NSPCC

How safe are our children? 2019

An overview of data on child abuse online

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Foreword

The digital world is an amazing one for young people. Its boundless potential means our children can learn and create in ways we never would have dreamed of a decade ago. It also helps protect and support children. Our Childline service allows young people to instant message chat with counsellors via website or app around the clock. And our safeguarding elearning courses mean more people than ever can access the training they need to help keep children safe.

Yet this online world remains unacceptably dangerous for young people and, unless things change, the future does not look promising. The web giants have been clear that they won't properly prioritise basic child protection until they are forced to do so. If we are to keep children safe online we need big, sweeping changes to the whole internet landscape.

Our Wild West Web campaign has set out a clear vision of how to make the future safer for young people and we are demanding the government's forthcoming online harms bill stops these firms from disregarding children's safety. We need a tough, independent, regulator which will force companies to make their sites meet minimum child safety standards.

For years social media companies haven't given much of a thought about whether their sites are safe for children, but they happily sign them up anyway. Reactions of regret and promises to do better have followed in the wake of successive tragedies. Children deserve safety by design. The best way to tackle abuse is to stop it from happening in the first place.

Right now, internet companies are a black box that nobody on the outside world is allowed to open. Many don't publish any details about the scale and scope of the dangers children have been facing on their platforms. Despite calls for openness, they stay silent.

Child protection and its challenges should never be clouded in such secrecy and future regulation must include transparency reports from these firms – they must open their doors and show us the progress they are making.

We are seeking a convincing demonstration of a duty of care to young users, so the internet can genuinely be a place that benefits us all. And nothing will concentrate minds better than effective sanctions for the tech giants who fail to take reasonable steps to protect our children. These companies make vast sums of money every year and the penalties need to be proportionate. Named directors need to be liable for their actions and inactions. In other industries like financial services this is now accepted practice in terms of expecting and enforcing responsible corporate behaviour.

This year, we have concentrated our annual report on online safety. But we cannot afford to lose sight of the other risks that affect young people. Resources in child protection have been chipped away at, with local services stretched to breaking point. In too many places we've seen the erosion of early support as statutory services struggle to meet their legal obligations to those in crisis. And some children are finding themselves increasingly at risk from a cluster of grooming challenges;

from sexual and criminal exploitation to radicalisation. These require brave new ways of working from schools, police, health, and local authorities to offer a coordinated approach that sees and supports vulnerable children before they are caught up in situations with awful consequences for them and those around them. And for young victims caught up in the justice system, there remains a great deal to do. Despite warm words and good intentions, far too many young people still experience a court system insensitive to their lives and desire for recovery. The NSPCC will be returning to this challenge in the autumn.

Clearly, there is much to be done by all of us to keep children safe, and the NSPCC will always fight for every childhood. Yet no matter the challenges, we must never forget that child abuse can be prevented, and we must never rest in the fight to protect children. If the government follows through effectively and gets their online harms bill right, 2019 can be a year in which the UK leads the world in its efforts to enhance child protection for children. I wait with bated breath to see if it will happen.

Peter Wanless
Chief Executive of the NSPCC

Contents

Children's lives online

The internet is central to children's lives …

15 hours

5–15 year olds who go online spend an average of 15 hours 18 minutes a week online.

44%
of children aged 5–15 said they owned a smartphone.

Based on a representative sample of 1,430 parents of 5–15 year olds and children aged 8–15. Source: Ofcom (2019) Children and parents: media use and attitudes report 2019. London: Ofcom.

… and social media is an ever-present part of childhood with …

90%
of 11–16 year olds surveyed saying they have a social media account.

When we asked children with a social media account if they used specific social media platforms, we found …

Facebook	Instagram	WhatsApp	YouTube	Snapchat	Twitter	Skype	TikTok	Twitch	Discord
73%	**65%**	**64%**	**60%**	**57%**	**36%**	**19%**	**17%**	**11%**	**7%**
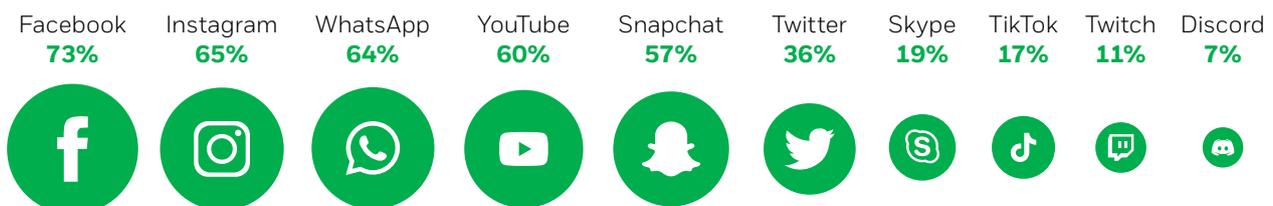
Research commissioned by the NSPCC, based on a sample of 2,004 children aged 11 to 16 who were interviewed online between 29th March and 10th April 2019. Data were not weighted but quotas were applied to age bands. Source: ComRes (2019) Survey data on file with the NSPCC.

How safe are our children online?

With children now spending an average of over 15 hours a week online,[1] the internet is central to their lives. And social media is ever present, with 90 per cent of surveyed 11–16 year olds saying they have a social media account.[2]

Alongside amazing opportunities, social networks open up a wide range of potential harms. Most platforms have failed to integrate child safeguarding into their business models or the design of their sites. As rapidly developing technology creates new opportunities to initiate, maintain and escalate abuse, children have been exposed to unacceptable risks in the spaces where they socialise, learn and play.

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As this year's *How safe are our children?* report sets out, the scale and complexity of the online threat is growing, and platforms have too often been cavalier when it comes to keeping children safe. Industry inaction has fuelled the scale and extent of technology-facilitated sexual abuse.

This needs to change, and it can.

What are the risks to children on social networks?

Children face a range of abuse risks online – from the production and distribution of child abuse images, to the harmful effects of being exposed to inappropriate content, to the growing scale of grooming being facilitated on social networks. Unregulated platforms provide new and evolving opportunities to initiate and maintain child abuse.

With so many children using social networks, gaming and messaging sites, and children ever more willing to make new friends on social networks – they are beyond any traditional understanding of 'online' and 'offline' worlds.[3] As a result, today's children are increasingly exposed to the threat of technology-facilitated abuse, from both adults and their peers. Groomers can use social networks to target significant numbers of children, and to move them from well-known open platforms to messaging apps and hidden sites.

New types of technology, notably livestreaming, have provided new opportunities for groomers to coerce and control children into increasingly extreme forms of abuse. Of the growing number of primary school children that have used livestreaming, our research with London Grid for Learning (LGfL) finds that over 1 in 20 have been asked to undress.[4]

Social networks have repeatedly failed to address these problems – and their unwillingness to do so has ultimately fuelled the scale and extent

of the threat. Platforms have failed to build in adequate 'safety by design' protections, take steps to proactively prevent grooming, and to do enough to tackle child abuse imagery as it's being produced.

And the risks only continue to grow. Facebook's recent decision to introduce end-to-end encryption across its messaging services will only make it easier for groomers to target children for abuse. In Mark Zuckerberg's own words, 'implementing end-to-end encryption is the right thing to do [although it causes] an inherent trade-off because we will never find all the potential harm we do today.' In this new world, Zuckerberg promises that Facebook will 'stop bad actors as much as we possibly can […] within the limits of an encrypted service.'[5]

The extent of technology-facilitated abuse

For children subject to technology-facilitated abuse, the impacts can be profound. Despite the common perception that online abuse is less impactful, our research[6] has shown that the impact of online and face-to-face abuse is the same, no matter how the abuse took place. This makes industry's reluctance to tackle online abuse even more disturbing.

As technology has provided new ways for offenders to commit abuse, we must look to social networks to do everything they can to make their platforms safer. Their failure to do so has led to terrible consequences for children.

1   Children aged 5–15 who go online spent an average of 15 hours 18 minutes a week online in 2018. Ofcom (2019) Children and parents: media use and attitudes report 2018. London: Ofcom.
2   ComRes (2019) Survey data on file with the NSPCC
3   41 per cent of surveyed secondary school age children have made a new friend online. NSPCC and London Grid for Learning (LGfL) data on file with NSPCC.
4   NPSCC (2018) Livestreaming and video-chatting. London: NSPCC
5   Zuckerberg, M. (2019) A privacy-focused vision for social networking. Facebook, 6 March [Accessed 30/05/2019]
6   Hamilton-Giachritsis, C. et al. (2017) "Everyone deserves to be happy and safe": a mixed methods study exploring how online and offline child sexual abuse impact young people and how professionals respond to it. London: NSPCC.
7   Based on an NSPCC FOI request sent to all police forces in England and Wales.

Technology-facilitated grooming has become a major challenge. In the first 18 months since it became an offence to send sexual communication to a child, there were over 5,000 offences recorded by the police in England and Wales.[7] In 70 per cent of instances where the data were recorded, grooming took place on Facebook, Snapchat or Instagram. This is despite such sites, as the largest social networks, having considerable resources to tackle abuse occurring on their platforms.

In 2018, the Internet Watch Foundation identified 105,047 URLs containing child sexual abuse imagery, an increase of 54 per cent since 2015.[8] Social networks will argue that progress has been made in the removal of child abuse images; and while this is the case, industry has consistently failed to tackle the production of abuse imagery at its source. Once abuse has been photographed or filmed, or a child has been persuaded to share self-generated imagery, significant and long-lasting harm has already been done. Abusers use social networks to coerce and control children, manipulate them into sending photos or videos, or to perform sexual acts on livestreaming sites.

According to our recent research,[9] more than one in seven surveyed children aged 11–18 (15 per cent) say they have been asked to send self-generated images and sexual messages. And according to the largest ever survey conducted on online harms, undertaken by the NSPCC and LGfL, 1 in 25 primary school children (4 per cent) say they have been sent or shown a naked or semi-naked image online by an adult.[10] Groomers are able to exploit the design of social networks, using friend and follower suggestions to infiltrate peer networks, and to establish contact with children that can quickly escalate into requests for sexual messages.

The Home Office says that it estimates 80,000 adults in the UK pose a sexual threat to children online.[11]

How we can protect children from online abuse

Children deserve better protection. That's why our Wild West Web campaign has led the way calling for statutory regulation of social networks. After a decade of inaction, further self-regulation would simply not be a good enough response to the risks that children face.

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Our campaign has called on our supporters to help strengthen the government's resolve to act – with more than 50,000 supporters telling the government that it's time to take a stand. Following our campaign, the government has published its online harms white paper,[12] the most ambitious package of proposals published anywhere in the world.

This is a hugely significant moment, and a vital part of a broader, coordinated response to tackling online child abuse that ensures:

• children know how to keep themselves safe;

• parents and professionals are equipped with the knowledge to protect children from harm; and

• there is greater understanding about how we tackle the scale of demand for child abuse imagery.

However, government will only deliver on its promise to 'make Britain the safest place in the world to be online'[13] if it acts quickly to get comprehensive and wide-reaching legislation on the statute book. In the face of sustained and well-resourced lobbying, government will need to hold its nerve to deliver a statutory regulator that can take on the tech giants, and that places a legally enforceable duty of care on platforms to ensure their sites are safe for children to use.

In order to stop the damaging consequences of a decade of doing little, the regulator must:

Have the necessary powers and resources to do its job
Strong and independent statutory regulation is a necessary and proportionate response to the scale and extent of the risks that children face. The regulator must be equipped and well-resourced to discharge its functions. The regulator should oversee a risk-based, principles-based regime that drives companies to 'hardwire' children's needs into how they design and moderate their products.

Subject platforms to a legally enforceable duty of care
Sites must have an overarching, expansive duty of care that makes them legally responsible for identifying reasonably foreseeable risks to children, and that requires them to take steps to ensure their products are designed and operated in a way that protects them from harm.

8   Internet Watch Foundation (2019) Once upon a year: the Internet Watch Foundation annual report 2018. Cambridge: IWF
9   NSPCC (2018) NetAware research on file with the NSPCC
10   NSPCC (2018) Children sending and receiving sexual messages. London: NSPCC
11   Home Office (2018) Keeping our children safe. London: Home Office
12   Department for Digital, Culture, Media & Sport and the Home Office (2019) Online harms white paper. Cheadle Heath: APS Group
13   Department for Digital, Culture Media and Sport (2017) Internet safety strategy: green paper. London: DCMS

Make platforms report on how they keep children safe

We need a regulatory regime with robust investigatory and disclosure powers. It cannot be right that there is the least regulation where children face the greatest risks. Platforms should be proactively required to tell the regulator where their actions put children at risk, with consequences if they fail to disclose.

Carry consequences for platforms that breach safeguarding rules

The regulator should be able to levy stringent fines for companies that compromise children's safety, and prosecute both platforms and named directors where a platform significantly breaches its duty of care.

Make platforms take proactive steps to prevent exposure to illegal behaviour

It cannot be right that firms invest in algorithms for commercial purposes, but fail to develop them to proactively identify and disrupt grooming taking place on their platforms. Sites should be legally required to adopt proactive anti-grooming mechanisms, and to report on their effectiveness.

The UK can now lead the global fight to protect children online. If the government delivers the meaningful, enforceable change that is required, it's likely the rest of the world will follow. With one third of internet users globally being children,[14] the stakes could not be higher.

Our vision for a duty of care regulator is that the platforms that expose children to risk should be responsible for the costs of addressing it. For too long, children have paid the emotional, mental and physical costs of social networks failing to tackle abuse that is initiated and facilitated on their sites.

We know what needs to be done, and now it's time for action. Every day that goes by without tech firms being held accountable for the risks on their sites, and without a robust regulator to help keep our children safe, is a day too many.

14   Livingstone, S., Carr, J. and Byrne, J. (2015) One in three: internet governance and children's rights. Ontario: Centre for International Governance Innovation.

Measuring online abuse in the UK

Why this year's report focuses on data about online abuse

For the past six years our annual *How safe are our children?* report has pulled together the latest and most robust child protection data that exists across the UK. It has helped us track our progress as a nation in responding to abuse, and judge whether efforts to prevent abuse and protect children are working. This year, for the first time, the Office for National Statistics (ONS) will be taking on this important task, with the first edition of its compendium of child abuse data sources for England and Wales due this winter. The ONS is actively consulting with a number of stakeholders, including the NSPCC, on this work.

The ONS's compendium of child protection data should fulfil much of the need previously met by *How safe are our children?* This has opened up the opportunity for us to look in more depth at the ever-evolving issue of online abuse.

Research suggests that online abuse can have as big an impact on young people as abuse that takes place face-to-face

Technology has become increasingly central to children's lives. The ubiquity of social media and smartphones has brought both new opportunities and new potential harms. Greater ability to contact and access children has led to increased opportunities for abusers to commit offences. And research suggests that online abuse can have as big an impact on young people as abuse that takes place face-to-face. In a study commissioned by

the NSPCC, children reported a wide range of effects including self-blame, flashbacks, depression, anxiety, nightmares and self-harm.[1] There is growing recognition of the need for legislative and regulatory responses to protect children from online abuse, culminating in the government's online harms white paper.

With this in mind, this year's report looks at the range and extent of online risks, and the ability of children and parents/carers to respond to these. It takes stock of emerging data around online abuse and safety, looks at the insights these provide, and identifies where gaps remain.

What is online abuse?

Before looking at the data, it is important to define what we mean by online abuse.

The NSPCC defines online abuse as 'abuse that is facilitated using internet-connected technology'. It may take place through social media, online games, or other channels of digital communication. Technology can facilitate a number of illegal abusive behaviours including, but not limited to:

- harassment;
- stalking;
- threatening behaviour;
- creating or sharing child sexual abuse material;
- inciting a child to sexual activity;
- sexual exploitation;
- grooming;
- sexual communication with a child; and
- causing a child to view images or watch videos of a sexual act.

Children can also be re-victimised if evidence of their abuse is recorded or uploaded online.

Alongside those illegal activities that are perpetrated online and constitute abuse, children may also be exposed to online harms, such as inappropriate behaviours or content online. For instance, children may be bullied online by their peers or they might, either accidentally or intentionally, view content which is intended for adults.

Both online abuse and exposure to unsuitable content or behaviour can have a long-lasting impact on the wellbeing of children and young people.

What information is available and where are the gaps?

This report brings together the most up to date statistics on online abuse that exist in the UK.

In recent years, a number of developments have improved our understanding of the scale of the issue. For example, changes to laws in parts of the UK[2] means we now know the number of police-recorded offences involving adults accused of having sexual communication with a child. Police recording practice has also changed to allow an offence to be flagged as an online crime if it is committed, in full or in part, through a computer, computer network or other computer-enabled device. Although this flag is currently underused, it's a promising step in the right direction. A number of recent surveys with children and their parents/carers have also helped build up a better picture of the nature, scale of and response to online abuse.

However there are still limits to what available statistics can tell us, and in compiling this report we have identified a number of gaps in the data.

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1 Hamilton-Giachritsis, C. et al. (2017) "Everyone deserves to be happy and safe": a mixed methods study exploring how online and offline child sexual abuse impact young people and how professionals respond to it. London: NSPCC.
2 In England and Wales the Serious Crime Act 2015 inserted a new offence into the Sexual Offences Act 2003, criminalising sexual communication with a child. In Northern Ireland the Justice Act (Northern Ireland) 2015 inserted the same offence into the Sexual Offences (Northern Ireland) Order 2008. Scotland introduced the offence of communicating indecently with a child as part of the Sexual Offences (Scotland) Act 2009.

With the exception of the police, statutory agencies do not routinely record and publish information about when abuse was facilitated by the internet. Private companies currently have no legal obligation to share data about the abuse identified on or reported to their platforms, or about the actions they have taken to protect the children involved.

As with all abuse, available data from services, such as the police, and private companies only relate to online abuse that is identified or reported. Children are more likely to disclose abuse in surveys because they are able to respond anonymously and confidentially. However many of the surveys referred to in this report asked non-representative samples of children about their experiences of online abuse, limiting the findings' relevance to the general population.

The most recent UK-wide, representative survey of children's own experiences of abuse took place back in 2009.[3] Although some questions were included about children's experiences of internet victimisation, the online landscape has moved on dramatically since then. The ONS has announced that it is scoping the potential for a new prevalence survey with children, which would help to fill this gap in our knowledge. Questions about 10 to 15 year olds' experiences of online crime have also been included in the Crime Survey for England and Wales from April 2019 as part of a pilot study. We welcome these steps and are working closely with the ONS as plans develop.

What statistics are included in the report?

Based on the data currently available, we have compiled ten different indicators in an effort to understand the extent, nature and response to online harm and abuse in the UK today.

Our aim has been to provide the most robust and comprehensive picture of online child abuse in the UK, so we have chosen indicators that:

- provide different insights on the extent of and the response to online child abuse;
- use robust data, wherever possible based on a large sample and on standardised measures (where there are weaknesses in the data we state these);
- are UK-based; and
- are current, ie published in 2018/19 and, where possible, use data that can be tracked over time.

How have we presented the data?

Throughout the report a number of principles have guided the way that data have been presented.

Data sources
For each indicator we have provided a reference for the most recent data release. Historical statistics are available from the data provider either in published reports or on request.

Time series data
The time series provided for each of the indicators is determined by the availability of data. For some indicators, the way the data are recorded has changed over time. Where statistics are not comparable year on year this has been clearly marked.

Time series data are not available for many of the indicators because many of the measures have only recently begun to be recorded and reported.

Data on children
For the purposes of this report, a child is defined as anyone under the age of 18. Data are not always published for this age group. Where data refer to other age groups this has been noted.

Population data
Crime rates have been calculated using mid-year UK population estimates published by the ONS.

Geographical coverage of the data
Because of the international reach of the internet, it has not always been possible to provide data at nation level. In some cases figures are not solely related to the UK.

