting mechanisms. Young people may report that they are confident about using technology and staying safe, but this does not necessarily relate to their actual skills and knowledge.
- Filtering or walled garden solutions can be particularly helpful for younger children, who are more likely to be upset if they are accidentally exposed to sexual images. Parents should consider using the parental control settings provided by particular services – such as YouTube and BBC iPlayer.
- Parents need to know where they can go if things go wrong, for example, report the service provider or CEOP, or seek advice at their child's school or ChildLine.
- Parents need to respect age restrictions and games ratings.
- Since some teenagers engage in risky behaviours, such as sending sexually explicit pictures of themselves, parents should discuss their child's

actual practices and agree family rules and boundaries - children will feel safer if they know their boundaries.
- It is important not to overreact: young people sometimes don't disclose things to parents or carers because they are fearful that their computer privileges might be removed and it may prevent them from turning to parents again.

Researchers

- There is a need for more research on the online risks faced by younger age groups from 5 - 11 in order to inform the development of future educational strategies for schools, parents and young people.
- There is a need to understand the implications of increasing internet access using portable devices (such as laptops, mobile phones, games consoles and portable media players) to access online content and whether this may increase online risks.
- There is also a need for more research to explore the extent to which different types of vulnerable young people, such as those with SENs or disabilities, socio-economically disadvantaged are more or less likely to face online risks, how they respond to risks and how they can be best supported.

1. INTRODUCTION

Many children have almost unlimited access to the Internet via fixed and increasingly via mobile devices. Many children and young people interact on social networking sites (SNS) which affect, both positively and negatively, social structures such as the family, work, education, health care and leisure activities. The advantages of such access are clear and it is undeniably the case that children's use of digital media will continue to evolve with the technology.

How do children and young people access the internet, and how is this changing as platforms diversify? What are their preferred online activities, and how does this vary by gender, age and socioeconomic status? Do children really encounter many of the online risks that their parents and teachers worry about? Of those who do encounter risks, how do they cope, and which children are particularly vulnerable to harm? And finally, what strategies – implemented by industry, schools, parents, or children themselves - can help to reduce harm and build resilience?

In 2003, a review of the literature on children's internet use found very little empirical research to answer these questions, especially in the UK.[2] In 2010, the UKCCIS Evidence Group's literature review identified 38 high quality empirical studies with which to capture the emerging trends in young people's internet use, risk and safety. When conducting the present literature review in 2012, we identified other relevant research in the UK and many more of potential relevance conducted in Europe, the United States of America and elsewhere. In what follows, we aim to update (but not duplicate) the findings of the 2010 review.[3]

What can evidence offer?

Some might ask, why does evidence matter? Don't we already know what the problems are? Yet the strategy of supporting policy with evidence, and so of collecting evidence relevant to policy, has proved important in many ways. First, evidence provides an often necessary corrective to unfounded public anxieties, themselves responding to overblown media hype. For example, although the media promotes scary stories of stranger danger, research finds that greater risks are posed to children from adults already known to them.[4] Second, research tracks changes in children's practices, supporting the updating of advice. For example, while it was once useful to advise parents to put the family computer in the living room where they could supervise, the diversification of platform and, thus, children's online access, shows this advice to be out of date, especially for teenagers. Third, research can help estimate the scale and scope of problems. For example, although early attention focused on problematic content (e.g. pornography) online, research found children themselves more concerned about cyberbullying.

Last, research can contribute to answering more complex questions to which we lack common sense answers. Two of the most pressing questions concern children's vulnerability and the effectiveness of safety interventions. Thus some researchers are now trying to pinpoint the factors that lead some children to be more upset or harmed by online risks than others (and, conversely, the factors that lead some children to cope better or prove themselves more resilient). Other researchers are testing the effectiveness of diverse safety interventions from parental control software or parental mediation tactics, to the effectiveness of school's safety policies or the take up of industry-provided reporting mechanisms.

Understanding risk

---

[2] Livingstone, S. (2003) Children's use of the internet: Reflections on the emerging research agenda. *New Media & Society,* 5(2), 147-166. http://eprints.lse.ac.uk/415/

[3] *Children's online risks and safety: A review of the available evidence* (NFER, March 2010). See Research Highlight #8.

[4] This is the case for some two third of the abusers identified by the USA's National Center for Missing and Exploited Children as of 31/12/2010. See www.missingkids.com/

Before presenting the findings of this new review, it is worth summarising the emerging consensus regarding children's experiences of online risk and harm.

It is increasingly accepted that, as with teaching children to ride a bicycle or learn to swim, as children use the internet more and more, this will carry some risk of harm. The policy task, then, is not to eliminate all risk but, rather, to manage risk so that children are adequately prepared, that resources are available to minimise harm resulting from risky circumstances and that extreme risks are eliminated. This means that the research task is to identify which circumstances pose what kind of risk, which factors mean that risk is increased or reduced, and when risks do or do not result in tangible harm.[5]

The importance of digital skills or literacy, sometimes widened into the concept of digital citizenship, cannot be overstated. Skills enable children to use the internet more widely and deeply, enhancing a wide range of opportunities to learn, participate, create and have fun. Skills can also help children to behave well and wisely online, both in maximising their own opportunities and in evading or dealing with online risk. The research task is to identify which skills children can learn and have learned, how they best learn them, and so to guide efforts to develop digital literacy and raise awareness. This remains a priority, given that the UK is only midway up the European league table for the number of skills that children have.[6]

Last, it is agreed that children's online safety is a multi-stakeholder responsibility, resulting in expectations being placed on parents, teachers, child welfare practitioners, law enforcement, industry and government. The research task here is to identify what strategies are feasible for different constituencies (for instance, what do parents know of their children's internet use, and

what skills do they have to improve safety) and to evaluate which strategies are more or less effective.

Findings of the 2010 review

There is still a way to go in taking forward this agenda, and in answering some of the questions at the start of this introduction. Before presenting recent insights from new studies, we summarise the findings of our previous literature review below.

The 2010 review found that, in terms of *access and use*:

- More than four in five young people aged 5–15 accessed the internet at home, often in their bedroom and without parental supervision. Two thirds of 12–15 year olds and around a quarter of 8–11 year olds regularly used social networking sites.

- Socioeconomic inequalities in access persisted, and there was some evidence that children with special educational needs were more likely to be cyberbullied.

- At that time, there was little evidence on possible links between using portable devices and online risks, or about how younger children use social networking sites to share personal information, or about whether offline vulnerability factors increase online risk of harm.

In terms of *online risk of harm*, the 2010 review found that:
- Around one in 13 children aged 11–16 were persistently cyberbullied in the last year, while 40% of young people aged 13–18 know friends who engage in 'sexting'.

- Parents and teachers regard accessing inappropriate content on the internet as one of the main online risks for children.

- However, little was then known about the extent to which children encounter the range of online risks, or about which children were more at risk than others.

---

[5] Livingstone, S. (2009) *Children and the Internet: Great Expectations, Challenging Realities*. Polity.

[6] Livingstone, S., Haddon, L., Görzig, A., and Ólafsson, K. (2011). *Risks and safety on the internet: The perspective of European children*. LSE, London: EU Kids Online. http://eprints.lse.ac.uk/33731/ See Research Highlight #7.

Last, the 2010 review examined research on *safeguarding practices*, finding that:

- Around half of parents do not use internet controls or filtering software, and they are even less aware of safeguarding controls for mobile phones and games consoles.

- As for children, while they are generally aware of safety practices online they often do not use them. Meanwhile, some schools lack comprehensive e-safety policies.

- Less was then known about which safety strategies work best in ensuring that young people use the internet safely.

Certainly the gaps in research are as noteworthy as the available evidence. However, a number of key studies have been published over the last few years, significantly adding to our knowledge of children's online use, risk and safety experiences. These studies generally focus on answering the research questions stated above, moving beyond the initial phase of general description of children's internet use to provide more insightful answers and analysis of both the specific conditions that increase risk of harm and, then, specific initiatives or strategies that may help.

The structure of the 2012 review

This review is structured according to a set of evidence-based assumptions about the nature of children's internet use:

- Children's use of the internet depends on a variety of contextual factors – including the location, devices and frequency with which they access it.

- Use also varies according to their gender, age and socioeconomic status (SES), these individual level factors intersecting with the contextual factors.

- Broadly speaking, the more and the better quality children's access, the deeper and the more diverse will be their online activities.

Although the focus of this review is not on the many benefits that the internet can bring to children's lives, it is important to understand their online activities because, first, more online opportunities tend to be positively correlated with more risks[7] and, second, many online activities cannot be easily divided into 'opportunities' or 'risks'. Indeed, children undertake a range of what might be called 'risky opportunities'[8] – often associated with social networking in particular.

Recalling that, as explained above, risks do not inevitably result in harm but rather concern factors that raise the probability of harm to children, we then review evidence regarding the range and incidence of different types of risk encountered by children on the internet.

Some children, however, appear to be specifically 'at risk' online: they may be more likely to encounter risk, or when they do encounter risk they may be more likely to find it harmful. In other words, they may be less resilient or less able to cope. We examine what is now known about the ways in which some children may be particularly vulnerable, off and online.

There is a growing body of evidence regarding the nature and evaluation of initiatives designed to safeguard children on the internet. The more that parents, schools, industry and other stakeholders work to ensure children's safety on the internet, the more important it is to identify what strategies are working and why (or why not) so as direct future efforts effectively.

Finally, recent emerging concerns which have not yet been fully researched are flagged below.

- The growing use of Apps on smartphones. What research exists in the growing use of Apps to access online content amongst young people? And what are the implications of App use for consumption of content, privacy Groups

[7] Livingstone, S. (2009), *Children and the Internet*, Polity Press.
[8] Livingstone, S., and Ólafsson, K. (2011) *Risky communication online*. LSE, London: EU Kids Online. http://eprints.lse.ac.uk/33732

such as 'Moms with apps' in the US are looking into ways to harness Apps to promote online safety.

- The proliferation of location tagging services offered by many SNS and Apps.[9] What are the implications for young people disclosing their location in terms of safety and privacy?

- In areas where technological developments and commercial mass market provision are changing fast, children's online activities will always be ahead of empirical research. This puts pressure on all who provide for and work with children to update their services and advice for the UK public.

---

[9] Recent US figures show that one in five teenage smartphone users use geolocation services, and use is rising sharply. Pew Internet Project, See http://pewinternet.org/Reports/2012/Location-based-services.aspx

2. METHODOLOGY

Research is produced by diverse organisations, for a wide range of reasons and with greatly varying methodologies. Our approach in this literature review is to encompass research which is both qualitative (usually interview-based) and quantitative (typically large-scale surveys of children, parents or teachers). Although each research project tends to employ a single method, multi-method designs which combine or triangulate different methods, balancing the strengths and weaknesses of each, are generally preferred.

One contribution of a literature review, then, is to synthesise findings and insights across multiple studies using different methods, in order to achieve a similar effect. Thus the review process can bring together the richness and depth of qualitative research reflecting children's own voices and experiences with the claims to national representativeness, longitudinal change over time and robust demographic comparisons that quantitative research makes possible.

In the methodological literature, there has been a growing emphasis on doing research *with* rather than *on* children – in other words, seeking to recognise and represent children's perceptions, experiences and concerns in the research process and results.[10] One benefit is that the findings of qualitative research are now being used to inform the design of large scale surveys, thus offering a more rigorous yet insightful account of children's online experiences nationally.

It is also noteworthy that, in recent years, research has shifted from the primarily descriptive (charting the facts and figures of which children are doing what online), though this remains important for an up to date picture in a fast-moving world, to the increasingly normative. In other words, much research conducted in the field of children's internet safety is strongly policy or action-oriented, designed to guide interventions aimed at improving the practices of parents, schools, law enforcement, industry and other relevant stakeholders.

Given practical limits on research time and resources, the present literature review is heavily reliant on the content of the Research Highlights.[11] These have been supplemented by a call for evidence issued to members of the UK Council of Child Internet Safety and associated experts, a thorough search of the published academic literature, and such additional sources of evidence as came to our attention.

Since not all research is of equivalent quality, in editing its Research Highlights series, the Evidence Group has applied a quality threshold that requires research findings to be recent, produced according to a transparent and robust methodology, and resulting in a report that publicly available for further information and scrutiny. For the most part, the scale and depth of the research is required to be sufficient to permit reliable and valid conclusions about UK children although, in areas where research is particularly sparse, we have included some small scale or pilot studies (and identified them as such).

What follows stays close to the actual findings reported in recent studies, in order to capture empirical trends relevant to children's internet uses, risks and safety in the UK. Thus we do not, here, provide theoretical discussion, methodological debate or fuller contextualisation. Nor do we examine research produced in countries other than the UK, although some may be pertinent to the UK situation.

