

Research into risk factors that may lead children to harm online





About Revealing Reality

Revealing Reality is an independent social research agency, working with regulators, government, and charities to provide independent and rigorous insight into young people's online behaviours and experiences.

Studying how the digital world is shaping people's lives is something we do every day. We have been tracking children's media use and the impact it has on them for the past eight years as part of Ofcom's Children's Media Lives research, and we've conducted some of the most detailed qualitative and quantitative behavioural research on digital behaviours, observing how people really use digital products, services, and technology.

Visit https://www.revealingreality.co.uk/ to find out more about our work or to get in touch.

Revealing Reality has a strict Ethics and Safeguarding Policy¹ in place to ensure, as far as possible, that taking part in research is a positive experience for children and that they are not placed under any undue risk, stress, or discomfort during the project. This policy is reviewed regularly to ensure that it is in line with all industry standards, including those of the Market Research Society and the Government Social Research Service.

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ANNEX 2 - Revealing Reality Safeguarding and Ethics Policy

Foreword by Ofcom

Ofcom has a statutory duty to promote and research media literacy. A key way we seek to fulfil this duty is through our *Making Sense of Media* programme, which aims to help improve the online skills, knowledge and understanding of children and adults in the UK. Ofcom was also given powers in autumn 2020 to regulate UK-established video-sharing platforms (VSPs). And in December 2020, the Government confirmed its intention to nominate Ofcom as the regulator for online safety in the UK, under the Online Safety Bill, which is currently in Parliament.

As referenced in our <u>Roadmap to Online Safety Regulation</u>, this report is one in a series of research studies into online safety that will inform our preparations for implementing the new online safety laws. As part of these preparations, we are building a robust evidence base, bringing together internal and external data, collected using different methods, from a variety of different sources.

In this context, this programme of research further develops our understanding of online harms and how we can help to promote a safer user experience. The findings should not be considered a reflection of any policy position that Ofcom may adopt when we take up our role as the online safety regulator.

Research into risk factors that may lead children to harm online

The Online Safety Bill, as it is currently drafted, will require us to assess and publish our findings about the risks of harm presented by content that children may encounter online. The Bill will require in-scope services that are likely to be accessed by children to assess the risks of harm to children who are users of their service, and to put in place proportionate systems and processes designed to mitigate and manage these risks.

Children can face a range of risks online, and the harms they may experience are wide-ranging, complex, and nuanced. In addition, the severity of the harm can vary between children. In light of this complexity, we need to understand the mechanisms by which online content and conduct may give rise to harm, and use that insight to inform our work, including our guidance to regulated services about how they might comply with their duties.

We commissioned Revealing Reality to conduct research into the *risk factors that may lead children to harm online* to build upon our evidence base. This research explores how different risk factors combine to increase the likelihood of harm to children and the findings will be used to help us understand what is required to help keep children safe online. It forms a foundation to build future research and contributes to ongoing policy development.

This report sets out the various risk factors along a child's online journey that may contribute to them encountering harm online. There are a couple of important considerations when reading this report:

- The research goes beyond platforms' systems and processes to help shed light on the bigger picture
 about what children are experiencing online. It therefore touches on issues that are beyond the scope
 of the proposed online safety regime.
- It reflects children's views and experiences of their online world: it is based on children self-identifying as having experienced 'harm'. Participants' definitions of harmful content may differ and do not necessarily align with how the Online Safety Bill, Ofcom or others may define them.

Use of trigger warnings in the report

This report will reference harms and experiences that some readers may find distressing. When this is the case, content will have a trigger warning which will be a triangle symbol with an exclamation mark inside. A brief description of the upcoming content will also be provided. Overleaf is a list of all types of harm mentioned in the report.

Trigger warning

This report contains descriptions of content or experiences, or allusions to topics that some people may find distressing, including:

- Abusive and threatening comments and posts
- Gore content
- Cyberflashing/unsolicited sharing of nudes
- Intimate image abuse
- Sexual violence
- Physical violence
- Misogynistic/sexist content
- Homophobic and transphobic content
- Eating disorders
- Self-harm and suicide
- Financial scams

Throughout the report the warning sign (right) is used to serve as a trigger warning.



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Executive summary

This project set out to explore children's journeys to experiencing harm online, and specifically to attempt to map the risk factors that make this more or less likely.

The research was conducted among 42 children, aged 7 to 17, and their parents/carers. It included in-person ethnographic interviews and observation, digital diaries, screen recording and social media tracking, and further follow-up remote interviewing. Context is central to understanding the various factors that influence the journey to harm, and this research puts children's online experiences front and centre.

Key findings:

Children's lives are increasingly enmeshed with the online world

The research found that many of the children felt it was very difficult to disengage from online platforms. Some were spending a huge amount of time online and were consuming large quantities of content there. They relied on online spaces for activities across all areas of their lives – including friendship, connection, education and engaging with culture - and struggled to imagine what life would be like without the internet.

They experienced a range of harms online, with varying impact

Based on how the children and/or their parents described the impacts they'd experienced, the severity of negative effects was seen to vary. These effects ranged from minimal transient emotional upset (such as confusion or anger), through short-term behaviour change or deep emotional impact (such as physical aggression or short-term food restriction), to far-reaching, severe psychological and physical harm (such as social withdrawal or self-harm).

Online harm occurred to the children through various routes

How harm occurred was characterised by whether the children's exposure to online hazards² (such as the content they see) was isolated or cumulative and whether their engagement with the hazard was active or passive. It also emerged that harm could occur immediately and/or after some time had passed. Harm could be as a result of direct exposure to hazards, for example, content a child had seen, or indirectly, for example, content about the child that others had seen.

Across the research, the factors shaping the routes to harm were most commonly grouped in the following ways:

- I. Isolated exposure to a hazard that caused immediate, but often quite transient and minimal, harm
 - o E.g., stumbling across or being sent a violent or sexual video in a social media feed
- 2. Cumulative passive exposure to hazards over time that can build up to cause more significant harm
 - o E.g., being immersed in body-focused content in social media feeds
- 3. Cumulative active engagement with hazards over time that can self-reinforce behaviour to cause significant and severe harm
 - E.g., engaging with and participating in pro-anorexia communities online

² A hazard is the 'thing' that someone encounters online – such as content seen or contact with another user. See page 9 of this report for further explanation.

The children more readily remembered and described the first route given the often shocking nature of the content and its contrast to the other content they saw online. They found it more difficult to report on the latter two routes whereby harm occurred because of longer-term, cumulative exposure to content online, especially where that experience was self-reinforcing and active. However, it seems the latter two routes were typically where more severe and long-lasting harm had occurred.

Risk factors appeared to overlap on the journey to harm

A wide range of risk factors associated with the child themselves, the platforms on which they were spending time, and the nature of the content they were consuming, have been identified from this research.³ The evidence points to these risk factors when they appear to coincide or frequently co-occur with harm experienced by children.

Circumstances and characteristics of children that may contribute to risk of harm include the engagement, oversight and media/digital literacy of their parents, a child's pre-existing vulnerabilities such as SEND⁴, existing mental health conditions and social isolation, offline challenges such as bullying or peer pressure, and feelings such as low self-esteem or poor body image.