In other cases statistics are only available for specific UK nations or regions. The geographical coverage of the data has been noted within each indicator.
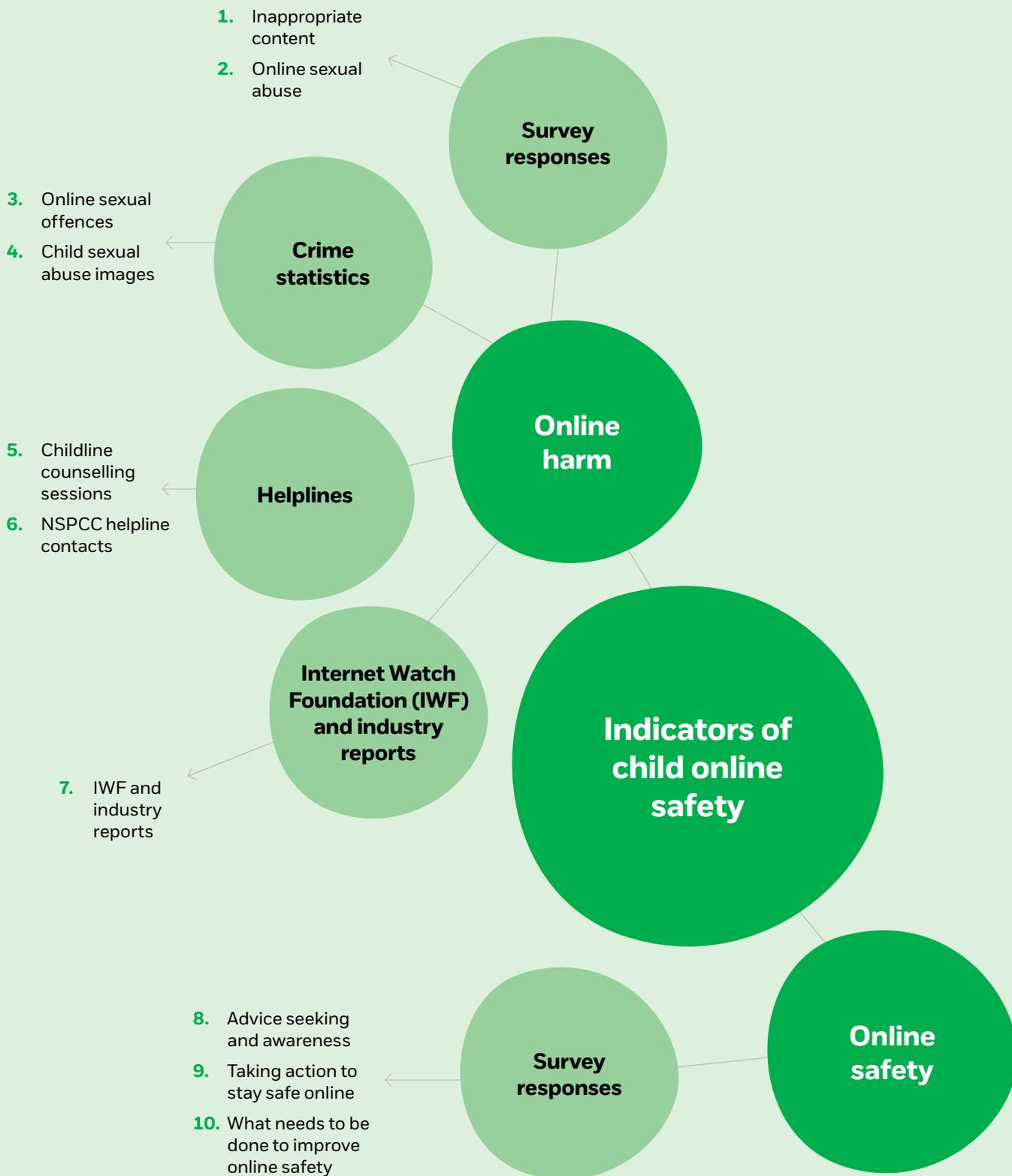
Expert insights

We know that the data alone cannot tell the whole story, so throughout the report we have included additional insights from professionals working in online safety. Each contributor focuses on their area of expertise, covering:

- balancing children's online safety and online rights;
- the role of artificial intelligence in identifying and removing harmful content online;
- the emerging risks posed by livestreaming; and
- a new approach to tackling online child sexual exploitation and abuse.

The opinions expressed in these insights are the experts' own and do not necessarily represent the views of the NSPCC.

3   Radford, L. et al. (2011) Child abuse and neglect in the UK today. London: NSPCC.

An overview of the 10 indicators

1. Inappropriate content
2. Online sexual abuse

Survey responses

3. Online sexual offences
4. Child sexual abuse images

Crime statistics

Online harm

5. Childline counselling sessions
6. NSPCC helpline contacts

Helplines

Internet Watch Foundation (IWF) and industry reports

7. IWF and industry reports

Indicators of child online safety

8. Advice seeking and awareness
9. Taking action to stay safe online
10. What needs to be done to improve online safety

Survey responses

Online safety

Indicator 1

Survey responses: inappropriate content

Key messages

- 16 per cent of surveyed primary school-aged children and 19 per cent of surveyed secondary school students said they had seen content which encouraged people to hurt themselves.

- 11 to 18 year olds reported seeing sexual content in 16 per cent of reviews of the most popular social networks, apps and games.

- 31 per cent of children aged 12 to 15 reported seeing worrying or nasty online content.

Why is this measure important?

Exposure to unsuitable content or behaviour online can impact on the wellbeing of children and young people.

Inappropriate content online often goes unidentified and unreported. Online content is often tailored to the individual user, so an adult using a site will not necessarily see the same content as a child. This may result in children being exposed to inappropriate content, without adults being aware of what they have seen.

This measure asks children about the types of content they have seen online. It is a valuable source of information because, unlike most of the other indicators included in this section, it captures the self-reported experiences of children.

Points to consider when looking at this data

This indicator focuses on "self-reported" data from surveys with children and young people. Although survey results give us a valuable insight into the experiences of children online, there are some key points that must be considered before using this information.

- How representative survey results are of the wider population is affected by sample size and selection. Results can also be affected by how questions are asked and whether respondents answer them accurately.

- All three surveys focus on children in specific age ranges, which means results must be confined to children of that age and cannot be treated as indicating the experiences of children of all ages.

- The Ofcom statistics used in this indicator are based on a representative sample of the UK population. This means results can be extrapolated for the whole population, but it must be noted that a relatively small sample size, of 1,430 parents of children aged 5 to 15 and children aged 8 to 15, was used.

- The survey results from the NSPCC's and O2's Net Aware research and the NSPCC and London Grid for Learning (LGfL) do not come from a representative sample of the UK child population, although the NSPCC and LGfL research is based on a sample of nearly 40,000 children. Results are therefore not representative of the experiences of all children.

- Results from the NSPCC's and O2's annual Net Aware survey are based on reviews by children aged 11 to 18 of the most popular apps, sites and online games. Due to changes in popularity, different sites are reviewed each year, meaning that reviews are not directly comparable year on year.

- Findings from the NSPCC's and O2's Net Aware research and the NSPCC's and LGfL's survey relate to specific types of content identified by the researchers as inappropriate, e.g. violent or sexual content. By comparison, Ofcom data relates to content that children themselves considered to be "worrying or nasty". Children and young people may have seen content that adults would consider worrying or nasty, but which children themselves did not.

Proportion of children seeing inappropriate content online

	Discrimination / hate speech	Bullying of others	Violent videos / images	Anything that encourages people to hurt themselves
Primary	7%	25%	17%	16%
Secondary	14%	33%	29%	19%

NSPCC and the LGfL asked 21,648 primary school children and 18,186 secondary school children aged 7 to 16 about the content they had seen online.

A large minority of the children surveyed reported seeing each type of inappropriate content online.

• The most common type of inappropriate content reported by both age groups was bullying. A quarter (25 per cent) of primary school students and 33 per cent of secondary school students said they had seen bullying online.

• 16 per cent of primary school children and 19 per cent of secondary school students said they had seen content which encouraged people to hurt themselves.

Proportion of young people's reviews of sites, apps and games that reported seeing inappropriate content

Type of content	2015/16	2016/17	2017/18
Violence and hatred	26%	30%	16%
Sexual content	23%	21%	16%
Bullying	30%	19%	18%
Drink, drugs and crime*	24%	17%	12%
Suicide and self-harm	12%	12%	11%

* In 2017/18 this category was renamed "drink, drugs and crime".
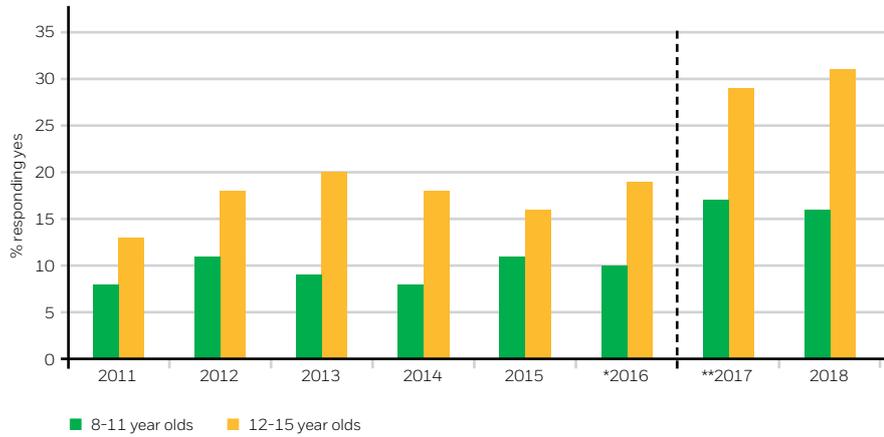It had previously been called "adult or illegal".

In 2017/18 the NSPCC's and O2's Net Aware research compiled reviews from 2,059 young people aged 11 to 18 of 40 of the most popular sites, apps and games.

Children reported seeing inappropriate content in a large minority of their reviews.

• In 2017/18, bullying was the most commonly reported form of inappropriate content, with 18 per cent of all site reviews mentioning bullying.

• 11 per cent of young people's reviews mentioned content involving suicide and self-harm.

• 16 per cent of young people's reviews mentioned sexual content and 16 per cent mentioned content involving violence or hatred.

The proportion of reviews in which young people mentioned seeing inappropriate content declined in 2017/18. While the wording of the questions asked in the Net Aware survey did not change, the way in which the multiple-choice answers were grouped did, which could partially explain the lower percentages. It is worth noting that for many of the most popular sites the proportion of reviews in which young people reported encountering inappropriate content was higher than the average results shown in this table.

Ofcom survey: Have you seen anything online that you found worrying or nasty?

% responding yes

8-11 year olds

12-15 year olds

* Prior to 2016 Ofcom asked if children had seen anything online that they found "worrying, nasty or offensive"; in 2016 this question was shortened to focus on just "worrying or nasty" content.

** Before 2017, respondents were asked if they had seen anything worrying or nasty in the last year. This changed in 2017 to whether respondents had ever seen anything worrying or nasty. This means that data from 2017 and 2018 are not comparable with previous years' data.

Ofcom research in 2018 collected responses from 456 children aged 8 to 11 and 480 children aged 12 to 15 who go online about whether they had ever seen anything that they found worrying or nasty online.

The results showed that a large minority of children and young people said they had been exposed to online content that they found worrying or nasty.

- 16 per cent of 8 to 11 year olds reported seeing worrying or nasty content.

- 31 per cent of 12 to 15 year olds reported seeing worrying or nasty content.

These figures are children's own responses to the content they have seen. Children and young people may have seen content that adults would consider worrying or nasty, but which children themselves did not.

Indicator 2

Survey responses: online sexual abuse

Key messages

- 21 per cent of surveyed girls aged 11 to 18 said they had received a request for a sexual image or message.

- 4 per cent of surveyed primary school-aged children and 5 per cent of surveyed secondary-school aged children said they had been sent or shown a naked or semi-naked picture or video from an adult.

- 2 per cent of surveyed primary and secondary school-aged children said they had sent a naked or semi-naked picture or video to an adult.

Why is this measure important?

Research suggests that online abuse can have as big an impact on young people as offline abuse.[1] But, as with all forms of abuse, it often goes unidentified, unreported and unrecorded.

This measure asks children about their own experiences of sexual abuse online. It is a valuable source of information because, unlike most of the other indicators included in this section, it captures the self-reported experiences of children.

Points to consider when looking at this data

This indicator focuses on "self-reported" data from surveys with children and young people. Although survey results give us a valuable insight into the experiences of children online, there are some key points that must be considered before using this information.

- How representative survey results are of the wider population is affected by sample size and selection. Results can also be affected by how questions are asked and whether respondents answer them accurately.

- The survey data used in this indicator does not come from representative samples of the UK child population. This means that the results are not representative of all children.

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1   Hamilton-Giachritsis, C. et al. (2017) "Everyone deserves to be happy and safe": a mixed methods study exploring how online and offline child sexual abuse impact young people and how professionals respond to it. London: NSPCC.

Whether children have received requests for sexual images or messages by age
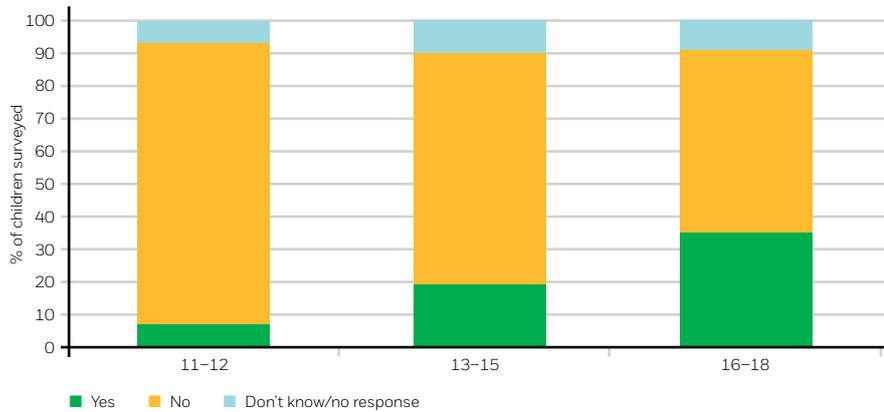

In total, 2,059 young people aged 11 to 18 from across the UK took part in the NSPCC's and O2's Net Aware survey.

Among those surveyed, 15 per cent (319) said that they had received a request for a sexual image or message.

The likelihood of receiving a request for a sexual image or message varied by age and gender.

- 35 per cent of 16 to 18 year olds said they had received a request, compared to 19 per cent of 13 to 15 year olds and 7 per cent of 11 to 12 year olds.

- 21 per cent of girls said they had received a request, compared to 10 per cent of boys.

- The group most likely to say that they had received a sexual image or message were girls aged 16 to 18. Among girls of this age, 52 per cent said they had received a sexual image or message.

Whether children have received requests for sexual images or messages by gender
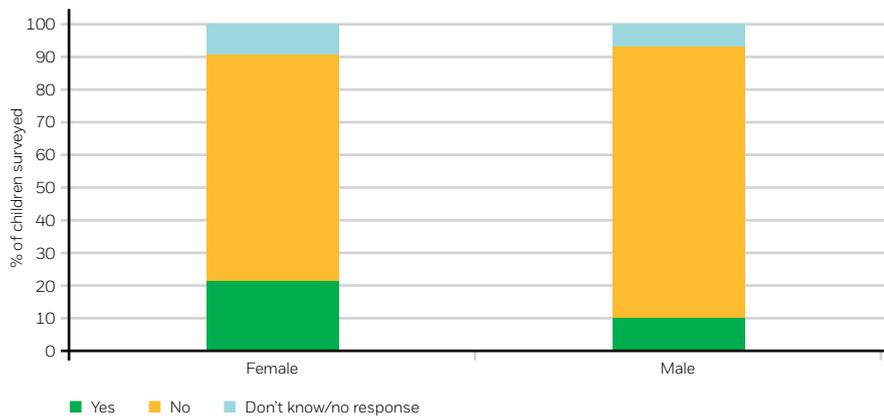
Have you ever been sent or shown any of the following messages?

Stage	A naked or semi-naked picture/ video from a young person	A naked or semi-naked picture/ video from an adult	Sexual messages from a young person	Sexual messages from an adult
Primary	5%	4%	N/A	N/A
Secondary	13%	5%	13%	5%

NSPCC and the London Grid for Learning (LGfL) asked 21,648 primary school children and 18,186 secondary school children aged 7 to 16 about their experiences of receiving and sending sexual messages, and seeing sexualised online content.

- Of the primary-aged children who participated in the survey, 4 per cent said they had received or been shown a naked or semi-naked picture or video from an adult.

- This increased to 5 per cent of children of secondary school age.

Have you ever sent any of the following messages?

Stage	A naked or semi-naked picture/ video to a young person	A naked or semi-naked picture/ video to an adult	Sexual messages to a young person	Sexual messages to an adult
Primary	3%	2%	N/A	N/A
Secondary	4%	2%	4%	2%

In the same survey, children were asked whether they had sent a naked or semi-naked picture or video to someone else.

• 3 per cent of primary school children said they had sent a naked or semi-naked picture or video to another young person.

• 4 per cent of secondary school children said they had sent a naked or semi-naked picture or video to a young person.

• 2 per cent of children of primary school age said they had sent a naked or semi-naked picture or video to an adult, as had 2 per cent of surveyed secondary school-aged children.

The survey also asked children specific questions about their experiences on livestreaming and video messaging sites. The responses to these questions are included in the expert insight on livestreaming on pages 36–7.

Expert insight: Balancing online safety with online rights

The first two indicators in this report look at findings from research into children's self-reported experiences of online abuse and inappropriate content. The same research found that children had many positive experiences online: opportunities to communicate with friends and family, being creative and having a safe space for self-expression.[1] Here Sonia Livingstone argues that efforts to protect children online must not ignore the opportunities the internet has to offer.

Sonia Livingstone

Sonia Livingstone is Professor of Social Psychology in the Department of Media and Communications at LSE. Her work looks at media audiences, media literacy and media regulation, with a particular focus on the opportunities and risks of digital media use in the everyday lives of children and young people.

Children have always loved play, exploration and learning – ideally, shared with family, friends and community. They value their agency, self-expression and belonging to a community. They hope the world will protect them and treat them fairly – at least until they discover that it may not. And they expect their mistakes to have only temporary consequences, not to limit their future life chances. So far, so familiar.

In today's digital age, the environment in which children grow up is reconfiguring their opportunities in ways that are complex and difficult to understand. Children continue to seek opportunities for self-expression, relationships and ways of belonging to a community, but these are increasingly mediated by social media platforms. Children love the internet and consider it their right[2] to access it. Unfortunately the benefits and harms that result from going online are generally unfairly distributed. With high levels of public anxiety regarding children's exposure to content, contact and conduct risks,[3] and with growing concern about the "datafication" of childhood,[4] there are calls on all sides to check the power of commercial interests so as to better meet the best interests of the child.

What then do the best interests of children[5] look like in digital terms? Do these really involve allowing, indeed enabling,[6] children to explore, experiment, make new friends and, even, take risks online? Our society is becoming so risk-averse[7] in a climate of panicky media headlines that the very idea of children experimenting with identity or making new friends online makes adults fearful. In face of the risks and of the struggles to regulate the internet, it is timely to ask, what valuable opportunities would really be missed if society decided to heavily restrict children from going online, to ban mobiles in school, to insist that parents supervise a child's every move online, or to raise the age limit of online services to 16.