---

[10] Lobe, B., Livingstone, S., Ólafsson, K., and Simoes, J. A. (2008) *Best Practice Research Guide: How to research children and online technologies in comparative perspective*. LSE, London: EU Kids Online. http://eprints.lse.ac.uk/21658/

[11] See http://www.saferinternet.org.uk/research/ukccis-evidence-group

3. CHILDREN'S USE OF THE INTERNET

Level and frequency of access

Research continues to demonstrate a high level of internet access and use among children and young people in the UK. Ofcom's 2011 "Children and Parents: Media Use and Attitudes" report[12] found that:

- Nine in ten children aged 5-15 (91%) live in a household with access to the internet through a PC or laptop, an increase from 87% in 2010.

- This has been driven by an increase in access among children aged 5-7 (87% vs. 84%), 8-11 (90% vs. 86%) and 12-15 (95% vs. 89%).

Childwise's Trends Report adds that only 1% of children and young people aged 7-16 had never accessed the internet by 2011.[13]

However, reported time spent on the internet has not increased greatly since 2007. Ofcom's 2011 survey found parental estimates of children aged 5-7 being online at home for an average of 5.5 hours per week, compared to 4.6 hours in 2007. The equivalent figures for children aged 8-11 were estimated to have increased from 7.8 to 8 hours during the same period.

- Children aged 12-15 estimated their time spent online as an average of 14.9 hours per week compared to 13.7 hours in 2007.

Recent research by EU Kids Online also indicates that UK children aged 9-16 spend more time online on average (60% go online daily, spending 88 minutes on a typical day) than many European children.[14]

Similarly, 70% of American teenagers go online every day, according to Pew Internet's national survey in 2011.[15]

In terms of internet consumption compared to other media, Ofcom's 2011 survey shows that children are still most likely to watch TV, although the picture differs somewhat by age group:

- While the differential between TV and internet use is considerable for children aged 5-7 and 8-11, it is much smaller in those aged 12-15. Children aged 5-7 and 8-11 were also found to spend more time gaming than on the internet, while the reverse is the case for those aged 12-15.

- The survey also found that 43% of children aged 5-7 said that they used the internet almost every day, compared to 65% of those aged 8-11 and 85% of 12-15 year olds.

Devices used to access the internet

---

[12] This large scale quantitative study of media use and attitudes in children, young people and their parents interviewed 1717 children aged 5-15 and their parents in spring 2011. See: http://stakeholders.ofcom.org.uk/market-data-research/media-literacy-pubs/ See Research Highlight #26.

[13] For this large scale quantitative survey of children and young people's media ownership, internet access and use of social networking sites, see www.childwise.co.uk. See Research Highlight #28.

[14] For this large scale quantitative survey of UK children's use of the internet, highlighting issues of risks, safety, and parental mediation, see Livingstone, S., Haddon, L., Görzig, A., and Ólafsson, K. (2011). *Risks and safety on the internet: the UK report*. LSE, London: EU Kids Online. http://eprints.lse.ac.uk/33730/. See Research Highlight #5. For comparable findings across 25 European countries, see Livingstone, S., Haddon, L., Görzig, A., and Ólafsson, K. (2011). *Risks and safety on the internet: The perspective of European children*. LSE, London: EU Kids Online. http://eprints.lse.ac.uk/33731 See Research Highlight #7.
Similar patterns in internet use were found in an Australian report by Green, L., et al., (2011). https://www.ecu.edu.au/__data/assets/pdf_file/0009/294813/U-Kids-Online-Survey.pdf.

[15] Lenhart, A., Madden, M., Smith, A., Purcell, K., Zickuhr, K., and Rainie, L. (2011). *Teens, Kindness and Cruelty on Social Network Sites: How American teens navigate the new world of "digital citizenship"*. Pew Internet and American Life. See http://pewinternet.org/~/media//Files/Reports/2011/PIP_Teens_Kindness_Cruelty_SNS_Report_Nov_2011_FINAL_110711.pdf.

An increasing range of fixed and mobile devices are now used to access the Internet.

- Three in ten young people aged 12-15 use their mobile phone to access the internet according to Ofcom's 2011 survey.[16]

The Ofcom survey also asked parents of young people aged 5-15 if their child used devices other than a PC/laptop to access the internet at home.

- While slightly more than eight in ten children (82%) use the internet at home through a PC or laptop, two in ten (17%) go online via a fixed or portable games console/ games player, around one in seven (14%) via a mobile phone, one in fourteen through a portable media player (7%), and one in fifty through a tablet PC (2%).

The proportion of young people accessing the internet at home through a fixed or portable games player/ console has not changed since 2010. The figures suggest that around one in ten children aged 5-7 (8%), and around two in ten aged 8-11 (19%) and 12-15 (23%) go online using these platforms. The 2011 study also asked children aged 12-15 who go online through a fixed or portable games console whether this was mostly to play games online or to visit websites, with nine in ten (89%) saying that they mostly used it to play games online.

Figures from Childwise's Trends Report 2011 found that:[17]

- 74% of 5-16 year olds own their own computer, rising sharply from 62% the year before. 61% have a portable device. 52% have a laptop, 11% have a netbook, and 11% have a tablet PC (e.g., iPad), whilst 26% have a desktop PC. In total, 97% of children aged 5-16 have a PC at home.

---

[16] Ofcom (2011).Children and parents: media use and attitudes report. Available at: http://stakeholders.ofcom.org.uk/binaries/research/media-literacy/oct2011/Children_and_parents.pdf. See Research Highlight #26,

[17] For this large scale quantitative survey of children and young people's media ownership, internet access and use, see www.childwise.co.uk. Data for the 2012 trends report show little change.

- Further, 47% of 5-10 year olds and 94% of 11-16 year olds own a mobile phone. 52% of all children with a mobile phone sometimes access the internet through this device. 31% of 5-10 year olds with a mobile phone use it to access the internet, as do 63% of 11-16 year olds.

- Lastly, 61% of 5-10 year olds and 71% of 11-16 year olds have their own games console at home, spending an average of 1.4 and 1.7 hours per day on their console respectively.

Gender, age and SES differences

Boys are more likely than girls of all ages to access the internet at home via a fixed or portable games console/ games player (25% vs. 13% for those aged 8-11; 33% vs. 14% for those aged 12-15 respectively). Boys aged 12-15 are also more likely than girls to access the internet through a portable media player (16% vs. 9%).[18]

The incidence of children accessing the internet through these devices increases with age. The Ofcom study found that use of a PC/ laptop to access the internet has increased for young people aged 12-15 since 2010 (93% vs. 88%), as has access using a mobile phone for those aged 12-15 (29% vs. 23%) and 8-11 (9% vs. 4%). As might be expected, nearly twice as many parents of children aged 5-15 with a smartphone say that their child has used it to access the internet, compared to those with a mobile phone (29% vs. 17%).

The proportion of children in each age group that access the internet at home through these different devices suggests that this supplements rather than replaces PC/ laptop access:

- 2% of those aged 5-15 only use a device other than a PC or laptop to go online at home, rising to 3% among all 12-15 year olds.

A number of studies suggest that socio-economically disadvantaged families are less likely to have access to, and use, the

---

[18] Ofcom (2011). See Research Highlight #26.

internet in their homes.[19] Only around two-thirds of young people living in the most socio-economically disadvantaged households have access to the internet at home, compared with more than 90% of those living in the highest income households.[20]

- Home internet access has increased for children in C1 (96% vs. 92%) and DE households (80% vs. 74%) since 2010. However, the level of access for children in DE households continues to be lower than those for other socio-economic groups. Internet access at home in AB and C1 households is now close to universal (98% and 96% respectively).[21]

Location and social contexts of use

There is evidence that a significant number of children have unsupervised access to the internet, and this is likely to increase in the future as more young people have access to mobile devices and computers in their own bedrooms.[22]

Research suggests that unsupervised access is more frequent for older children, though there is evidence that it also occurs in those who are younger. [23]

[19] Grant, L. (2009). *Learning in Families: A Review of Research Evidence and the Current Landscape of Learning in Families with Digital Technologies*. Bristol: Futurelab. Available at: http://www.futurelab.org.uk/resources/documents/project_reports/becta/Learning in_Families_educators_report.pdf.
Synovate (UK) (2009). *Staying Safe Survey 2009: Young People and Parents' Attitudes Around Internet Safety* (DCSF research report 183). London: DCSF. Available at: http://www.dcsf.gov.uk/research/data/uploadfiles/DCSF-RR183.pdf. See Research Highlight #6.
Becta (2008). *Harnessing Technology Review 2008: The Role of Technology and its Impact on Education. Summary Report.* Coventry. Becta. Available at: http://publications.becta.org.uk/download.cfm?resID=38731.
See also NFER (2010) in Research Highlight #8.
[20] Staying Safe Survey (2009), See Research Highlight #6.
[21] Ofcom (2011), see Research Highlight #26.
[22] NFER (2010), see Research Highlight #8.
[23] NFER (2010), see Research Highlight #8.

- One UK study found that 35% of the sample reported having unsupervised access to the internet. The figure was lowest for 7–8 year olds (24%) and highest (38%) for those aged 11–12.[24]

- Another study found that 69% of young people aged 12–17 reported having unsupervised access most of the time, with only 15% having a parent in the same room when they were online.[25]

The Ofcom 2011 survey found that the majority of children aged 5-7 and 8-11 reported using the internet with an adult in the room most of the time (83% and 67% respectively). However, the incidence of children who have unsupervised internet access increases with age:

- Those who mostly use the internet on their own account for one in ten internet users aged 5-7 (10%), one in four aged 8-11 (24%), and half of those aged 12-15 (51%).

- The study also found that children are less likely to use the internet on their own than in 2010 (32% vs. 36%), and more likely to use the internet at home in the presence of an adult (59% vs. 55%).

- The living room continues to be the most frequently mentioned location for internet use in each of the age groups, though one in twenty children aged 5-7 (3%), one in ten aged 8-11 (10%) and one in three aged 12-15 (34%) said they mostly used the internet in their bedroom.

EU Kids Online's UK study found that 52% of 9-16 year olds who went online accessed the internet in their bedrooms.[26] The study also found that teenagers were more likely to have private access in their bedroom, whilst younger children were more likely to go online in a public room. There were also differences in private access according to socioeconomic status (SES), with 48% of children from low SES groups accessing the

[24] Hart et al. (2008), cited in NFER (2010).
[25] SYNOVATE (2009), see Research Highlight #6.
[26] Livingstone et al., (2011). See Research Highlight #5 (figures are slightly lower for the 25 countries surveyed across Europe).

internet in their bedroom, compared with 61% of young people from high SES homes.

Conclusions and evidence gaps

The literature reviewed provides clear evidence that:

- The internet is frequently used by the majority of young people in the UK.

- Though frequency of internet use is highest for older children, increasing numbers of those aged 5-11 are going online regularly.

- Access to the internet through mobile phones is increasing for young people of all ages.

- Young people in lower SES households continue to have lower levels of access to the internet than those in higher SES groups, though there is evidence that this differential is reducing.

- A significant number of young people report having unsupervised access to the internet.

The review also suggests that there are a number of gaps in the existing literature, and research is required to develop further understanding of:

- The online activities and exposure to online risks of children aged 5-11 in order to inform the development of future educational strategies for schools, parents and young people.

- The implications of increasing internet access using mobile devices and gaming platforms by young people for risk exposure, parental mediation and education.

- Levels of internet access and use among young people with SENs or disabilities in order to determine the extent to which there are barriers which exclude these groups of young people from going online.

- The extent to which unsupervised internet access increases young peoples' exposure to online risk, and whether this represents an overall lack of parental mediation of young peoples' internet access or overlaps with other forms of mediation (e.g., technical).

4. CHILDREN'S ONLINE ACTIVITIES

Online activities

Young people are increasingly using the internet to engage in a variety of activities, particularly communicating with others. Ofcom's 2011 survey found that:

- Among children aged 5-7, playing games is the most commonly mentioned internet activity carried out at least weekly (42%), followed by schoolwork/ homework (32%) and avatar sites (18%).

- Among those aged 8-11, schoolwork/ homework is the most commonly mentioned internet activity carried out at least weekly (66%), followed by games (51%) and then information (39%).

- Among those aged 12-15, schoolwork/ homework is the most commonly mentioned internet activity (75%), followed by social networking (72%), and information (65%).

While those aged 8-11 are more likely than those aged 5-7 to use the internet for games at least weekly (51% vs. 42%), there was no difference in the 12-15 and 8-11 age ranges (46% vs. 51%). The same is true for avatar sites; those aged 8-11 (32%) are more likely than those aged 5-7 (18%) and 12-15 (11%) to use the internet to visit avatar sites at least weekly.

The EU Kids Online study[27] found that use of the internet for educational purposes was the most popular activity engaged in by young people aged 9-16 years old in the UK (92%), followed by gaming (83%), watching videoclips (75%) and social networking (71%). The popularity of using the internet for educational activities and playing games did not vary by age, though older children were more likely to watch video clips, use social networking sites and instant messaging.

