



Children's online risks and safety

A review of the available evidence



Report prepared for



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I am delighted to introduce this first report commissioned by the UK Council for Child Internet Safety's Expert Research Panel. The Expert Research Panel was established following the recommendation of the Byron Review that:

'there 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.'

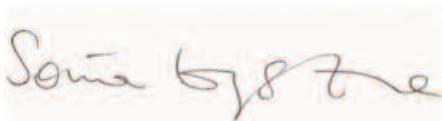
The Panel includes researchers representing key stakeholder groups across academia, government, regulation, child protection and industry, with expertise in children's online activities and risks, safeguarding initiatives, offender behaviour and the latest technological trends. Its terms of reference are to:

- set a research strategy for the Council and advise on priorities
- establish an evidence base for the Council
- take forward, as appropriate, proposals from the Executive Board and the Working Groups
- keep a watching brief on ongoing research in the UK and internationally.

This report provides a timely mapping of the existing evidence relating to the indicators, prevalence and consequences of online risks to children as well as effective safeguarding measures and regulation across platforms. We are grateful to NFER for undertaking this scoping task, following a public tender process.

Although the internet brings many benefits to children and families, the report pinpoints some key findings emerging from the fast-growing evidence base concerning the risks that some children encounter online. It also notes some pressing gaps in our knowledge, for which future research is required. It is hoped that this report will be updated regularly, to reflect the newest findings as they emerge in the years ahead.

We thank the UKCCIS members who pointed us to recent research reports, and encourage all those aware of additional and upcoming findings to let us know about them. These may be added to our newly created research database, soon to be publicly available via the UKCCIS website.



Professor Sonia Livingstone

Chair, Expert Research Panel

UK Council for Child Internet Safety

01 Introduction

This review presents findings from the mapping study carried out by the National Foundation for Educational Research (NFER) on behalf of the Department for Children, Schools and Families (DCSF), under the auspices of the UK Council for Child Internet Safety (UKCCIS).

This report maps the latest relevant evidence on the main topics related to the online risks to children, draws out some of the key findings from the evidence, and indicates where there are currently gaps where future research may be needed.

Research evidence has been collected from a variety of sources, including via:

- **literature searches** of relevant library databases (including the Applied Social Sciences Index and Abstracts (ASSIA), the British Education Index (BEI) and the British Education Index Free Collections and ChildData)
- **web searches**
- **personal discussions** with members of the UKCCIS Expert Research Panel
- **e-mail requests** sent to all UKCCIS members and 20 other key contacts, including academics, commercial research organisations, industry contacts and other stakeholders.

The main topics investigated as part of the review include:

1. **Evidence on access and use of the internet by children in the UK** – Where, what, how often and with whom do children access the internet? And what are the links between location, social context, platform, what is accessed and how often and online risks?
2. **Evidence on the characteristics of children accessing the internet** – What are the characteristics of those accessing the internet in different ways in terms of their age, gender or socio-economic background? Are disadvantaged or vulnerable young people more or less likely to access the internet and are they more likely to encounter risks online?
3. **Evidence on the online risks for children and young people** – What evidence is there on young people's awareness and experience of different types of online risks, including online bullying, meeting and sharing details with strangers, accessing harmful or inappropriate content, enforcing negative behaviours and engaging in online sexual conduct?
4. **Evidence on attempts at safeguarding children's online experiences** – How aware are parents, teachers and children about ways of safeguarding from online risks? What is being done to try and safeguard children's online behaviour and how effective are such attempts? And what are children's experiences and attitudes towards safeguarding their online behaviour?

The NFER research team identified a total of 248 pieces of potentially relevant evidence. These were screened and classified using a systematic process to help identify research to be included in this review. Screening of evidence took account of key features of each piece of evidence, including the type and quality of evidence, the age range covered, and the country of origin of the research. Evidence has been prioritised according to the following characteristics:

- evidence relating to children in the UK, including European studies
- empirical evidence (including both quantitative surveys and smaller-scale qualitative studies) or systematic reviews of recent empirical evidence
- published from 2006 onwards
- focusing on the 0–18 age range.

The review tried as far as possible to access full reports of studies. Where these were not available, it also included executive summaries, abstracts, data reports or press releases presenting the findings of research.

The study excluded any studies not relating to the UK (due to the scope and timing of this research study which did not allow for a wider search strategy), papers summarising existing research, opinion pieces (not reporting any new, empirical evidence) and policy documents.

The 38 pieces of evidence identified as a result of this screening process are discussed in the following sections of this report. Key messages are presented based on the best available evidence relating to each of the four topics in terms of:

- most recent evidence
- findings that can be generalised to a wider population as a result of large sample sizes and clearly articulated research methods.

02 Key messages

Access and use

What do we know?

- More than four in five young people aged 5–15 are now able to access the internet in their own homes.
- Children spend more time online than their parents think – on average, children aged 7–13 spend more than an hour on the internet each day.
- It is becoming more common for children to access the internet in their own bedrooms and without parental supervision.
- There is a growth in using alternative portable devices (including mobiles and portable media players) to access online content in a variety of places and without parental supervision.
- At least two-thirds of 12–15 year olds and around a quarter of 8–11 year olds regularly use social networking sites.

What do we not know?

- There is very little evidence on the links between using more portable devices and the online risks young people face in using such devices.
- We do not know much about the ways and extent to which younger children aged 11 and below use social networking sites to share personal information.
- More research is needed to explore the links between where, with what, how often and with whom children access the internet and the likelihood of online risks.