> In face of the risks and of the struggles to regulate the internet, it is timely to ask, what valuable opportunities would really be missed if society decided to heavily restrict children from going online

These and other possible restrictions on children's online activities are already on the public policy agenda. I believe it is important to push back against them. This is not to give free rein to profit-hungry platforms or

1 NSPCC (2018) Net Aware research on file with the NSPCC
2 Third, A., et al. (2014) Children's rights in the digital age: a download from children around the world. Melbourne: Young and Well Cooperative Research Centre
3 EU Kids Online (2014) EU Kids Online: findings, methods, recommendations (deliverable D1.6). London: EU Kids Online, London School of Economics (LSE)
4 Barassi, V. (2018) Datafied children: the research. Child data citizen project, 14 December [Accessed 27/04/2019]
5 Office of the United Nations High Commissioner for Human Rights (OHCHR) (2013) General comment No. 14 (2013) on the right of the child to have his or her best interests taken as a primary consideration. Geneva: OHCHR
6 Livingstone, S. (2014) Safer internet day: evidence-based trends for the future. Media policy project blog, 11 February [Accessed 27/04/2019]
7 Gill, T. (2007) No fear: growing up in a risk averse society. London: Calouste Gulbenkian Foundation; Whitebread, D. et al. (2012) The importance of play: a report on the value of children's play with a series of policy recommendations. Brussels: Toy Industries of Europe

libertarians in favour of a regulatory wild west, but would be to fully realise children's rights in the digital age, as required by the UN Convention on the Rights of the Child.[8] This means we must succeed in the truly challenging task of establishing an effective regulatory landscape that is workable for government and industry, and that is acceptable to a diverse public.

So, what are the real opportunities for children in the digital age? How can we advocate for these,[9] without being simplistic, naïve or overly idealistic?

First and most obviously, the digital environment is now necessary for modern life. Children cannot be excluded from the wider world but, rather, need to be prepared for it – just as it must be better designed[10] for their needs, in ways that are still insufficiently recognised. Children have many roles to play in the digital world – not merely as recipients of information and entertainment produced by others, but also as advisers, explorers, problem-solvers, creators[11] and more.

Distinctively, the internet's long tail[12] means that online, as nowhere else, children can enjoy unprecedented new opportunities to engage and learn online – contrast this with how they are so often practically limited in their freedom of movement and association offline. Be it as hobbyists, novice guitarists, young poets or entomologists, skateboarders, anime fans, you name it. Online so much more easily and productively than offline, children can gather, share, learn and critique[13] each other's creations, gain validation and build community. This is often peer-focused but can, also, be within the family – so, when parents find constructive ways to share digital media with their children, everyone benefits.[14]

However, children are not always happy or well. While there's plenty of talk about whether and how the internet may damage young people's mental health,[15] for young people facing mental health issues, social media and tailored online resources can serve as a lifeline to human connection and support.[16] The anonymity afforded by the digital environment might mean that, for some particularly vulnerable children, they can find help online that isn't available to them offline.

Relatedly, online sources of information about sexual health are important to young people – especially to lesbian, gay, bisexual or transgender youth who particularly lack alternative sources of helpful, open-minded and reliable information. Research also shows,[17] more problematically, that children and young people turn to online pornography as a source of information about sex and sexual expectations in the absence of other sources: hence the importance[18] of providing access to high-quality online resources regarding sexuality and sexual identity which are rights-respecting and youth-centred.

As young citizens both now and in the making, children and young people are expressing themselves[19] online and offline. Their voices are being heard – on subjects as varied as democracy, climate change, sexual identity, gun control[20] and more. In the digital age, political organising is heavily reliant on the use of digital networks and creative digital contents, but this also puts activists at risk of surveillance and punitive treatment. Protecting young people's rights to expression and assembly needs additional efforts in the digital age.

Protecting young people's rights to expression and assembly needs additional efforts in the digital age.

Children have all the human rights that adults have, notwithstanding their age. Though it is largely not of their making, they live in this world, and their lives are increasingly digital. The Council of Europe recently recommended guidance to its member states[21] about how to interpret and implement the rights of the child in relation to the digital environment – see also the current consultation[22] by the UN Committee on the Rights of the Child. Both these organisations, and many others, urge a holistic approach which includes children's rights to provision, participation and protection. There are excellent and urgent reasons to attend to child protection on the internet. But this is not the whole picture, and it is children's overall wellbeing and rights that matter in the long run.

8   Livingstone, S. (2019) Rethinking the rights of children for the internet age. Media policy project blog, 18 March [Accessed 27/04/2019]
9   Livingstone, S. (2014) How children engage with the internet. TED [viewed 27/04/2019]
10   Kidron, B., Evans, A. and Afia, J. (2018) Disrupted childhood: the cost of persuasive design. London: 5Rights Foundation
11   Vincent, J. (2016) Learning from children and young people about positive smartphone opportunities. Parenting for a digital future, 24 February [Accessed 27/04/2019]
12   Anderson, C. (2004) The long tail. Wired, 10 January [Accessed 27/04/2019]
13   Ito, M. (2019) Close the digital generation gap, unlock the power of online affinity networks, and fuel learning. Connected Learning Alliance Blog, 7 January [Accessed 27/04/2019]
14   Livingstone, S. et al. (2018) In the digital home, how do parents support their children and who supports them? London: LSE
15   Royal College of Paediatrics and Child Health (RCPCH) (2018) The health impacts of screen time: a guide for clinicians and parents. London: Royal College of Paediatrics and Child Health.
16   Rideout, V. (2018) For better or worse: how does social media affect young adults' well-being? Parenting for a digital future, 31 October [Accessed 27/04/2019]
17   Livingstone, S. (2015) When is sexual content online more a right than a risk? And how can parents figure this out? Parenting for a digital future, 26 October [Accessed 27/04/2019]
18   Ringrose, J., Jenkinson, A. and Whitehead, S. (2019) 10 years on: why we still need better sex education for the digital world. Institute Of Education London blog, 17 March [Accessed 27/04/2019]
19   Banaji, S. (2014) Young people, the internet and civic participation. TED [viewed 27/04/2019]
20   Blakemore, E. (2018) Youth in revolt: five powerful movements fueled by young activists. National Geographic, March 23; Thunberg, G. (2018) The disarming case to act right now on climate change. TED; Ringrose, J. and Retallack, H. (2018) Sexual harassment at school: What can young people's gender-based activism tell us? Parenting for a digital future, 28 March; New York Times (2018) March for our lives highlights: students protesting guns say 'enough is enough'. New York Times, 24 March [All accessed 27/04/2019]
21   Council of Europe (2018) New Recommendation adopted on children's rights in the digital environment. [Accessed 27/04/2019]
22   OHCHR (2019) Concept note for a general comment on children's rights in relation to the digital environment: call for submissions. [Accessed 27/04/2019]

Indicator 3

Crime statistics: online sexual offences

Key messages

- There has been a year on year increase in the number and rate of police-recorded online child sexual offences in England and Wales and Northern Ireland.

- In the first 18 months since sexual communication with a child became an offence in England and Wales, 5,211 offences against children under the age of 16 have been recorded by police forces.

- Police in Northern Ireland have recorded 228 offences of sexual communication with a child since the offence was introduced in Northern Ireland in February 2016.

- In Scotland there has been a 74 per cent increase in the number of police-recorded offences of communicating indecently with a child over the past five years, from 247 offences in 2012/13 to 429 in 2017/18.

Why is this measure important?

The number of police-recorded sexual offences against children has increased substantially across the UK in recent years.[1] Among the reasons cited for this rise is the ease with which potential sexual offenders can now contact children online.[2]

Police forces across the UK have introduced an online crime "flag" to mark when an offence involves an online element. This enables us to see what proportion of all sexual offences against children involve the internet.

Some sexual offences are, by their nature, more likely to involve an online element. This particularly concerns those categorised as grooming offences, which occur when a perpetrator communicates with a child or young person to build a trusting relationship, with the intention of encouraging or manipulating them to engage in sexual behaviour.

By looking at sexual offences which have been "flagged" as involving an online element and grooming offences, we can get a better sense of the role that the internet is playing in facilitating the sexual abuse of children.

While these figures do not reflect the total number of sexual offences committed against children online, they do provide an important part of the picture. It helps us to understand the scale of the problem that

the police are trying to respond to and that children are experiencing.

Points to consider when looking at this data

The measures used in this indicator come from police-recorded crime statistics. While these give an important insight into the levels of online sexual offences against children recorded by the police, there are some key points that must be considered before using this information.

- Police-recorded offence statistics do not reflect the total number of crimes committed. Not all crimes are reported, identified or recorded.

- The UK Statistics Authority removed the National Statistics designation from recorded crime data in England and Wales in 2014 following concerns about the data's reliability.[3] Crime data retain National Statistics status in Northern Ireland and Scotland.

- All data reflect the year in which an offence was reported or identified, which will not always be the year in which it was committed.

- An increase in the number of police-recorded online sexual offences does not necessarily mean that there has been a rise in the number of crimes committed. The Office for National Statistics (ONS) mainly attribute the rise in numbers since 2014 to improvements made by the police in the recording

1   NSPCC (2019) Statistics briefing: child sexual abuse. London: NSPCC
2   House of Commons Home Affairs Committee (2018) Policing for the future. London: House of Commons
3   UK Statistics Authority (2014) Assessment of compliance with the code of practice for official statistics: statistics on crime in England and Wales. London: UK Statistics Authority.

of sexual offences[4]. Other factors which could contribute to an increase include: greater awareness of online child sexual abuse leading to increased reporting and a rise in investigations into child abuse online.

- Changes over time to how and when children access the internet and the amount of time they spend online have increased the number of opportunities for offending against children.

- Legislation, offence categories and recording methods vary across the UK, limiting cross-nation comparability.[5]

- There are large variations in the proportion of child sexual offences being flagged as online crimes by each police force and there is anecdotal evidence to suggest that the online crime flag is currently being underused. This means that the number of flagged offences significantly underestimates the true scale of online sexual offences against children. Because of this, figures relating to offences flagged as online crimes have been presented as "Experimental" statistics for England and Wales and as "Official", rather than "National", statistics for Northern Ireland. As identification of online related offences improves, figures are likely to increase.

- Statistics on online crime flags are currently only routinely published for England and Wales and Northern Ireland. Published statistics for Northern Ireland include all sexual offences against under 18 year olds that are flagged as

online crimes, whilst statistics for England and Wales relate specifically to online crime flagged offences of: sexual assault of a child under 13, rape of a child under 13, rape of a child under 16, sexual activity involving a child under 13, sexual activity involving a child under 16, sexual exploitation, sexual grooming and abuse of a position of trust of a sexual nature. A combined total is published by the ONS for offences recorded by the police in England and Wales.

- In Scotland the cyber-crime marker is still being implemented and developed.

- Data for England and Wales on the number of sexual communication with a child offences come from freedom of information (FOI) requests sent by the NSPCC to police forces. Not all police forces responded to the NSPCC's requests, so results only provide a partial picture of the total number of offences recorded.

- Not all offences involving grooming take place online, but given the opportunities that the internet offers to sexual offenders to contact and build-up relationships with children, it is reasonable to assume that a significant proportion do.

- In England, Wales and Northern Ireland, the offence of sexual communication with a child under the age of 16 is included within recorded grooming offences.

Recorded sexual offences flagged as online crimes (rate per 10,000 children under 18)
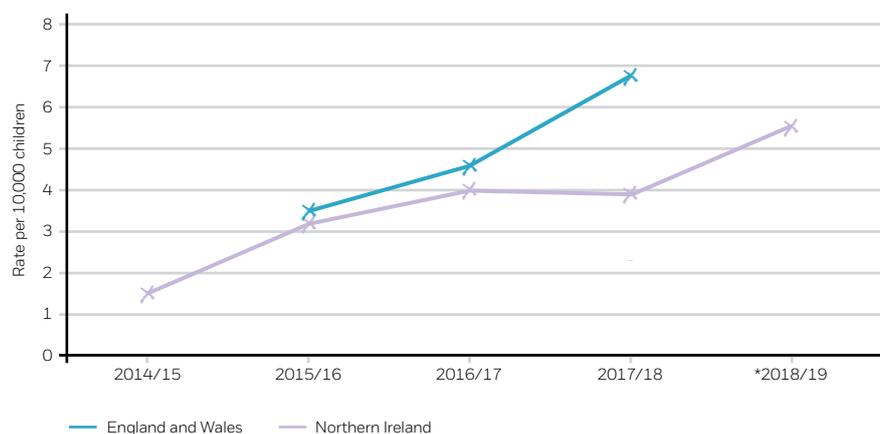
* The NSPCC issued an FOI at the beginning of April 2019 to gather more accurate and up to date statistics about online child sexual offences against under 18 year olds in England and Wales. However, due to delays in responses, the information was not ready in time for inclusion in this report. Initial findings from the 34 forces who had responded by 31/05/2019 suggest that the number of offences flagged by the police continue to rise in both nations.

Since police forces introduced a flag to mark when offences involve an online element, the number and rate of recorded, online sexual offences against children in England and Wales and Northern Ireland have increased. Evidence suggests that the online crime flag is currently being underused. It is expected that the number of online child sexual offences will continue to increase as the flag is more routinely used by police forces.

- In 2017/18 there were 8,525 child sexual offences with an online crime flag in England and Wales. This was a 49 per cent increase on the previous year and a rate of 6.8 offences per 10,000 children.

- In Northern Ireland, data shows a year on year increase of 42 per cent in recorded sexual offences against children with an online crime flag, from 171 offences in 2017/18 to 243 offences in 2018/19. This is a rate of 5.6 offences per 10,000 children.

- In Scotland, a cyber-crime marker is still being implemented and developed which means there is no published data available. However, a Scottish Government-led review[6] has estimated that the internet was used as a means to commit at least 20 per cent of all sexual crimes recorded by the police in 2016/17.

4   Office for National Statistics (ONS) (2019) Crime in England and Wales: Year ending December 2018. Newport: ONS.
5   In England and Wales, recording of crimes is based on the National Crime Recording Standard (NCRS) and Home Office Counting Rules for Recorded Crime (HOCR). The Police Service in Northern Ireland (PSNI) has a comparable system to that used in England and Wales. The Scotland Crime Recording System (SCRS) is not as comparable to systems used in the rest of the UK.
6   Scottish Government (2018) Cyber crime in Scotland: evidence review. Edinburgh: Scottish Government

## Recorded grooming offences (rate per 10,000 children under 16)
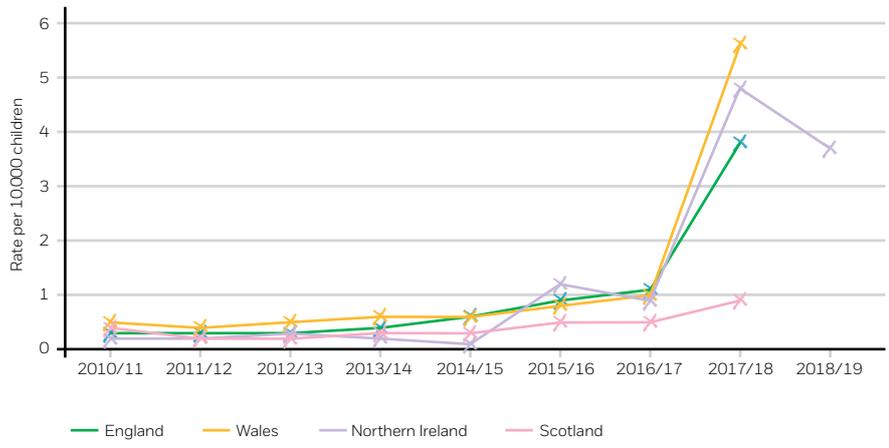
Statistics show an upward trend in the rates of grooming offences against children under the age of 16 across all four nations since 2010/11.

In England, Wales and Northern Ireland, the offence of sexual communication with a child under the age of 16 is included within recorded grooming offences. The introduction of this new offence, following the NSPCC's Flaw in the law campaign,[7] in Northern Ireland in February 2016 and in England and Wales in April 2017 explains the pronounced increase in recorded grooming offences since this date. More information about this offence is included in the remaining graphs in this indicator.

In Northern Ireland, the activity of Online Child Sexual Abuse Activist Groups (more commonly known as paedophile hunters) who engage by posing as a child under 16 have contributed to the overall increase in grooming offences between 2016/17 and 2017/18. These attempted offences account for more than two thirds of the overall increase.[8] This activity has not continued into 2018/19 meaning that, although there was a decline in grooming offences in Northern Ireland in 2018/19, the number of offences involving actual children increased.

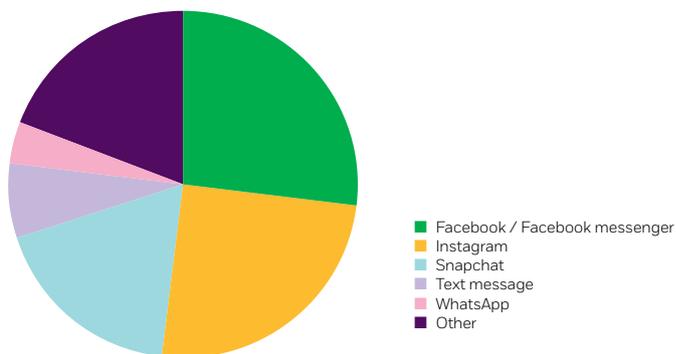## England and Wales: Recorded sexual communication with a child offences*
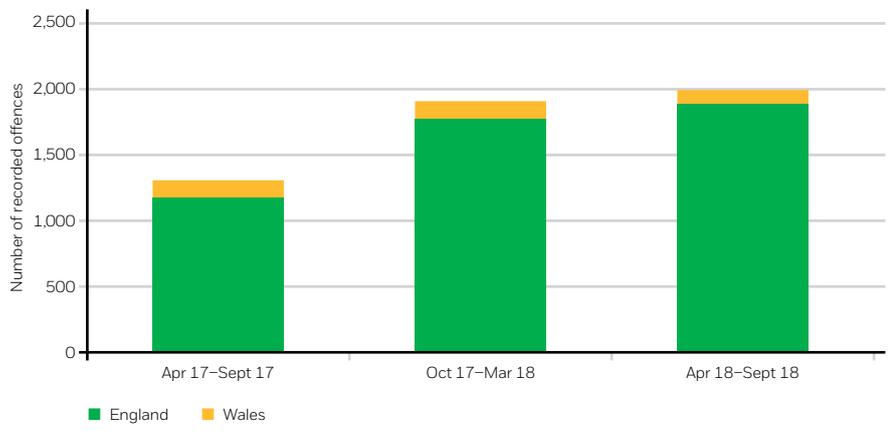
In the 18 months since sexual communication with a child under the age of 16 became an offence, 5,211 offences have been recorded by police forces in England and Wales and the British Transport Police.

It is expected that the number of recorded offences will rise as awareness of the offence increases and the crime is more routinely recorded by police forces.

* The NSPCC's FOI started the first day that the offence was introduced, 3 April 2017, and has been repeated at six-monthly intervals since then. Metropolitan Police started using the recording code on 21 September 2017; its offence data have been included in the two most recent six-monthly time periods. In total, 41 of the 43 police forces gave a full or partial response to the NSPCC's FOI. In addition to the offences shown on the graph, the British Transport Police recorded nine offences of sexual communication with a child.

7 NSPCC (2017) Flaw in the law fixed. [Accessed 15/05/2019]
8 Police Service of Northern Ireland (PSNI) (2018) Trends in Police Recorded Crime in Northern Ireland 1998/99 to 2017/18. Belfast: PSNI

Instances where means of communication was named
3 April 2017–2 October 2018

- Facebook / Facebook messenger
- Instagram
- Snapchat
- Text message
- WhatsApp
- Other

As part of the NSPCC's FOI request, police forces in England and Wales were asked what means of communication were used to commit offences of sexual communication with a child. One offence could involve multiple instances of communicating with a child, and multiple means of communication.

Police were not always able to provide information on the means of communication used. However, for the 3,418 instances where the information was provided:

- 27 per cent of instances involved Facebook or Facebook messenger;
- 25 per cent involved Instagram;
- 18 per cent involved Snapchat;
- 7 per cent involved text messages; and
- 4 per cent involved WhatsApp.

These five means of communication together accounted for 81 per cent of all instances. In total 80 different means of communication were named.