Social networking

These figures suggest that young people are increasingly using the internet for communicating using social networking sites (SNS).

- Ofcom's 2011 survey, found that seven in ten 12–15 year olds use SNS.

- The study also found that 3% of young people aged 5-7 who use the internet, 28% of those aged 8-11, and 78% aged 12-15 have an active social networking profile. These figures were not statistically significantly different to those in 2010.

- Girls aged 12-15 are more likely than boys of this age to have an active social networking profile (80% vs. 70%).

These results are generally consistent with the EU Kids Online study, which found that:[28]

- SNS are popular among children in the UK – 43% of 9-12 year olds and 88% of 13-16 year olds have their own profile.

- Facebook is the most popular, used by 58% of all 9-16 year old internet users in the UK (and by 87% of social networking youngsters in the UK).

The Ofcom survey also found that around one in three children aged 8-12 who use the internet at home say they have a profile on Facebook, Bebo or MySpace (34%). This group of children is of particular interest as the minimum age for setting up a profile on Facebook / Bebo/ MySpace is 13. Nearly all of these children have a profile on Facebook (98%). This has not changed since 2010.

While 27% of children aged 10 who use the internet at home have a profile on Facebook, Bebo or MySpace, this incidence doubles to 54% among children aged 11.

---

[27] Livingstone et al. (2011), See Research Highlight #5.

[28] This survey was administered face-to-face at home to a random stratified sample of 25,142 children aged 9-16 who use the internet, plus one of their parents, during Spring/Summer 2010 in 25 European countries (Livingstone et al., 2011), see Research Highlight #7.

This potentially reflects the move from primary to secondary school.

- As a proportion of all children (as distinct from those who use the internet at home), 2% of all those aged 8-11 and 10% of all aged 12-15 use Twitter. The comparable figures for Facebook show that one quarter of all children aged 8-11 (23%) and close to three-quarters of all 12-15 year olds (70%) have a Facebook profile.

There are a number of potential risks associated with social networking. The potential for young people to have public profiles has caused concerns relating to access to personal information and contact from people with whom they have had no prior offline contact. However, the EU Kids Online study found that:[29]

- Only 11% of young people in the UK who use SNS reported having a public profile, a much lower figure than the European average of 26%.

- Boys are also more likely to have this setting than girls (14% and 8% respectively), a similar pattern to the overall European dataset.

- Younger children are far less likely to have public profiles than those who are older (14% of 9-10 year olds compared with 25% of 15-16 year olds), a similar pattern to the European data though at lower frequency levels.

- Those from high SES homes are less likely to set their profiles to public, and this was lower than the European average (6% vs. 19% respectively).

- One fifth of children whose profile is public display their address and/or phone number, twice as many as for those with private profiles.

Children who contact people who are friends of friends could potentially be in contact with people who are not directly known to them. Ofcom's 2011 survey combined responses among children who said they used social networking sites for contact with friends of friends or people they had never met in person:

- One in eight children aged 8-11 (12%) and one in four aged 12-15 (24%) are in contact with people who are potentially not directly known to them. However, young people in both these age groups are now less likely to use social networking sites for contact with people potentially not known to them compared to 2010.

Despite media stories reporting young people with hundreds of contacts on social networking sites, research suggests that only 16% those who use SNS in the UK reported having more than 300 contacts, with 26% having between 100 and 300, and 21% between 51 and 100. This is higher than related figures for most of the European countries surveyed found in the EU Kids Online study.[30]

Many providers ban users under 13 and apply particular technical protection mechanisms and moderated services for minors under 18. However, age restrictions are only partially effective. Fewer younger than older children use SNS, but many 'underage' children are still using these services. It seems clear that measures to ensure that under-aged users are rejected or deleted from the service are not successful on the top SNS services used by children in Europe.

Responsibility rests with parents as well. Research undertaken by the Family Online Safety Institute and its members indicates that not only are parents sometimes aware that their children under 13 are using SNS, they are *actively assisting* them in circumnavigating the age restrictions put in place by websites.[31]

---

[29] Livingstone, S., Ólafsson, K., and Staksrud, E. (2011). Social Networking, Age and Privacy. LSE, London: EU Kids Online. At: HTTP://EPRINTS.LSE.AC.UK/35849. See Research Highlight #14.

[30] Livingstone et al., (2011), see Research Highlight #14.

[31] Why Parents Help Their Children Lie to Facebook: Unintended Consequences of the 'Children's Online Privacy Protection Act'." boyd, Hargittai, Schultz, and Palfrey (2011), see http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/3850/3075

As EU Kids Online also shows, there are some particular implications for countries and/or SNS providers. For example, in the UK Facebook dominates, and one third of 9-12 year olds who use the internet use Facebook 'underage'. On the other hand, internet safety campaigns appear successful in that, although these 9-12 year olds are the most likely in Europe to display an incorrect age, they are also most likely to keep their profile private. This could be because Facebook protections are not equally applied in all countries.

Differences in activities by gender

As previously described, boys and girls tend to access the internet using different devices. Ofcom's 2011 survey also shows a range of gender differences in online activities, focused on activities carried out at home at least weekly.[32]

- Among 5-7 year olds, girls are more likely to watch audio-visual content online (7% vs. 2%), while among those aged 8-11, girls are more likely to use the internet for schoolwork/ homework (71% vs. 61%).

- There are more gender differences among those aged 12-15, most of which relate to higher use, at least weekly, among girls for social networking sites (78% vs. 67%), other communications (65% vs. 48%) and music (53% vs. 37%). Boys aged 12-15 are, however, more likely to use the internet at least weekly for games (59% vs. 33%).

A similar pattern of results was found by the Ofcom survey. Gaming was more popular in boys across the included age categories, with younger girls being more likely to use instant messaging and webcams, and those who were older being more likely to post photos and videos.

Gender differences in mobile phone usage are also of note. In Ofcom's 2011 survey:

- Girls aged 12-15 who use a mobile phone are more likely than boys in the same age group to use it on a weekly basis to send/ receive texts (92% vs. 78%), to

make/ receive calls (78% vs. 68%), to listen to music (59% vs. 44%), to take photos (58% vs. 31%), for social networking (34% vs. 21%), to send/ receive photos (20% vs. 12%), for using Instant Messaging applications (20% vs. 10%), and to update their location on services like Foursquare (10% vs. 4%).

Risky behaviours

Some online behaviours also raise safety concerns for young people due to the potential risk and harm to which they may be exposed to as a result (e.g., inappropriate contact, sexual exploitation, cyberbullying). These behaviours include making new friends and communicating with people online with whom they have had no prior offline contact, posting and disclosing personal information in online interactions, exchanging images and meeting offline.

Despite these concerns, the recent EU Kids Online study found that these behaviours are not frequently engaged in by the majority of young people in the UK.

- The study found that 87% of UK children aged 9-16 years old do not regularly post or disclose personal information about themselves to people they met online, and only a small proportion sent personal information (14%) or images of themselves (7%) to the people they met online. These figures are lower than the average European frequencies for these behaviours.[33]

- Similarly, most young people in the UK only communicate with people online that they already know face-to-face (89%). However, 39% of the sample looked for new friends on the internet, and 32% added contacts that they didn't know offline. The study also found that 19% of 11-16 year olds communicated with people that they met online, and boys were more likely to engage in this behaviour than girls (24% and 13% respectively).

---

[32] Ofcom (2011), see Research Highlight #26.

[33] Livingstone et al. (2011), see Research Highlight #5.

- There were also age differences, with 13% of 11-12 year olds, 12% of 13-14 year olds and 30% of 15-16 year olds engaging in this behaviour. These figures are lower than the European average in each of these age categories (19%, 23% and 33% respectively). Despite safety concerns, only 4% of the young people in the UK sample had gone to an offline meeting with someone they first met online, a lower figure than the European average of 9%.

Ofcom's 2011 survey asked children aged 12-15 who used the internet at home or elsewhere, from a prompted list, whether they had undertaken various types of potentially risky online behaviour in the past year.

- One in seven home internet users aged 12-15 (14%) said they had done any of these potentially risky things in the past year. Around one in ten children (11%) in this age group had also taken the contact details for someone they have only met online. There were no differences by gender.

- Children aged 12-15 in C2DE households were more likely than those in ABC1 households to have sent personal information (such as contact details) to someone they have only met online (8% vs. 3%).

This study also found that among children aged 12-15 with an active social networking profile, those with more open profiles (i.e. their profile is set to be seen by anyone or by friends of friends) were more likely than children with more private profiles (that can be seen only by their friends), to have added people to their friends that they have only had contact with online (21% vs. 10%), to have sent personal information to a person they have only had contact with online (12% vs. 4%), and to have pretended to be a different kind of person online to who they really are (6% vs. 1%).

Conclusions and evidence gaps

The review of the relevant literature in this section suggests that:

- Social networking is one of the most popular online activities for young people of all ages in the UK.

- There is clear evidence that increasing numbers of children younger than thirteen have an SNS profile, despite the associated age restrictions.

- The majority of SNS users have private profiles, and most young people say they only communicate online with those who are already known to them offline.

- Young people with public profiles are more likely to engage in risky online behaviour.

- Some young people are making new friends online, particularly boys and those who are older.

The review also suggests that there are a number of gaps in the existing literature, and suggests that research is required to develop further understanding of:

- The extent to which young people making new friends online are aware of the associated risks, but continue to engage in the behaviour.

- The extent to which young people with open SNS profiles are aware of privacy settings but choose not to use them.

- The extent to which young people use reporting mechanisms on services and their evaluation of this process.

5. RISK OF HARM TO CHILDREN ONLINE

Types of risk encountered by children

As highlighted in the previous section research indicates that the principal risks to children online include:

- Bullying
- Exposure to sexual images
- Receiving sexual images and 'sexting'
- Meeting online contacts offline

Online addiction and gambling represent further areas for concern and a brief exposition of the limited research to date is provided after taking each of the above substantial risks in turn.

Before examining the evidence of the above to children in the UK the following risk taking profiles of young people provides an overview of the likely exposure. There are others such as sites promoting anorexia for example, a major health issue, but there is not the evidence base to establish the extent of the UK's exposure to such sites at the present time.

Putting online risks into context of children's lives

In a recent large-scale quantitative study,[34] a survey was administered face-to-face at home to a random stratified sample of 25,142 children aged 9-16 who use the internet, plus one of their parents, during Spring/Summer 2010 in 25 European countries. The survey measured various indicators relating to frequency/amount of use and range of activities.

Based on the amount of use, the range of online activities, the performance of specific activities, the number of risky online activities and the number of personal profiles on social networking platforms, six comprehensive patterns of young people's online use have been identified:

- *Low risk novices*. This group includes many younger children, and averages 11.1 years old. They use the internet rather little, focusing mainly on schoolwork, watching video clips and reading/watching the news. Few have an SNS profile and they do few risky online activities. Although they encounter few online risks, when they do, they tend to be upset.

- *Young networkers*. These children are about one and a half years older than the first group (average 12.7 years) and more often girls than boys. They are less likely to use the internet for schoolwork or news and more likely to use SNSs. They also encounter online risks though they tend not to find these upsetting.

- *Moderate users*. Being of similar age as the second group (13.1 years on average), these children spend about the same time online, but have a much wider range of activities. They are less likely to encounter online risks linked to online communication, although their level of risk is similar to that of the 'young networkers'.

- *Risky explorers*. Averaging 13.5 years old, these children spend almost two hours a day online and do the widest range of activities, including some more advanced and creative activities on the ladder of opportunities. They also do more risky online activities. Although not the oldest group, they encounter the most risk online but are the least likely to be upset.

- *Intensive gamers*. These children are on average 13.6 years and more often boys than girls. They are online for the longest of all (around 3 hours per day) and have a fairly wide range of activities. They like playing games against the computer and watching video clips, and they do relatively little schoolwork, news or creative activities. Their exposure to risk is quite high but lower than that of the 'risky explorers'; some use the internet excessively.

---

[34] EU Kids Online, see Research Highlight #7.

- *Experienced networkers*. This is the oldest group (average 14.1 years), with more girls than boys. They use the internet for less than two hours but do more activities (especially social networking, though less gaming) than the average. They also read/watch news, use instant messaging, post photos or music and write blogs. They encounter a similar level of risk to the 'intensive gamers' but relatively low harm (though they seem particularly sensitive to bullying).

Bullying

Bullying is the online risk that upsets children the most from the online risks detailed here. There are some substantial changes revealed in the data on this phenomenon in recent years.

In 2009 a survey was administered to 1433 parents/carers of children aged 0-17, and 833 children and young people aged 12-17:[35]

- When prompted, 30% of children aged 12-17 stated that they are concerned about inappropriate individuals making contact with them; 9% state they are concerned about being exposed to inappropriate content; and 8% state they are concerned about cyber bullying. 18% of children aged 12-17 state that they have encountered harmful content online. 19% of children aged 12-17 state that they have experienced cyber bullying.