Characteristics of children accessing the internet

What do we know?

- Younger children (below the age of seven) are increasingly accessing the internet at home – 66% in 2009 compared with 57% in 2008.
- Young people from the most socio-economically disadvantaged groups are less likely to have access to the internet than other groups.
- As children get older they are more likely to use the internet for a broader range of activities and spend more time on them.
- There is some evidence that children with special educational needs may be more likely to be cyberbullied than other children.
- However, there is no clear link between the characteristics of children and other online risks – the overriding area of commonality is simply access to the online environment.

What do we not know?

- More research is needed to explore whether certain types of young people are more likely to be exposed to different types of online risks, including whether socio-economically disadvantaged and other vulnerable children are more likely to face particular risks than other young people.
- There is very little research on the online risks faced by younger age groups accessing the internet, particularly those 66% aged 5–7 who use the internet at home.

Online risks for children and young people

What do we know?

- Around one in 13 children aged 11–16 have been 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.
- A quarter of children aged 14 have arranged to meet an online contact face to face, while 15% of those aged eight and 12 have done so.

What do we not know?

- More evidence is needed to quantify the extent to which children encounter online risks, rather than just focusing on young people's and adults' perceptions of such risks.
- There is very little UK evidence on the role of the internet in reinforcing negative behaviours or attitudes such as suicide, race-hate or anorexia.

Safeguarding children's online experiences

What do we know?

- Around half of parents do not use internet controls or filtering software, while 13 per cent of parents of children aged 5–15 have not heard of such controls.
- Parents are even less aware of safeguarding controls for mobile phones and games consoles.
- While children are generally aware of how they should behave to stay safe online, they often do not use these strategies.
- Some schools do not appear to have sufficiently comprehensive e-safety policies in place to ensure all children use the internet safely while at school.

What do we not know?

- More research is needed to explore what specific strategies work best in ensuring that young people use the internet safely.
- There is limited evidence on teachers' awareness and understanding of effective ways of safeguarding from online risks and how to teach children about it.

03 Evidence on access and use of the internet by children in the UK

The review identified 18 documents providing evidence on the access and use of the internet by children. **Most evidence** is available on:

- What sites or content young people are accessing – although many studies focus on specific uses only, such as learning or social networking
- How much and how often they access the internet

There is **less evidence** on:

- What platforms they use to access it (for example, PC, mobile, portable media player) – a lot of the evidence focuses on PCs only, with very little evidence on alternative platforms
- Where young people access the internet (in a public or communal setting or in their bedrooms)
- With whom they access the internet (for example, alone or with their parents).

There is **least evidence** on:

- The links between where, what, how and with whom young people access the internet and, for example, the likelihood of engaging risky online behaviour or accessing risky online content.

What does the research tell us?

Level and frequency of access

More than four in five 5–15 year olds have access to the internet in their own homes.

A large-scale survey of more than 1000 parents and children aged 5–15 in the UK (Ofcom, 2009b) showed that the number of households with access to the internet continues to grow from year to year. Overall, 84% of households with children aged 5–15 were found to have access to the internet at home – access was highest in households with children aged 12–15 (86%) and slightly lower in those with children aged 5–7 (81%). All of these rates were higher than those found in a comparable survey (Ofcom, 2008b) in the previous year. Other studies identify similar levels of access to the internet (Davies and Good, 2009; Eynon, 2009), although a survey of 10 and 11 year olds in Northern Ireland (Lloyd and Devine, 2009) reported that 94% of children in this age group had access to the internet in their own homes. The most recent evidence relating to the UK, based on a survey of 1433 parents and 833 young people conducted in June/July 2009 (Synovate, 2009), indicated that 90% of young people aged 12–17 have access to the internet in their own homes compared with 82% of children aged 5–11.

Children spend more time online than their parents think – on average, children aged 7–13 spend more than an hour on the internet each day.

A recent international survey, including the UK, found that children in the UK aged 8–17 spend 44 hours per month online; their parents thought it was only 19 hours per month on average (Symantec Corporation, 2009b). An online survey completed by a sample of 4606 children aged 7–12 using two social learning networks (Hart *et al.*, 2008) reported an even higher level of daily internet usage. It found that, on average, children spend more time on their computers than watching TV – 79 minutes on the internet, and 48 minutes on computer games each day, compared with only 68 minutes watching TV. It also reported that on a typical school day, 58% of children go online as soon as they come home from school.

Ways of using the internet

Young people are increasingly using the internet to communicate with others, including social networking – at least two-thirds of 12–15 year olds use social networking sites.

A survey of 1069 young people aged 8–19 in the UK found that young people use computers and the internet for communication, information seeking, entertainment, creativity and participating, although communication tends to be the most popular activity (Eynon, 2009). Indeed, the evidence suggests that young people aged eight and older are increasingly using the internet for communicating with others online (Cross Tab, 2009; Kernaghan, 2009; Ofcom, 2008c). Ofcom's (2008b, 2009b) surveys of parents and young people confirm this. They show that between 2008 and 2009, children aged 8–11 were increasingly less likely to use the internet for school-work and for information seeking. Instead, it seems that young people spend more time utilising the internet for social networking and communicating with others. The survey found that while 56% of those aged 12–15 used the internet for social networking in 2008, the proportion had risen to 66% in 2009. Research conducted in Northern Ireland (Lloyd and Devine, 2009) found a much higher rate among this age group – 48% of over 3500 children aged 10 or 11 surveyed reported using social networking sites, such as Facebook, MySpace and Bebo, in spite of some of these sites stating that users must be 13 or over.