Northern Ireland: Recorded sexual communication with a child offences
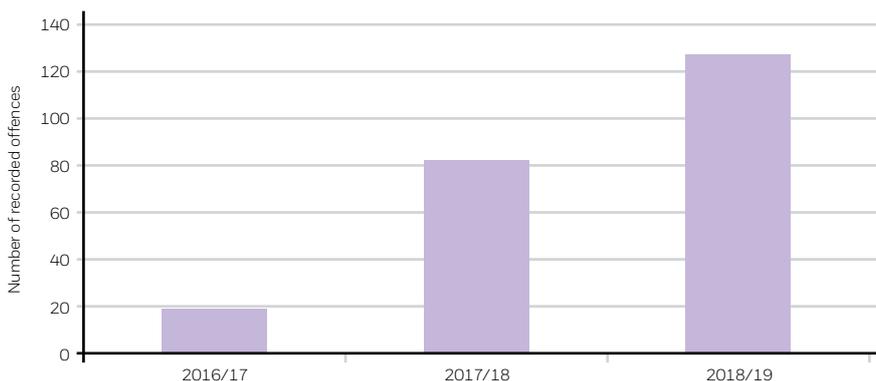
The offence of sexual communication with a child was introduced in Northern Ireland in February 2016. There were 127 police-recorded offences of sexual communication with a child under the age of 16 in 2018/19, up from 19 in 2016/17 and 82 in 2017/18.

It is expected that the number of recorded offences will continue to rise as awareness of the offence increases and the crime is more routinely recorded by police forces.

Scotland: Recorded communicating indecently with a child offences

- Communicating indecently with young child (under 13)
- Communicating indecently with older child (13–15)
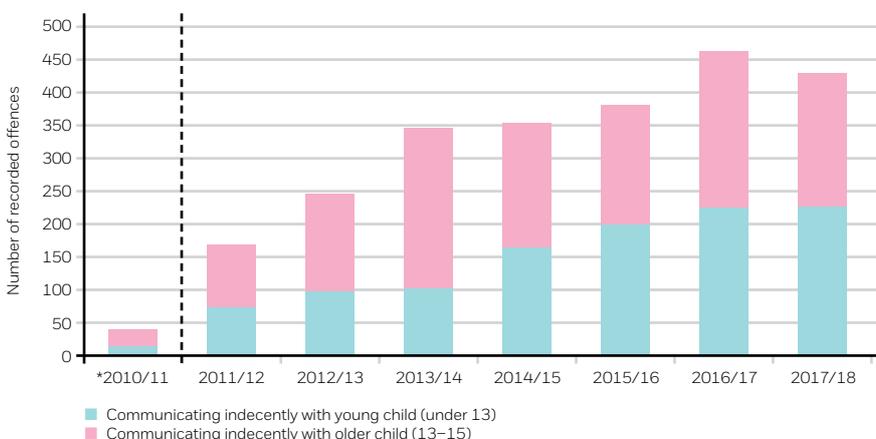
The offence of communicating indecently with a child was introduced in Scotland in December 2010.

Despite a slight dip over the last year, there has been an upward trend in recorded offences of communicating indecently with a child under the age of 16 since it was introduced in Scotland in 2010. In 2017/18 the total number of recorded offences against children under the age of 16 in Scotland was 429, which represents a 74 per cent increase over the past five years from 247 offences in 2012/13.

* In Scotland offences were not separately identifiable until the implementation of the Sexual Offences (Scotland) Act 2009 on 1 December 2010. The 2010/11 figures for these offences relate only to the period 1 December 2010 to 31 March 2011.

Data sources:
England and Wales: Home Office (2019) Police recorded crime and outcomes open data tables. 24 January 2019 ed. London: Home Office. Office for National Statistics (ONS) (2019) Crime in England and Wales: additional tables on fraud and cybercrime: year ending March 2018. Newport: ONS **Scotland:** Scottish Government-recorded crime statistics (Data provided to NSPCC) **Northern Ireland**: Police Service of Northern Ireland (PSNI) Police recorded crime in Northern Ireland: update to 31 March 2019. Belfast: PSNI. Additional data provided to the NSPCC.

Indicator 4

Crime statistics: child sexual abuse images

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Key messages

- There were more than 24,000 police-recorded obscene publications or indecent photos offences in the UK in 2017/18.[1]

- In all four UK nations the numbers of police-recorded offences of obscene publications or indecent photos have increased over the past five years.

- National Crime Agency data show an 893 per cent increase in the number of UK-related industry reports of child sexual abuse material, primarily from the US-based National Centre for Missing and Exploited Children, over the past five years; from 11,477 in 2013 to 113,948 in 2018.

</div>

Why is this measure important?

Child sexual abuse images, whether still images or videos, are a visual record of the sexual abuse of a child. Every time an image is shared the victim is re-victimised.

While offence statistics do not reflect the total number of crimes involving child abuse images that are being committed, they do provide an important part of the picture. It also helps us to understand the scale of the problem that the police are trying to tackle.

Points to consider when looking at this data

The measures used in this indicator come from police-recorded crime statistics. While these statistics give an important insight into the levels of online child sexual abuse image offences recorded by the police, there are some key points that must be considered before using this information.

- Police-recorded offence statistics do not reflect the total number of crimes committed. Not all crimes are reported, identified or recorded.

- The UK Statistics Authority removed the National Statistics designation from recorded crime data in England and Wales in 2014 following concerns about the data's reliability.[2] Crime data retain National Statistics status in Northern Ireland and Scotland.

- All data reflect the year in which an offence was reported or identified, which will not always be the year in which it was committed.

- An increase in the number of offences recorded does not necessarily mean that there has been a rise in the number of offences committed. The Office for National Statistics (ONS) mainly attribute the rise in numbers since 2014 to improvements made by the police in the recording of sexual offences.[3] Other factors which could contribute to an increase include: greater awareness of online child sexual abuse images leading to increased reporting and a rise in investigations into child abuse images online. The Office for National Statistics (ONS) has also partially attributed the overall increase in the number of obscene publications offences to a rise in offences related to the making and distribution of indecent images via the internet or through mobile technology.[4]

- Changes over time to how and when people can access the internet have increased the number of opportunities for offending.

- Legislation, offence categories and recording methods vary across the UK, limiting cross-nation comparability.[5] In England, Wales and Northern Ireland the relevant offence category is Obscene publications, whilst in Scotland the closest equivalent is Taking, possessing and distributing indecent photos of children.

- In England and Wales published statistics only provide an overall total for the number of obscene publications offences, which includes a variety of offences not all of which involve children. However, NSPCC FOI data suggest that the vast majority relate to images of children.

1 Figures for England and Wales include a small number of offences that do not involve children, but results from a freedom of information (FOI) request by the NSPCC indicate that the vast majority relate to images of children.
2 UK Statistics Authority (2014) Assessment of compliance with the code of practice for official statistics: statistics on crime in England and Wales. London: UK Statistics Authority
3 Office for National Statistics (ONS) (2019) Crime in England and Wales: Year ending December 2018. Newport: ONS.
4 Office for National Statistics (ONS) (2016) Crime in England and Wales: Year ending September 2015. Newport: ONS.
5 In England and Wales, recording of crimes is based on the National Crime Recording Standard (NCRS) and Home Office Counting Rules for Recorded Crime (HOCR). The Police Service in Northern Ireland (PSNI) has a comparable system to that used in England and Wales. The Scotland Crime Recording System (SCRS) is not as comparable to systems used in the rest of the UK.

- Statistics on the offences of obscene publications or indecent photos of children include "sexting", where young people have themselves created and shared images.

- Not all offences involving sexual abuse images of children take place online, but given the opportunities that the internet affords for publishing and sharing images, it is reasonable to assume that the majority do. Experimental data show a significant proportion of indecent photos and obscene publications offences take place online, and this proportion is likely to increase as police forces begin to flag online crimes more consistently.[6]

England: Obscene publications offences
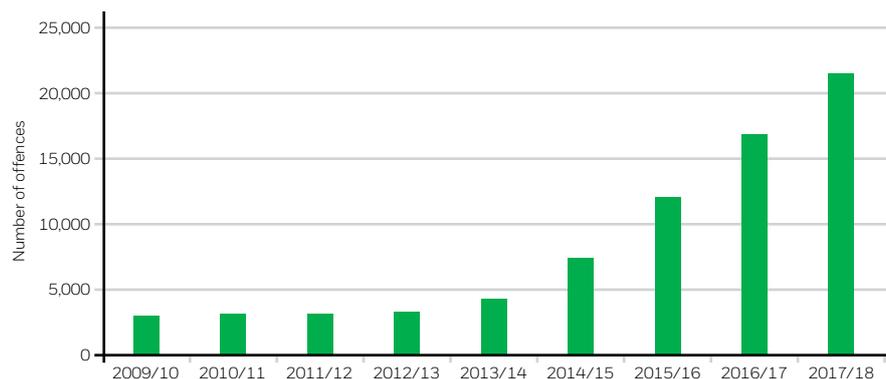
There were 21,514 police-recorded obscene publications offences in England in 2017/18. This is a 555 per cent increase in the past five years.

This increase has been linked by the ONS to a rise in offences that involve the sharing of images online and via mobile phones,[7] and to targeted and coordinated activity by the National Crime Agency and the police against online sexual exploitation and abuse.

Although not all obscene publications offences involve images of children, NSPCC FOI data for the past two years suggest that at least 94 per cent of all offences in England are related to images of children.

Wales: Obscene publications offences
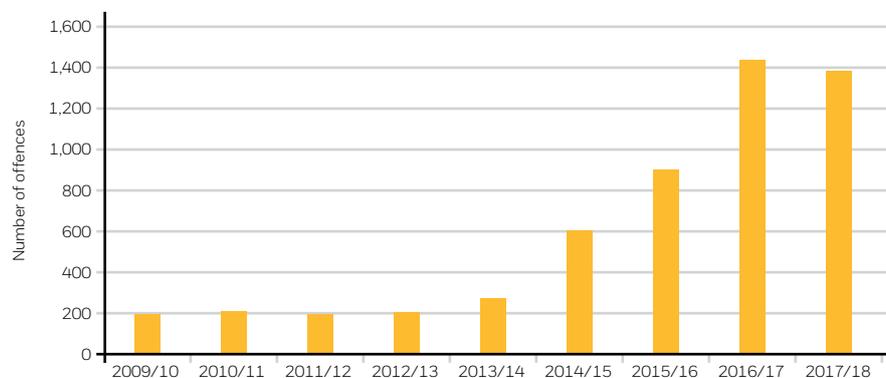
There were 1,382 police-recorded obscene publications offences in Wales in 2017/18. This is a 571 per cent increase in the past five years.

As with England, this increase has been linked by the ONS to a rise in offences that involve the sharing of images online and via mobile phones, and to targeted and coordinated activity by the National Crime Agency and the police against online sexual exploitation and abuse.

Although not all obscene publications offences involve images of children, NSPCC FOI data for the past two years suggest that all the recorded offences in Wales related to images of children.

6   Office for National Statistics (ONS) (2018) Crime in England & Wales, year ending March 2018: additional tables on fraud and cybercrime. Newport: ONS; Police Service of Northern Ireland (PSNI) (2018) Trends in police recorded crime in Northern Ireland: 1998/99 to 2017/18. Belfast: PSNI; Scottish Government (2017) Recorded crime in Scotland: 'other sexual crimes': 2013/14 and 2016/17. Edinburgh: Scottish Government.
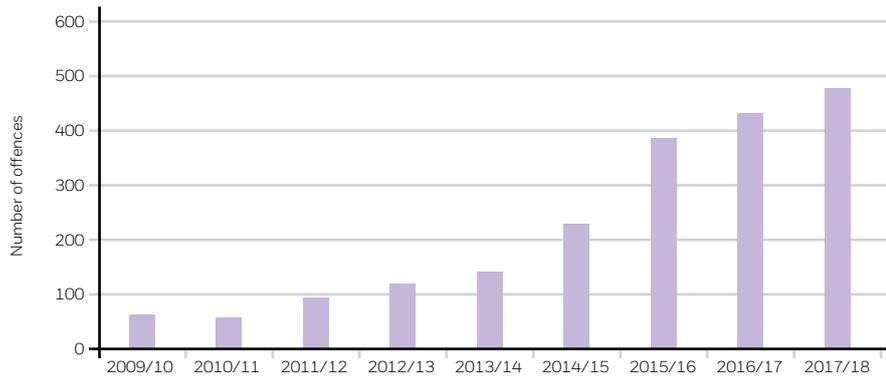7   Office for National Statistics (ONS) (2016) Crime in England and Wales: Year ending September 2015. Newport: ONS

Northern Ireland: Obscene publications offences against children

There were 478 police-recorded obscene publications offences that related to images of children in Northern Ireland in 2017/18. This is a 302 per cent increase in the past five years.

The Police Service of Northern Ireland (PSNI) links the increase in the number of offences to a rise in the number of offences taking place online and to a rise in offences related to sexting.[8]

Scotland: Indecent photos offences against children
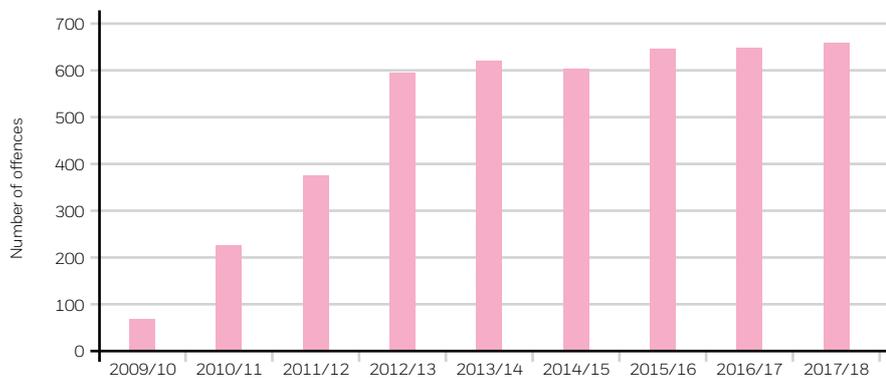
There were 658 police-recorded offences involving indecent photos of children in Scotland in 2017/18. This is an 11 per cent increase in the past five years.

UK-related industry referrals received by the NCA
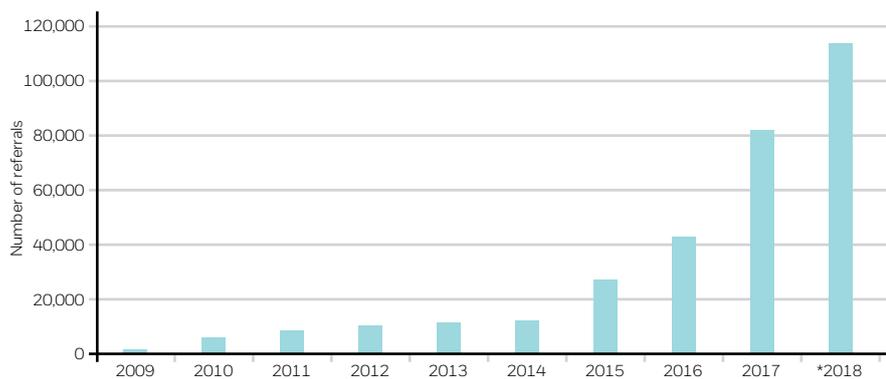
The National Crime Agency (NCA) received 113,948 UK-related industry reports of child sexual abuse material, primarily from the National Centre for Missing and Exploited Children (NCMEC)[9] in the USA, in 2018.

There has been an 893 per cent increase in the number of referrals received in the past five years.

* In 2018, following an NCA grant, NCMEC deployed analytical capability to sift out non-actionable referrals prior to dissemination to the UK. The 46,148 non-actionable referrals identified in 2018 have been included in this graph, to ensure the 2018 referral figure is comparable with those of previous years.

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8   Police Service of Northern Ireland (PSNI) (2018) Trends in police recorded crime in Northern Ireland: 1998/99 to 2017/18. Belfast: PSNI
9   The NCMEC is a private, non-profit corporation based in the USA, which operates a tipline to provide individuals and electronic service providers with a means of reporting internet-related and other instances of child sexual explication. The NCMEC makes reports received available to the appropriate law enforcement agency, which in the case of the UK is the NCA, for its review and potential investigation.

Expert insight: Striking the right balance with Artificial Intelligence to sustainably remove online harms

As the previous indicator shows, reports of online child abuse images are increasing. The scale of the problem is leading many organisations to turn to Artificial Intelligence (AI) to help identify and manage harmful content. Here Crisp, a global team of social media risk experts, look at the role of AI in protecting children from online harms.

Adam Hildreth – CEO, Peter Maude – CTO, John-Orr Hanna – Harmful Content Lead

Crisp have implemented a range of AI and Extended Intelligence solutions to protect their client's users, removing harmful and illegal content from their environments. Crisp holds a number of patents covering the use of AI and algorithmic approaches to identify a range of harmful activities.

The scale of the problem

The rise of social media has had a profound effect on how people interact with each other. The amount of content uploaded to social media sites, forums, and messenger apps continues to increase year on year. In just 60 seconds, 4.5 million videos are watched on YouTube, 1 million users log-in to Facebook, 46,200 new photos are posted on Instagram, 90,000 tweets are sent, and 2.1 million snaps are taken on Snapchat.[1]

The challenge of ensuring safe online spaces

While the vast majority of shared content is legal, safe and appropriate; illegal and harmful content is increasingly being shared.

Illegal content broadly covers terrorist propaganda and child exploitation; harmful content covers a much broader range including, hate speech, violence, self-harm, grooming and adult pornography. The challenge posed by the scale and breadth of this content is compounded by the fact that it is constantly evolving and morphing. Producers of illegal and harmful content are finding creative new ways to share their content, access users and evade online safety processes.

Human Intelligence – great but difficult to scale and evolve

Organisations have responded to this challenge by employing large numbers of moderators to make decisions based on a basic assessment of content. However, the constantly evolving nature of the online harms means that moderators and training can struggle to keep up with the latest developments. This results in inconsistencies in moderators' responses, and in harmful and illegal content going unidentified. Recognising these challenges, many organisations have started to invest heavily in AI to support machine-enabled identification and management of both illegal and harmful content.

The constantly evolving nature of the online harms means that moderators and training can struggle to keep up with the latest developments

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1 Feldman, S. (2019) A minute on the internet in 2019. Statista [Accessed 15/05/2019]

AI is part of the solution, not the silver bullet

AI has an important role to play in providing safe online environments. In its current form, and given optimal conditions, AI is great at dealing with a range of stable or known problems. It has a key role to play in image processing, recognising when a video includes terrorist content or when an image involves adult pornography.

But AI does not provide the answer to all the challenges posed by harmful and illegal content. The threat needs to be well-defined and the response needs to be trained and tested before it can be used effectively. Once this work has been done, AI can act as a "force-multiplier", permitting significant scaling of the identification, management and removal of harmful content.

Extended Intelligence – striking the balance between Human Intelligence and Artificial Intelligence

Crisp has developed "Extended Intelligence"[2] to combine the strengths of AI and experienced analysts ("Human Intelligence"). Analysts proactively identify new and evolving online harms. Once identified, they are factored into the AI capability to do the scaled "heavy lifting". For simple risks, this process can take a matter of minutes, moving from detecting the new online harm, to making AI capable of detecting similar examples, improving with each iteration.

The table below sets out how Artificial, Human and Extended Intelligence respond to the challenges of identifying evolving online harms.