In relation to online bullying the EU Kids Online research found that 21% of UK children say they have been bullied, but just 8% say this occurred on the internet.

The latest findings from Beatbullying[36] reveal that:

- 28% of 11-16 year olds have been deliberately targeted and bullied either by an individual or group through the use of mobile phones or the internet. And for over a quarter of these they had been

constantly bullied by the same person or group over a long time.

These findings closely mirror Beatbullying's first Virtual Violence study.[37] However, there has been a reduction in the percentage of children reporting cyberbullying, from 33% in 2009 to 17% in 2011.

The Beatbullying 2012 report goes on to highlight that, despite much publicised efforts from internet service providers and mobile phone providers amongst others, advice to users on how to protect themselves from cyberbullying does not appear to have had significant impact. Indeed, when young people are cyberbullied, fewer report it to the service provider in comparison to 2009, and fewer are following the recommended actions of telling someone, blocking the perpetrator, and saving the evidence.

The question here is whether there has in fact been a reduction or whether many young people are feeling less comfortable about reporting incidents as cyberbullying is becoming more socially unacceptable. Even though these reduced reporting rates may be positive and attributable to ongoing work to tackle the problem there are still many children who are not taking action.

Exposure to sexual images

Within the EU Kids Online Project spanning 25 countries a survey was administered face-to-face to a random stratified sample of around 1000 children and a parent/carer. In the UK, 1032 children and a parent/carer participated in the research, conducted during May/June 2010.[38]

- 11% of UK children have encountered sexual images online. 8% of UK 11-16 year olds say they have seen online sexual images including nudity, 6% (more teenagers than young children)

[35] Synovate(2009), see Research Highlight #6.

[36] 'Virtual Violence 11: Progress & Challenges in the Fight against Cyberbullying (London 2012).

[37] Cross, E-J., Richardson, B, Douglas, T., & von Kaenel-Flatt, J. (2009) 'Virtual Violence: Protecting Children from Cyberbullying'. London. Beatbullying.

[38] Livingstone et al. (2011). See Research Highlight #5.

have seen images of someone having sex, 6% have seen someone's genitals online and 2% say they have seen violent sexual images.

- Among children who have seen online sexual images, 41% of parents say their child has not seen this, while 30% recognise that they have and 29% say they don't know.

- As in other countries, UK 9-10 year olds are less likely to see sexual images online but more likely to be bothered or upset by the experience if they do see them.

It is evident that there has been an increase in the number of self-taken, indecent images of children. CEOP's strategic overview[39] , based on reports received from members of the public, industry and law enforcement suggests that these images are sometimes produced as a result of a child or young person being groomed by an adult offender, though some children also appear to upload such images without coercion.

Receiving sexual images/sexting

In research exploring sexting amongst children,[40] data was collected via an online survey, disseminated to schools across the south-west of England. Schools responded to confirm whether they would engage in the survey, and carried out the surveys in class. While the original intention was for anyone aged 11-18 to respond, in reality schools who responded constrained dissemination of the survey to key stage 4 students. In total, 18 schools across the South West participated in the survey with 535 respondents in total.

- 'Sexting' is prevalent among young people, with around 40% saying they knew friends who carried out such a practice.

- 27% of respondents said that 'sexting' happens "regularly" or "all of the time".

- 56% of respondents were aware of instances where images and videos were distributed further than the intended recipient, though 23% believe this distribution is intended to cause upset.

- 30% of young people knew people who had been adversely affected by 'sexting'.

- 27% believe young people need more support and advice related to 'sexting' and 70% said that they would turn to their friends if they were affected by issues related to 'sexting'.

- 24% of young people would turn to a teacher for help if they were affected by issues related to 'sexting'.

Lower figures, using a representative UK survey of 11-16 year olds, were reported by EU Kids Online – this found that 12% had received a sexual message online; only 3% had seen others perform sexual acts in a message and 2% had been asked to talk about sexual acts with someone online.[41]

Grooming – the risk of encountering online offenders

Among the types of risk encountered by children such as exposure to harmful and inappropriate content, is that of falling victim to online grooming. Online grooming is the process by which a child is socialised through social media and prepared for sexual abuse.

Girls more often use social aspects of the internet and appear more willing to share personal information and to interact with strangers. Girls are at higher risk, and more likely to have had a 'threatening' experience online and more likely to meet strangers online whereas boys are half as likely to tell someone and get help.[42]

[39] Child Exploitation and Online Protection (CEOP) Centre Strategic Overview 2009-2010. See Research Highlight #4.
[40] 'Sharing Personal Images and Videos Among Young People', Phippen, A. (2009) South West Grid for Learning, see Research Highlight #10.

[41] Livingstone et al. (2011). See Research Highlight #5.
[42] Davidson, J., Lorenz,M., & Martellozo, E., & Grove-Hills, J. (2009) Evaluation of CEOP

The concept of sexual grooming is well documented in the sex offender literature,[43] and is now filtering into legislation policy, crime detection and prevention initiatives.[44] The UK was the first member state to introduce the new offence category of 'grooming'. The definition of UK 'grooming' legislation is provided by the Crown Prosecution Service (CPS) (England and Wales) (2007):

> 'The offence only applies to adults; there must be communication (a meeting or any other form of communication) on at least two previous occasions; it is not necessary for the communications to be of a sexual nature; the communication can take place anywhere in the world; the offender must either meet the child or travel to the pre-arranged meeting; the meeting or at least part of the journey must take place within the jurisdiction; the person must have an intention to commit any offence within or outside of the UK (which would be an offence in the jurisdiction) under Part 1 of the 2003 Act. This may be evident from the previous communications or other circumstances e.g. an offender travels in possession of ropes, condoms or lubricants etc.; the child is under 16 and the adult does not reasonably believe that the child is over 16'.

Under the UN Convention on the Rights of the Child (UNCRC) children have a right to protection from all forms of violence. The UNRC is clear regarding 18 being the age of consent but there is geographically wide variation. Defining childhood in this way is clearly problematic and this issue continues to prove a barrier to any international consensus in child safeguarding law. The UNCRC also requires that the child's best interests should be taken into account in actions which affect them. [45]

However, it is challenging to develop a robust evidence base in five to ten years, and this explains the dearth of literature about the motivations, attitudes, behaviours and experiences of online groomers. One large European study funded by the EU Safer Internet programme has conducted in-depth interviews with convicted online groomers.[46]

- Accounts of online groomers suggest evidence of resilient young people that refuse to engage with them online. The key features of young people's resilience (from offenders accounts and the academic literature) were the ability to: recognise risk and fend off any approach they considered 'weird', understand safety messages, feel confident about rejecting advances and informing others, come from more secure backgrounds.

- The groomers did not particularly show annoyance at conversations ending abruptly, nor did they feel rejected. The anonymous and disinhibiting nature of

---

ThinkUknow Internet Safety Programme and Exploration of Young People's Internet Safety Knowledge. See Research Highlight #2.

[43] Finkelhor, D. (2008). *Childhood victimization: Violence, crime, and abuse in the lives of young people.* Oxford: Oxford University Press.

[44] The Sexual Offences Act (2003) in England and Wales, and Northern Ireland and the Protection of Children and Prevention of Sexual Offences Act (2005) in Scotland includes the offence of 'meeting a child following certain preliminary contact' (section 1). 'Preliminary contact' refers to occasions where a person arranges to meet a child who is under 16, having communicated with them on at least one previous occasion (in person, via the internet or via other technologies), with the intention of performing sexual activity on the child.

[45] There has in recent years been a concerted attempt to enhance the protection of children through political initiatives at EU level. In 2003 the EU adopted a Council Framework Decision on 'combating the sexual exploitation of children and child pornography' committing EU member states to bringing their national laws in line with the standards it contains, including criminalising child pornography and other child sexual exploitation offences. In November 2011 the Council of the European Union introduced a directive aimed at introducing legislation to address the sexual exploitation of children. The legislation provides for the removal or blocking of websites containing child indecent images, introduces measures against online grooming and criminalises child sex tourism. All Member states have two years to ratify the provisions into national law. It is only within the last decade that law enforcement and scientific communities have attempted to understand and address the challenge presented by men who have taken advantage of the Internet 'boom' to groom young people for sexual purposes.

[46] European Online Groomers Project: Final Report 2012, see www.europeanonlinegroomersstudy.com

the online interaction meant that there was little sensitivity to rejection.

- For some online groomers, being able to continue to collect images and engage with young people in a sexual way was the desired outcome - a meeting or any longer-term contact for these offenders was not the goal driving their offending behaviour.

- However, there were also accounts of a physical meeting between the young person and offender as the final outcome. Meetings were held in hotels, car-parks, parks, bus stops, and the offender or young person's bedroom. Meetings could take place on single or multiple occasions with the same young person.

- Risk-management strategies for the young people meant having settings to 'private', not giving out phone numbers or addresses and specifically not giving out passwords. It appeared that much of the online safety practice had been learnt 'by doing' rather than through explicit advice. This was particularly evident where there had been no awareness training in school. Sources of unstructured learning tended to be from siblings and parents.

Some young people shared experiences of inappropriate approaches. In fact, an approach by some that they judged as 'suspicious,' seemed to be an almost expected experience. Here, not trusting * someone referred to persistence by the 'stranger' trying to communicate. Some young people also described men that made fast sexual contact with explicit sexual behaviours. Beyond general suspiciousness of some approaches, the style of language used by online groomers was discussed as a key identifying marker of risk. For example, clumsy attempts at shorthand, excessive use of emoticons were all described as signs of a 'fake approach'.

Young people's response to offender approach covered three themes:

- Immediate action - consistent blocking of messages or ignoring inappropriate requests.

- Risk behaviours - keeping strangers' phone numbers and continuing to chat online until things seem suspicious.

- Extent of disclosure – a common feature across boys and girls accounts was they deal with things alone and doing so was not much of a problem.

Boys in particular tended to be more resistant to the idea of telling anyone about inappropriate online approaches, girls tended to tell a friend. There was some resistance to telling parents or carers, influenced by a fear that their computer privileges would be removed.

Addiction

The EU Kids Online survey found that:

- UK children's experiences of excessive use are more common than the European average: 51% have spent less time with family and friends than they should because of time they spend on the internet and 39% have tried unsuccessfully to spend less time on the internet.[47]

A literature review conducted at Nottingham Trent University[48] reported that prevalence rates for problematic gaming or online gaming addiction have been reported up to 12% (although typically in the 2% to 5% range).

Critical literature reviews have noted the distinction that has been made between excessive engagement and addiction. Excessive (problematic) engagement in gaming has been reported in approximately 8–12% of young persons, whereas addiction seems to be present in 2–5% of children, teenagers and students, according to a German study.[49]

---

[47] Livingstone, et al. (2011), EU Kids Online UK report at http://eprints.lse.ac.uk/33730, see Research Highlight #5.
[48] Kuss and Griffiths (2011), cited in Research Highlight #12.
[49] Rehbein, F., Kleimann, M., & Mößle, T. (2010). Prevalence and risk factors of video game dependency in adolescence: Results of a German nationwide survey. *CyberPsychology, Behaviour and Social Networking*, 13 (3), 269-277.

Gambling

Although there is variation in the participation rates reported in the published studies to date, a small number of surveys showed that a small but significant minority of adolescents gamble online.

- Over one in three adolescents have been reported to gamble in money-free mode with one large UK study reporting that 28% of 11- to 15-year olds had done so within the last week.[50]

Money-free gambling (using social networking sites or 'demo' modes of real gambling sites) introduces children and adolescents to the principles and excitement of gambling without experiencing the consequences of losing money.

The largest and most robust UK adolescent gambling survey of 8,985 schoolchildren (aged 11-15 years) reported that playing money-free gambling games was the single most important predictor of whether the child had gambled for money, and one of the most important predictors of children's problem gambling. However, it should be noted that this relationship is correlational and not causal.[51]

Other risks

19% of UK 11-16 year olds have seen one or more type of potentially harmful user-generated content, rising to 32% of 14-16 year old girls. Most common are hate messages (13%), followed by anorexia/bulimia sites and sites talking about drug experiences (both 8%). Few (2%) have visited a suicide site.
The main misuse of personal data experienced by UK children is when someone has used their password or pretended to be them (10%).[52]

Conclusions and evidence gaps

There is a need for more research on the online risks faced by younger age groups accessing the internet, particularly the 66% of children aged 5–7 who access the internet.

Even though there is some research on the extent to which socio-economically disadvantaged and vulnerable young people access the internet, more research could be conducted in this area to explore their use of the internet, including how, where and for what purposes they use the internet.

There is also a need for more research to explore the extent to which socio-economically disadvantaged and different types of vulnerable young people are more or less likely to face online risks, how they respond to risks and what support they can turn to – this could include both quantitative and qualitative evidence exploring these questions.