Design features and functionalities of platforms that appeared to exacerbate risk of harm included those which encouraged and enabled children to build large networks of people, often who they didn't know, and those that exposed children to content and connections that they hadn't selected or pro-actively sought.

Few children were engaging with safety features that may have decreased their risk of harm either through scepticism that they would work or fear of restricting access to functions that they wanted to use. Some used false dates of birth when setting up their platform profiles to gain access to platforms, therefore placing themselves at risk of seeing age-inappropriate content or contact. Children do not always realise or recognise this risk, instead driven by a desire to use these platforms and not miss out on what others are doing.

Content that children were exposed to online that appeared most likely to lead to harm included that which was particularly personally relevant, e.g., targeted at them, produced by peers or relevant to their local area, or that was appealing to children because it was perceived as a solution to a problem or insecurity, or because it was seen as cool, exciting, or attached to high social status.

 $^{^{\}scriptsize 3}$ Risk factors can influence the likelihood of someone being harmed by a hazard.

⁴ SEND: Special educational needs and disabilities <u>Children with special educational needs and disabilities (SEND): Overview - GOV.UK (www.gov.uk)</u>

Introduction

About the research

Project objectives

Ofcom's specific project objectives for this research were to go beyond a descriptive account of what children are experiencing online and to explore the risk factors that may lead them to harm and why, with a focus on social media, video-sharing platforms (VSPs)⁵, gaming, and search platforms. To understand what these risk factors were, we explored the following aspects of children's online lives:

- What are children doing online? How are they using online services? What do they see and what can happen to them online?
- What shapes the journeys that they go on? What influences individual decisions or behaviours on these journeys?
- How may online experiences cause harm? What factors contribute to this?
- What are children's attitudes to online harms and what strategies do they use to navigate the online world?

This report will form part of the evidence base that is needed to introduce a regime to protect children online, including providing an understanding of the relationship between children's experiences online, the risk factors that shape those experiences, and the harm that can occur as a result. Context is key to understanding the various factors that influence the journey to harm, which is why children's experiences – both positive and negative – were placed front and centre in this research.

The study also explores various models of harm for understanding online interactions which could be applied to help make sense of children's experiences.

The term 'online harms' is often used bluntly to describe all the negative experiences and effects of life online, which can hinder meaningful analysis of how to prevent harm and protect children. This research set out to identify the causes, effects, and risk factors so that it is possible to see what makes some harms more likely to occur or have a more severe impact.

Safeguarding

The safeguarding of the children who participated in this research was a number one priority, therefore a policy was followed which sought to ensure an ethical approach was adopted and which safeguarded participants throughout the study. For more details on Revealing Reality's Ethics and Safeguarding Policy, see Annex 2.6

The identities of the participants have been protected from the beginning of the study, with no identifiable information being used in this report - each participant has been given a pseudonym throughout.

Sample

Forty-two children aged between 7 and 17 were recruited to take part in this project, across all four UK nations, with a broad spread by gender, socio-economic group, family structure, ethnicity, special educational need, device and online use.

⁵ The platforms explored in this research were those mentioned or used by the participants, who were not prompted to discuss particular platforms. They include some platforms which fall within Ofcom's list of notified VSPs (Regulating video-sharing platforms: what you need to know - Ofcom), and some outside of this.

⁶ ANNEX 2 – <u>Revealing Reality's Safeguarding and Ethics policy</u>

Seven of the children interviewed were 'looked after children', including those in foster care and residential care.

The sample included children who had a range of types and frequency of experiences online (ranging from those who had no or few negative experiences, to those who sometimes had negative experiences, and others who had frequent or significant negative experiences online).

Full details of the sample can be found in Annex 1.7

Methodology

Experiences of online harm are highly complex and can only be understood by taking a range of factors into account, beyond just what children see and say they do online. To capture this appropriately, an ethnographic approach was used for this research - meaning participants' behaviours were observed in their homes and via social media tracking. Screenshots and media diaries were also provided by participants to further understand their online lives, as well as both face-to-face and online interviews being conducted to hear from the children themselves.

Full details of the methodology can also be found in Annex 1.8

How to read this report

This report presents the key findings from all phases in the methodology noted above. In line with the objectives of the research, this enables the report to present detailed qualitative findings that illustrate children's experiences of online harm, with an emphasis on understanding the factors that may lead them to this and why.

Understanding hazards, risk factors and harm

The same online experience (e.g., exposure to a given piece of content) may cause harm to one person but not to another – in fact it could even have a positive outcome for some people depending on context and circumstances.

It is therefore essential to consider these elements separately:

- 1. The **hazard** is the 'thing' that someone encounters online such as the potentially harmful *content* seen or potentially harmful *contact* with another user. Later in this section are details of the Four Cs framework from which these categories were formed (content, contact, conduct, contract).
- 2. The **risk factors** influence the likelihood of someone being harmed by a given hazard. These can include:
 - their characteristics as a user of an online service (for example, their age or gender)
 - their circumstances (such as their state of mental health, level of social support, or the area they lived in)
 - the wider factors that impact user experiences (such as the design of the platform, the behaviour of other platform users and the societal context).
- 3. The **harm** is the negative outcome that occurs to someone as a result of exposure to hazards and is shaped by the presence of different risk factors.⁹

⁷ ANNEX I – Ofcom – Children Risk Factors – <u>Sample and Methodology</u>

⁸ ANNEX I – Ofcom – Children Risk Factors – Sample and Methodology

⁹ See section 'What harms were children experiencing online' for more detail on types of harms that have been considered







(potentially harmful content/ contact)

To fully understand experiences of online harm and people's journeys to encountering them, it is important to start by looking at the harm itself, and then work backwards to explore how and why it occurred. This allows consideration of the factors that exacerbate harm, or make it more likely, and prevents assumptions being made about what might cause it. During fieldwork and analysis for this project, exploration started with understanding whether the children had experienced harm, and when they had experienced harm, carrying out a detailed mapping of their exposure to potentially harmful hazards and presence of risk factors.

In keeping with this approach, the findings are set out in this order:

- Starting with the context of the children's online experiences in general
- Understanding when they had experience of harm
- Next describing how the harm came about, i.e., the 'route' to harm
- And finally, exploring the factors that appeared to make that harm more or less likely

Definitions of hazards used for this research

Developed by CO:RE¹⁰, the 4Cs framework categorises the hazards children can face online as:

- **Content** (child as recipient) where a child engages with, or is exposed to, potentially harmful content. This can be violent, gory, hateful, or extremist content, as well as pornographic or sexualised content that may be illegal, harmful, or age inappropriate.
- Contact (child as participant) where a child experiences, or is targeted by, contact in a potentially harmful adult-initiated interaction, and the adult may be known to the child or not. This can be related to harassment (including sexual), stalking, hateful behaviour, sexual grooming, sextortion, or the generation and sharing of child sexual abuse material.
- Conduct (child as actor) where a child witnesses, participates in, or is a victim of potentially harmful conduct such as bullying, hateful peer activity, trolling, sexual messages, pressures or harassment, or is exposed to potentially harmful user communities (e.g., self-harm or eating disorders). Typically conduct risks arise from interactions among peers, although not necessarily of equal status.
- Contract (child as consumer) where a child is party to and/or exploited by potentially harmful contract or commercial interests (e.g., gambling, exploitative or age-inappropriate marketing, etc.). This can be mediated by the automated (algorithmic) processing of data. This includes risks linked to design factors and security of services that may leave the child open to identity theft, fraud, or scams. It also includes illegal contracts made between other parties involving a child (trafficking, streaming child sexual abuse).