Devices used to access the internet

Around one in ten 7–16 year olds use their mobile phone to access the internet, although estimates vary across studies.

Desktop computers and laptops continue to be the most common devices used by children to access the internet at home or at school (Keating *et al.*, 2009; Ofcom, 2007). However, some recent studies (Hart *et al.*, 2008; Ipsos MORI, 2009; Synovate, 2009; The Gallup

Organisation, 2008) illustrate the way other media are used by children to access the internet. A survey of around 800 children aged 7–16 and their parents (Ipsos MORI, 2009), reported that nine per cent of parents said their child uses a mobile phone to go online, while 19% said that their child used a games console to go online. Similar levels of mobile phone use to access the internet were identified by a survey of an older group of 833 young people in the UK (Synovate, 2009) – 12% of respondents aged 12–17. An online survey of 4606 children aged 7–12 (Hart *et al.*, 2008) reported higher levels of usage of mobiles to access online content (20% of children), with similar levels of children accessing the internet using games consoles (17%) and hand-held gaming devices (15%). Similarly, a survey of 12,750 parents of 6–17 year olds across the 27 EU member states (The Gallup Organisation, 2008) found that while 11% of all parents reported that their children owned a phone with internet access, the proportion was 14% of the around 500 parents surveyed in the UK.

Use of mobile phones continues to grow among young people – around 90% of young people over the age of 11 own a mobile phone.

The lack of clear evidence on the use of mobiles to access the internet is particularly an issue given the growth of mobile phone ownership among young people. Various studies document this growth in ownership; however, proportions reported are not always consistent. This could be due to differences in age groups surveyed, selection of respondents and also the timing of the research. Thus, for example, Ofcom (2009b) reported that 87% of 12–15 year olds have their own mobile phones (as well as 11% of 5–7 year olds and 54% of 8–11 year olds). A survey of 1800 children across the UK (ChildWise, 2009) found that 95% of 11–16 year olds owned a mobile phone. Another study (Hart *et al.*, 2008) reported that 74% of pupils in Year 7 (aged 11–12) had a mobile phone – however, only a proportion of them used it to access online content (25% of year 7 pupils). A survey of around 800 children aged 7–16 (Ipsos MORI, 2009) found that the 74 children who used their mobiles to access the internet mostly did so to download or play music (80%). However, almost half of those using their phones to access the internet (45%) said that they used their mobiles to visit social networking sites and 38% used them for instant messaging.

Location and social context of use

Many children are allowed unsupervised access to the internet – 69% of 12–17 year olds regularly access the internet without parental supervision, while around a third of those aged 7–12 do so.

There are several European and UK studies which suggest that children are frequently allowed to use the internet without parental supervision (CEOP, 2008; Cross Tab, 2009) – this is particularly the case among older children, but occurs also among the very young. Reported levels of unsupervised access differ across studies – they are generally found to be higher when based on interviews with children themselves. Parents, in contrast, appear to under-report levels of such unsupervised access. In a survey of 1163 parents of children

aged 8–14 year olds, for example, 23% said they allowed children aged 10 or under unsupervised internet access via a computer at home (Anti-Bullying Alliance, 2009). In contrast, a large online poll of 11–14 year olds living in Europe (CEOP, 2008) found that almost three-quarters of them reported that they could access the internet whenever they wanted and had no parental restrictions placed upon what they viewed. Significantly lower, but still relatively high levels of unsupervised access were identified in a UK study involving 4606 children aged 7–12 (Hart *et al.*, 2008). It reported that the majority of children (63%) said that, when they used the internet, someone else was in the room with them. In most cases, this was their mother or father, but it also included a sibling (which in many cases cannot be counted as ‘supervision’). In contrast, 35% said that nobody normally supervised them when accessing the internet. The figure was lowest for 7–8 year olds (24%) and highest (38%) for those aged 11–12 (Hart *et al.*, 2008). Another study, involving young people aged 12–17, found that 69% reported using the internet most of the time on their own, compared with only 15% who said they usually use it with a parent in the same room (Synovate, 2009).

Around 35% of 12–15 year olds, 16% of 8–11 year olds and three per cent of young people aged 5–7 can access the internet in their own bedrooms.

Levels of unsupervised access to the internet are likely to increase in the future as a result of a number of trends, including the use of more mobile devices and children having access to such devices as well as computers in their own bedrooms. However, the extent to which this is the case is hard to determine due to very different estimates across studies in the UK. A survey of 1800 children across the UK found, for example, that the proportion of 7–16 year olds who could access the internet in their own bedrooms had increased from a quarter in 2007, to two-fifths in 2008 (ChildWise, 2009). Ofcom (2009b) reported slightly lower, but still growing levels of such access. Based on a survey of more than 1000 parents and children aged 5–15 in the UK, it found that 35% of 12–15 year olds could access the internet in their own rooms. The proportions, however, were significantly lower for younger age groups – only three per cent of 5–7 year olds and 16% of those aged 8 to 11. Similar, but slightly higher, proportions were identified in a survey of 1433 parents (Synovate, 2009) – 17% of parents with children aged 5–11 said they could access the internet in their own bedrooms compared with 45% of parents with children aged 12–17. In contrast, 51% of the 833 young people aged 12–17 said they could do so in their bedrooms. Finally, a survey of 7–12 year olds found that a third said that they could normally access the internet in their own bedrooms (Hart *et al.*, 2008). In conclusion, these various estimates suggest incidence of access to the internet in children’s own bedrooms is increasing and that around half of those aged 12 or older have such access, while the proportion for those aged 8–11 is around one in five and significantly lower for those aged 5–7.