There is very little evidence on using more portable devices (such as laptops, mobile phones, games consoles and portable media players) to access online content and whether this may increase online risks.

There are a lot of studies on what content young people access on the internet, although many of these focus on specific uses only and the risks associated with these – less is known about other uses, in particular the ways and extent to which younger children aged 11 and below use social networking sites to share personal information.

- What risks do younger online users aged 5–7 face – how many of them access inappropriate content or encounter other online risks?

- To what extent are young people with learning difficulties and disabilities?

- more likely to encounter online risks and what risks do they encounter?

- What links are there between other forms of disadvantage and vulnerability

---

[50] See Research Highlight #21.
[51] See Research Highlight #21.
[52] See Research Highlight #5.

and engaging in risky online behaviour and other online risks?

- Does the use of more portable devices lead to more unsupervised access to online content and is it associated with particular online risks?

- Are children who access the internet in their own bedroom more likely to engage in risky behaviour online?

- What links are there between the frequency of accessing online content and online risks?

Further investigation of vulnerable children/young people and of the possible match of offender to victim is greatly needed. We also need a better understanding of the impact of even low level internet contact by strangers and grooming in order to improve preventative work, along with a better analysis of children's resilience and the psychological, social, familial factors that support this.

It would also be desirable to consider how internet providers can 'design out' offender behaviour on SNS (grooming, networking, indecent image sharing).

6. VULNERABLE CHILDREN

There is some evidence to suggest that even though some young people are more vulnerable to certain online risks, all children who access the internet are potentially at risk of harm.

What is vulnerability?

A definition of online vulnerability is provided by Palmer, Piggin & Hilton (2010)[53] who note that broadly there are four groups that can be identified as presenting characteristics that may result in the children being less resilient to risks that they might encounter during their childhood. They are groups that are seen as sufficiently disadvantaged to require extra help from public agencies in order to make the best use of their life chances.

- **Children who experience family difficulties** and are brought up in "chaotic" family/home environments – they may suffer physical, emotional and/or sexual abuse and neglect, witness domestic violence and/or family breakdown, be brought up in an environment in which drugs and alcohol abuse of the adults around them impinges on the quality of parenting they receive and they may be children who, having been judged to have suffered "significant harm", are placed in the care system.

- **Children with disabilities** – they may suffer from chronic physical ill health, have physical, learning disabilities or special educational needs.

- **Children with emotional/ behavioural difficulties** – these children may present with differing symptoms such as a propensity to self-harm, to be prone to suicide attempts, to have a diagnosed mental or behavioural condition.

- **Children who experience "exclusion of access"** – these children experience "system neglect" in the sense that they are unable to access services that are universally available to other children. They belong to the more marginalised groups within society such as travellers, asylum seekers, trafficked and migrant communities.

The Child Exploitation and Online Protection Centre (CEOP) conducted an analysis of victim typologies of 49 children and young people identified and safeguarded by the specialist CEOP Identification Team between April 2006 and February 2009, as well as an analysis of 135 public reports of online abuse received by the CEOP referral desk in January 2009. It found that children who are victimised online fall into two distinct, but not exclusive, groups:

- The first group includes those whose images of abuse are circulated online. These children very often fit 'traditional' child protection victim profiles – children abused in the offline world whose trauma has been photographed or filmed. In those instances, technology merely becomes the medium through which images of offline abuse are produced, distributed and exchanged.

- The second group includes those targeted 'randomly' by offenders through online media. They do not seem to share any obvious characteristics other than simply having 'access' to the online environment, which suggests that any children accessing the internet are potentially at risk.

However, there were some noticeable trends – girls, especially among the under-18 age group (58 children), were more likely to report abuse; and among the under 18s, reports were most frequent from those aged 12–14. Even though this analysis is not based on a representative sample of young people, it provides an indication of the different ways in which young people can be

---

[53] Cited in Livingstone, S., and Palmer, T., with others (2012) *Identifying vulnerable children online and what strategies can help them.* Report of the seminar arranged by the UKCCIS Evidence Group, March. http://eprints.lse.ac.uk/44222/

regarded as 'vulnerable' when using the internet. Young people with special educational needs and those receiving free school meals are more at risk of cyberbullying than other children.

A similar typology of 'vulnerability' is presented by Cross et al. (2009).[54]. This study defined vulnerable groups as consisting of first, children who experience family difficulties and are brought up in 'chaotic' family/home environments; second, children with disabilities; third, children with emotional/behavioural difficulties; and fourth, children who experience 'exclusion of access' to services normally available to children.

- The survey (Cross et al., 2009) found that 16% of children with special educational needs (SEN) and 13% of children receiving free school meals (FSM) experienced persistent cyberbullying, compared with only nine per cent of children overall.

- Children of white non-British ethnic backgrounds (which include Gypsy-Roma, Traveller of Irish Heritage, and East European children) also all reported a higher incidence of this persistent form of cyberbullying.

- The survey also found that experience of online bullying is closely linked to offline experiences – 62% of those persistently bullied online saw this as an extension of their offline experiences; only 22% said they first experienced bullying via the internet or their mobiles.

Vulnerable children online

There is little research evidence on vulnerable children using the internet. A seminar was recently organised by the Evidence Group to explore this issue.

A small scale mixed methods project conducted by Carrick-Davies et al.[55] suggests that the task of assessing the correlation between offline vulnerabilities and online risk for certain groups is problematic but nevertheless certain principles can be extrapolated.[56]

- 81% of PRU (Pupil Referral Unit) professionals questioned through the online survey stated that young people they work with are involved in risky behaviour online.

- 62% of PRU professionals questioned through the online survey stated that they believed that these young people were 'more at risk' or 'slightly more at risk than other young people.

Six areas are identified in the report where offline vulnerability may exacerbate online risk taking:

i. Absence of supportive adults in their lives
ii. More unsupervised time and less regular routines or directed activities
iii. Staggered entry to learning environments, potentially missing out on e-safety advice
iv. Tendency to crave group identity and to be viewed as 'outsiders' or 'risk takers'
v. Likely to experience abusive environments including being on the receiving end of violence
vi. Greater exposure to influences of alcohol, drugs, early sexual experience and gang culture

There are a range of risky online situations which vulnerable young people can access. However, it is apparent that there are very

---

[54] Based on a survey of more than 2000 young people in the UK between November 2008 and February 2009 in seven local authority areas. See Cross, E. J., Richardson, B., Douglas, T., & Vonkaenel-Flatt, J. (2009). *Virtual violence: protecting children from cyberbullying*. London: Beatbullying.

[55] Methods included a series of 5 half-day workshops over a 2 month period with seven vulnerable young people in a PRU from South London, an online survey of professionals. Responses were received from 61 professionals working in PRUs or NEET (Not in Education, Employment or Training) settings. Interviews and site visits, with specialist researchers, PRUs and practitioners. Literature review and workshops with range of stakeholders. See Research Highlight #19.
[56]'Carrick-Davies, (2011) Munch Poke Ping –E-Safety and Vulnerable Young People. See Research Highlight #19.

real new risky situations which vulnerable young people in particular can be drawn into through their mobile phones such as offline anti-social and criminal activity and unauthorised status updating and pranks. Practitioners also reported that vulnerable young girls were vulnerable to online grooming by older peers and there were real concerns, of 'gifting' of expensive mobiles, phone credits or vouchers given in exchange for membership in a certain gang or for later abuse.

The previously cited European Online Groomers' Project Internet Grooming Project spanned four European countries (UK, Italy, Belgium and Norway) and was based upon qualitative interviews with convicted offenders most of whom had groomed, met and sexually abused a child.

The findings suggest that the majority of children appear to be resilient to offender approach, but that a minority who appear vulnerable in some respect are willing to interact and to meet. Offenders were asked to define vulnerability and identified a series of characteristics and circumstances including: low self-esteem; prior experience of sexual abuse; difficult family relations; isolation; being in local authority care. Offenders described the way in which they would deliberately seek to compensate or play to the child's vulnerable state as part of the grooming process.

There is very little research on children with special educational needs (SEN), however a small study conducted by The Lucy Faithfull Foundation[57] with young people aged 13-16 with SEN and suggests that:

- Children are aware of online risks and a general awareness of the need to keep safe from these dangers. However, at least some children in the focus group lacked the ability to put this knowledge into practice.

Children in the focus group were all clearly aware that you should not share personal information with people you have never

met, yet at least one focus group participant who was aware of this safety rule had not activated privacy controls on her Facebook profile. Some participants had been taught internet safety rules, though some did not fully understand these rules or did not recognise some of the terminology used, for example 'social networking' and 'privacy settings'.

Focus groups with teachers of children with SEN suggest that one difficulty centres on *social interaction*: these children are too trusting because they have a lack of social skills:

i.   They may believe everything that they are told
ii. They have poor social skills and interpretations of 'inappropriateness' can be worse online when there are fewer boundaries or visual cues, and not so immediate consequences or repercussions
iii. They are desperate for friendship, which can make them vulnerable to accepting friends on Facebook and other social networking sites, as this can make it appear that they are popular
iv. They may be unable to detect appropriate behaviour from other Internet users

Additional difficulties concern *social communication*

v.   Children with SEN take conversations at face value
vi. They see games as more 'real' than their mainstream peers; they struggle to see things as 'fantasy,' and lack the ability to be imaginative

Also problematic is their r*estricted, repetitive, and stereotyped behaviour, interests and activities*

vii. They become obsessed with the internet or with particular people they meet, and may be considered to be 'stalking' someone
viii. They are often obsessive and compulsive, and may be viewed as 'addicted'. Some may have big 'melt downs' if they can't go on the internet.

Few studies have explored the link between online risk and social disadvantage. In a large scale quantitative study conducted by EU Kids Online,[58] a number of factors were analysed as possible sources of disadvantage, with findings as follows.

Educational/economic disadvantage:

- *27% of children have parents with lower* secondary *education or less.* These children report fewer online risks than average, but are more upset by risk, less skilled and less helped by parents to cope with risk.

- *25% of children have parents who do not use the internet.* They report fewer online risks but are more upset and have few skills to cope. Their parents lack confidence, lack support from friends and family, and wish the school would guide them.

- *7% of children use the internet less than once per week.* Again reporting fewer risks but more upsetting experiences than the average, these children's digital skills are lowest of all, and though their parents do not think their children well prepared to cope with the internet, they do not plan to do more than others.

Psychological disadvantage:

- *41% of children have parents who say they are very worried about their safety online.* These children have not encountered or been upset by more risks than average. Nonetheless, their parents lack confidence, think they should do more. Children and parents have and want more safety information.

- *34% of children - the top third in terms* of *psychological difficulties* report more online risks and more harm. Their parents lack confidence but are likely to have adjusted their approach after something upset their child online.

- *12% of children have experienced* something *upsetting on the internet.* These children report many more risk and upsetting experiences. Their skills

are above average, suggesting a readiness to learn. Their parents too have changed their approach after an upsetting experience, and wish for more safety information from all sources.

Social disadvantage:

- *6% of children* have *a mental, physical or other disability.* These children report raised risk levels, and find meeting new online contacts offline more upsetting than average. Their parents are less confident that their child can cope, and they wish to receive more from ISPs and websites.

- *4% of children belong to a discriminated-against group.* These children report more online risk. Their parents lack confidence in themselves and their children in terms of coping, receive less support from friends and family, and wish for safety information from the government.

- *4% of children speak a minority language at home.* These children are more upset by bullying and 'sexting'. Their parents lack confidence in their and their child's ability to cope, they think they should do more to support their child online, and they receive less safety information from all sources than average – they prefer to get this from the child's school, from TV or friends and family.

Summary of key issues

It is clear that any child is potentially at risk online but emerging EU funded research demonstrates that those children who are vulnerable are also likely to be vulnerable online.[59] Further research that addresses both the experience and needs of this group of children and that guides practice is needed urgently.

---

[59] Webster, S., Davidson,J., Bifulco,A., Caretti, V., Gottschalk,P & Pham, T(2012) '*The European Online Grooming Project Final Report*', www.europeanonlinegroomingproject.com. Quayle, E. Jonsson, L & Loof,L (2012 forthcoming) '*Online behaviour related to child sexual abuse: Interviews with affected young people*' .

---

[58] See Research Highlight #7.

7. INITIATIVES TO SAFEGUARD CHILDREN ONLINE

Recognising that it is important to encourage the development of skills in children which allows them to use developing digital technologies – and the access to content – safely and appropriately, research studies have been conducted that look at the ways in which children acquire those skills, their behaviours as a result of such knowledge and the modes of learning that may be most beneficial to and effective for them.

The previous literature review had suggested more evidence about the efficacy of initiatives was required, especially in schools.[60] This review describes how children view third party mediation, how they say they cope with materials they have encountered that are inappropriate or present them with risk, the role of schools and parents , and their use of tools to help ensure children and young people stay safe online. .