Challenges to scaled identification of evolving online harms	Artificial Intelligence (AI)	Human Intelligence (HI)	Extended Intelligence (AI +HI = XI)
Ability to deal with high volume of assessments	Excellent – for simple or well understood problems	Good – highly user-intensive, requires very large numbers of people	Excellent – AI component can scale as required
Ability to quickly increase capacity	Excellent – scaling AI is simple and takes a few hours	Poor – takes time to scale, hire people, train them, ensure they are experienced	Good – not as fast as AI alone, but requires fewer numbers of analysts to scale than HI
Speed of assessment for simple, known harms	Excellent – very quick decisions within milliseconds	Good – much slower individually or as a scaled group	Excellent – initially slow due to early human assessment but quickly catches up with AI
Dealing with general uncertainty, ambiguity.	Poor – will miss completely or make incorrect assessment	Excellent – providing that context is available to the analyst	Good – when AI is unsure, it will seek human support and guidance to progress
Speed of assessment for complex / unknown (new) harms	Poor – will miss completely or make incorrect assessment	Excellent – assessment of nuance, context, evolution of harms	Good – where AI is unsure it will seek human support and guidance to progress
Time to train – become proficient in newly discovered threat	Very poor – AI is unable to train itself and requires structured human support	Poor/good – depending on number of analysts; thousands will take a long time	Good/excellent -smaller number of humans continually guiding and training AI
Consistency of assessment	Good – highly consistent. Improves over time, although it does also have the potential to degrade over time	Poor – due to individual human fatigue, individual variations across a large team and training variations	Excellent – human assessment and feedback on performance should ensure consistency and continual improvement
Resilient to "intentional evasion" techniques	Very poor – easily deceived, through minimal variation or intentional techniques	Good/excellent – depending on the level of experience and context available to the analyst	Excellent – where the analyst is experienced and can then re-feed the updates to the AI assessment
Welfare implications	Excellent – no impact to processing based on content type or duration of assessment	Poor – mental fatigue, impact on staff from prolonged exposure to graphic content	Good – a smaller human team, needing to assess smaller amounts of content

2   Council on Extended Intelligence (2019) The case for extended intelligence: technological advancement in service of people and planet.

AI has a key role to play in ensuring safer online spaces, but a number of other components are required to ensure an effective response.

- **Comprehensive policy** – defines rules for acceptable and unacceptable content and how to manage and respond to the content once it is identified.

- **Human assessment** – needed to identify each new online harm and to qualify it, understanding how the harm is evolving and ensuring that policy and AI remain current.

- **AI assessment** – critical for scaled assessment and automated management of understood harms

- **High-quality training data** – large numbers of examples of content or behaviour required for training purposes.

- **Coordinated rapid change across all components** – needs updates to happen in unison across each component to keep pace with the evolving online harms landscape.

Creating a complete response to evolving online harms
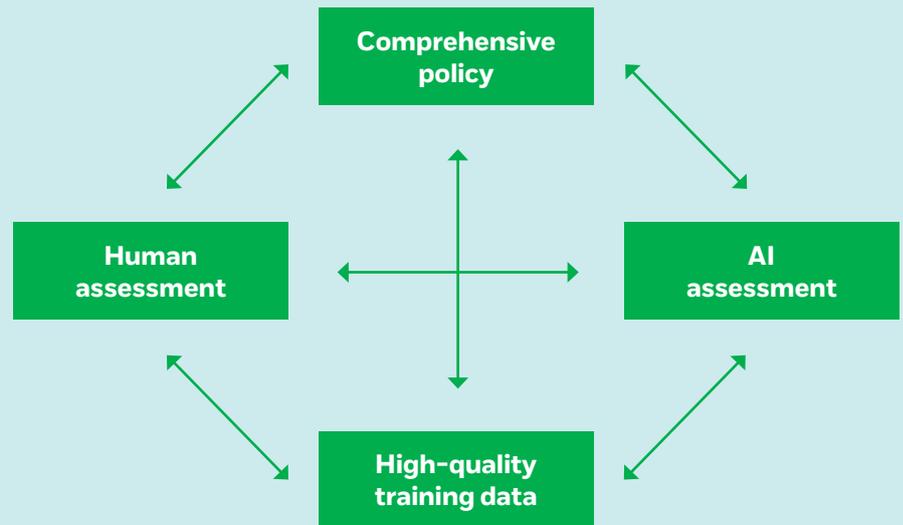
Looking forward

Continually striving for the optimal balance between Human and Artificial Intelligence will be the key to maximising the benefits of AI. There will always be new data, new social media services and new and evolving online harms. In turn AI accuracy will improve, the cost of processing will fall, and the next generation of Human Intelligence analysts will be even better equipped. Crisp must embrace both the limitations and the opportunities that new advancements in AI present to ensure that we are the first to recognise harmful content online and to ensure safe, online spaces for all.

Indicator 5

Childline counselling sessions

Key messages

- Childline delivered 1,700 counselling sessions about online sexual abuse in 2018/19.
- In 647 of these counselling sessions children mentioned worries around sexting or self-generated images.
- A disproportionately high number of counselling sessions about online sexual abuse involve girls (72 per cent) and children in the 12 to 15 year age group (57 per cent).

Why is this measure important?

Childline is the NSPCC's national service for children and young people, which provides a safe and confidential space for them to work through a wide range of issues.

Data on counselling sessions provide a unique indication of the nature and levels of concerns among children. It allows us to identify emerging trends in the issues that children are facing, including concerns not covered in official crime or child protection statistics.

Points to consider when looking at this data

Data on Childline counselling sessions about online sexual abuse provide an important insight into the types of issues that children are encountering online. However, there are some key points that must be considered before using this information.

- Children contact Childline when they need to talk about something that has worried or upset them. This means that the experiences of children contacting Childline should not be considered as representative of all children's online experiences.

- Some children are more likely to use Childline than others, so counselling sessions will disproportionately reflect their experiences. The majority of children who speak to Childline are in their mid teens, the average age is 15, and girls are more likely than boys to choose to speak to Childline.

- Data relate to the number of Childline counselling sessions about a specific issue. It is not possible to identify the number of individual children whom these counselling sessions relate to because the same child may have multiple counselling sessions with Childline.

- As part of Childline recording practices, each counselling session is assigned a main concern. The main concern reflects the topic that the young person focused on during their counselling session. It may not be the only concern the young person raised. This means the figures presented in this indicator are likely to be an under-representation of the total number of children who speak to Childline about online sexual abuse concerns.

- The number of counselling sessions can be affected by news coverage, Childline campaigns and the introduction of new ways to contact Childline, such as the Childline app.

- There have been changes in the way that Childline counselling sessions are coded. This means comparable statistics are only available for the past two years.

Childline counselling sessions about online sexual abuse
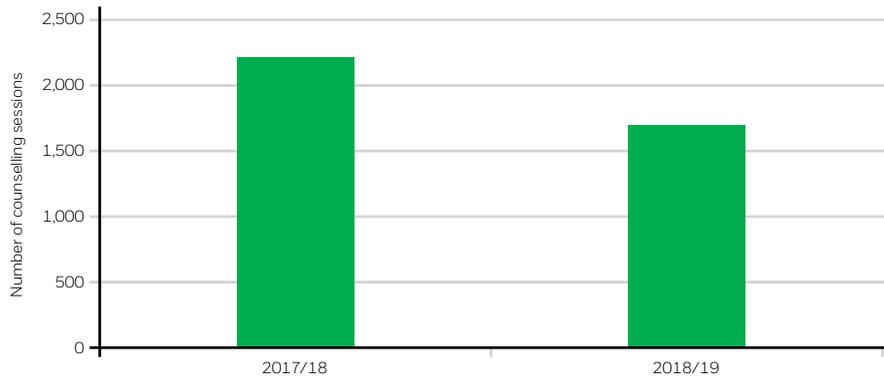
In 2018/19 Childline delivered 1,700 counselling sessions with children and young people about online sexual abuse. This was a 23 per cent decrease compared to the previous year.

This decline can partly be explained by a drop in the total number of counselling sessions delivered by Childline, down from 278,440 in 2017/18 to 250,281 in 2018/19.

Online sexual abuse: sub-concerns

Sub-concerns	Total counselling sessions 2018/19
Sexting/self-generated explicit images	647
Online contact with someone who could be a sexual abuse risk	332
Online relationship developed for the purpose of sexual exploitation/grooming	289
Discussed removal of sexual images	226
Online sexual harassment	201

There were a number of different online sexual abuse concerns that children discussed with Childline. These were recorded as "sub-concerns". One counselling session can have multiple sub-concerns.

The most commonly cited sub-concerns were:

• sexting or self-generated images, mentioned in 647 counselling sessions; and

• online contact with someone who could be a sexual abuse risk, mentioned in 332 counselling sessions.

Counselling sessions by gender

- Female
- Male
- Transgender
- Unknown

Counselling sessions by age

- 11 year olds and under
- 12–15 year olds
- 16–18 year olds
- Unknown
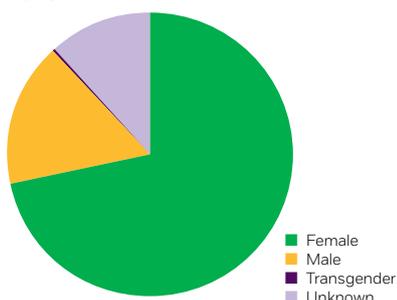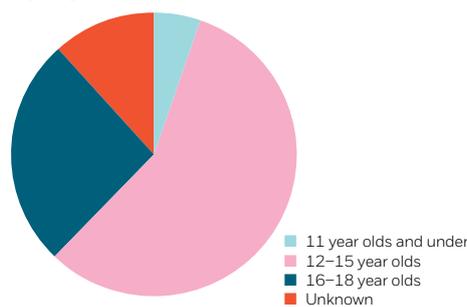
Girls are more likely than boys to talk to Childline, and they are proportionately even more likely to talk to Childline about online sexual abuse. 72 per cent of counselling sessions about online sexual abuse were with girls, compared to 65 per cent of all counselling sessions.

Children aged 12 to 15 are the group most likely to talk to Childline, and they are proportionately more likely to talk to Childline about online sexual abuse. 57 per cent of counselling sessions about online sexual abuse were with 12 to 15 year olds, compared to 44 per cent of all counselling sessions.

Person responsible for online sexual abuse discussed in Childline counselling sessions

- Adult acquaintance
- Child who is not a friend
- Adult stranger
- Child who is a friend
- Ex-partner
- Partner
- Parent/carer
- Other family member
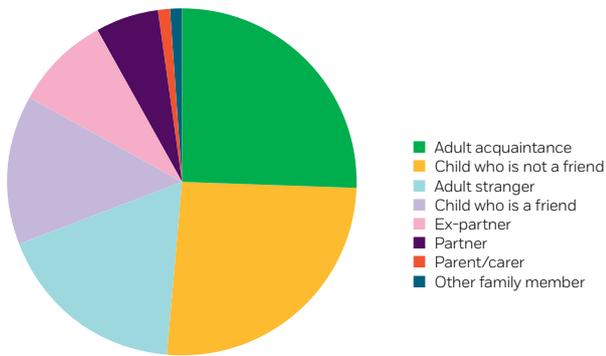
Information was available about the relationship between the child and the perpetrator of online sexual abuse in 34 per cent (581) of Childline counselling sessions about online sexual abuse.

The most common perpetrators of online sexual abuse identified by children were:

- adult acquaintances (mentioned in 26 per cent of the counselling sessions where the person responsible for the abuse was discussed); and

- children who weren't friends with the child being counselled (again mentioned in 26 per cent of counselling sessions).

Indicator 6

NSPCC helpline contacts

Key messages

- In 2018/19 there were 1,507 contacts to the NSPCC helpline where online sexual abuse was the main concern, a 19 per cent increase since the previous year.
- 457 of these contacts mentioned concerns that someone was developing an online relationship with a child for the purpose of sexual exploitation or grooming.
- 62 per cent of children referred by the helpline to external agencies due to concerns around online sexual abuse were girls, and 74 per cent of children referred were aged 10 or above.

Why is this measure important?

The NSPCC helpline offers an advice and support service for anyone worried about the safety or welfare of a child.

Information from the helpline gives us an indication of the levels of concern among the public and professionals about children's online safety, the nature of these concerns and whether they are serious enough to warrant a referral to the police or children's services.

Points to consider when looking at this data

Contacts to the helpline about child sexual abuse online provide an important insight into adults' concerns around children's safety online. However, there are some key points that must be considered before using this information.

- Contacts to the helpline are based on people's own perceptions of online abuse and therefore the data only capture instances of online abuse that have been identified by concerned adults.
- News coverage and NSPCC campaigns can affect the number and reasons for contacting the helpline.
- Due to changes in recording practice, comparable statistics are only available for the past two years.

Number of helpline contacts about online sexual abuse
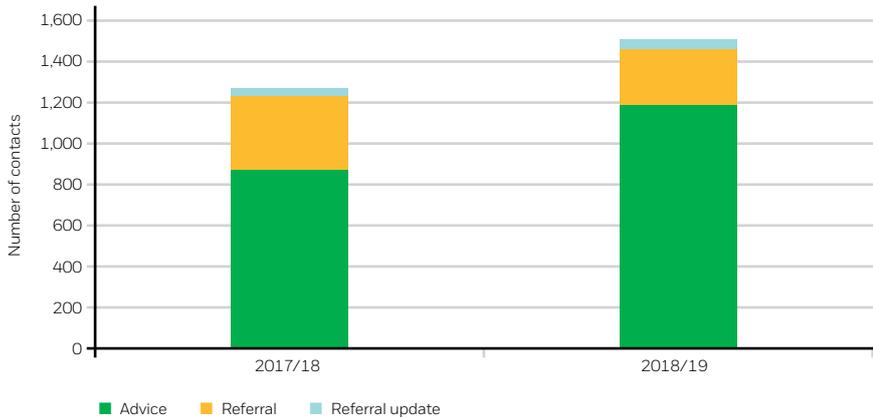
There were 1,507 contacts made to the NSPCC helpline in 2018/19 where online sexual abuse was the main concern. This was a 19 per cent increase on the previous year.

This increase can partly be explained by an overall increase in the number of contacts received by the helpline, up from 65,067 in 2017/18 to 72,812 in 2018/19.

Contacts to the helpline can result in a helpline practitioner giving advice to a concerned adult, or in more serious cases, a referral being made to an external agency such as a local authority or the police. If the contact provides additional information about concerns that have already been referred to external agencies, it will be used to update an existing referral.

In 2018/19, 1,186 contacts about online sexual abuse resulted in advice, 276 resulted in referrals and 45 led to referral updates.

Sub-concerns for helpline contacts about online sexual abuse

Online sexual abuse sub-concerns	Total
Online relationship developed for the purpose of sexual exploitation/grooming	457
Online contact with someone who could be a sexual abuse risk	442
Child sexual abuse images	250
Received sexual messages from an adult	192
Online sexual abuse/harmful sexual behaviour between peers	146

Adults discussed a number of different types of concerns around online sexual abuse with the NSPCC helpline. Sub-concern data provide more detail on the types of issues that adults reported. One contact to the helpline can have multiple sub-concerns.

This table shows the most common sub-concerns discussed in 2018/19 where online sexual abuse was the main concern.

The most commonly cited sub-concerns were:

- someone developing an online relationship with a child for the purpose of sexual exploitation or grooming, which was mentioned in 457 contacts; and

- someone who could pose a sexual abuse risk making online contact with a child, mentioned in 442 contacts.

Children referred by gender
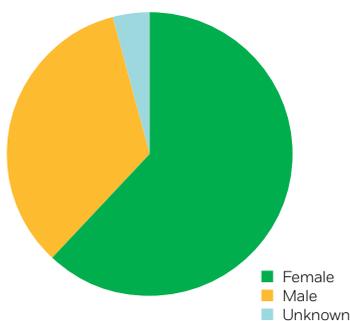
Children referred by age
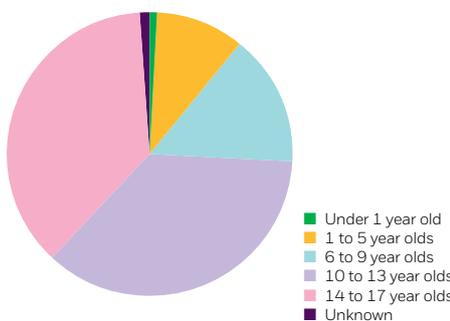
In total, 302 children were involved in the 276 referrals that the helpline made to external agencies about sexual abuse online.

Of the children referred because of concerns around online sexual abuse 62 per cent were girls, while 34 per cent were boys. For 4 per cent, the gender was unknown. Referrals about online sexual abuse were more likely to involve girls than the average for the service. Overall 47 per cent of children in helpline referrals were girls.

The majority of children referred because of concerns around online sexual abuse were aged ten or above, with 36 per cent aged 10 to 13 years and 37 per cent aged 14 to 17 years. Referrals about online sexual abuse were more likely to involve older children than the average for the service. Overall 19 per cent of children referred by the helpline were aged 10 to 13 years and 11 per cent were aged 14 to 17 years.

Indicator 7

Internet Watch Foundation and industry reports

Key messages

- Since 2015 there has been a 54 per cent increase in the number of URLs confirmed by the Internet Watch Foundation (IWF) as containing child sexual abuse imagery.

- An increasing proportion of the URLs identified involve older children, aged between 11 and 15 years. The IWF partly attributes this to increases in "self-produced" images.

- Less than 1 per cent of URLs confirmed by the IWF as containing child sexual abuse imagery are hosted in the UK.

- Limited information is available from social networks about the levels of abuse that occur on their platforms, and the information that is available is not provided in a consistent or comparable way.

Why is this measure important?

This indicator provides part of the picture of the scale of, and the response to, inappropriate and abusive content online. It also highlights where gaps in our knowledge remain.

Considerable activity is being taken to tackle the proliferation of harmful content and behaviour online. This indicator sets out actions taken by the UK-based Internet Watch Foundation (IWF) and online platforms towards this aim. The IWF, an industry-backed membership organisation, focuses on removing child sexual abuse content that is hosted anywhere in the world. Social media companies have their own rules on removing content that is deemed to be inappropriate on their sites, and are increasingly publishing data around this work.

Points to consider when looking at this data

Data from the IWF and online platforms provide an insight into the levels of harmful content and behaviour online. However, there are some key points that must be considered before using this information.

- Unlike other measures in this report, most of the data in this indicator are global rather than specific to the UK.

- Statistics relate to harmful content that is reported to or identified by either the IWF or social media

companies. It does not reflect the total quantity of harmful content available online, or the number of children harmed.

- The IWF was legally granted powers to proactively search for child sexual abuse imagery in 2014, with 2015 being the first full year of proactive searching. Before that date it relied on members of the public to report content.

- Child sexual abuse imagery URLs identified by the IWF are confirmed as containing child sexual abuse imagery, having links to the imagery, or advertising it.

- Information currently published by social networks about the online abuse that takes place on their sites is of limited value. Transparency reports published by social networking sites are not directly comparable and provide limited information. Each social networking site categorises inappropriate content in a different way. This can make it difficult to recognise how much content relates to online child abuse. Social networks also publish transparency reports for different time periods, further limiting their comparability. Additional information, such as the length of time content remains online before it is removed, is needed to get a better understanding of the level of harm that children are exposed to on social networking sites.

The number of URLs confirmed as hosting child sexual abuse
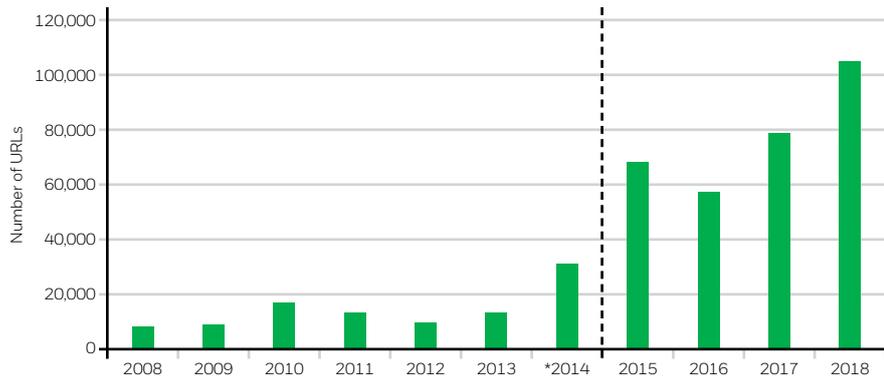
* In 2014 the IWF was legally granted powers to proactively search for child sexual abuse imagery, with 2015 being the first full year of proactive searching.

There has been a sharp rise in the number of URLs confirmed by the IWF as containing child sexual abuse imagery.

The substantial increase in the number of confirmed URLs between 2013 and 2015 is due to the granting of legal powers and increased funding to the IWF to proactively search for child sexual abuse imagery, with 2015 being the first full year of proactive searching. Prior to that date the IWF relied on reports from members of the public.

- In 2018, 105,047 URLs were confirmed as containing child sexual abuse imagery, the highest number to date.