What gaps are there in the evidence?

- 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.
- More research is needed to explore the links between where, with what, how often and with whom children access the internet and the likelihood of online risks.

Potential future research areas

- 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?

04 Evidence on the characteristics of children accessing the internet

The review identified 11 pieces of evidence that provide **fairly strong evidence** on the characteristics of young people accessing the internet, in particular with reference to their age and gender. This includes **some evidence** on other links between characteristics and internet usage, with regard to children's:

- socio-economic background
- geographical location, including whether they live in urban or rural areas.

In contrast, there is **very little evidence** on the link between internet users' characteristics and online risks, although much of the research focuses on specific:

- types of risk only (for example, cyberbullying or online gambling)
- age groups (more evidence on those aged 11 or older than younger age groups).

There is **only limited evidence** in the UK on the extent to which more vulnerable young people (including, for example, those with special educational needs or young offenders) have access to the internet and whether such groups are more or less likely to face online risks.

What does the research tell us?

Age of internet users

Almost all young people over the age of 12 have access to the internet, while around two-thirds of 5–7 year olds now access the internet at home.

A survey of 1069 young people aged 8–19 in the UK found that over the age of 12, the use of the internet is almost universal – 97% of 12 year olds and 98% of 14 year olds use the internet at home or school. In contrast, only 68% of eight year olds in the study said they used the internet (Eynon, 2009). However, a large-scale survey of more than 1000 parents and children aged 5–15 in the UK conducted in 2008 and 2009 (Ofcom, 2008b; 2009b) indicated that younger children are increasingly accessing the internet from home. It found that children aged 5–7 are more likely to access the internet at home than last year – 66% in 2009 compared with 57% in 2008. This increase was said to exceed the general rise of access to the internet in households. The survey also confirmed that regular internet use is particularly high among 12–15 year olds (78% access the internet almost every day from home), but that regular usage is also growing among younger age groups (up from 23% of 5–7 year olds in 2008 to 39% in 2009, for example).

As children get older they are more likely to use the internet for a broader range of activities and spend more time on them.

Research suggests (Ofcom, 2007) that older children are more likely to have higher consumption levels and carry out a wider range of activities when using the internet, with around 11 being the age at which such usage noticeably broadens (coinciding with the transition from primary to secondary education). Indeed, a survey of young people aged 5–15 (Ofcom, 2008b) suggests that with increasing age, children's preference for TV declines, and a preference for the internet (and mobile phone) use grows. As part of the survey, young people were asked a question relating to which media activity they would miss the most if it was taken away. Three per cent of 5–7 year olds identified 'using the internet' compared with 11% of 8–11 year olds and 24% of those aged 12–15. In contrast, 64% of those in the 5–7 age group said that they would miss 'watching TV' the most, compared with 52% of 8–11 year olds and only 29% of 12–15s. Another research study confirmed the finding that the use of internet increases and broadens with age. A survey of 8–19 year olds (Eynon, 2009), for example, showed that older users are more likely to use their mobile for texting and accessing the internet. Furthermore, Ofcom (2009b) found that the incidence of watching television or film content via the internet increases with age – only five per cent of 5–7 year olds do this, 13% of 8–11 year olds and 25% of 12–15 year olds.

Gender of internet users

Boys and girls tend to access the internet using different devices and for different purposes.

The evidence suggests that there are some differences in the devices used by boys and girls to access the internet. One study (Hart *et al.*, 2008) employing an online survey of 4606 children aged 7–12 found, for example, that boys were twice as likely (23% of boys) to use a games console to access the internet than girls (12%). This could be correlated with the finding reported by the same study that boys were slightly more likely than girls to access the internet in their own bedrooms (32% of boys compared with 28% of girls). In contrast, another survey of a representative sample of young people aged 8–19 in the UK found that girls are more likely to use mobile phones for texting and accessing the internet (Eynon, 2009). Furthermore, the research found that female internet users aged 12 and over tend to use the internet more for communication purposes than male users do, while males in the same age category were more likely to use it for entertainment and online gaming. Similar findings were reported by a survey of almost 4000 children in secondary and primary schools (Keating *et al.*, 2009). Girls among all age groups were found to be more likely to send emails and instant messages, while boys were more likely to download or watch video clips from the internet. This was confirmed by another large-scale survey (Ofcom, 2008b), which reported that girls aged 12–15 are significantly more likely than boys of the same age to use the internet for contact with other people (84% of girls compared with 75% of boys

use the internet at least once a week for instant messaging and 79% of girls compared with 64% of boys use the internet at least once a week for social networking). Another study involving those aged 7–12 only (Hart *et al.*, 2008) found that while 21% of the total sample said that they used internet chat rooms every day, this was the case for 27% of boys compared with only 17% of girls in this younger age group. This may indicate that girls prefer social networking sites, which allows them to control privacy settings, while boys are more willing to engage in less private online settings. However, it is worth noting that this latter study was not based on a sample chosen to be representative of young people across the UK.

Socio-economic and geographical location of internet users

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.