Children's views of third party mediation

Findings from Ofcom's large scale tracking study of children's media literacy show that a significant majority (over 90%) of the older children in their sample of those aged 8-15 who use the internet say they have been given information or advice about safety online.[61] This question was first asked in 2010 and so there are little trend data:

- However, about three quarters of those who have received such advice say they were given it by teachers (78% of 12-15 year olds compared with 72% of 8-11 year olds); a lesser proportion mention their parents (66% for 8-11s, 67% for 12-15s). Information gleaned from websites (4% of 12-15 year olds) is also mentioned.

This is supported by other studies which report that the majority of young people say their parents or teachers had spoken to them about staying safe online, with

teaching about internet safety in schools being high (82% of 12-17 year olds[62]).

Interestingly, the Ofcom survey shows a different picture when children are asked whom they would tell if they saw online content that was "worrying, nasty or offensive in some way". Family members dominate (90% of 8-11s who use the internet at home say this, and 78% of 12-15s), with teachers nominated by fewer – 29% of 8-11s and 18% of 12-15s. Friends would be told by 9% of 8-11s and 20% of 12-15s.

Children's experience of advice in schools

The importance of schools in the transmission of such knowledge is supported by the evaluation of the ThinkuKnow (TUK) Internet safety programme, developed by the Child Exploitation and Online Protection (CEOP) Centre to be run in schools:[63]

In this study four in five (82%) young people aged 11-15 say they have recently had such advice and say they rely on schools and parents to give them such information. However the TUK 'brand' itself is not widely recognised.

- Another study, which surveyed over 3,000 pupils aged 5-19 in England, reports that many pupils say they do not have specific internet safety-related lessons in their schools, this is particularly true in schools in rural areas.[64]

---

[60] NFER, Children's Online Risks and Safety (2010), see Research Highlight #8.

[61] See Research Highlight #26.

[62] Synovate (2009), see Research Highlight #6

[63] Davidson, J., Lorenz, M., Grove-Hills, J., & Martellozo, E (2010) '*Evaluation of CEOP ThinkUknow Internet Safety Programme & Exploration of Young People's Internet Safety Knowledge: Final Report*' – Centre for Abuse and Trauma Studies and Kingston University available at www.cats-rp.org.uk See Research Highlight #1.

[64] National Education Network Safeguarding Group/Department for Educational Research, Lancaster University (2011), see Research Highlight #17.

The study also shows that pupils are uncertain about the safe use of individual aspects of internet access. Nearly two in five pupils (36%) say the safe use of social networking sites is not covered in internet safety lessons or they are uncertain about it. The study finds the frequency of such teaching decreases as children get older (an average of once a week reported by pupils aged 5-7, and once a term by pupils aged 14-19). However pupils do say that the frequency of discussion about e-safety is about right, although the study suggests an indication that pupils would like to see more regular discussion. When asked how e-safety might best be taught in schools, pupils mention ICT lessons but also the integration of such subject matter into PHSE lessons or other appropriate lessons.

The pan-European study, EU Kids Online finds nearly three in five 9-16 year olds say there are rules at school about what they can and cannot do at school.[65] The study also notes that children turn to their teachers and peers for help with online activities that they find difficult – over half (58%) of 9-16 year olds say their teachers have helped them when they have found something is difficult to do or find on the internet, and the same percentage say their teachers have explained why some websites are good or bad.

What this and other studies demonstrate are gaps in the advice given on internet safety - and children and young people recognise this. Over a quarter (27%) of young people aged 13-18 year old say there is a need for more information.[66] Three in five primary school aged children (aged 7-11) want more information.[67]

Children's experience of advice from parents/carers

The EU Kids Online study finds that children find their parents' involvement in their internet use, and the mediation of it, is well-received with seven in ten thirds saying

it is 'very' or 'a bit' helpful .[68] Indeed some child respondents say they would like their parents to take 'a lot' (5%) or 'a little' (10%) more interest in what they do online; this is especially true of 9-12 year olds.

Nevertheless the study finds that about a third of children say they ignore their parents' advice about online use (7% say 'a lot', 29% 'a little'). This may be because they feel that their parents' mediation limits what they can and cannot do on the internet with 11% saying it restricts them 'a lot', and further third saying it restricts them 'a little'. The study finds that 9-10 year olds feel the most restricted.

Children's skills and coping online

How well can children themselves deal with the sorts of risks that, as the foregoing evidence shows, they may encounter online? And how are the social norms by which teenagers manage their peer-to-peer relations changing?[69] Selwyn et al find that, although three quarters of children say they know how to stay safe online using their computers and mobile phones, only a third are able to offer responses that corroborate with 'official notions of e-safety'.[70]

- A significant proportion (over one in ten - 13%) also says they feel unsafe when using them, or feel they are giving away too much personal information (12%). Similarly while most pupils (74%) say safe mobile phone use is covered in internet safety, around 10% of pupils say they feel unsafe using them.[71]

- One in ten children aged 12-15 who use the internet say that they would not tell anyone or don't know who or if they would tell someone if they saw

---

[65] See Research Highlight #25

[66] Phippen (2009), see Research Highlight #10.

[67] See Cranmer, S., Potter, J., & Selwyn, N. (2009). Exploring primary pupils' experiences and understandings of 'e-safety'. *Education and Information Technologies, 14*(2), 127-142.

[68] See Research Highlight #25.

[69] Alice Marwick and danah boyd. (2011). "The Drama! Teen Conflict in Networked Publics." Paper presented at the *Oxford Internet Institute Decade in Internet Time Symposium*, September 22.

[70] See Selwyn, N., Potter, J., & Cranmer, S. (2010). *Primary schools and ICT: learning from pupil perspectives*. London: Continuum.

[71] See Research Highlight #17.

something worrying, nasty or offensive online.[72]

Other research show that girls are more likely to use the internet for social activities such as emails, instant messaging, use of social networking sites and so on, while boys are significantly more likely to play games online and undertake research which do not involve direct contact with other people.[73] This, the researchers argue, puts girls at higher risk of coming to harm online as these are activities through which contact can be made with them and so leaves them more susceptible than boys to grooming or bullying.

- A study conducted by Childwise also found that older girls (11-16 years of age) were more likely to use social networking sites than boys of the same age range, although younger boys and girls (5-10 years) were far more likely to participate in social gaming.[74]

Importantly, the study which evaluated the ThinkUKnow (TUK) programme used in schools, found that children who have had some ongoing interaction online with a person not previously known to them and whom they had never met, do not generally consider these people as 'strangers'. Just one–half of the sample say they have not interacted with strangers at all. While this increases to 55% of 11-12 year olds, it decreases to just over a third (38%) for 13-16 year olds.

This means that these children are willing to share information and interact with these people more than they would with 'newer contacts' who they see as strangers. The most likely interactions are receiving messages from a stranger and adding them as instant messaging or social networking 'friends'. The research finds that more than a third of young people say they have shared their age and email address with someone they only know online, and more than one in five have shared their full name, where they go to school and photographs of themselves. Younger children in the sample

are less likely to do this, and boys less likely than girls.

The researchers go on to say 'As making friends online is part of a wider social trend toward socialising online.., there is no reason to expect children to behave otherwise. This presents problems in terms of the effectiveness of safety messages regarding strangers'. The research did show, nevertheless, that those who have visited the TUK website are significantly less likely to have shared their full details with a stranger (someone not met face to face).

Coping mechanisms online

Many studies show that significant proportions of young people do not exercise sufficient care to protect themselves, especially in relation to social networking sites. A survey of young people aged 8–19 found that of the 55% who had a social networking profile, nearly a quarter (23%) let anyone see their profile, while three per cent said they did not know who could see their profile. [75]

EU Kids Online, the pan-European study, looks at the way in which children and young people manage their own access, using online tools and settings made available to them. It finds that many of the features designed to protect children from other users (if necessary) are not easily understood by many younger and some older children.[76] The study noted that the main increase in the ability to use these functions appears to be at 13+ years.

In the UK survey,[77] bookmarking websites, finding information on how to use the internet safely and blocking messages are all skills that most UK children claim to have; but only a third claim to be able to change filter preferences and among the younger children there are some significant gaps in their safety skills which policy initiatives should address.

---

[72] See Research Highlight #26.
[73] See Research Highlight #2.
[74] See Childwise Monitor 2011-12, and Research Highlight #28.

[75] Eynon, R. (2009). *Harnessing technology: the learner and their context. Mapping young people's uses of technology in their own contexts – a nationally representative survey*. Coventry: BECTA.
[76] See Research Highlight #7.
[77] See Research Highlight #5.

- Around one third of 11-12 year olds cannot bookmark a site, and even more cannot block messages from people they don't want to hear from.

- Four in ten UK 9-16 year olds (37%) say the statement "I know more about the internet than my parents" is 'very true' of them, a quarter (29%) say it is 'a bit true' and one third (34%, though 65% of 9-10 year olds) say it is 'not true' of them.

As the evaluation of the TUK study was designed to see how effective the programme is in enabling children to deal with their safety online, the survey asked children about their online negative experiences online.[78] The study distinguishes between "'nuisance experiences' (spam, computer viruses, hacking) and 'threat experiences' (being made uncomfortable online, being sent things that made them uncomfortable, being bullied)".

It finds that nearly 7 in 10 of the sample (68%) have had some sort of negative experience but these fall mainly into the former, nuisance, category. However one in five children, and girls were statistically more likely to report this, say that have had threat experiences.

The study further analysed whether the threat experience was a first experience or whether it was a recurring issue, and how the recipients deal with this:

- If it is a first experience, boys are twice as likely as girls to take no action. Of those than do take action, girls are significantly more likely than boys to seek to prevent contact – either by asking the person to go away, blocking them or closing the message. The boys who do take action are significantly more likely to tell a teacher or the police.

- The study also shows that those who have had online safety advice in the previous two years are significantly more likely to take some action than those who have not, and are also more

likely to tell their parents if they feel uncomfortable.

When recurring threat experiences are examined, the study notes – again – that boys are significantly more likely than girls to take no action, but there are no gender differences in the actions taken.

- A large scale survey of parents/carers of children aged 0-17, and children and young people aged 12-17, found that almost all (91%) of the children sample say they know how to protect themselves online, and almost the same proportion (87 %) say they would know what to do if they saw or did something inappropriate online.[79]

- In line with the findings above however, only just over one third (35%) of children say they would talk to their parents if they encountered something harmful online. Fewer say they would seek advice (8%), report it to the website (7%) or report it to the police (6%). One in ten (12%) say they would do nothing.

Teaching in schools

The previous review noted that more research was needed about e-safety policies in schools.[80] It had found evidence that such policies were often incomplete or did not address key issues. [81] An Ofsted study, based on a self-evaluation exercise, noted that around half of schools that took part made no reference to e-safety issues while a further quarter only made reference in passing to it.[82] There was found to be significant reliance on external support (local authorities and external organisations, such as the TUK programme), and little evaluation of these programmes.

A small-scale qualitative research project by the Centre for Education and Inclusion Research at Sheffield Hallam University demonstrates that the development of an e-safety policy is crucial to improving internet

---

[78] See Research Highlight #2.

[79] See Research Highlight #6.
[80] NFER (2010), see Research Highlight #8.
[81] Phippen (2009), see Research Highlight #10.
[82] Ofsted (2008), see Research Highlight #18.

safety in schools.[83] It meant that problems are addressed quickly and the process is well-understood. The research also showed the importance of having a member of staff who takes the lead role in the development of such policies, and the importance of that person having both the knowledge and time to address the issues was underlined. This study finds that the use of third party produced material is thought of as useful (in this case, an online video by the Child Exploitation and Online Protection Centre (CEOP)) and having an impact on underscoring messages about e-safety.

As the evidence suggests, children and young people receive information about internet safety from their schools/teachers so the role of these organisations and their staff is vital in raising awareness and increasing active involvement from children in relation to their personal online safety. The study by NEN shows that, while about half the respondents in their sample of school personnel, feel adequately trained regarding messages about e-safety, many suggest that a need for further training .[84] While three in five (60%) teachers say they feel adequately supported to respond to safety issues, fewer than one in ten (9%) said they do not want any additional training.

An evaluation of the ThinkUKnow programme, mentioned earlier, found that the 'brand' TUK was not well-recalled and young people made suggestions about ways in which the programme might be improved and made more attractive, such as the use of less text and increasing the interactive element of the website.[85] However the evaluation team notes the importance of regular and repeated reinforcement of the messages of such programmes and their results suggest that those young people who have been part of the programme might be more averse to certain types of risk taking behaviour.

The importance of keeping knowledge refreshed was also emphasised in the Sheffield Hallam study where, it is argued, schools should consider updating annually

their Acceptable Use Policies, signed by pupils.[86]

To protect themselves, schools in the Sheffield Hallam study had implemented a Staff User Agreement. This sets guidelines for staff such as advising them not to set privacy settings so that pupils could access their accounts.