^{10 4} Cs of online risk: Short report & blog on updating the typology of online risks to include content, contact, conduct, contract risks – CO:RE Knowledge Base (core-evidence.eu)

Children's online lives

The 42 children who participated in this research were selected for a variety of reasons, including 15 specifically because they self-reported having experiences of harm stemming from their online activity. However, during the fieldwork a much larger proportion of children in the study reported at least some form of harm.

Before sharing the detail of those experiences of harm, and the factors that influenced them, it is useful to understand the context of children's online lives more broadly – what they do, how they do it and what role the online environment plays in their everyday lives.

It is also valuable to consider how children's interaction with online content, people, and technology is affected by the fact that they are *children* and are at various stages of development through childhood and adolescence.

Being online doesn't feel optional for most children

Very few children *do not* spend time online, with Ofcom reporting that nearly all children (99%) went online in 2021, and that 9 in 10 children owned their own mobile phone by the time they reached the age of 11.11

Across the sample for this ethnographic research project exploring the risk factors that may lead to harm, the children demonstrated that they relied on online spaces for activities across all areas of their lives. These areas included friendship, connection, education and engaging with culture. The children struggled to imagine what life would be like without the internet.

They told researchers that being online expands their world in multiple ways. This included broadening their interests and staying in touch with friends in new ways that can feel easier and more fun than offline interaction. Additionally, the children reported that being online allows them to explore and understand the world around them through access to new information and conversations that they may not have been exposed to offline. All these factors play an important role in growing up and being online offers new avenues for children to do this.

For example, Oscar¹², 14, from London pursued his interest in Greek mythology by searching stories on different websites.

"I was searching about ancient Greece, which I'm interested in. Looking at multiple different websites as to different facts and all....discovering stories."

Oscar, 14, London

Another participant, Lucy, 16, talked about how her peers have learned about social attitudes and beliefs online that may have influenced their understanding of the world and/or their behaviour.

"I think my group changed a lot in how accepting they are [about i.e., sexuality, gender] because of the [online] movement. People on like [video-sharing platform] were trying to educate and calling people out so they are more careful about what they say now."

Lucy, 16, London

Many of the children had used the online world to find and join communities related to their interests. For some, this was in relation to online activities such as gaming, while for others, it was about supporting and reinforcing their offline hobbies.

Nina - who had a goal to become a professional athlete – used her social media presence to try to get sponsorship as well as to connect with other people in the sporting community.

"I'm hoping I'll be able to get sponsorship, I've seen others getting it."

Nina, 15, South West England

¹¹ Ofcom: Children and parents: media use and attitudes report 2022

 $^{^{12}}$ All participant names in this report are pseudonyms to protect their identity.

Miles, 11, has special educational needs and was out of school for over a year after his mainstream school said they could no longer cater to his needs. Miles' mum feels that to some degree being online and gaming has helped him find friends online and build up his confidence.

"People always talk badly about gaming – but for him [Miles] it was so good, it built up his confidence."

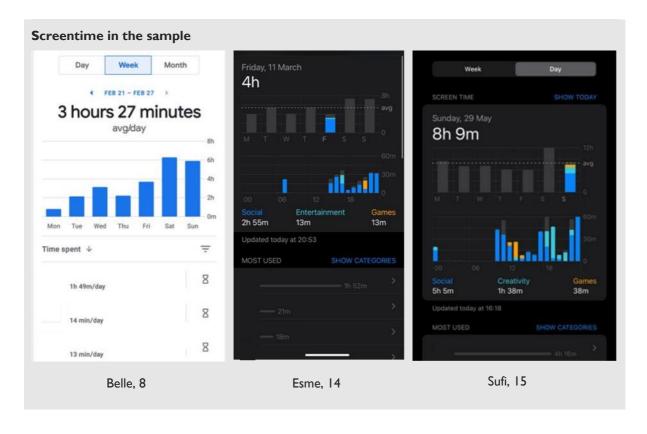
Mum of Miles, II, London

Children were spending significant amounts of time online daily

The children in this research were recruited on the basis that they were regularly accessing online platforms and activities, so that we could learn about their experiences of online harms. Therefore, it is important *not* to claim that the amount of time they were spending online is accurately representative of all children.

The data that was collected about their screentime on their primary device – which was, for most, their phone – was from device-based app usage statistics rather than self-reported through surveys, making it a very accurate snapshot of how long these children spent on their devices.

The amount of time children in this research spent online ranged from 30 minutes to 16 hours in a day. Their time online included watching content on video-sharing platforms, gaming, and engaging with social media platforms. Search engines were used by some of the children, but these did not make up a large proportion of any of the children's time spent online.



Most of the children in the sample were using social media and video-sharing platforms

The below table illustrates how many children in the sample were using a range of online platforms, which have been anonymised for the purposes of this report. While the minimum age requirement for these types of platforms is usually 13 years, many children under this age were using them — either through accessing them without an account, using someone else's account, or by giving a false age when they made their own account.

Of the 42 children that took part in the research, 35 were using social media or video-sharing platforms.

- Seven of the children did not know what age they were registered with on the app or how to check this.
- Eight were registered with their correct age, but these were predominantly the older children.
- The remaining 20 were registered with a date of birth on the platforms that portrayed them as older than their real age. They provided a wide range of false ages ranging from being 15 years old to 50 years old.

Platform (apps/sites)	Description & functions	Age requirement for creating account/profile	How many children in the sample were using it	Age range of children in the sample using the platforms
Platform #1	Video-sharing platform, with	Minimum age requirement of 13 for making an account.	34 out of 42	9 – 17
	messenger function	Can be used without an account when used through web search. However, without an account users cannot like, comment, share or follow other accounts.		
Platform #2	Video-sharing platform, with messenger function	Minimum age requirement of 13 for making an account.	31 out of 42	9 – 17
		App requires an account to be made to be able to use it.		
Platform #3	Social media platform, which is image- and video- based, with messenger function	Minimum age requirement of 13 for making an account.	20 out of 42	11 – 17
		Other users' profiles can be viewed when accessed through a web search. However, without an account, users are not able to access any other features.		
v C c fa	Chat platform, using voice, video, and text. Often used as a way to chat while gaming and facilitates large group chats	Minimum age requirement of 13 for making an account.	7 out of 42	11 – 17
		Platform cannot be accessed without an account.		
Platform #5	Social media platform, which is text-, image-, and video-based. With messenger function, often used to discuss real time events	Minimum age requirement of 13 for making an account.	I out of 42	13
		However, content can be accessed without an account via the web, including using the search function.		

Platform #6	Forum-based platform, which enables sharing of text, images, and videos	Minimum age requirement of 13 for making an account.	I out of 42	16
		However, platform can be accessed without making an account via a web search.		
Platform #7	Chat platform, using video and text. Matches users randomly to facilitate interactions	Minimum age requirement of 13 for making an account.	2 out of 42	13 – 17
		However, platform can be accessed without making an account.		
Platform #8	Blogging and social networking platform	Minimum age requirement of 13 for making an account.	I out of 42	16
		However, users without an account can view the most popular posts on the home page.		
Platform #9	Fan fiction platform, where user-generated fan fiction content is posted and shared	Minimum age requirement of 13 for making an account.	2 out of 42	14 – 16
		However, users without an account can browse and read stories.		