Several studies document the way socio-economically disadvantaged families are less likely to have access to, and use, the internet in their homes (Becta, 2008; Grant, 2009; Ofcom 2008b; Synovate, 2009). The nationally representative survey of parents and children aged 5–15 (Ofcom, 2008b) found that young people in the lowest (C2DE) socio-economic groups are less likely to have access to the internet in their own homes than those in the highest (ABC1) groups. Thus, while 86% of households in ABC1 socio-economic groups had access, this was only the case for 63% of C2DE households with children. More recent figures (Synovate, 2009) show that this gap in access remains – based on a representative sample of parents of the UK conducted in the summer of 2009, the research found that 94% of ABC1 households had access to the internet compared with 84% of C2D and 67% of socio-economic group E households. No other evidence from other studies was identified linking young people’s socio-economic background with, for example, the likelihood of accessing the internet with different types of devices or using the internet for different purposes.

There appear to be some differences between young people living in urban and rural areas with regard to access to, and use of, the internet.

The survey by Ofcom (2008b) found that mobile phone access is higher among children in urban areas than among those living in rural areas (87% compared to 83%), while use of social networking sites is higher among rural children (61% of rural children compared with 54% of children living in urban areas). No other recent studies were found which provided evidence of differences in the use of the internet depending on geographical location.

The characteristics of young people most at risk

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.

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 (CEOP, n.d.). 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.
- The second group includes those targeted ‘randomly’ by offenders through online media.

The children in the **first group** 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** 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 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.

An alternative typology of ‘vulnerability’ is presented by Cross *et al.* (2009) based on a survey of more than 2000 young people in the UK between November 2008 and February 2009 in seven local authority areas. 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.

What gaps are there in the evidence?

- 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 on line risks, how they respond to risks and what support they can turn to – this could include both quantitative and qualitative evidence exploring these questions.

Potential future research areas

- 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 and engaging in risky online behaviour and other online risks?

05 Evidence on the online risks for children and young people?

The review identified 23 documents providing evidence on the online risks experienced by children and young people. **Most evidence** is available on:

- negative peer contact and bullying, including children's and young people's experiences of cyberbullying and how mobile phones or the internet are being used to bully other children.

There is slightly **less evidence** on:

- meeting and sharing details with on line contacts
- accessing inappropriate content (for example, violence or pornography).

There is **least evidence** on:

- sexual online conduct or behaviour (for example, sexting, sexual harassment, grooming)
- other risks (for example, identity theft, and access to buying drugs, alcohol or knives)
- whether there is a link between children and young people's use of the internet and negative behaviours or attitudes (for example, suicide, race-hate, and anorexia).

What does the research tell us?

Negative peer contact – cyberbullying

Around one in 13 young people aged 11–16 have experienced persistent cyberbullying in the last year.

There are several recent studies that highlight the increasing incidence of the use of the internet (and mobile phones) for the purpose of cyberbullying, although estimates of the level of cyberbullying vary. The disagreement in the estimates provided by these studies can probably partly be explained by the age of the children surveyed and, more significantly, how the term cyberbullying was interpreted and defined within them. A cohort study of more than 14,000 young people between 2002 and 2006 (Rivers and Noret, 2007) found that reported cases of cyberbullying grew from around 13% to 16% in that time period – although the incidence was as high as 21% among girls and only 10% among boys. More recent studies indicate an even higher level of bullying using the internet or mobile phones, up to 31% of 695 pupils surveyed (Bryce, 2009) – although the report provides no details of the exact details of the sample. However, several other studies indicate similar levels of cyberbullying (Cross *et al.*, 2009; CrossTab, 2009; Kernaghan, 2009). In contrast, other recent studies report significantly lower levels (Anti-Bullying Alliance, 2009; Lloyd and Devine, 2009; Sharples *et al.*, 2008; Smith *et al.*, 2008). A representative survey of 8–19 year olds

in the UK (Eynon, 2009), for example, reported that 10% of respondents had experienced cyberbullying – they had been sent or someone had posted an upsetting message about them or picture of them online or via a mobile phone. Another recent survey of 2094 secondary school pupils (Cross *et al.*, 2009) found that while 30% of the 11–16 year olds surveyed said that they had experienced some form of cyberbullying, only a quarter of these said that it had been persistent. This means that only one in 13 of the children had been persistently cyberbullied – a much lower overall percentage.

Children are at risk of being cyberbullied via social networking sites, instant messaging services, as well as mobile text messages or mobile calls.

The research evidence again illustrates the varied use of the term cyberbullying to refer to many different forms of bullying, which do not in all instances involve online contact. The survey of 2094 secondary school pupils (Cross *et al.*, 2009), for example, found that hoax calls to mobile phones were the most common form of reported cyberbullying (18% of respondents), followed by hurtful messages sent by email or text message (13%) and hurtful messages left on social networking websites (eight per cent of respondents). Similar findings were reported by Kernaghan (2009) – a survey of 494 secondary school pupils in Northern Ireland revealed that 28% had received text messages they felt threatened by and 21% had received phone calls on their mobiles they felt threatened by. In contrast, other studies identified instant messenger or social networking sites as the most common medium of cyberbullying. One study (Lloyd and Devine, 2009), for example, found that 19% of girls reported typing hurtful things using instant messaging services that they would not say face to face. Other studies report figures in relation to both cyberbullying via the internet and mobile phones without distinguishing the relative use of them. A survey of 1353 young people aged 13–17 (Barter *et al.*, 2009) focused specifically on the use of online technologies, mobile phones and text messaging within teenage relationships. Overall, 12% of girls and four per cent of boys in the study said that their partners had used mobile phones or the internet to humiliate or threaten them.