The SW Grid for Learning and Plymouth University have worked together on the assessment of a self-evaluation process for schools around their e-safety policies called 360 degree safe.[87] Each school evaluates itself against 28 different aspects and the data are assimilated and the schools can compare their own results and make comparisons against other schools. An evaluation of nearly 600 schools found that the top five aspects of e-safety policies are:

- Filtering
- Acceptable use policies
- Policy scope
- Digital and video images
- Policy development

The process allows for progress to be monitored and appraised, thus providing a plan against which a school can work. There are various stages of accreditation and once a school has reached the benchmark level, it is formally assessed and – if appropriate – is awarded the "ESafety Mark", an award validated and approved by the University of Plymouth.

The use of filters in schools

Filtering devices are in place in many schools and the NEN study shows that the majority of school personnel in their sample think that filtering is good or very good, with only 5% saying filtering is bad or very bad thing. However a significant minority (31%) feel that school filtering should be less restrictive, feeling that alternatives such as monitoring by teachers or removing access for periods of time are better alternatives. The young people interviewed agree with this and also mention monitoring by pupils themselves. When asked why such filters are in place, pupil protection is mentioned more often than protection of

---

[83] See Research Highlight #29.

[84] NEN (2011), see Research Highlight #17.

[85] Davidson et al. (2010), see Research Highlight #2.

[86] See Research Highlight #29.

[87] See Research Highlight #11.

the school or of teachers. The authors conclude:

> 'It is recommended that e-safety provision and training provide more advice and guidance on these alternatives (to filtering), and that exemplars of practice are offered where possible'.

The case for fewer rather than more in-school filters are argued by the two case study schools in the Sheffield Hallam study who feel that it is better that children learn to manage online risks rather than be sheltered from them.[88] One of the schools has a Managed Learning Environment (MLE) which includes an area for e-safety so that children can report anything they are unhappy or uncertain about.

The NEN study also found that many schools in the sample do not allow mobile devices, or restrict their use. Their efficacy is questioned however as nearly two thirds (63%) of all pupils say they do not or only sometimes follow these policies, and they are less likely to do so as they get older.

There are clearly still gaps in the development of consistent policies but the data show that evaluative measures are being developed to assist schools in helping to improve e-safety teaching.

Parental mediation

In the small scale study conducted by Sheffield Hallam, the case study schools agree that the involvement of parents is very important, especially as it ensures consistency of the messages about e-safety.[89] When pupils are encouraged to sign the Acceptable Use Policy (which this study suggests should be updated annually), parents are sent a letter explaining what their children have signed up to and what information/teaching they will receive. The large scale quantitative study by Ofcom looks at the use of all media by children and finds that parents express most concern about television content – 31% of parents with children aged 5-15 say they are very/fairly concerned about television

compared with 23% who say the same about the internet. [90]This level of differential concern remains true regardless of the age of the child.

This may reflect the finding that the majority (81%) of parents in the Ofcom study say they think their children use the internet safely, and almost the same proportion (79%) say their children have been taught about e-safety at school. This study does not find that most parents feel unskilled to give their children advice about online safety - while almost half (49%) say their children know more about the internet than they do, four in five (82%) say they know enough to allow them to give advice to their children – and the same proportion (83%) say they have done so. This is supported by EU Kids Online which shows that one third (36%) of 9-16 year olds say it is 'very true' that they know about using the internet than their parents do and warns that 'talk of digital natives obscures children's need for support in developing digital skills'.[91]

The Ofcom study finds that most parents (82%) say they have rules for their child's internet use, with more rules being set for younger children - (89% of parents of 5-7 years and 88% of 8-11 years say they have rules compared with 79% of those with children aged 12-15). Over 9 in ten (93%) of the parents of 12-15 year olds say they have spoken to their children about remaining safe online and this incidence increases with the age of the child.

The data further show that the way in which children access the internet is related to how much parental mediation occurs. According to the Ofcom study,

- Children aged 8-11 without rules placed upon them are more likely than those with rules to have PC/ laptop-based internet access in their bedroom (21% vs. 13%), with children aged 12-15 without rules being more likely to ever go online at home via a mobile phone (34% vs. 24%).

---

[88] See Research Highlight #29.
[89] See Research Highlight #29.

[90] See Research Highlight #26.
[91] See Research Highlight #25.

- Further these children aged 12-15 without rules of supervision are also more likely to mostly use the internet in their bedroom (40% vs. 27%) and to spend more time online in a typical week (15.6 hours vs. 13.9 hours). They also are more likely to have active social networking sites, or use Instant Messaging services. Importantly however, children in both age groups without rules about online supervision are not more likely to the internet alone.

The Ofcom study also finds that these children (aged 12-15 without rules relating to online parental supervision) are not more likely to have:

i. added people to their contacts that they've only had contact with online;
ii. sent people they only know online personal information/ photos or videos;
iii. set their social networking site profiles to be more visible; and
iv. contacted people through their social networking profiles that may not be known to them.

These data are in contrast to the findings of a large scale study commissioned by the Department for Education which notes that a far smaller proportion (67%) of parents and carers of children aged 12-17 have rules in place for their children's internet use, while a higher proportion (79%) say they have spoken to their children about safety online.[92] This reinforces the finding that parents, especially of older children, are more likely to speak to their children about such aspects than set definite rules.

It is important to note that both the Ofcom research and the DFE study find a disparity between parents' views of the control they exercise over internet access and the view of children. In both studies, smaller proportions of children say their parents have given them advice or set rules than do the parents (for example in the Ofcom survey over 4 in five parents say they have spoken to their children about online safety, two-thirds of children agree. Similarly in the DfE study a

similar proportion of parents say they have talked to their children while only one half of the children [52%] say their parents have done so). While this disparity in itself may be a research effect and may be caused by lack of awareness, it is worth noting.

As the studies above show, parents say they have talked to their children about online safety, and the Ofcom study also asks about specific rules applied to online use (twelve different rules are suggested). The survey found that such rules are more common for those aged under 12 than the older group. Rules include active supervision (checking what the child is doing), rules about inline purchasing and time based restrictions. Data have been collected on these topics since 2007 and show relative stability in the overall trend for rules being set on internet use by parents with a slight increase in rules being set for the older and the younger groups. The data will need to be monitored to see if this is a sustained trend.

While many parents (54%) say they have rules in place and they actively supervise their children's internet use, when probed about specific areas of concern, such as those that have been described elsewhere in this report, individual aspects of internet use are little mentioned:

- 28% say they are very or fairly concerned about their child giving out personal details to inappropriate people, 27% mention cyber bullying, under a quarter (24%) are concerned about who their children might be making contact with online,23% mention concern about the content on the websites their child visits.

- Relatively few (14%) mention any concern about illegal downloading.

Each of these concerns was probed for access to the internet via mobile phones and gaming. Undoubtedly there is a research effect by asking such questions, but the data show that the concern via these devices was lower than those for general internet use . Nevertheless one in three parents (31%) of those aged 12-15 say that they do exclude access to websites that are aimed at adults (aged 18 and over). In one fifth of these cases the access control is activated at point

---

[92] Staying Safe (DfE, 2010), see Research Highlight #6.

of purchase. Only 11% of these parents say they themselves have applied such controls.

- Of those who have not applied mobile phone filters to their children's phones, the majority (54%) say they trust their children, while just over one on four (28%) say they do not know how to apply such filters, while almost the same proportion (24%) say they did not know it was possible.

The pan European study finds that most parents (89%) say they do have rules about the personal information their children can give out online.[93]

- Over four out of five (82%) say they talk to their children and nearly three in five (59%) say they are near the access device when the children are using it.

As the Ofcom study found, these parents say they decrease their active supervision as their children get older. Nonetheless they offer online safety advice for children of any age. Half of the parents interviewed think they should take a more active interest in what their children do online. A minority of parents (15%) say they have altered how they approach internet safety because their child has been upset by something they have seen, received or done online.

Parental controls

Recent analysis of the EU Kids Online 25 country survey asked the parent most involved with the child's internet use if they use filtering or monitoring software at home. In the UK:

- 54% of parents say that they block or filter websites at home and 46% say they use technical tools to track the websites visited by their children. These findings are far higher than in Europe generally, with the UK topping the country ranking for use of filters.[94]

Examining why some parents use filters and not others. it was found that – across

Europe - there is more likelihood to do so if:[95]

- Parents are regular uses of the internet themselves (use it more than weekly)

- If they are confident in using the internet.

- If they say that they worry a lot about their child seeing inappropriate material on the internet or being contacted by strangers on the internet.

- The younger their child, the more parents are likely to use filtering or monitoring software.

The NFER (2010) review had looked at a range of studies and noted that at least half of parents do not use online tools and software that would control access to the internet.[96] The survey conducted by Ofcom suggests that this has changed and more software is installed to prevent or restrict various forms of access.

Over two thirds of parents (67%) say they have applications that protect against email spam or viruses, and a further third say they use the history function to monitor their children's usage.[97] A smaller proportion (8%) has installed software to restrict time spent on the internet. An earlier pan-European study noted that 49% of households use filtering software, while just over a quarter (27%) use filtering and monitoring software.[98]

Indeed the Ofcom study notes the use of software to prevent access to potentially inappropriate content is less well used, although the survey asks about a number of such measures:

---

[93] See Research Highlight #7.
[94] See Research Highlight #5.

[95] Livingstone, S., Ólafsson, K., O'Neill, B., and Donoso, V. (2012) *Towards a better internet for children: Findings and recommendations from EU Kids Online for the CEO Coalition*. LSE, London: EU Kids Online. http://eprints.lse.ac.uk/44213/
[96] NFER (2010), see Research Highlight #8.
[97] See Research Highlight #26.
[98] Eurobarometer. (2008). *Towards a safer use of the Internet for children in the EU: A parents' perspective*. Luxembourg: European Commission.

- Nearly one half (47%) of parents whose children use the internet at home use settings that allow only safe searches on search engine websites.

- A far smaller proportion (28%) of parents of children with access to the internet at home and who visit the YouTube website say they have enabled the Safety Mode (which prevents access to certain videos),

About one third (30%) of parents whose child watches/downloads content from UK TV broadcasters' websites are not aware of the guidance labels for programmes offered on all sites. This means that relatively few then go on to set up PIN or password protection on these sites (10% do so for all sites and 7% for some).

This compares unfavourably with households who have access to multichannel television: households with satellite (55%) or cable (51%) have more PIN protection activated. This is undoubtedly a function of awareness and education. Indeed, of those parents who say they do not use any internet or software filtering tools, 12% say said this was because they were not aware this was possible or did not know how (see also Symantec, 2009).

Tools for restricting online access on mobile phones and games consoles are made even less use of by parents. We have already seen that parents tend not to put filtering software on their children's mobile phones themselves (see Ofcom, 2011, above) and another survey finds that 16% of parents whose child uses a mobile phone are aware of such controls and only just over half of these uses them.[99]

To look at how effective and how easy parental control tools were to use, the European Commission commissioned a study which considered 31 filtering tools for the three main sources of access to the internet (the personal computer, mobile phone, and games console) .[100] The study found there is significant disparity between the functions

of the tools available for the personal computer. While all allow parents to block categories of content and most (84%) can be further customised to block certain websites etc., less than half allow blocking on keywords. Further these tools are far less effective when dealing with material that is generally less easy to categorise such as user generated content, or many types of messaging service (61% of the tools could block MSN Messenger but less than half (46%) could block Skype). None of the tools investigated offer information on peer-to-peer downloads while a number (80% of the 31 investigated) do show the history of site visits.

The mobile phone control tools tested found even greater differences between what can – and cannot – be filtered. There is no universal tool for filtering both content and access, and none of the tools tested filtered the use of applications; although iPhone parental controls can block applications such as web, e-mail and YouTube. Where content filtering is possible, it is most effective with 'adult' content, though certain categories such as 'drugs' and 'crime' were not filtered. Parents could also add URLs, but not keywords (as with the pc tools) to the list of material to be filtered. Again, as with personal computers, the web filtering tool was less effective when working on user-generated content.

Of the gaming consoles examined that offer internet access, this study of available tools finds that internet access can be blocked by parents, although none of the tools, in-built or external, allow parents to monitor online activity and there is no possibility to customise the filters.

Policing the internet

Covert Internet Investigators were introduced into policing in the UK as a result of the growth of the internet and the use of the internet by sex offenders. Initial focus was upon the way in which the internet was being used to access and distribute indecent images of children.
In 2003 the National Police Improvement Agency (NPIA) in the UK created a two week course to train police officers as Covert Internet Investigators (CIIs). Whilst the initial training centred on policing

---

[99] Ipsos Mori. (2009). *Children's and Young People's Access to Online Content on Mobile Devices, Games Consoles and Portable Media Players: Report Prepared for Ofcom*. London: Ipsos Mori.
[100] See Research Highlight #9.

online sex offender activity, the course now includes officers from Intelligence Bureaus and Counter Terrorism.