All of the boys and many of the girls were gaming regularly

Many of the children who were gaming were doing so daily and, as seen with the use of social media, some were using games before reaching the minimum age requirement.

Gaming platform	Description & functions	Age requirement for creating account/profile	How many children in the sample were using it	Age range of children in the sample using the platforms
Game #1	I Third-person	PEGI ¹³ 12 rating.	16 out of 42	8-17
shooter online multiplayer video game	multiplayer	Minimum age requirement of 13 to compete in online competitive events.		
Game #2	Online gaming	PEGI 7 rating.	10 out of 42	7-14
and social platform		However, includes user generated content which cannot be rated by PEGI.		
Game #3 Online single and multiplayer sport video game	PEGI 3 rating.	7 out of 42	9-17	
		Suitable for all ages. Minimum age requirement of 13 for online play.		

¹³ PEGI provides age classifications for video games across Europe. The age rating confirms that the game is appropriate for players of a certain age, considering the age suitability of a game, not the difficulty: How we rate games | Pegi Public Site

Game #4	Third-person action-adventure video game	PEGI 18 rating, which is the label given to games that can show depictions of gross violence, the glamourisation of illegal drugs, simulation of gambling and explicit sexual activity.	3 out of 42	13-17
Game #5	First-person shooter video game	PEGI 18 rating, which is the label given to games that can show depictions of gross violence, the glamourisation of illegal drugs, simulation of gambling and explicit sexual activity.	3 out of 42	10-17

What harms were children experiencing online?

Having described the wider context of the online experiences of the children in this research in the previous section, this chapter will explore when the children had experience of harms. Subsequent chapters will then describe how the harm came about and explore the factors that appeared to make harm more or less likely.

Children experienced a range of negative effects from being online

Based on how children and/or their parents described the impacts they'd experienced, the severity of any negative effects has been approximately organised by whether they involved:

- A transient emotional impact
- Short-term behaviour change, or a more severe emotional impact
- Long-term harmful behavioural changes, or serious emotional or physical impacts.

Some examples of those that appeared in the research include:

Trai imp	nsient emotional act	Shorter-term behaviour change, or more severe emotional impact	Long-term harmful behavioural changes, or serious emotional or physical impacts
	Confusion Shock Disgust Overstimulation Sadness Tiredness Anger Fear Upset	 Disengagement from education Limited/short -term food restriction or dieting Physical aggression/ losing temper Social exclusion (online or offline) Feelings of worry and anxiety Breakdown of friendships/fall outs 	 Negative impact to worldview or trust Missing out on other activities, e.g., long-term physical exercise, education ('opportunity costs') Evident harm to self-esteem/body image Social withdrawal/isolation Development/exacerbation of eating disorders or other mental health conditions including anxiety and depression Self-harm Negative impact to sexual development

It should be noted that a limitation of relying on self-reported harm is that children may not recognise the true extent of impact.

Some experiences of harm were transient and had relatively minor consequences

At one end of the spectrum, children described transient experiences, such as emotional discomfort or upset. These were often as the result of seeing content that they initially found shocking or disgusting, but which did not appear to have had a lasting negative impact based on how the children described the experiences.

"Do you know that 14-year-old boy who fell off a roller coaster? I saw that on [video-sharing platform]. But it was blurred...his body falling off. I just didn't react, just kept it [the video-sharing platform feed] on."

Annie, II, Northern Ireland

CASE STUDY - CONTACT

Danielle, 17, had received multiple unsolicited nude images on a variety of social media platforms which she reported had not affected her in the longer term



Sexual content

Danielle talked about having many "weirdos" unexpectedly sending her nude images she hadn't requested. She didn't want to see these and was surprised at receiving them. However, she didn't care much about them and decided to ignore them and move on. If the user was someone she didn't know, she would block them

Sometimes friends sent her nude images "out of nowhere" and Danielle just laughed it off and thought there was no point in being upset.

Other experiences of harm led to short-term behaviour change or had a more severe emotional impact

Among the children in the research, there were examples of online experiences that had led to more objective, short-term behavioural change or longer-term emotional consequences. For example, experiences included breakdowns in friendships, disengagement from education, food restriction or dieting, problems with managing temper, or more frequent feelings of anxiety and worry.

"He got in an argument with one of his classmates because they killed him [in the online multiplayer game], it then continued at school and there were some issues, they haven't really been friends since."

Mum of Miles, II, London

"She sometimes struggles with insomnia...at the moment it's because someone showed her a video of Chucky [a doll linked to horror films] at school."

Mum of Belle, 8, South East England

"She's become a bit more concerned about weight and her image, she seems to restrict diet a bit ... then on [two video-sharing platforms] and media generally she seems to be obsessed with all Korean stuff and a lot of the girl bands and stuff are all about image, what they wear, and I think that probably kind of influences her as well."

Dad of Samira, 13, East of England

The most severe examples of harm involved serious psychological or physical effects and resulted in longer-term changes in behaviour

Some of the children reported that they had been significantly harmed by their online experiences. These harms included: deep and/or long-lasting damage to self-esteem or self-image, worsening of pre-existing mental health problems, development of eating disorders, and effects on sexual development.

For example, after coming across explicit pornographic content from the age of 8, Gabi reflected that the impact of those experiences had lasted to the present day. She had been exposed to this content after using a search engine to look for content relating to My Little Pony and clicked on some links which turned out to lead to pornographic material.

"Looking back at it, that's not how a child should develop. Like it gave me issues with my sexuality for a long time. Like it's never something I've been comfortable with since."

Gabi, 16, Scotland

Sometimes harm appeared to occur indirectly due to the opportunity cost of time spent online

Some children were spending huge quantities of time on online activities, which in some cases appeared to affect their appetite for, or interest in, other offline activities. This wasn't the case for all children who spent a lot of time online, e.g., there were many children who were engaging with diverse interests online and pursuing active social lives using digital platforms.

However, some who were engaging with a more limited range of activities (e.g., gaming, or passively scrolling through videos) for long periods of time appeared to experience more negative impacts as a result.

Aaron, II, lives in London and reported that throughout a lot of his childhood he had spent most of his time playing football outside with friends - this included training sessions and matches every weekend. After being given a console football game, he drastically reduced how often he would play football with friends in real life and instead spent the majority of his free time outside of school playing the console game.

"I have nothing else to do. Other than [home]work, I just sit here and play [sports video game]. I hardly go to football anymore."

Aaron, II, London

Elliot, 13, reported that he spent nearly all his free time playing a first-person shooter video game. He was hugely invested in his skills in the game, viewing himself as a semi-professional player. Elliot expressed that he felt that any time spent not playing the game was potentially wasted and had actively opted out of various social occasions and activities to play. He even considered travelling to and from school or lunchbreaks as time he could otherwise spend playing the game.

"Sometimes I feel like I want to be home-schooled...that's how a lot of people are good at games as well. You can go on the game a lot more, like you can literally play the game for your lunch break."