- Since 2015 there has been a 54 per cent increase in the number of confirmed URLs.

URLs confirmed as hosting child sexual abuse by age of child

% of URLs confirmed as hosting child sexual abuse

■ 2 year olds or younger　■ 10 year olds or younger　■ 11–13 year olds　■ 14–15 year olds
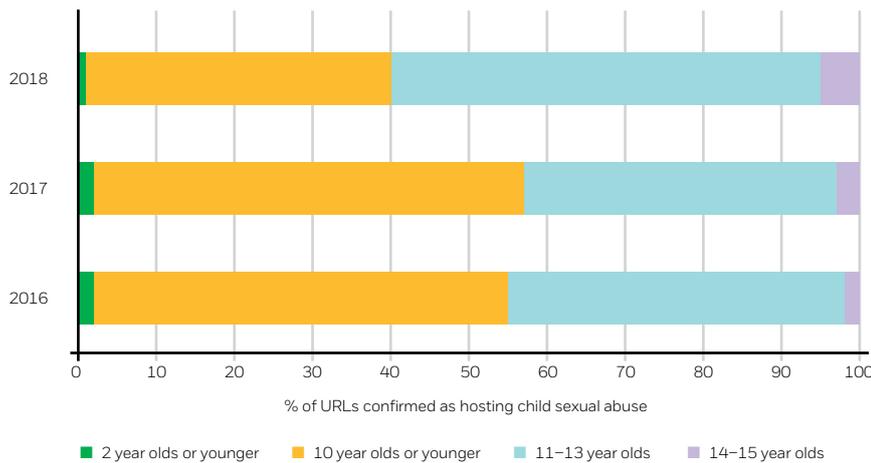
An increasing proportion of URLs confirmed by the IWF as containing child sexual abuse are of children aged 11 to 15 years.

The IWF partially attributes this shift to a rise in the sharing of images of older children in "self-produced" content created by children and then shared online.

The IWF also states that the public are more likely to report images of younger children, whose abuse tends to be of a more severe level; whereas proactive searching, which accounts for an increasing proportion of all images identified, has led to a rise in the identification of images of older children.

Further analysis by the IWF of livestreaming videos confirmed as containing child sexual abuse found that the vast majority depicted children assessed to be 13 years old or younger. More information about this analysis is included in the expert insight on livestreaming on .

Global hosting of child sexual abuse images

- Europe
- North America
- Asia
- Australasia, Africa, South America
- Hidden
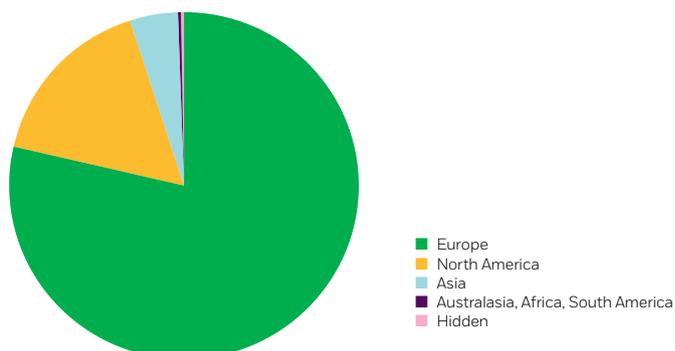
Child sexual abuse images are an international concern. In 2018 the UK hosted just 0.04 per cent of child sexual abuse imagery.

Of the URLs confirmed as containing child sexual abuse imagery in 2018:

- 79 per cent were hosted in Europe;

- 16 per cent were hosted in North America;

- 5 per cent were hosted in Asia;

- less than 1 per cent were hosted in Australasia, Africa or South America; and

- less than 1 per cent were hosted on hidden "onion" sites which use layers of anonymity to make them, and the people using them, hard to trace.

Social networks and transparency reports

Some social networks have started to publish limited data on the number of reports of, and actions taken to remove, inappropriate content. We looked at global reports from some of the most popular social media apps, sites and games used by children to see what data they provide.

- **Facebook**
  Facebook reports that between July and September 2018, 8.7 million pieces of content (such as posts, photos, videos or comments) containing child nudity and exploitation were removed from its site.

- **Snapchat**
  Snapchat's transparency reports are published twice a year. They do not, however, include any data specifically about online child abuse content on their platform.

- **YouTube**
  YouTube's report shows that between October and December 2018, 73,573 channels were removed due to concerns around child safety.

- **Twitter**
  Twitter's latest transparency report shows that between January and June 2018 it suspended 487,363 unique accounts for violations related to child sexual exploitation.

Data sources:
Internet Watch Foundation (2019) Once upon a year: the Internet Watch Foundation annual report 2018. Cambridge: IWF
Facebook (2018) Facebook transparency report. Accessed on 01/04/2019
Snapchat (2018) Transparency report. Accessed on 13/04/2019
YouTube, Inc (2018) YouTube Community Guidelines Enforcement. Accessed on 01/04/2019
Twitter (2018) Twitter transparency report. Accessed on 16/04/2019

Expert insight: Livestreaming

As the previous indicator shows, the number of online child abuse images identified by the Internet Watch Foundation (IWF) is increasing. The IWF have identified "self-generated" content as a key driver behind this increase, with most of this imagery being produced through livestreaming services which is then captured and distributed across other sites. Here Laura Clarke, from the NSPCC's Child Safety Online team, looks in more detail at the risks posed by the rising popularity of livestreaming.

Laura Clarke

Laura Clarke leads on the NSPCC's online gaming policy development. She has a keen interest in digital sociology and recently completed a dissertation on social media as the confessional, exploring young women's use of private accounts or 'alts'.

Livestreaming refers to the broadcasting of live video to an audience in real time. Viewers can participate in the livestream by sending "likes" or "hearts" to the streamer (ie, the person broadcasting) and by sharing text comments that can be seen by the streamer and other viewers. Some streaming platforms also allow viewers to "tip" streamers, allowing users to make an income from their broadcasts. The livestreaming of games is particularly popular: streamers may broadcast commentated "walkthroughs" of popular games, or live footage of competitive play. Some livestreaming platforms allow multiple streamers to join the same live video, which can be used for wholly social purposes, or to allow viewers to see individuals competing in a multi-player game. Social networks such as Twitch and Yubo are primarily livestreaming platforms; other more established platforms, such as Facebook, Instagram, YouTube and Twitter, have recently embedded livestreaming functionality into their service.

Ofcom research from 2018 indicates that more than three quarters (78 per cent) of 12 to 15 year olds who go online are aware of livestreaming, with 18 per cent of these having shared videos via livestream. This is an increase of 8 percentage points on 2017, when one in ten children of that age group had broadcast themselves. Substantially higher numbers of young people participate in livestreaming as viewers: 35 per cent of 12 to 15 year olds who go online have watched the livestreams of others without ever broadcasting their own content.[1]

The instantaneous nature of livestreaming means that young people may be caught up "in the moment" or feel under pressure to behave in a certain way

Livestreaming is a relatively novel mode of social media, and presents a number of distinct risks, particularly for young people who are broadcasting. Livestreaming takes place in real time, making it difficult for platforms to moderate and react to harmful situations. The way in which livestreaming can attract high numbers of viewers and "likes" may also incentivise young people to broadcast publicly, allowing direct contact from strangers.[2] Suler's theory of online disinhibition suggests that individuals feel less inhibited and behave in ways that they would not in person, something that may be exploited by offenders seeking to groom young people.[3] The instantaneous nature of livestreaming means that young people may be caught up "in the moment" or feel under pressure to behave in a certain way to maintain an audience, making them vulnerable to abuse.

1 Ofcom (2018) Children and parents: media use and attitudes report. Annex 1. London: Ofcom.
2 The most popular streamers on platforms such as Twitch can attract hundreds of thousands of viewers.
3 Suler, J. (2004) The online disinhibition effect. Cyberpsychology & behavior, 7(3): 321–326.

Harmful situations can quickly escalate, with little time for a young person to assess what is happening. A groomer may ask a young person to remove a seemingly innocuous item of clothing, such as a sock, before going on to request the removal of further items of clothing. If a young person does not comply, they may be subjected to threats.

The prevalence of grooming on livestreaming platforms has not been widely researched, but preliminary findings from an NSPCC and London Grid for Learning (LGfL) survey of nearly 40,000[4] children between the ages of 7 and 16 indicate that high numbers of young people are experiencing inappropriate contact from adults. The survey showed that 24 per cent of primary school-aged children and 11 per cent of secondary school-aged children who have livestreamed reported seeing something in a livestream that made

them feel uncomfortable; 6 per cent of primary-age and 5 per cent of secondary-age young people who livestream reported being asked to change their clothes or remove an item of clothing.[5] Concerningly, a greater proportion of primary school-aged children have experienced inappropriate contact from adults than secondary school-aged children, something that is reflected in Internet Watch Foundation (IWF) research.

6 per cent of primary-age and 5 per cent of secondary-age young people who livestream reported being asked to change their clothes or remove an item of clothing

IWF analysis of livestreamed child sexual abuse found that of the 2,082

videos and images assessed between August and October 2017, 96 per cent of the imagery featured girls and 98 per cent of the imagery depicted children assessed to be 13 years old or younger. The vast majority of the imagery (96 per cent) showed children on their own, typically in a home setting, and all of the imagery had been harvested from its original location and redistributed on other websites meaning that the young people featured are unlikely to be aware that their livestreams were recorded.[6]

Livestreaming is live, visual and unpredictable and presents distinct and enhanced risks compared to other forms of social media. With ever-growing numbers of young people engaging in livestreaming, it is vital that the government ensures these risks are managed as part of its regulatory duty of care proposals.

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4   Surveys were completed by children at school as part of their school day. A high proportion of children were from the South East of England (25,987) but the whole of the UK was represented: England (exc. South East) 10,957; Scotland 2,365; Wales 435; and Northern Ireland 83.
5   NSPCC and LGfL (2018) Livestreaming and video-chatting: Snapshot 2. London: NSPCC.
6   IWF (2018) Trends in Online Child Sexual Exploitation: Examining the Distribution of Captures of Live-streamed Child Sexual Abuse. Cambridge, UK: IWF.

Indicator 8

Survey responses: advice-seeking and awareness

Key messages

- 95 per cent of children aged 8 to 11 and 96 per cent of children aged 12 to 15 were given information about keeping safe online.

- 30 per cent of surveyed children said that their parent/carer spoke to them about online safety at least once a month.

- 78 per cent of parents/carers agree with the statement "I feel I know enough to help my child stay safe online".

- 62 per cent of surveyed key professionals[1] in primary schools and 84 per cent in secondary schools said they were confident in their understanding of online threats.

Why is this measure important?

The measures in this indicator seek to show the extent to which children are being given advice about staying safe online and about who is giving this advice. Importantly, it also explores the extent to which parents/carers and teachers feel that they are equipped to keep children safe online. This allows us to consider whether children, parents/carers and teachers currently know enough to keep children safe online and if and where there may be areas for improvement.

Points to consider when looking at this data

The data in this indicator come from interviews and surveys. Although it provides an important insight into children's, parents'/carers' and teachers' awareness of online safety and their advice-seeking behaviour, there are some key points that must be considered before using this information.

- How representative survey results are of the wider population is affected by sample size and selection. Results can also be affected by how questions are asked and whether respondents answer them accurately.

- Surveys focused on children in specific age ranges, which means that results must be confined to children of that age and cannot be treated as indicating the experiences of children of all ages.

- The Ofcom findings come from interviews with both parents/carers and children. It is based on a representative sample of the UK population. This means that results can be extrapolated for the whole population, but it must be noted that a relatively small sample size, of 1,430 parents of children aged 5 to 15 and children aged 8 to 15 and 630 parents of children aged 3–4, was used.

- The NSPCC's and O2's Net Aware results are taken from a survey that did not use a representative sample. Therefore, data cannot be extrapolated across the whole population.

- Research from RM Education, a company that specialises in providing information technology products and services to educational institutions, is based on a sample of education professionals who were either on their school's senior leadership team, the designated safeguarding lead or the school's network manager about online safety. The sample was selected to represent schools from across the UK of different sizes, types and sectors. Efforts were made to make the sample as representative of UK schools as possible, but samples are not representative of all education professionals.

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1 Members of their senior leadership team, the designated safeguarding lead or the school's network manager.

Who children would tell if they saw something worrying or nasty online
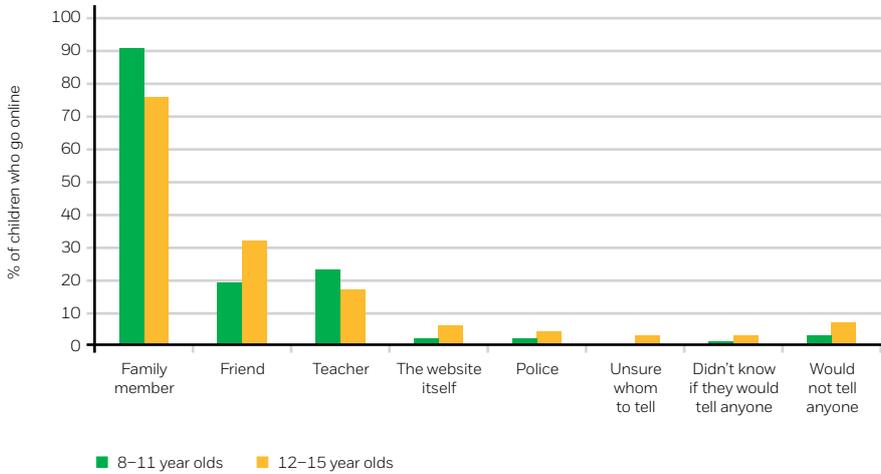
% of children who go online

■ 8–11 year olds   ■ 12–15 year olds

Ofcom research in 2018 collected responses from 456 children aged 8 to 11 and 480 children aged 12 to 15 who go online about whether they would tell someone if they saw something worrying or nasty, and if so, whom they would tell. Children could name more than one person.

- The most common answer from both age groups was that they would tell a family member.

- 91 per cent of children aged 8 to 11 and 76 per cent of children aged 12 to 15 said that they would tell a family member.

- 7 per cent of children aged 12 to 15 and 3 per cent of those aged 8 to 11 said that they would not tell anyone.

Children who have been given information about staying safe online

% of children who go online

■ 8–11 year olds   ■ 12–15 year olds
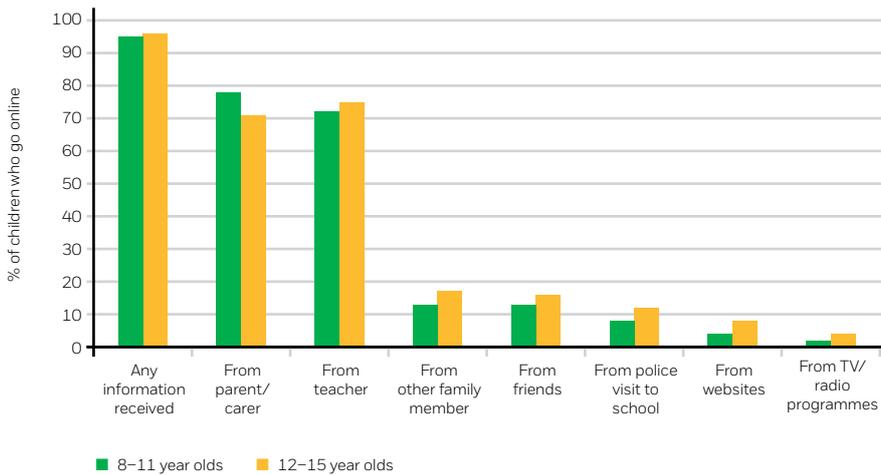
Ofcom research in 2018 collected responses from 456 children aged 8–11 and 480 children aged 12–15 who go online about whether they have been given information and advice about staying safe online and whom that advice was from.

- 95 per cent of interviewees aged 8 to 11 said they had received information about using the internet safely. For those aged 12 to 15, this figure was 96 per cent.

- The most common sources of online safety information for children aged 8 to 11 were parents/carers (78 per cent) and then teachers (72 per cent).

- For children aged 12 to 15, these figures were reversed, with the most common source of information being teachers (75 per cent) and then parents/carers (71 per cent).

How often children said their parent/carer chatted to them about keeping safe online

- Once a week
- Once every two weeks
- Once a month
- Once every few months
- Once or twice ever
- They have not done this
- Don't know/Prefer not to say
- No response
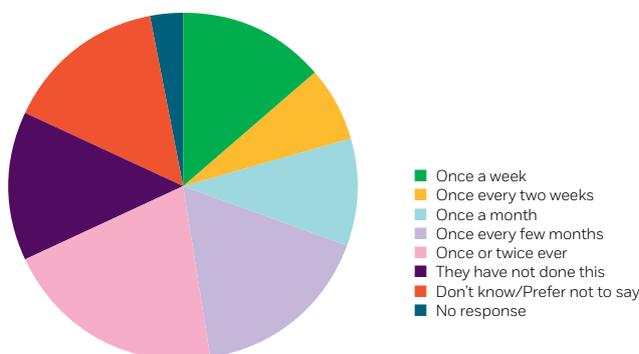
The NSPCC's and O2's Net Aware research in 2018 asked 2,059 children how often their parent/carer chatted to them about keeping safe online.

While 30 per cent of children said that their parent or carer had chatted to them about keeping safe online at least once a month, 14 per cent said their parents/carers had never done so, and 15 per cent said that they didn't know or preferred not to say whether they had had online safety conversations with their parent/carer.

Agreement with the statement "I feel I know enough to help my child stay safe online"

- Agree
- Don't know
- Disagree
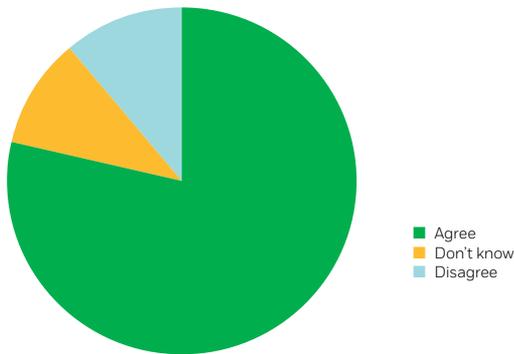
Ofcom collected responses from 1,304 parents/carers of children aged 5 to 15 who went online on whether they agreed with the statement "I feel I know enough to help my child to stay safe online".

- 11 per cent of parents/carers interviewed said they disagreed with the statement and felt that they did not know enough to keep their children safe online.
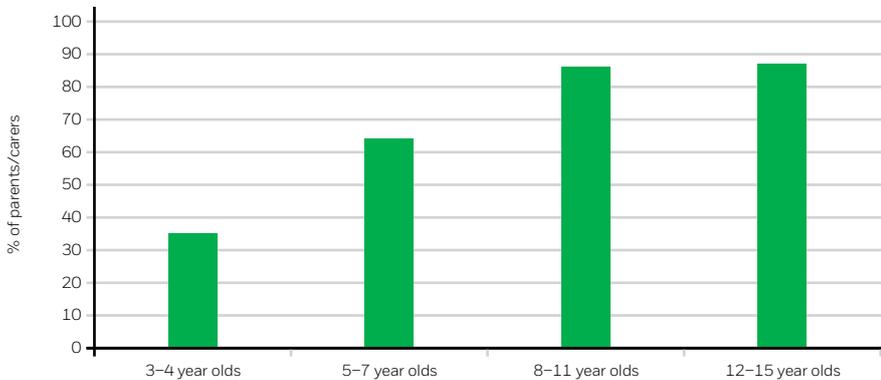
- 78 per cent of parents/carers agreed with the statement and felt they were informed enough to ensure their child's safety when using the internet.

Parents/carers talking to their child about staying safe online

As part of the same survey, Ofcom asked parents/carers whether they had ever talked to their child about how to stay safe online.

The older their child was, the more likely a parent/carer was to have spoken to them.

87 per cent of parents/carers of 12 to 15 year olds said they had spoken to their child about online safety, compared with 35 per cent of parents/carers of 3 to 4 year olds.