Accessing inappropriate content

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

Several studies within the UK and across Europe document the way both parents and teachers are most concerned about children accessing inappropriate or damaging content, including online sexual content (Hasebrink *et al.*, 2009; Sharples *et al.*, 2008; The Gallup Organisation, 2008). A survey of 1076 parents with children aged 5–17 (Synovate, 2009) reported that, when prompted, 40% of parents of 5–11 year olds and 46% of parents of those aged 12–17 agreed that their children ‘are at risk from inappropriate content on the internet’. Similarly, a qualitative study conducted in both primary and secondary schools

reported that staff expressed most concern about young people accessing online pornography, followed by hate sites and websites encouraging experimentation with drugs or explosives (Hope, 2006).

Children are less concerned about inappropriate content than their parents.

There is some evidence to suggest that children are much less concerned about accessing unsuitable or damaging content than their parents (Atkinson *et al.*, 2009). A survey of 833 young people aged 12–17 (Synovate, 2009), for example, reported that only nine per cent were concerned about accessing inappropriate content. In contrast, young people were a lot more worried about inappropriate contact (30%) and ‘computer security’ (24%). This relatively low level of concern reported by young people correlates with the levels of inappropriate or damaging content actually accessed by them according to other studies. Thus, for example, one survey (Ofcom, 2008b) of more than 3000 parents and children aged 5–15 only found that eight per cent of 8–11 year olds and nine per cent of 12–15 year olds reported seeing or hearing things online that made them sad, frightened or embarrassed. Even lower levels were identified by children using alternative devices to access online content in a survey consisting of 797 face-to-face interviews with young people aged 7–16 (Ipsos MORI, 2009). It indicated that very few young people had encountered online content that made them feel uncomfortable, upset, scared or worried – four per cent of those who used a mobile phone, five per cent of those using games consoles to go online and none of those who used a portable media player. However, it is worth noting that one study (Synovate, 2009) found that parents underestimated the level of inappropriate content that their children reported having encountered online. It reported that 13% of parents said that their children had come across harmful content or had done something they disapproved of online. In contrast, 18% of children aged 12–17 said they had come across inappropriate/harmful content in the past few months.

Meeting and sharing details with online contacts

A quarter of children aged 14 have arranged to meet an online contact face to face, while 15% of those aged eight and 12 have done so.

The internet and social networking sites, in particular, offer young people the opportunity to make new friends and interact with other young people online who share their interests or hobbies. According to a survey of a representative sample of 8–19 year olds across the UK (Eynon, 2009), for example, 27% of young people have got to know someone online whom they have not met before in person and this most frequently happens via social networking sites – for example, 91% of children aged 14 who had met someone online said they had done this via a social networking site. Furthermore, the study found that of those 27% who had met someone online, around a quarter (28%) subsequently met that person face to face. This included 15% of eight year olds, 15% of 12 year olds, 25% of 14 year olds and

37% of 17–19 year olds. This willingness to meet online contacts face to face was confirmed in another research study (Bryce, 2009), which found that as many as 24% of 695 pupils surveyed had met someone offline that they got to know online. The research does not provide any details, though, of the circumstances of such meetings – for example, whether in most cases, this was done secretly or with the knowledge of children’s parents. However, such behaviour may put children at risk from adults intent at ‘grooming’ young people for inappropriate sexual contact. Analysis conducted by CEOP (2009) of a total of 2543 reports relating to internet safety issues received by the Child Exploitation and Online Protection Centre between March 2008 and February 2009 revealed a very high incidence of ‘grooming’-related concerns (89% of reports from under 18s). This included eight per cent of reports specifically related to an adult ‘arranging to meet a child’. It is worth noting that this data relies on young people’s willingness to report such incidents and can, therefore, not be used to determine the likely occurrence among young people and children in general.

[Some young people are willing to use the internet to share personal details with online contacts or do not know how to protect themselves from sharing private details.](#)

There is some evidence to suggest that some young people are willing to share personal details about themselves with people they meet online (Hasebrink *et al.*, 2009). A survey of 695 secondary pupils (Bryce, 2009) found that around a quarter had either ‘disclosed personal information online’ or ‘had sent images to someone they met online’. Similarly, Ofcom (2008c), focusing specifically on the use of social networking sites, reported that 34% of 16–24 year olds said they had shared personal information with other people online. A qualitative study (Livingstone, 2008) involving interviews with 16 teenagers aged 13–16 explored their conceptions of privacy. It found that the privacy settings used by social networking sites do not always cohere with young people’s notions of friends and privacy, as they do not allow them to set levels or gradations of friendship or privacy. This can lead to sharing ‘private information’ with virtual strangers online.

Sexual online conduct or behaviour

[More than one in five young people have experience of either wanted or unwanted sexual contact over the internet.](#)

There is only limited evidence available on the sexual conduct of young people online. One recent study, however, provides evidence of the experience of some young people of such online sexual contact. An online survey of 535 pupils aged 13–18 in the South West of the UK (Phippen, 2009a) found that 40% of young people said that they know friends who engage in ‘sexting’ (which refers to sharing an intimate picture or video with a boyfriend, girlfriend or other contacts). Indeed, only seven per cent of young people were not aware of any sexting incidents among their peers in the last year, while 24% said that they happen regularly or all the time. Otherwise, a survey of 2094 secondary pupils across the UK reported

that a quarter of respondents had received an unwanted or 'nasty' image of a sexual nature (Cross *et al.*, 2009). As regards other online sexual conduct, it is worth noting that the majority of the 'grooming' incidents reported to CEOP between March 2008 and February 2009 (CEOP, 2009) related to inappropriate sexual contact between adults and children. In particular, the two most common types of 'grooming' reported by young people included 'inciting a child to perform a sexual act' (34% of reports) and 'inciting a child to watch a sexual act' (20%). As noted previously, due to the nature of the data, these figures can only be regarded as indicative of the risks faced by young people when using the internet and cannot be used to determine the extent young people in general were experiencing such contact.