Elliot, 13, Scotland

In these examples, children were able to articulate that their interest in spending time online playing games had directly led to them deprioritising other activities in life, although they didn't reflect that this might have had negative or harmful consequences for them. However, various parents across the sample were much more acutely aware of this and worried about the activities that their children might be missing out on and the harm that this might do.

"She doesn't know if she won't like it [youth club], she hasn't been there yet...she would rather stay on the phone playing with other friends online."

Mum of Annie, II, Northern Ireland

"[While Alex was banned from using devices] he's very arty so he drew a lot. He's so good at it, he's fantastic, but he doesn't do it anymore, it's so sad. He'd rather be playing [third-person shooter online multiplayer game]."

Step-mum of Alex, II, Midlands

How did the children come to harm online?

In mapping the journeys of children who had come to harm when online, a variety of different routes were observed. These routes differed depending on whether the *experience* of the online hazard (i.e. potentially harmful content/contact) was:

- **Isolated or cumulative** whether exposure to hazards was a one-off incident or occurred repeatedly over time¹⁴
- Active or passive whether the engagement with the hazard by the child was active (e.g., sought out) or passive (e.g., stumbled across)

And whether the impact of that hazard was:

- **Immediate or delayed** whether the impact of the experience occurred immediately after exposure or manifested at a later point
- **Direct or indirect** whether the impact of the hazard occurred through direct exposure to the child who was harmed or indirectly through exposure to others

Many children reported experiences of immediate harm after isolated exposure to something they passively encountered

Most children when describing harmful online experiences focused on memorable incidents where they had experienced relatively minor harm (transient negative emotions such as shock or disgust) because of seeing something online.

These were typically pieces of content that either appeared unexpectedly in a social media feed or were sent to the child without warning.

Kirsten received racist abuse in a message on a video-sharing platform from a stranger who had added her.

"I don't know I was a bit shaken up, but it [abusive language] wasn't really directed at me."

Kirsten, I4, North England

After clicking on a link that was sent to him in a direct message on a social media app, Liam came across pornographic content.

"I wasn't really expecting to see what I saw [porn]. It was quite explicit...I just tried to forget about it."

Liam, 14, Northern Ireland

Poppy received abusive messages in the direct messaging function on a social media app after creating a public account to post positive quotes.

"I think at the time I was a bit upset, but I don't think it [abusive messages] really impacted me much because I'm used to people saying stuff around school."

Poppy, 17, South East England

¹⁴ This form of cumulative exposure to hazards was also reported in the 'How people are harmed online' project among a sample of adults, and was

⁴ This form of cumulative exposure to hazards was also reported in the 'How people are harmed online' project among a sample of adults, and was observed to often lead to some of the more severe experiences of harm. For further details on this please see the report: How people are harmed online: testing a model from a user perspective (ofcom.org.uk)

CASE STUDY - CONTACT AND CONTENT

Liam was shocked by the pornography he saw after clicking on a link that was sent to him on a social media platform's messenger function



Liam, 14, lives in Northern Ireland with his mum, dad, and an older sibling. His parents explained that their approach to online safety was mainly to put trust in their children and rely on them to be sensible and not put themselves at risk. They also felt confident that their children would come to them if something happened online.

Liam reported that he'd had an account on a social media platform for four years, since he was 10 years old¹⁵. He used to have a public account because he cared about how many followers he had and wanted to optimise how easily people could find and follow him. He'd deliberately kept his account 'public' as he often had "random people" follow him, and he would follow them back in the hope this would keep his follower numbers high.

At this time, he reported that he'd had close to 3000 followers on this account, which he used for messaging friends, following football players and teams, as well as bike accounts.

He talked about receiving several spam messages per day, either offering giveaways of products or sharing links to pornographic material. He said he now knows how to easily identify spam, but it was more difficult when he was younger.

For example, he said that when he was II, he clicked through one of the links sent via direct messages, thinking it was someone who wanted to chat with him. However, when he clicked on it, he was surprised to discover it contained explicit sexual content.

While Liam was able to recall this incident and mentioned being shocked and slightly upset at the time it happened, he told the researcher that he felt it had not had a long-lasting impact on him.

While in the above examples the children described relatively short-term minor harm, there were examples where the harmful impact was more serious or longer term.

Emma, 13, spoke about an incident with a 14-year-old boy from her kickboxing class, who asked her for private photos of herself over a social media platform. Having found this particularly upsetting and not wanting to spend time with the boy, Emma withdrew from her kickboxing class - her online experience directly affecting her offline behaviour.



Sexual content

"He started messaging saying, "Can you show me your boobs?" It made me feel quite upset." **Emma, 13, North England**

There was one example where isolated exposure to a hazard appeared to have a delayed impact

While many of the children who said they were harmed described this as an immediate experience in response to an isolated incidence of exposure to content or contact, one child described harm that had also occurred following isolated exposure, but where the harm had only been felt some years after the incident itself.

¹⁵ The minimum age restriction for the platform was 13.

CASE STUDY - CONTACT AND CONTENT

Liam was shocked by the pornography he saw after clicking on a link that was sent to him on a social media platform's messenger function



Lucy, 16, lives in London with her family. When she was 13, she received several unsolicited nude pictures from someone in her year at school. In the moment, Lucy felt that she didn't "pick up on how bad it was", and due to being younger said, "those kinds of things feel like validation".

Lucy felt instead that the harmful impact of this experience affected her later when she had processed and understood the implications, which is that she now has diminished trust in men. In more recent months, she has started to make an effort to make sure that the content which she posts won't attract any unwanted attention from people who might try to do the same thing.

"I just don't want that kind of response. I post less now to avoid that stress." **Lucy, 16, London**

Many children had experienced harm as a result of cumulative, passive exposure to multiple hazards

Unlike the examples above where children experienced seemingly isolated incidents online which had harmed them, there was evidence that many children had experienced harm as a result of repeated exposure to many hazards over time - often relatively passively, such as in social media feeds.

CASE STUDY - CONTENT

Demi saw a wide range of hazards on social media, often several times a day, which contributed to harm



Demi, I 3, lives in South East England in foster care. She described experiences of content that she regularly saw on a social media platform. She was a member of several locally based groups on this platform which were known for sharing and reposting local "drama", as well as violent or graphic content. This content often featured people she didn't know personally but who were local and often were known to her by reputation.

Sexual content, sexual violence, violent content, hateful content

As a result of following these groups, Demi had seen videos of sexual assault committed locally to her, as well as crime and gang violence in her area.

These pages also sometimes shared 'leaked' nudes of local women and girls – this included, on one occasion, a sexually explicit video of Demi's sibling. Other content included 'call out' and 'raid' videos; the former where people provoke or retaliate (often involving violent threats), the latter where people film a break-in to the homes of their rivals as a form of humiliation.

"A video that I watched...this girl, she got raided by a few other girls...The girl was in the toilet, and they grabbed the girl by the hair and stuffed her face in her [faeces] and videoed it. It got sent over everywhere."

Demi, 13, London

Demi reflected that there seemed to be no consequences for the people posting this type of content, and that they often gained status for it. The content she saw gained a lot of attention online in the form of views, likes and reshares.

She explained that while she tries to stay out of this drama, she does not want to unfollow these pages because she finds it useful to be up to date on the 'gossip'.