Education professionals' confidence in their understanding of the threat students face when online

- High confidence (9–10)
- Reasonable confidence (7–8)
- Unconfident (0–6)
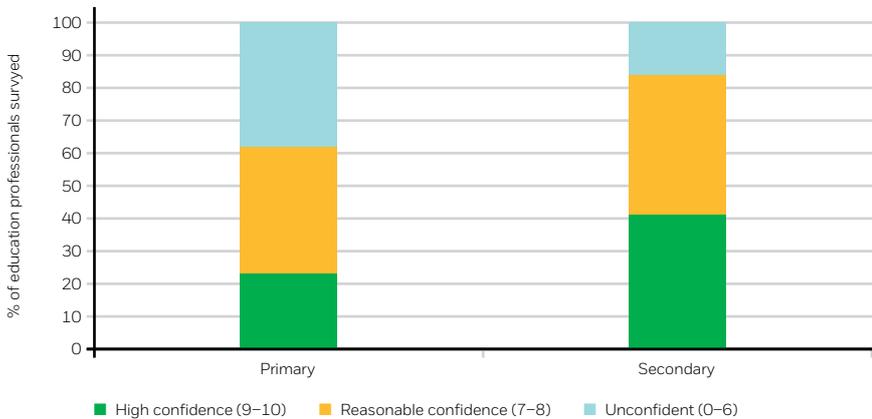
Research from RM Education was based on a survey of 1,158 education professionals who were either on their school's senior leadership team, the designated safeguarding lead or the school's network manager.

Respondents were asked to score how confident they felt in their understanding of the threat students face when online on a scale of 0–10, where 0 was not at all confident and 10 was very confident.

- 62 per cent of education professionals in primary schools and 84 per cent in secondary schools considered themselves to be reasonably or highly confident in their understanding of the threat students face online, giving themselves a score of 7 or higher.

- The remaining 38 per cent of respondents in primary schools and 16 per cent in secondary schools considered themselves unconfident, giving themselves a score of 6 or less.

Data sources:
NSPCC (2018) Net Aware research on file with the NSPCC
Ofcom (2019) Children and parents: media use and attitudes report. London: Ofcom
RM Education (2019) Data on file with the NSPCC

Indicator 9

Survey responses: taking action to stay safe online

Key messages

- Less than half (44 per cent) of children aged 12 to 15 said they knew how to change their settings to control who could view their social media.

- 68 per cent of 12 to 15 year olds interviewed knew how to report content they saw online that they found worrying or nasty.

- 37 per cent of parents/carers said they used all four strategies suggested by Ofcom to keep children safe online.

- More than 95 per cent of surveyed network managers said their school had filtering in place across their networks.

Why is this measure important?

In the previous indicator we looked at the awareness of children, parents/carers and teachers around online safety issues and their confidence in seeking advice. This indicator moves on to examine the extent to which children, parents/carers and schools are aware of, and are making use of, existing online safety tools.

This will allow us to consider whether measures already in place are being used to their full potential to keep children safe online. It also shows the gap between awareness of online safety and actual action being taken to keep children safe.

Points to consider when looking at this data

The measures used in this indicator come from interviews and surveys. Although it provides an important insight into the actions that children, parents/carers and teachers are taking to keep children safe online, there are some key points that must be considered before using this information.

- How representative survey results are of the wider population is affected by sample size and selection. Results can also be affected by how questions are asked and whether respondents answer them accurately.

- The findings from Ofcom are based on a representative sample of the UK population. This means that it can be extrapolated for the whole population, but it must be noted that a relatively small sample size, of 1,430 parents of children aged 5 to 15 and children aged 8 to 15, was used.

- Results from the Ofcom research focus on children in specific age ranges, which means they must be confined to children of that age and cannot be treated as indicating the experiences of children of all ages.

- Research from RM Education, a company that specialises in providing information technology products and services to educational institutions, is based on a sample of education professionals who were either on their school's senior leadership team, the designated safeguarding lead or the school's network manager about online safety. The sample was selected to represent schools from across the UK of different sizes, types and sectors. Efforts were made to make the sample as representative of UK schools as possible, but samples are not representative of all education professionals.

Use or knowledge of "safe" online measures among children aged 12–15

% of children

Block messages on social media from someone you don't want to hear from

Change the settings so fewer people can view your social media profile

■ Know how ■ Have done
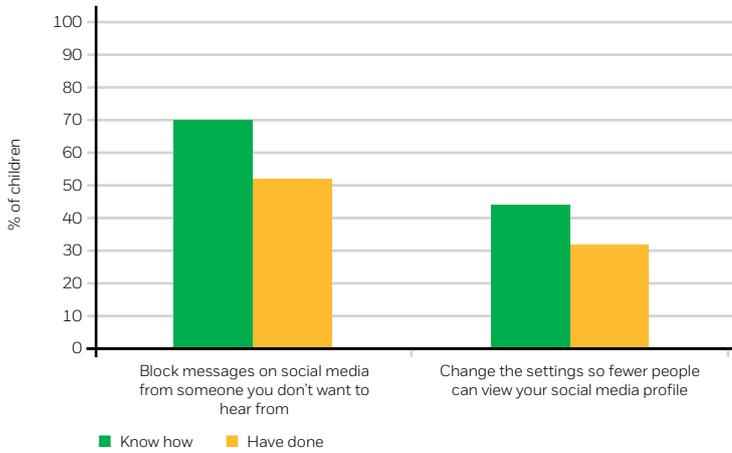
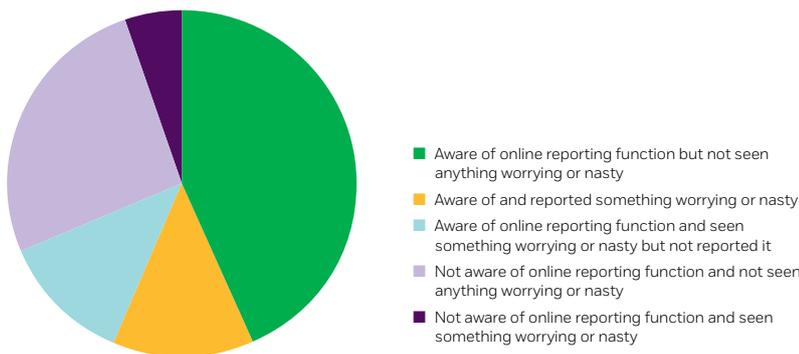In an Ofcom survey in 2018 a representative sample of children aged 12 to 15 were asked whether they knew about or had used online safety measures.

Of the 440 children who opted to answer the questions, 70 per cent said that they knew how to block messages on social media from someone they didn't want to hear from. Just over half – 52 per cent – said they had done so.

A lower figure of 44 per cent of children said they knew how to change their settings so that fewer people could view their social media profile. On this, 32 per cent said they had done so.

Awareness and use of online reporting function for worrying or nasty online content among children aged 12–15

■ Aware of online reporting function but not seen anything worrying or nasty

■ Aware of and reported something worrying or nasty

■ Aware of online reporting function and seen something worrying or nasty but not reported it

■ Not aware of online reporting function and not seen anything worrying or nasty

■ Not aware of online reporting function and seen something worrying or nasty

The same study collected responses from 480 children aged 12 to 15 who go online about their awareness and use of online reporting functions for worrying or nasty content.

A majority of interviewees said they knew that they could report worrying or nasty content, with a total of 68 per cent saying they were aware of online reporting functions. Fewer interviewees – 13 per cent – said they had ever reported something that they considered worrying or nasty.

Online mediation strategies used by parents/carers of children aged 5–15

■ Four mediation strategies
■ Three mediation strategies
■ Two mediation strategies
■ Rules only
■ Supervise child when online only
■ Talk to child about staying safe online only
■ Technical mediation only
■ None of these
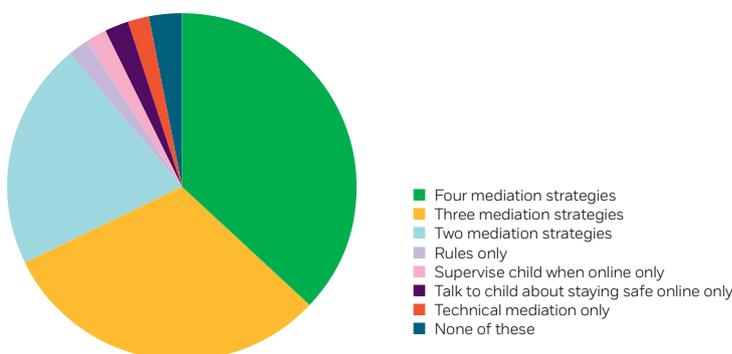
Ofcom also collected responses from 1,304 parents/carers of children aged 5 to 15 about whether they used one or more of four suggested strategies to help keep their child safe online.

The four suggested strategies were:

• technical tools, including content filters, PIN/passwords, safe search and other forms of technical mediation;
• regularly talking to their child about how to stay safe online;
• rules around what their child does online; and
• supervision when online.

Parents/carers were most likely to say they used a combination of all four strategies.

A total of 37 per cent of parents/carers said they used all four strategies. 3 per cent said they did not use any of the strategies suggested by Ofcom.

Parents'/carers' use and awareness of content filters, PIN/password, safe search etc

% of parents/carers

Content filters (ISP network level home filtering)
Content filters (parental control software e.g. Net Nanny, McAfee)
PIN/password required to enter websites unless already approved
Parental controls built into the device by the manufacturer
YouTube restricted mode enabled to filter inappropriate content
Safe search enabled on search engine websites

■ Use this   ■ Not aware   ■ Don't use this

Ofcom also collected responses from 1,128 parents/carers whose children were aged 5 to 15 and used the internet about their use of technical tools for controlling access to content online.

Parents/carers were most likely to say that they were not aware whether they were using tools or not.

Of all the tools Ofcom asked about, the ones that parents/carers were most likely to say they were using were internet service provider (ISP) level content filters. 34 per cent of parents/carers said they used this form of control.

However, it is highly likely that a much greater proportion of parents/carers were using ISP filters, because since 2014 all customers of the four biggest ISPs have automatically been opted in to web filtering.
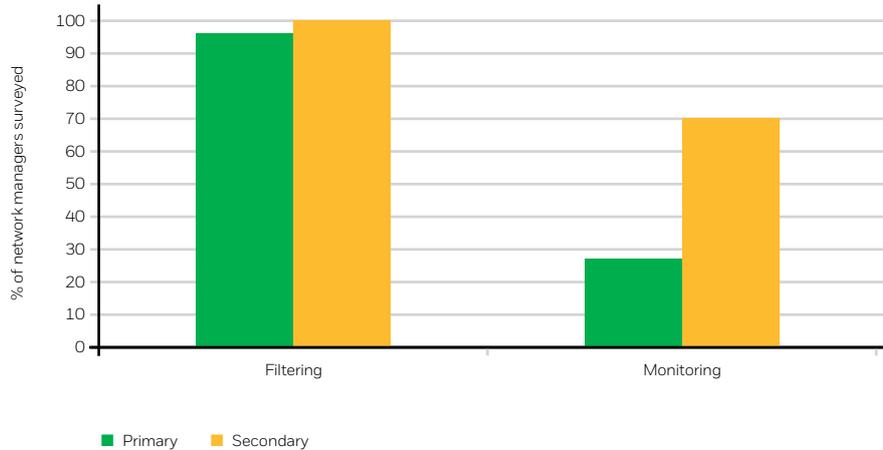
Use of filtering and monitoring by schools

% of network managers surveyed

Filtering   Monitoring

■ Primary   ■ Secondary

Research from RM Education was based on a survey which asked a sample of 471 network managers if their school had filtering or monitoring in place across their network.

- Secondary schools were more likely than primary schools to have filtering and monitoring in place across their networks.

- The vast majority of network managers reported that their schools had filtering in place (100 per cent in secondary schools and 96 per cent in primary schools).

- Schools were less likely to have monitoring in place, with 70 per cent of network managers in secondary schools and 27 per cent in primary schools saying that monitoring was in place.

Indicator 10

Survey responses: what needs to be done to improve online safety

Key messages

- 41 per cent of 11 to 18 year olds surveyed said that they thought websites, apps and games weren't doing enough to keep them safe online.

- 92 per cent of 11 to 16 year olds surveyed agreed that social media platforms should be required to protect children from inappropriate content and behaviour.

- 60 per cent of the British public disagree that social networking sites are doing enough to protect children from adults contacting them to groom them for sexual purposes.

- 92 per cent of surveyed parents of 11 to 18 year olds said they support making social networks legally responsible for keeping children safe.

Why is this measure important?

The previous indicators in this report set out the risks that children are exposed to online, and what is being done to address them. It is clear from this data that more still needs to be done.
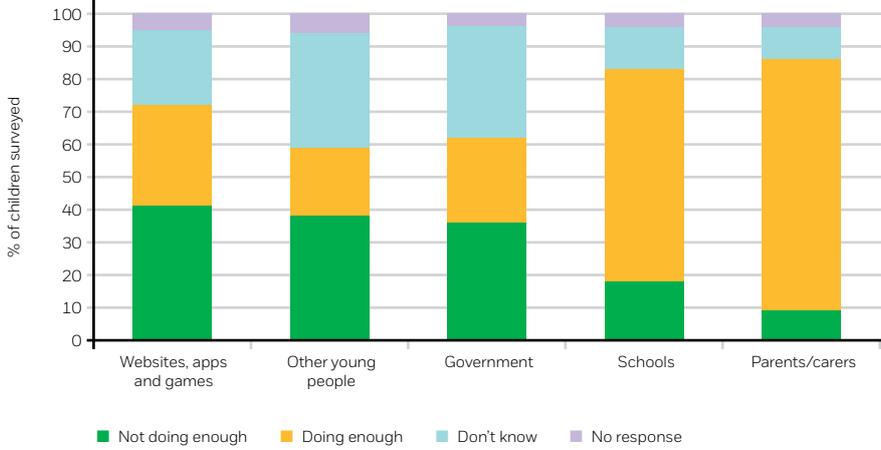
This final indicator looks at different people's perspectives on what action is required. It covers the views of the public, parents/carers and of children themselves. Looking at this data helps to demonstrate both the need and support for further action to keep children safe online.

Points to consider when looking at this data

The data in this indicator come from surveys. Although it provides an insight into children's, parents'/carers' and the general public's opinions on what more needs to be done to improve online safety, there are some key points that must be considered before using this information.

- How representative survey results are of the wider population is affected by sample size and selection. Results can also be affected by how questions are asked and whether respondents answer them accurately.

- The three surveys with children – used in the Net Aware, NSPCC and London Grid for Learning (LGfL), and ComRes research – do not come from representative samples of the UK child population, although the ComRes research did apply quotas to age bands and the NSPCC and LGfL research is based on a sample of nearly 40,000 children. This means that the results cannot be extrapolated for the population as a whole.

- All three surveys also focus on children of specific ages, so do not give an indication of the opinions of all children.

- Findings from the ComRes surveys with adults were weighted to be representative of all British adults by age, gender, region and social grade.

- The ComRes surveys asked respondents about their support for actions to improve online safety. The surveys focused on support for specific measures and did not include open-ended questions. As such, it does not represent the full range of online safety measures that the public support.
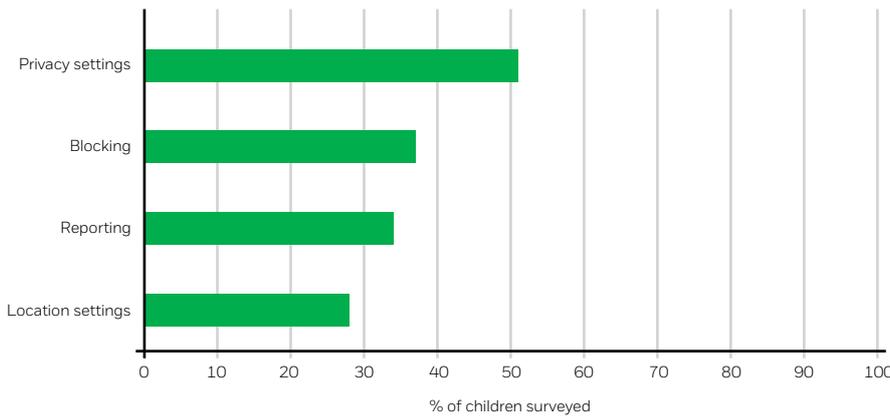
What children think about the actions being taken to keep them safe online

Y-axis: % of children surveyed (0 to 100)

Categories: Websites, apps and games | Other young people | Government | Schools | Parents/carers

Legend: ■ Not doing enough ■ Doing enough ■ Don't know ■ No response

As part of the NSPCC's and O2's 2017/18 Net Aware research, 2,059 children aged 11 to 18 from across the UK were asked if various people were doing enough to keep them safe online.

• Children were most likely to say that websites, apps and games were not doing enough to keep them safe online (41 per cent).

• The groups that children were most likely to feel were doing enough to keep them safe were parents/carers and schools (77 per cent and 65 per cent respectively).

Percentage of children surveyed who said safety measures could be better, easier or clearer on their apps, sites and games

X-axis: % of children surveyed (0 to 100)

Categories: Privacy settings | Blocking | Reporting | Location settings

NSPCC and the London Grid for Learning asked 39,834 school children aged 7 to 16 about what safety measures could be better, easier or clearer on their apps, sites and games.

• More than half (51 per cent) of children said privacy settings could be better, easier or clearer.

• 37 per cent said blocking could be better, easier or clearer.

• 34 per cent said reporting could be better, easier or clearer.

• 28 per cent said location settings could be better, easier or clearer.

Children's support for statements about their online safety

Y-axis: % of children surveyed (0 to 100)

Categories: Social networks should be required to protect children from inappropriate content and behaviour | Tech firms should have a legal responsibility to keep you safe online

Legend: ■ Agree ■ Disagree ■ Don't know
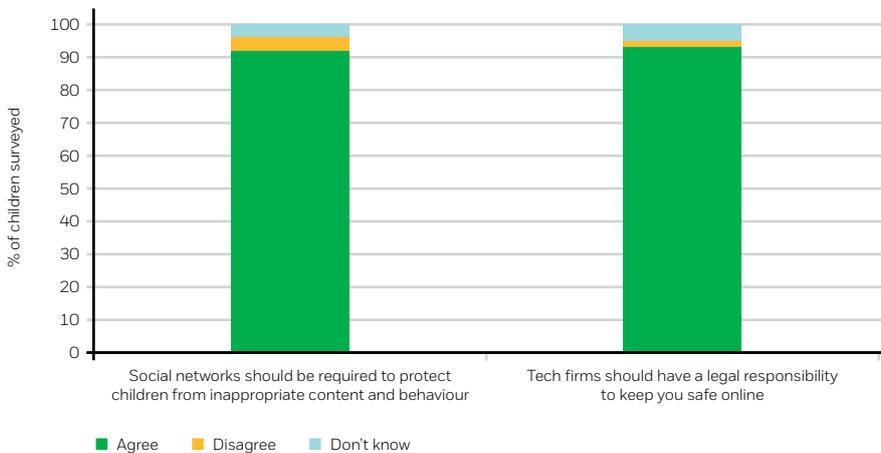
A ComRes survey, on behalf of the NSPCC, asked 2,004 children aged 11 to 16, for their opinions about online safety.

• 92 per cent of children agreed that social media platforms should be required to protect children from inappropriate content and behaviour.

• 93 per cent of children agreed that tech firms should have a legal responsibility to keep them safe online.