Since early 2006 police High Technology Crime Units such as the Metropolitan Police HTCU 101 have committed considerable time, effort and resources in their effort to counter Internet-based sexual offending against children. These operations have, in the majority, been centred upon the deployment of Covert Internet Investigators (CII) in the guise of under-age children within a number of Social Networking Sites. Since the inception of these covert initiatives, the Metropolitan Police has expanded its scope of CII operations to include a number of innovative and long-term strategies to target those offenders who adopt alternative methods and tactics in order to achieve sexual gratification; these objectives may range from engaging in the distribution of indecent images of children through to engaging in the facilitation of children for hands-on sexual abuse (Internet Grooming).

It is within the field of Internet Grooming that CII's have been innovative and have identified the importance of Actual Proactive Covert Internet Policing.[102] CII's have either proactively assumed the identity of girls aged 13-14 years of age, taken over the identity of child victims who have reported online grooming offences or infiltrated Internet forums where online sex offenders can 'virtually' meet and share thoughts, ideas, fantasies and, or, indecent images.[103]

CII's can also assume the identity of arrested sex offenders to identify further offences, further offenders or further victims. Forces within England and Wales have trained 170 officers in total, however currently only 12

such officers work proactively 12 months of the year as CII's, this is as a result of policing by statistics. The Internet has provided law enforcement unique opportunities to proactively identify those who abuse or have the potential to abuse children, without waiting for the child victims to come forward. This opportunity gives Law Enforcement Agencies the ability to identify some of the ninety percent of sex offenders who never come to notice.[104]

In proactive online cases law enforcement officers are able to pose as children, (using the same pretence often used by online sex offenders), something which cannot be achieved offline. CF and SNS allow monitoring of sex offender activity, a task impossible offline. And importantly, there is more likely to be online documentary evidence, a factor that makes prosecution difficult in an offline grooming situation. Furthermore where evidence takes the form of someone's word against another, often a child's against an adult's, covert policing allows young victims to be saved from the trauma of court appearances.

The police also work nationally with organisations such as the Child Exploitation and Online Protection Centre (CEOP) and internationally with Interpol, the Virtual Global Taskforce and the International Centre for Missing and Exploited Children.

Summary

The evidence examined above has considered the way in which children and young people think they learn about online safety and how they cope when they encounter content that is inappropriate or upsetting to them, schools' policies regarding e-safety, parents' roles and their use of online tools.

Children and their message to stakeholders

Ofcom findings on how children perceive that they learn about digital technology show that schools and teachers play a key role in raising awareness of online safety.

---

[101] The Metropolitan Police High Tech Crime Unit was established in 2002 to specifically combat online child pornography images.

[102]. Taylor, J. (2010) ' *Policing social networking sites and online grooming'* in Davidson, J. & Gottschalk, P. (2010) '*Internet child abuse: Current research and policy,'* Routledge.

[103] Ybarra, M. & Mitchell, K. (2008). *How Risky Are Social Networking Sites*? A Comparison of Places Online Where Youth Sexual Solicitation and Harassment Occurs. *Paediatrics 121*(2), 2008, 350-357.

[104] Tanner, J .(2009). '*Inside the Mind of Sex offenders',* 21st Crimes Against Children Conference, Dallas, 2009.

However, the strategies that have been evaluated so far and the policies adopted are not coherent and are unequally distributed. More evidence needs to be gathered and more attention given to developing online safety messages across the curriculum. The material presented here also suggests that parental mediation can be effective. Children do not disregard it, and many welcome it. What remains a challenge is the constant evolution of the internet and the ability of carers to keep up with the new opportunities to access the internet in different ways that is offered to children.

The Ofcom data do not show a relationship between parental mediation and rules and the child's likelihood to undertake online risky behaviour.

The EU Kids Online project looked at the effects of parental mediation in some detail and finds that if parents either restrict or actively supervise their children's internet use, it seems that children's exposure to online risks is decreased. However the study suggests that such parental mediation does not reduce risk – the study finds that active supervision is associated with more risks for children aged 9-10 and 13-16, and monitoring is associated with more risks for 9-14 years olds. The authors question whether increased and active mediation occurs as a result of risks being encountered by children. The study also notes that the use of online tools does not suggest a reduction in encountering online risks.

As the data have not shown that risk is reduced by parental mediation the authors hypothesise that there are different strategies that are effective at different stages – so setting rules and limits on the use of the internet seem to more effective in the prevention of risks and therefore harm. These are best used when children are younger. Monitoring internet use and actively discussing online safety seems to be a response to risks already encountered in many situations.

As we have seen, these findings may be affected by what children perceive as being 'risky behaviour'. Davidson et al (2010) note that young people consider those with whom they have interacted online for some time are online or virtual friends. Thus, while most young people know about online-related risks, many of them do not take preventative steps and continue to add people as 'friends' or make public their personal (and identifiable) information. Nonetheless many in the sample did say they would only meet with an online friend if they are accompanied and most (96%) say they would not meet with someone they have only just met online.

Davidson et al.'s evaluation of the TUK programme suggests that safety awareness is increasing among young people, and is coming through to them from a variety of sources. However the conclusion is that such awareness does not necessarily lead to risk-averse behaviour and initiatives that reinforce messages regarding risky behaviours are important.

The research illustrates that the difficulty for teachers, parents and policy makers is to find the right balance between restrictions and creating an environment where access to the internet is a positive experience and those most at risk, know how to avoid or – at the very least – report content or online experiences that cause distress or upset.

The data also show that online tools and software offer too many disparate functions and there needs to be a simpler common baseline for the use of such processes. This is promoted by the European Commission's CEO Coalition which requires industry to work together in five areas:

- **Simple and robust reporting tools**: easy-to-find and recognisable features on all devices to enable effective reporting and responses to content and contacts that seem harmful to kids

- **Age-appropriate privacy settings: settings** which take account of the needs of different age groups (such settings determine how widely available a user's information is; for example whether contact details or photos are available only to close contacts rather than to the general public)

- **Wider use of content classification**: to develop a generally valid approach to age-rating, which could be used across sectors and provide parents with understandable age categories;

- **Wider availability and use of parental control tools**: user-friendly tools actively promoted to achieve the widest possible take-up

- **Effective takedown of child abuse material**: to improve cooperation with law enforcement and hotlines, to take proactive steps to remove child sexual abuse material from the internet.[105]

Finally the research presented here show that access to the internet via mobile phones and games consoles is not well understood. Increasing awareness in schools and among teachers and other carers will be important to reduce the risk of harm through the use of the internet.

These findings show that, while there is some more research around initiatives and a better understanding of what can be achieved through them in terms of children's' online safety, the data still suggest more work is needed in terms of different delivery platforms (to mobile phones and games consoles would need to be added tablets, for example), and the different platforms available to young people.

---

[105] For EC Vice President's CEO Coalition, see http://europa.eu/rapid/pressReleasesAction.do?reference=IP/12/445&format=HTML&aged=0&language=EN&guiLanguage=en.

8. RESEARCH HIGHLIGHTS SERIES (RH 1-29)

http://www.saferinternet.org.uk/research/ukccis-evidence-group

29: Improving e-safety in primary schools
Lucy Shipton, Sheffield Hallam University (Aug 2011)
A small scale qualitative study of the internet safety policies and procedures of two primary schools, based on interviews with teachers and focus groups with children.

28: Trends in media use
Childwise (May 2012)
A large scale quantitative survey of children and young people's media ownership, internet access and social networking sites use.

27: EU Kids Online: Online safety and disadvantaged children
EU Kids Online (Aug 2011)
A large-scale quantitative study observing trends in the risk-taking behaviours of disadvantaged groups of children.

26: Children and parents media use and attitudes: Ofcom's children's media literacy tracker 2011
Ofcom (Oct 2011)
A large scale quantitative study of media use and attitudes in children, young people and their parents.

25: EU Kids Online: Patterns of risk and safety online
EU Kids Online and London School of Economics (Aug 2011)
A large scale quantitative study, comparing trends and patterns in internet use among children and young people in EU countries.

24: EU Kids Online: Cross-national comparisons
EU Kids Online and London School of Economics (Aug 2011)
A large scale quantitative study, comparing trends and patterns in internet use, risk taking and harm between children and young people in EU countries.

23: EU Kids Online: Bullying
EU Kids Online and London School of Economics (Aug 2011)
A large scale quantitative study of online bullying.

22: Attitudes to online privacy
Andy Phippen, University of Plymouth (July 2011)
A large scale quantitative study, comprising an online survey of children and young people which assessed their attitudes to online privacy.

21: Online gambling and young people
Mark Griffiths, Nottingham Trent University (Nov 2011)
A literature review on online gambling among young people.

20: Internet safety and children with special educational needs
Lucy Faithfull Foundation (Aug 2011)
A small scale qualitative study on the internet safety concerns of children with special educational needs, focusing on difficulties experienced online and safety measures taken.

19: Vulnerable young people, social media and e-safety

Stephen Carrick-Davies (July 2011)
A small scale qualitative study on vulnerable young people's use of social media and mobile phones, revealing the link between offline-online vulnerability, risky behaviours online and consequences.

18: **Ofsted – younger children's views**
Ofsted (April 2011)
A small scale quantitative survey on children's views on personal safety – online and offline.

17: **Internet safety and schools**
Department of Educational Research, Lancaster University (May 2011) A quantitative survey of issues faced by school about internet safety, revealing safety provisions and concerns.

16: **Trends in media use**
Childwise (May 2011)
A large scale quantitative survey of children and young people's media ownership, internet access and social networking sites use.

15: **Children's and young people's internet use and parental attitudes: Ofcom's children's media literacy tracker 2010**
Ofcom (April 2011)
A large scale quantitative survey of children and young people's media literacy, revealing their engagement online and parental awareness and attitudes.

14: **Social networking, age and privacy**
EU Kids Online and London School of Economics (April 2011)
A large scale quantitative survey of children's use of social networking sites, focusing on under-age use and privacy settings.

13: **Policing online child sexual abuse**
Elena Martellozzo, Middlesex University (in press)
A small scale ethnographic study of the police's covert investigations on online child sexual abuse, focusing on their policing strategies and the grooming process unravelled.

12: **Research highlights for children's online gaming and addiction: a brief overview of the empirical literature**
Mark Griffiths, Nottingham Trent University (Nov 2010)
A literature review on children's online gaming, revealing its incidence and consequences.

11: **Online safety policy and practice in the UK – an analysis of 360 degree safe self-review data**
South West Grid for Learning and University of Plymouth (Sept 2010)
A small scale quantitative survey of issues faced by school about internet safety, revealing safety provisions and concerns.

10: **Sharing personal images and videos among young people**
University of Plymouth (Nov 2009)
A small scale quantitative study of the 'sexting' practices, uncovering its prevalence and young people's attitudes about it.

09: **Benchmarking of parental control tools for the online protection of children, SIP-Bench II**
EC Safer Internet Programme (Jan 2011)
A large scale quantitative review of various parental control tools for children's online protection, revealing their effectiveness and limitations.

08: **Children's online risks and safety: Review of available evidence**
National Foundation for Educational Research (Mar 2010)
A literature review on children's online risks and safety, pointing to its occurrence and the gaps in evidence.

07: **EU Kids Online II: European findings on risks and safety for children on the internet**
EU Kids Online and London School of Economics (Jan 2011)
A large scale quantitative survey of children's use of the internet, highlighting issues of risks, safety, and parental mediation.

06: **'Staying safe' survey: Findings for children's internet safety**
Department for Education (Feb 2010)
A large scale quantitative survey that measures parents' and children's awareness, attitudes and reported behaviours of the safety issues children encounter online.

05: **EU Kids Online II: UK findings**
EU Kids Online and London School of Economics (Jan 2011)
A large scale quantitative survey of children's use of the internet, highlighting issues of risks, safety, and parental mediation.

04: **Child Exploitation and Online Protection (CEOP) Centre strategic overview 2009-10**
Child Exploitation and Online Protection Centre (May 2010)
A large scale quantitative study of reports of online child abuse received by CEOP, bringing to light the forms and nature of these abuses.

03: **Children's and young people's internet use and parental attitudes: Ofcom's media literacy tracker: Wave 1, 2010**
Ofcom (Aug 2010)
A large scale quantitative survey of children and young people's media literacy, revealing their engagement online and parental awareness and attitudes.

02: **Exploring online safety knowledge and evaluating CEOP's Think U Know (TUK) education programme**
Kingston University (July 2009)
A large scale mixed methods study of young people's knowledge about internet safety and their understanding of the Think U Know programme.

01: **Offender behaviour: Lessons for online safety**
Kingston University and EC Safer Internet Programme (April 2010)
A large scale study of qualitative interviews of online grooming offenders, revealing their behaviours and information of the young people groomed.

EVIDENCE GROUP

CHAIR

Professor Julia Davidson
Kingston University

CHAMPION

Professor Sonia Livingstone
London School of Economics & Political Science