Although Demi said she wasn't shocked by much of the content she saw online, she did reflect that seeing it so often was impacting the way she saw herself and the world around her. As a consequence of seeing that content, she avoided people and places in her local area and explained that she would never use the 'report' function on the platform, as she knows that there can be consequences for people who "snitch."

"The thing you always hear is 'I will get my olders on you'. If that happens, you're finished!"

Demi, 13, London

Sometimes cumulative experiences of online hazards followed more active engagement by the children

Demi's story reveals how children can easily be exposed to vast quantities of potentially harmful hazardous content online, fairly passively – by following a page and spending time online every day.

Other children, however, described experiences where they had more actively engaged with content that went on to cause them harm – whether by searching for it, 'liking' and commenting on it, or re-sharing it on to others. Some reflected that they could now see that some of the content they had created was hazardous in the past. Others felt they had to look at content suggested by friends, for example, even though their experience suggested it was likely to be horrible.

CASE STUDY - CONTENT

Gabi, 16, reflected that the content she had engaged with when younger, which focused on eating disorders, had felt good at the time but had actually been bad for her in the long-term



Eating disorders, self-harm content

Gabi lives with her parents and younger sibling in Scotland. In her spare time, she likes to see her friends who live all over Scotland, and spends a significant proportion of her time gaming, watching shows, and using social media.

Gabi talked about experiencing a number of mental health difficulties, including having struggled with an eating disorder. She found the transition from primary to secondary school challenging and found it hard to make friends in her year. She became good friends with a girl several years above her at school who introduced her to 'pro-eating disorder' communities online known as 'pro ana' groups on a blogging website.

"She [the friend] interacted with a lot of like pro anorexia content and people who romanticise mental illness. So, it's kind of this thing where like I have depression and you think it makes you cool and mysterious."

Gabi, 16, Scotland

Having begun to spend time looking through these blogs and engaging with the content and other users, Gabi began to write her own pro-anorexia blog posting "low-calorie meal ideas" as well as "inspirational posts". She explained that she enjoyed the popularity that her blog received on the site which contributed to her wanting to post more on it.

"I'd go online every night and post these blogs, eating disorder [recipes, products and methods]."

Gabi, 16, Scotland

Gabi explained that she was posting content from when she started secondary school, aged 11, until she was around 14 years old. Throughout this time, she felt like it was a positive influence on her and enabled her to connect with like-minded people. Now, aged 16, she looks back on this time and realises that these online communities that she was a part of were having a negative impact on her by encouraging and prolonging her eating disorder.

"Anorexia was a huge problem for me for a long time, very much fuelled by these online communities."

Gabi, 16, Scotland

Some children's experiences of harm occurred through indirect impact of online hazards

The experiences described so far involved harm caused by the child in question being exposed directly to an online hazard/s. There were other instances, however, where the harm was caused through exposure of

hazards to other people – such as the earlier example of Demi's sibling who was harmed because of sexually explicit videos of them being shared with others.

Other experiences of children being harmed indirectly (including being bullied or suffering reputational damage) were caused by others seeing content that related to that child.

CASE STUDY - CONDUCT

Noah found out people had been making fun of him in a group chat he was no longer part of



Noah, 14, lives in London with his mum and two older siblings. Initially, he experienced direct harm after being repeatedly bullied online by some children who he had previously been friends with. This had included them logging into his account on an online gaming platform, spending his in-game currency, and sharing a picture of him with an embarrassing filter.

"There was the filter that puts you on a wanted poster and says, 'dead or alive'."

Noah, 14, London

Then Noah experienced indirect harm. A few months after the incidents above, he discovered that these people had been making jokes about him in a group chat on a messaging platform that he wasn't part of. He found the idea that people were talking about him behind his back upsetting, particularly when he found out that they had been making jokes about his dad who had passed away some years ago. Noah only discovered this when a friend told him and showed him screenshots of the group chat. He was thankful that this person had showed him what was going on and did not think the person showing him had intended to upset him.

"He said he'd put my dad in a spliff or something like that... I'd left the group chat so my friend had to take screenshots and stuff and send it to me... I felt really bad."

Noah, 14, London

In summary, children found isolated experiences often easier to recognise, remember, and report, but these are often not the most severe examples of harm

Isolated exposure to a hazard that caused immediate, but often quite transient and minimal harm, is the one that children most readily report in research when they are first asked about experiences of online harm. These isolated incidents, which are often unexpected too, are often the most memorable and easy to articulate. The types of content involved are also often more striking, by the fact that they stand out from what children normally see.

But as the stories above illustrate, the type of harm that occurs in these instances are often short-term, emotional upset or distress that dissipates quickly. Few children reported any longer-term impacts as a result of these experiences.

In contrast, when children are cumulatively exposed to hazards and the harm builds over time, they find the experience harder to articulate. When they saw this type of content on a regular basis, it failed to shock them or stick in their memory as clearly. Sometimes children even enjoyed engaging with the content, at least at first, and were only able to reflect that it may have been harmful to them in retrospect, often years later. But these experiences of harm were often more severe and more far-reaching in that they involved behavioural and psychological changes and were longer-term, as was seen in Demi's and Gabi's experiences.

What factors can increase or decrease the likelihood of harm?

It is very challenging to definitively identify factors that increase the risk of harm to children due to online experiences as they are often interrelated to other offline factors. The data primarily shows correlation, so it can be observed that some experiences seem to frequently co-occur with certain circumstances, but we cannot conclusively say that they *cause* an increase in risk.

However, across the 42 interviews, a number of these circumstances or factors were observed to regularly occur in scenarios where a child had experienced harm – meaning it is possible they indicate *risk* factors that make harm more likely. These will be described in this chapter.

Potential risk factors can be broadly grouped by:

- Risk factors associated with the child who experienced harm their circumstances, characteristics, and existing vulnerabilities
- 2. **Risk factors associated with the platforms** on which they experienced hazards (potentially harmful content/contact) the design and functionality of the digital app or site
- 3. **Risk factors associated with the hazard** such as the contents of the image, video, or message and how it was experienced

Factors can both increase or decrease the likelihood of harm occurring, and the same factor may influence outcomes differently depending on context.

Often several of these factors are present in any one child's journey, so throughout this section there will be some repetition of experiences to illustrate the apparent role of different potential risks.

Children's circumstances and characteristics shaped the risks of harm in this study

The environments and circumstances children are in, both on and offline, can shape their experience of online harm. A number of factors can increase or decrease the likelihood that a child will a) be exposed to hazards in the first place and b) go on to experience harm as a result. These range from their social and family dynamics, psychological factors including mental health, offline experiences, and wider environments.

Children whose parents or carers were less engaged with what they were doing online were more at risk of experiencing harm

The research showed that some parents had less engagement in what their children were doing online than other parents. For some, this was because they lacked time, while for others, it was a result of lower media literacy skills. This included knowledge of what platforms their children were on, showing interest in how the platforms work, or an awareness of what their children were looking at or doing on those platforms. Consequently, some children were coming across hazards online and experiencing harm without their parents' knowledge.

CASE STUDY - CONTENT

Ethan, 10, who lives with his mother in London, spent most of his free time playing games and watching videos on a social media platform when he wasn't at school.

"I think over 10 hours, like 15 [a day] maybe on [an online game] and then sometimes I watch [videos on a social media platform] while I'm playing [the online game], like when I'm waiting to do something."