Public opinion on whether social networks protect children using their platforms from online risk

**Legend:** ■ Agree ■ Disagree ■ Don't know
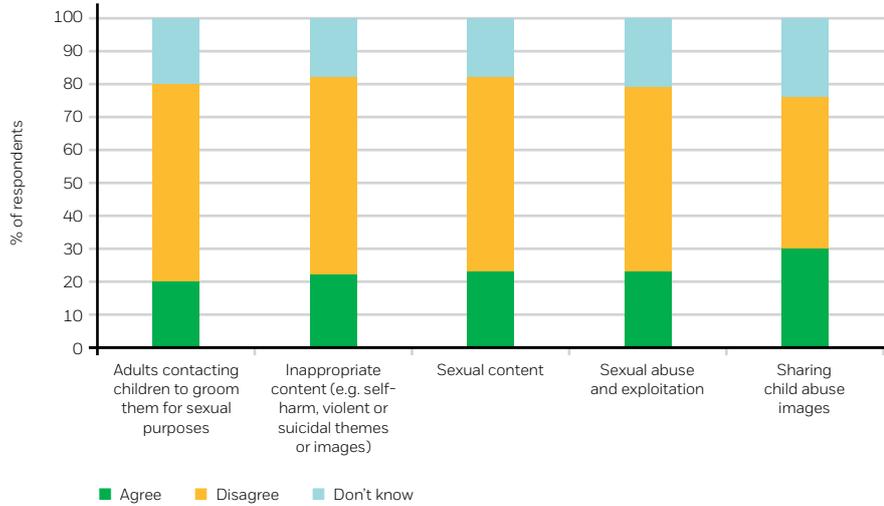
A second ComRes survey, on behalf of the NSPCC, asked 2,748 members of the British public, including a booster sample of parents of children aged 11–18, if they thought that social networks protect children who are using their platforms from online risk. Results were weighted to be representative of the adult British population by age, gender, region and social grade.

The majority of respondents did not think that social networks were doing enough to protect children.

• 60 per cent disagreed that social networks protect children from adults contacting children to groom them for sexual purposes.

• 60 per cent disagreed that social networks protect children from inappropriate content such as self-harm, violent or suicidal themes or images.

• 59 per cent disagreed that social networks protect children from sexual content.

• 56 per cent said the same regarding protection from sexual abuse and exploitation.

• 46 per cent said the same regarding protection from sharing child abuse images.

Support for the statutory regulation of social networks

Legend: ■ Support ■ Oppose ■ Don't know
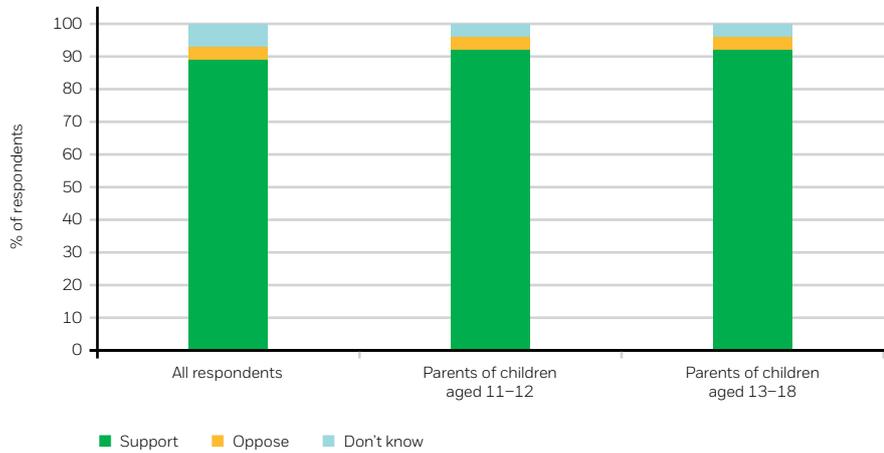
As part of the same survey, members of the British public were asked if they supported or opposed statutory regulation of social networks to make them legally responsible for keeping children safe on their platforms.

Of the 2,748 people surveyed, 89 per cent supported statutory regulation. The proportion was even higher among the 1,037 parents of 11 to 18 year olds included within this sample. 92 per cent of parents of children aged 11–12 and 92 per cent of parents of children aged 13–18 supported moves to make social networks legally responsible for keeping children safe.

Support for specific forms of statutory regulation

Social networks should be legally required to tell a regulator when they breach a child's safety

Social networks should be legally required to investigate the potential impact of new features or services, or changes to existing ones, on child safety

Social networks should face corporate prosecution for significant breaches of child safety

Platforms that breach children's safety should be required to post a prominent notice on their home page to notify users of this breach

Named company directors should be accountable for failures of children's safety on their site

Named company directors should face criminal prosecution for significant breaches of children's safety

0 10 20 30 40 50 60 70 80 90 100

% of respondents

■ Agree   ■ Disagree   ■ Don't know

A third ComRes survey with 2,070 members of the British public looked at the levels of support for a range of different forms of regulation. Results were weighted to be representative of the adult British population by age, gender, region and social grade.

Each suggestion was supported by the majority of the British public.

• 88 per cent agreed that social networks should be legally required to tell a regulator when they breach a child's safety, making it the most popular option.

Data sources:
NSPCC (2018) Net Aware research on file with the NSPCC
London Grid for Learning (LGfL) and NSPCC (2018) LGfL data on file with the NSPCC
ComRes (2019) Survey data on file with the NSPCC

Expert insight: Learning from history to protect our children's futures

Indictor 10 demonstrates the current appetite for a change in approach to how children are protected online. Here Matt Lindsay, Defence and security expert at PA Consulting, looks at findings from his company's research with organisations across government, law enforcement, the third sector and industry into what form these changes should take.

Matt Lindsay, Defence and security expert

PA Consulting is a consultancy firm and founding industry member of the WePROTECT Global Alliance, an international collaboration dedicated to ending online child sexual exploitation and abuse.

As the internet celebrates its 50th year (and the World Wide Web its 25th), its presence in every aspect of life has become a double-edged sword. On the one hand it has empowered knowledge-sharing and global communications; on the other it has exposed users to a growing range of online harms, with the greatest impact on the most vulnerable in our society.

Among the most serious harms – alongside terrorist and extremist content – is how the internet enables abusers to have greater access to children and the greater sophistication it allows in how paedophiles and organised criminal networks operate – exposing children and young people to harm in new and disturbing ways.

Online child abuse is the most significant example yet of a threat that blurs the physical and virtual worlds

Citizens have increasingly become aware of these online risks. While data privacy, intrusion and security have all been previous areas of public concern, online child abuse is the most significant example yet of a threat that blurs the physical and virtual worlds – at a time when young people are growing up more "tech savvy" than their parents and teachers.

We believe that this idea of the internet's inherent duality – that

exposure to harm is part of its wider global adoption – isn't something inevitable that we must accept. Instead, the rise of online child abuse is an opportunity to learn from history and protect future generations by rethinking the response across government, law enforcement, industry and the third sector.

This is an idea that takes centre stage in a new report by PA Consulting, *A tangled web: rethinking the approach to online CSEA (child sexual abuse and exploitation)*.[1] The report draws on PA's extensive experience in working with expert practitioners in this area and its work with the WePROTECT Global Alliance. By speaking with respondents from across the national and international landscape, PA found broad agreement on two things: that technology is significantly enabling offending, allowing increasingly sophisticated offender networks to mask their identities and share tradecraft, and that regulation alone will not be enough to stem the rising tide of online child abuse.

Instead, there's a collective appetite for increased joint working and cooperation to harness the collective skills and capacity of organisations across the landscape.

The first two eras of consumer concern

One only needs to look back at the history of protections against internet-related threats to see

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1   PA Consulting (2019) *A tangled web: rethinking the approach to online CSEA*. London: PA Consulting

the way a collective action can enhance the response and alleviate consumer concerns.

For example, the early widespread adoption of the internet saw the rise of hacking, outbreaks of viruses, denial of service attacks and online fraud. With this, the first era of consumer concern became a force for change.

To stem the damage, multiple parties – industry, government and law enforcement – took steps to improve their approach. The development of antivirus technology, security standards, new legislation and the creation of the National Cyber Security Centre (NCSC) all helped to create a more robust collective response to the dominant online threat of that era.

More recently, high-profile cases such as Cambridge Analytica and the rise of WikiLeaks shifted public concern towards mass intrusion of privacy and inappropriate use of personal data. This second era of consumer concern drove the arrival of "ubiquitous encryption" (the commonplace use of encryption mechanisms for everyday purposes such as web browsing and instant messengers), social media privacy controls by default and privacy standards, along with legislation in the form of the General Data Protection Regulations and the Investigatory Powers Act. Furthermore, it led to the introduction of the Information Commissioner's Office and the Investigatory Powers Commissioner's Office in the UK.

The third era of consumer concern – online harms

Which brings us to the third era of consumer concern. The suicide of Molly Russell, the livestreaming on social media of the Christchurch terrorist attack, and wider public awareness of the increased exposure of young children and vulnerable people to both online child abuse material and groomers, have all energised public appetite for a stronger approach to tackling online harms.

In the technology sector we've seen content moderation algorithms for detecting harmful content, the use of Artificial Intelligence and databases such as PhotoDNA for identifying child sexual abuse material (CSAM). There are also early moves towards industry standards, including the UK Council for Child Internet Safety guidance and the Australian eSafety Commissioner's upcoming "Safety by Design" frameworks.

Companies such as Gooseberry Planet (an online safety education platform), Crisp and Two Hats Security (content moderation providers), and Super Awesome (which designs safer online platforms for children and young users) have started to specialise in online safety. Meanwhile, in the government space we may see new legislation and an independent regulator after the consultation resulting from the recently published online harms white paper.

We've seen significant strides made in the third sector around the removal of indecent material, research and policy development, government and industry engagement, and supporting victims and those at risk.

At a law enforcement level, the national Serious and Organised Crime Strategy has set out a "whole system" approach that aims to put the online child abuse mission on the same footing as the collective responses to counter-terrorism and cyber security. The UK approach is widely regarded as an international exemplar, with more than 400 offenders arrested each month and more than 500 children safeguarded.[2]

The missing piece?

While progress has been made across separate strands of the approach towards online child abuse, PA's research identified the need for a single entity – an Online Harms Safety Centre (OHSC) – to orchestrate the collective skills and capacity of organisations involved, allowing them to play to their primary areas of expertise while jointly tackling the end-to-end threat. More than ever before, the nature of the online child abuse threat requires an enhanced approach from those involved in the response – both individually and in terms of overall coordination.

> More than ever before, the nature of the online child abuse threat requires an enhanced approach from those involved in the response

PA believes that the government should create the OHSC, but that it should sit independently, replicating models established by the National Cyber Security Centre.

Eventually, they envisage that the OHSC could become the central coordination entity for all activity across the online harms landscape, including preventing extremism, intolerance, self-harm and suicide-related material.

The recommendations outlined in *A tangled web: rethinking the approach to online CSEA* can help to protect society's most vulnerable and shape a positive human future – that's something truly worth working towards.

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2   National Crime Agency (2019) *Four-year-olds taught for the first time about online dangers as threat increases*. NCA news, March 2019 [Accessed 21/05/2019]

Glossary

Childline counselling sessions

Childline is the UK's 24-hour helpline for children and young people. Because Childline is an anonymous helpline, it is not always possible to know if people are contacting multiple times. Therefore data for Childline relates to counselling sessions rather than the number of individuals who contact the service.

Children and young people can decide what they want to talk to Childline about, and they may raise a number of concerns during a counselling session. It's up to children and young people to decide how much, or how little, information they want to share.

The recording system helps to capture information about what children and young people are telling Childline, and enables supervisors to decide what action needs to be taken if there is a safety concern.

The issue that the young person talks about the most is recorded as the "main concern". Other issues that come up during the counselling session are recorded as "sub-concerns".

As Childline data comes from a recording system that's used by nearly 1,500 volunteers, it has limitations when compared with a more controlled collection and analysis of data designed around a specific research framework.

Child sexual abuse images

Child sexual abuse images are a visual record of the sexual abuse of a child. They can include images, photographs, pseudo-photographs, animations, drawings, tracings, videos and films. They are defined in a number of pieces of UK legislation.[1]

Grooming

Grooming is "a process by which a person prepares a child, significant adults and the environment for the abuse of the child".[2] Grooming can happen anywhere, including:

- online;
- in organisations; and
- in public spaces (also known as street grooming).[3]

Children and young people can be groomed by a stranger or by someone they know – such as a family member, friend or professional. The age gap between a child and their groomer can be relatively small.[4]

Grooming is an offence category used by the police in all four nations of the UK. In England, Wales and Northern Ireland it includes both the offence of sexual communication with a child and offences where a person aged 18 or over meets up with a child under the age of 16 following sexual grooming. In Scotland the offence covers cases where a person aged 18 or over meets up with a child under the age of 16 following sexual grooming. Offences involving communicating indecently with a child are counted separately.

Livestreaming

Livestreaming refers to the broadcasting of live video to an audience in real time. Viewers can participate in the livestream by sending "likes" or "hearts" to the streamer (ie, the person broadcasting) and by sharing text comments that can be seen by the streamer and other viewers. Some livestreaming platforms allow multiple streamers to join the same live video. Social networks such as Twitch and Yubo are primarily livestreaming platforms; other more established platforms, such as Facebook, Instagram, YouTube and Twitter, have embedded livestreaming functionality into their service.

Net Aware

Net Aware is the guide from the NSPCC and O2 to the top sites, apps and games that children and young people use. It is designed to help parents/carers understand the risks of these sites, the types of content that young people might be exposed to and the settings and features available to help keep them safe. To keep this guide up to date parents/carers and young people are asked to review the most popular apps, sites and games on an annual basis. Data is collected on: each platform's safety features, the types of inappropriate content that parents/carers and young people have come across on these sites and what they like and dislike about each platform. Young people are also asked some general questions about online safety.

NSPCC helpline contacts

The NSPCC helpline offers advice and support to adults who are worried about the safety or welfare of a child. Adults can contact the helpline by phone or online to get advice or share their concerns about a child, anonymously if they wish. A contact to the helpline may result in advice, or it may result in a referral being made to an external agency, such as children's services or the police.

Recording systems for the helpline are primarily designed to allow practitioners to respond appropriately to the concerns of adults. The data also provides useful information

1 Protection of Children Act 1978 (England and Wales); Civic Govt Act 1982 (Scotland); Sexual Offences Act: key changes England and Wales; Memorandum of sexual offences: section 46 of Sexual Offences Act 2003; Police and Justice Act 2006; Criminal Justice and Immigration Act 2008.
2 Craven, S., Brown, S. and Gilchrist, E. (2006) Sexual grooming of children: review of literature and theoretical considerations. Journal of sexual aggression: 12(3): 287–299.
3 McAlinden, A. (2012) 'Grooming' and the sexual abuse of children: institutional, internet, and familial dimensions. Oxford: Oxford University Press.
4 NSPCC and O2 (2016) "What should I do?": NSPCC helplines: responding to children's and parents' concerns about sexual content online. [London]: NSPCC.

about the types of issues affecting children. However, it does have its limitations when compared with more controlled collection and analysis of data designed around a specific research framework.

Obscene publications

Obscene publications is an offence group used in recorded crime statistics in England, Wales and Northern Ireland which includes offences involving child sexual abuse images. It also covers offences involving extreme pornographic images. In Scotland the closest equivalent offence is taking or distributing indecent photos of children.

Onion sites

Onion sites are websites that make up part of the invisible part of the internet sometimes known as the dark web. The sites sit behind layers of anonymity which make them, and the people using them, very hard to trace.

Online crime flag

The online crime flag is used in England, Wales and Northern Ireland when a police officer believes that on the balance of probability an offence was committed, in full or in part, through a computer, computer network or other computer-enabled device. It was introduced to help to provide a picture of the extent to which the internet and digital communications technology are being used to commit crimes. In Scotland there has been a requirement to identify and record instances of cyber-crime using a defined marker since April 2016. However this is still being implemented and developed.

Further guidance on how the online crime flag should be used is available for England and Wales in the Home Office Counting rules for recorded crime guidance.[5] The Police Service for Northern Ireland follows the same guidance.

Online harm and abuse

Online abuse is abuse that is facilitated using internet-connected technology. It may take place through social media, online games, or other channels of digital communication. Children can also be re-victimised if evidence of their abuse is recorded or uploaded online. Technology can facilitate a number of illegal abusive behaviours including, but not limited to: harassment; stalking; threatening behaviour; child sexual abuse material; inciting a child to sexual activity; sexual exploitation; grooming; sexual communication with a child; and, causing a child to view images or watch videos of a sexual act. Using technology to facilitate any of the above activities is online abuse.

Alongside those illegal activities that are perpetrated online and constitute abuse, children may also be exposed to online harms, such as inappropriate behaviours or content online. For instance, children may be bullied online by their peers or they might, either accidentally or intentionally, view content which is intended for adults. Both online abuse and exposure to unsuitable content or behaviour can have a long-lasting impact on the wellbeing of children and young people.

Police-recorded offences

Police record a crime if, on the balance of probabilities, the circumstances as reported amount to a crime as defined by law and if there is no credible evidence to the contrary.

Sexual communication with a child

In England, Wales and Northern Ireland, the offence of sexual communication with a child criminalises a person aged 18 years or over who communicates with a child under the age of 16 (whom the adult does not reasonably believe to be 16 or over), if the communication is sexual or if it is intended to elicit from the child a communication which is sexual. The equivalent offence in Scotland is Communicating indecently with a child.

Sexting

Sexting is the exchange of sexual messages or self-generated sexual images or videos through mobile phones or the internet.

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5   Home Office (2019) Home Office rules for recorded crime: crime flags. London: Home Office

Social media platforms

Social media platforms are websites and applications that enable users to create and share content or to participate in social networking.

Short definitions of the social media platforms mentioned in this report are outlined below. All definitions come from Net Aware, the NSPCC's and O2's guide to the top sites, apps and games that children and young people use.

Facebook and Facebook Messenger
A social network which lets users create a page about themselves, add friends, write on people's pages and share photos and videos including live videos. Facebook Messenger allows users to instant message in group chats or one to one.

Instagram
A picture and video sharing app. Users can post content and use hashtags to share experiences, thoughts or memories with an online community. Users can follow friends, families, celebrities or companies on Instagram. Instagram allows livestreaming.

WhatsApp
WhatsApp is an instant messaging app with end-to-end encryption which allows users to send messages, images and videos in one to one and group chats with contacts. Users can choose to share their live location for up to eight hours with one contact or a group.

YouTube
A site which allows users to watch, create and comment on videos. Users can create their own YouTube account, create a music playlist, and create their own channel. YouTube allows livestreaming.

Snapchat
An app which lets users send a photo, short video or message to contacts. The 'snap' usually appears temporarily before disappearing. Or there's an option to have no time limit. There's also the Stories feature that lets you share snaps in a sequence for up to 24 hours.

Twitter
A social media site and app which lets users post public messages called tweets. These can be up to 280 characters long. As well as tweets users can send private messages and post pictures and videos. Twitter allows livestreaming

Skype
A computer programme and app which lets users make audio and video calls to other users around the world. It also allows users to send instant messages.

TikTok
A social media app where users can record and upload short video clips. Users can watch clips posted by other members and can set their own videos to be viewed publicly to other users or privately to friends. In 2018 TikTok merged with the social media site Musical.ly.

Twitch
A live video game website on which users can watch playbacks of games being played by other people. Users can also live stream their own games and chat to other gamers. Users can follow channels and games they want to keep track of. Twitch allows livestreaming.

Discord
A voice and text app and site designed for gamers. It allows users to voice and text chat across different platforms. Users can only message each other if they have accepted a follow request.

Yubo
An app which allows users to connect and chat to new people. Users can swipe right on a profile to "like" someone or swipe left to pass on to the next profile. Yubo allows livestreaming. 13 to 18 year olds need parental permission to sign up, and join a separate Yubo community that is for under-18s only.

URL

URL is an acronym for Uniform Resource Locator and is the address of a website.

NSPCC

Everyone who comes into contact with children and young people has a responsibility to keep them safe. At the NSPCC, we help individuals and organisations to do this.

We provide a range of online and face-to-face training courses. We keep you up to date with the latest child protection policy, practice and research and help you to understand and respond to your safeguarding challenges. And we share our knowledge of what works to help you deliver services for children and families.

It means together we can help children who've been abused to rebuild their lives. Together we can protect children at risk. And, together, we can find the best ways of preventing child abuse from ever happening.

But it's only with your support, working together, that we can be there to make children safer right across the UK.

nspcc.org.uk/learning

EVERY CHILDHOOD IS WORTH FIGHTING FOR