Other risks

One in twelve 12–15 year olds have played a national lottery game on the internet at some point.

There is almost no evidence on other risks facing children and young people using the internet, with the exception of one study (Griffiths and Wood, 2007), which explored the exposure of young people to online gambling. Based on a survey of 8017 young people aged 12–15, it found that one in twelve 12–15 year olds had played a national lottery game on the internet despite supposedly 'rigorous' settings to prevent underage play. However, no evidence was identified on other risks facing children and young people such as identity theft, using the internet to buy dangerous goods (knives or drugs) and the role of the internet in reinforcing negative behaviours or attitudes such as suicide, race-hate, or anorexia.

What gaps are there in the evidence?

- A lot of the research focuses on adults' and young people's perceptions of online risks, rather than on their experiences of engaging in risky behaviour or accessing inappropriate. More evidence is needed to quantify the extent to which children encounter different types of online risks, in particular in relation to engaging in underage or coercive sexual contact or behaviour and other risks such as identity theft or gambling.
- No UK evidence was identified on the role of the internet in reinforcing negative behaviours or attitudes such as suicide, race-hate, or anorexia. However, there is US research, which provides evidence on these issues (Ko *et al.*, 2009)
- There is a much stronger evidence base on online risks for young people over the age of 11 than for younger children, including those aged seven or below.
- There are a lot of studies on the topic of online risks using large-scale surveys of children and young people. There is scope for further qualitative research to explore the factors affecting children and young people's perceptions and attitudes to risks.

Potential future research areas

- To what extent do children in the UK actually engage in underage or coercive sexual contact or behaviour?
- What is the role of the internet in reinforcing negative behaviours or attitudes such as suicide, race-hate or anorexia?

06 Evidence on attempts at safeguarding children's online experiences?

The review identified 19 documents relating to safeguarding of children accessing the internet. **Most evidence** was available on:

- the extent to which safety tools and safeguarding approaches are being used by schools, parents, Internet Service Providers (ISPs) and other organisations/stakeholders.

There is **less evidence** on:

- how aware parents, teachers and children are about ways of safeguarding from online risks, including specific safety tools
- children's and young people's experiences and attitudes towards safeguarding their online behaviour.

There is **least evidence** on:

- the effectiveness of attempts at safeguarding – in particular, there appears to be a shortage of empirical research evaluating the effectiveness of safeguarding approaches.

What does the research tell us?

Use of safeguarding measures

At least half of parents currently do not use internet controls or filtering software to safeguard children's online experiences.

There are several recent studies that highlight the fact that many parents currently do not use internet controls or blocking software, even though estimates of usage vary quite widely ranging from 25% (Hart *et al.*, 2009) to 54% (Symantec, 2009a; 2009b). Other large-scale studies report levels of use between these figures, including 45% of parents whose child uses the internet at home (Ofcom, 2009b) and one study which reports varying levels of use for different age groups – 47% of parents of 5–11 year olds report compared with 39% of parents of 7–12 year olds (Synovate, 2009). Similarly, a survey of 12,750 parents of 6–17 year olds across the 27 EU member states (The Gallup Organisation, 2008) found that 49% of households used filtering software, while only 27% used filtering and monitoring software. However, all these studies suggest that at least half of parents currently do not use such controls. Furthermore, the use of such devices appears to be even lower for alternative devices, such as mobile phones and games consoles used to access online content. A survey of around 800 children aged 7–16 and their parents (Ipsos MORI, 2009) found that only 16% of parents whose child used a mobile phone were aware of access controls and only just over half of those who were aware, actually used them.

Instead of using internet controls or blocking software most parents apply rules to safeguard their children's use of the internet.

Surveys suggest that around three-quarters of parents report enforcing rules in order to ensure that their children use the internet safely, although the proportion tends to be lower for older children. A survey of more than 1000 parents and children aged 5–15 in the UK (Ofcom, 2009b), for example, indicated that 78% of parents used such rules overall. More specifically, 84% of parents of children aged 5–7 applied such rules compared with, for example, 67% of parents with children aged 12–15 years old. The most common rule used was to 'regularly check what their child is doing online' – however, only 35% of parents of 12–15 year olds said that they did this. A similar proportion of parents using rules was identified by another recent large-scale survey (Synovate, 2009). However, both of these studies indicate that at least a quarter of parents do not use any rules. This could partly be due to the fact that, as another study reported, many parents find it hard to make rules because of their own lack of understanding of the internet (Symantec, 2009a). Furthermore, there seems to be some discrepancy in one of the studies (Synovate, 2009) between parents' reported use of rules and children's awareness of them. Thus, while 67% of parents of young people aged 12–17 responding to the survey said they used such rules, only 50% of 12–17 year olds surveyed said their parents enforced any rules about internet usage.

Children and young people frequently access the internet without making use of the safeguarding functions available to them.