Ethan, 10, London

Ethan's mum explained that she would listen in while he is gaming to hear who he was speaking to on his headset, but she didn't monitor the social media platforms he was engaging with. Ethan ended up coming across porn after searching a term [the name of a lesser-known porn site] following seeing a video on a social media platform about it. It was the fact that the post read "don't ever search [name of porn site] up" that enticed Ethan to see what it was.

"I saw this [video], and it said, 'Don't ever search this up'. I searched it up [using a search engine] as I thought it was just going to be a little scary thing or whatever... They were right [I shouldn't have searched the term]."

Ethan, 10, London

Additionally, Ethan's mum said she struggled to know what else Ethan would spend his time doing if he wasn't online, which she felt prevented her from establishing limits to his time spent online.

"It's so difficult to justify [him] coming off... Get off and do what? You can't just sit there and look at the wall... he knows he shouldn't be talking to random people and things like that."

Mum of Ethan, 10, London

Some children were using their parents accounts to access social media platforms. Ibriz, 11, for example, occasionally used her mum's phone and account to watch videos on a social media platform, as her parents did not allow her to have her own account. There was an incident where Ibriz watched a video about self-harm that had been served to her via an auto-play function on her mum's account, which confused and worried her. Prior to this incident, Ibriz's parents had not reflected that accessing content through an adult's account might shape what she saw.

"It makes me feel like 'oh no what's going to happen', will that ever happen to me, on purpose? Sometimes people do that purposely, and sometimes they just want others to have a good laugh. But what if it happens to me even if I don't want [it] to."

Ibriz, II, London

At the other end of the scale, some children seemed to be at less risk of experiencing harm if their parents or carers were not only knowledgeable about the online spaces that they were spending time in, but were actively engaged with what they were doing online too. This involved talking to their children regularly and having open and honest conversations.

Liam, 14, from Northern Ireland spoke openly with his parents about what he came across online and was spending a relatively small proportion of his time online because of other hobbies he had.

"On weekdays I don't get much time [to use the PlayStation] ... I have football twice a week. I'd [Sic] also go to the gym around three times a week, I may have some homework to do, or my friends are around to play some sports. [Online] is usually just a last resort"

Liam, 14, Northern Ireland

The foster parents of the youngest participant, Fatima, 7, made sure that they knew as much as they could about what she was doing online and spoke to her regularly about online safety.

"We make sure that she is friends with all of us online and she can only go on the tablet with one of us in the room with her."

Foster parents of Fatima, 7, Midlands

 $^{^{16}}$ See the 'Platform design and functionality' section for further details on auto-play function.

Children whose parents had low online media literacy appeared at greater risk of exposure to harm

Some parents are less confident in using digital platforms or understanding how social media works, and these lower levels of media literacy could inadvertently increase risks for their children.

For example, Annie's mum thought her children (Annie, II, and a younger sibling) were very safe online because she had told them from a young age not to share their address or any other personal information, and that they should only talk to people from school. However, she admitted she had no real way of overseeing this because she didn't understand the online world her daughters were navigating as well as they did, and that they could easily hide things from her.

Similarly, at 13, Yafir recognised he had to look after his own safety online – and wouldn't even tell his mum if he came across things he didn't like or was uncomfortable with, because "she wouldn't be able to help".

"It's better not to involve parents, they don't understand the internet."

Yafir, 13, North England

Children who were engaged in a range of offline activities, and had goals they were working towards offline, tended to be less at risk of experiencing harm online

Children who had offline interests, hobbies, and passions that were not closely linked to being online, seemed less likely to have experienced online harms across the sample.

Lucy, 16, from London, played in a band with friends and was spending less time online. As a result, she felt that she had fewer negative experiences online than other people her age.

"I play bass and I'm in a band with friends...we did a gig at school last week. That became more and more of our time and spending time practising at lunch time and after school."

Lucy, 16, London

For some parents, ensuring that their children engaged in other offline activities was a strategy they were proactively using to try and mitigate what they saw as the more negative aspects of their children being online.

CASE STUDY - CONTENT

Nina, 15, lives in the South West of England with her parents and siblings. Nina's parents actively encouraged all of their children to pursue sports as a strategy for keeping them from overly focusing on, what they saw as, the body-image focused world of social media.

"We've brought the kids up with sport and we think its massively important to just have a focus and a goal that's skill-based not image-based."

Dad of Nina, 15, South West England

For Nina, having an offline goal which she was working towards - to become a professional athlete - had a positive impact on her online behaviour. In her peer circle, image and looks were seen as particularly important, and she explained that many of her friends were concerned about their weight and restricted their food. This was partly influenced by who they looked up to and followed online - typically models or famous influencers like the Kardashians.

Nina described how, for many of her peers, Kendall Jenner [one of the Kardashians] was seen as having the 'ideal' figure, with many of her friends comparing their bodies to hers unfavourably.

While Nina admitted that seeing images of influencers like Kendall Jenner did sometimes make her feel bad, she didn't feel the same pressure to engage in weight management or calorie restriction like her friends did. This was specifically because she had goals that she was working towards in relation to sports performance around maintaining muscle and strength, which meant she couldn't overly restrict her diet.

"Everyone wants to look like her [Kendall Jenner] ... I mean obviously I don't look like that so sometimes it makes me feel a bit bad about how I look."

"I'm not like into that [calorie restriction], I'm trying to get stronger for competing."

Nina, 15, South West England

Younger children were often less aware of what could cause them harm online

The younger children in the sample, e.g., mainly those under age 12, generally had fewer experiences of coming across hazards that they could identify and were less aware of what might cause harm online. ¹⁷

When asked, most referred to the risk of someone being mean about their avatar in an online game.

"[Online harms] are like abusive behaviour or hurtful language. In some games you can hit people, like in [video game], and people may not like it. Also, swearing, or mean comments, like body shaming to characters...they can make fun of your avatar because of the way it looks."

Rameet, 9, Wales

Some older children reflected on experiences they had when they were younger that were hazardous and which they had come across because they didn't understand it could cause harm.

As described above, when Liam, I4, was II years old, he was sent a message by an account he didn't follow that encouraged him to click on a link to see 'personal' photos and videos. Lacking awareness that this could lead to adult content, he clicked on the link which took him to pornographic content.

He now reflects on that experience and how it helped him learn to be more sceptical of contact from strangers.

"When I was younger, I didn't know much about it, so I may think it was an actual person who wanted to chat, and I wanted to reply back. But when I clicked on it, I wasn't expecting to see what I saw, it was quite explicit. But now that I'm older I wouldn't click on it."

Liam, 14. Northern Ireland

It is difficult to assess the impact of age as a risk factor for experiencing online harm. On one hand, the evidence in this study appears to suggest that younger children are less likely to be exposed to hazards in the first place, but the evidence is not clear as to whether they are more likely to experience harm once exposed.

Children with special educational needs and disabilities were additionally vulnerable online

Some children who had special educational needs and disabilities (SEND) had experienced online harm which appeared to have been exacerbated or made more likely due to their additional vulnerabilities.

This included them being taken advantage of because of their desire to maintain friendships, or challenges with reflecting on the consequences of certain actions.