Several studies provide some documentation of the way relatively large proportions of young people, using social networking sites in particular, do not use safeguarding options to protect themselves (Cross Tab, 2009; Eynon, 2009; Ofcom, 2008c). A survey of 1069 young people aged 8–19 found that of the 55% with a social networking profile, 23% let anyone see their profile, while three per cent said they did not know who could see their profile (Eynon, 2009). Similarly, Ofcom (2009b) reported that 69% of 12–15 year olds with a social networking site profile limited access to their profile, saying that it could be seen only by their friends (up from 59% in 2008). No evidence was available on the use of the 'report-abuse' button provided by CEOP on some websites, although one survey (Bryce, 2009) of 695 secondary school pupils reported that eight per cent of respondents had made a report to the police or to an internet service provider (ISP), although the report provides no details of the exact details of the sample.

Some schools do not appear to have sufficiently comprehensive safeguarding policies in place to ensure all children use the internet safely while at school.

There is some evidence available on schools' e-safety policies, although more research is needed on a national basis to confirm these findings. Thus, a survey of 62 primary and secondary schools in the South West of the UK only (Phippen, 2009b) found that while 73% of schools had e-safety policies in place, many were incomplete and did not address key issues related to e-safety. The main experienced barriers to implementing such strategies differed by primary and secondary schools – in primary schools, the main barrier was reported to be teach-

ers' lack of confidence in installing and maintaining controls, while in secondary schools, these related mainly to schools' concerns that pupils could bypass any protection mechanisms used. Similarly, a qualitative study (Ofsted, 2008), based on the analysis of 100 school self-evaluation forms (including 50 secondary and 50 primary schools), reported that around half of schools did not make any response on e-safety in self-evaluation forms and a further quarter only made passing reference to it. Furthermore, schools were found to rely heavily on external bodies to provide e-security (for instance, their local authority or external contractors) and rarely evaluated the quality of the support received. Another survey of almost 4000 children, including 1990 year 6 and 2061 year 10 pupils, also concluded that there is considerable scope for e-safety provision to be improved in schools, particularly in primary schools (Keating *et al.*, 2009).

Awareness of how to keep safe when using the internet

Even though the majority of young people are aware of the need for safeguarding their online behaviour, not all know how to do this effectively.

Several studies document that the large majority of young people report that their parents or teachers have spoken to them about staying safe online. A survey of 10–11 years old in Northern Ireland, for example, found that 87% said that either a teacher or a parent had talked to them about internet safety (Lloyd and Devine, 2009). A recent study in the UK reported similar levels of teaching about internet safety in schools – 82% of young people aged 12–17 said this had happened (Synovate, 2009). This suggests that most children are at least aware of the need to stay safe online. However, a survey of over 500 13–18 year olds (Phippen, 2009a) found that 27% said that there was a need for more advice, support or protection for young people to help them use the internet safely. The proportion of children wanting increased assistance was even higher at 60% of 612 primary school children aged 7–11 surveyed in another study (Cranmer *et al.*, 2009; Selwyn *et al.*, 2010). This study also showed that nearly three-quarters of pupils indicated that they were aware of ways they could keep themselves safe when using computers, the internet and mobile phones. However, when pupils were asked to provide examples of ways of keeping safe, only a third were able to provide responses that corresponded to official notions of e-safety. Invalid answers included keeping water away from the keyboard, keeping doors closed or not tripping over power cables (Selwyn *et al.*, 2010). Other studies confirm that some children lack awareness of how to use the internet safely – including a lack of awareness of privacy settings on social networking sites (Eynon, 2009; Ofcom, 2008c) and how to protect themselves against cyberbullying (Anti-Bullying Alliance, 2009).

Effectiveness of safeguarding approaches

Even though most parents feel confident that they know how to protect their children on the internet, there is no evidence on the relative effectiveness of different safeguarding approaches.

Recent surveys suggest that the large majority of parents trust their children to use the internet safely or think they know how to ensure they use it safely. A survey of 1076 parents with children aged 5–17 (Synovate, 2009), for example, found that 76% of parents of 5–11 year olds and 72% of parents of those aged 12–17 felt confident they knew how to protect their children on the internet. Similar findings were reported by Ofcom (2009b), based on a survey of more than 1000 parents and children aged 5–15. It found that 86% of parents of those aged 12–15 said they felt they could trust their children to use the internet safely, although the proportion was considerably lower for those with children aged 5–7 (63% of parents). This is reflected also in young people's own views – in a survey of more than 1000 young people in the UK, 25% of eight year olds felt confident about their ability to keep themselves safe while online compared with 58% of 17–19 year olds (Eynon, 2009). However, there is no evidence available on whether these confidence levels reflect children's actual abilities to safeguard their behaviour. There is also no evidence on the extent to which different approaches towards safeguarding are effective in keeping young people safe.

What gaps are there in the evidence?

- Even though there is a lot of research on adults' and children's awareness of online risks and how to safeguard against them, there is no recent evidence of the effectiveness of particular approaches, including using internet controls or parental rules. More research is needed to explore what specific strategies work best in ensuring that young people use the internet safely
- There is also limited evidence on teachers' awareness and understanding of effective ways of safeguarding from online risk and how to teach children about it. Although the views of parents are included in some of the research, fewer studies focus on the awareness and understanding of teachers.

Potential future research areas

- What specific strategies work best in ensuring that young people use the internet safely?
- To what extent are teachers aware of the effective ways of safeguarding from online risk?
- What support do members of staff in schools need to teach children and young people about online risks and how to protect themselves from them?

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