CASE STUDY - CONDUCT

Carlo, 12, lives with his parents and sibling in the Midlands. He had Autism Spectrum Disorder (ASD) and attended a special school but struggles to make friends there as he feels he doesn't have much in common with the other children. His mother explained that because he had few friends, he would go to great lengths to make sure to keep the ones he did have.

"He's very, very vulnerable. If somebody tells him to do something, he'll do it...he has a friend that hasn't got special needs and he puts things in [Carlo's] head..."

Mum of Carlo, 12, Midlands

¹⁷ To ensure that questions were age-appropriate – not introducing them to concepts they might not be familiar with, nor asking leading questions – the researchers asked children to describe their online experiences overall, both the good experiences and any negative experiences they may have had. Where it was identified that an experience could constitute harm, the researcher asked the child to explain more about the experience, letting the child's responses lead the conversation. Towards the end of the interviews, the researchers used flashcards to ask about specific harms; these were tailored to the age of the child.

Carlo's mum described an experience where one of his school friends had persuaded him to try to scam people online for in-game currency on an online single and multiplayer sports video game by trying to emotionally manipulate them. When Carlo's parents found out and spoke with him, he was very upset about it for several weeks.

"His friend said to him 'If you scam people, you'll get money." [Carlo] told somebody; 'If you don't give me [in-game currency], I'm going to kill myself...he said that his dad's got cancer as well and all sorts."

Mum of Carlo, 12, Midlands

Miles, 11, lives with his mum and three siblings in London. He also has ASD and a number of other diagnosed communication and sensory conditions. Miles' mum explained that for him, being online was great for developing his confidence and his ability to socialise with others. But that she also saw it fuelling his frustration and anger when things don't go as he wants them to.

"It would help massively for his violence and aggression if he wasn't online, because the online brings out his violence and aggression, I mean the drawback to him not being online is that he won't be connected to his friends."

Mum of Miles, II, London

Online experiences could exacerbate the symptoms of children with existing mental health challenges

A number of the children who participated in the research were struggling with existing mental health challenges. Some of those children found that experiences online worsened them. For other children, experiences they had online reinforced negative behaviours or thoughts related to their mental health.

Self-harm content

Poppy, 17, has a history of struggling with her mental health, including self-harm. She explained that she had to delete her account on a social media platform after realising the content she was consuming on her social media feed was further harming and reinforcing her poor mental health and self-harming behaviour.

"In my case, it was sharing like sensitive stuff regarding like self-harm and suicide...just like stuff that's not good viewing."

Poppy, 17, South East England

Eating disorder content

Gabi, 16, reflected that some of the online communities she had come across on a blogging site, while struggling with an eating disorder, posted content that sought to make poor mental health seem aspirational or glamourous.

"These online communities, they view mental illness as a competition, it's like if you've not been hospitalised, been beaten or whatever, you've not got it as bad as others."

Gabi, 16, Scotland

Reflecting on that time roughly two years later, as a 16-year-old, Gabi saw that being part of those communities wasn't beneficial for her.

"[blogging site] is a cesspit of mentally ill people feeding into each other's mental illness."

Gabi, 16, Scotland

Belle's mum explained that Belle, 8, was diagnosed with anxiety when she was 6 years old and had received counselling for it ever since. She wasn't aware of her diagnosis as her mum did not want her to worry about it. Her mum explained that Belle often struggled to sleep because of her anxiety and that some of her worries were related to things she had seen online.

Children who were socially isolated seemed to engage in riskier online behaviours

Being lonely or socially disengaged in the offline world appeared to make it more likely for some children to engage in riskier online behaviours. This included opening themselves up to contact with strangers, or at times actively seeking to build connections with them.

CASE STUDY - CONTACT

Hanna, 9, lives with her older sibling and parents in North East England. She spends a lot of her time online, either on social media or online games. At the time of the interview, Hanna had recently had an argument at school with a close friend which led to her being excluded from her friendship group. She explained that she had turned to social media to find new friends.

"I've made friends with this girl online; I think she's from London, but I don't know. We talk every day."

Hanna, 9, North East England

Hanna would try to find friends on an online game with in-built messenger and other social features by writing 'ABC if you wanna be my friend' - a trend she had copied from other people posting when they were seeking new friends and connections within the game. Hanna explained that if someone writes back 'ABC' it means they are happy to be friends. Hanna would reach out to people who engaged with her post.

Aware of 'stranger danger', she said she had a series of 'checks' to make sure that she was speaking to the person that she thought she was speaking to – this included asking for a photo of their face or, sometimes, video calling them to see how old they were. She also explained that she once stopped talking with someone after they asked her to chat on a messaging platform and started to ask for personal information about her.

On a video-sharing platform, Hanna would post videos multiple times a day in reference to the social drama going on between her and her friends. This included 'confessional' videos where she shared insults that her friends had sent her. She would also post other personal videos, such as a video titled 'things about me', where she wrote facts about herself, including her real age (she set up her account on the platform using her mum's age). Towards the end of the social media tracking period of the research, Hanna had also started posting videos that hinted at an 'identity reveal', where she would include a section of her face, albeit obscured by some scribbles on the screen. She explained that she wanted people to know who she was and was hoping she might be able to make online friends through this. ¹⁸

Peer pressure and fear of missing out influenced some children's and parents' decisions about their behaviour online

Peer pressure or fear of missing out appeared to sometimes influence online behaviour. For some, this involved peer pressure to have access to certain apps or games. Belle's mum felt like she had to allow Belle, 8, to play an online game with in-built messenger and social features, after she had felt excluded at school.

Her mum was aware of news stories talking negatively about the game and felt Belle was a little too young to be on it but didn't want her to feel left out.

"They play a game in school like 'put your hand up if you have this app... this game', and she was feeling left out so we let her download [the online game]."

Mum of Belle, 8, South East England

Jordan's parents spoke about similar fears around the social impact of not having access to certain online platforms. They were particularly conscious about ensuring he had a paid subscription to a third-person, online multiplayer video game, for fear of him being left out or bullied. Being on a low income, Jordan's dad explained

¹⁸ Safeguarding risk assessments were carried out as appropriate, for details see Revealing Reality's Safeguarding and Ethics policy

that he had begun to cut back in other places to maintain the £20 monthly game and console subscription packs for his children.

"I've started cutting back on electricity and gas so I can pay [for the online game]. It's £10 for them both a month, and then the [console], Netflix, and everything."

Dad of Jordan, 8, Wales

The influence of peers could work in the other direction too, prompting children to avoid content they wanted to engage with for fear of being 'cancelled' or judged by their peers if the subject matter or person who had posted it was deemed unacceptable.¹⁹

For example, Kirsten, 14, mentioned that she liked to watch certain live streamers playing an online game, but would not follow them on social media because they had been previously linked to comments that people tried to 'cancel' them for. She explained that if people at school saw that she was following them, they might "make things difficult" for her.

"I'd say the worst thing about being online is the less good people who try to get people cancelled over nothing."

Kirsten, 14, North England

Children who had low self-esteem or low body confidence often compared themselves with people they were looking at online

In some families, parents had concerns about the impact that being online was having on the self-esteem or body confidence of their children, and felt that they were comparing themselves to people online in an unhealthy way.

CASE STUDY - CONTENT

Samira, 13, lives with her mum, dad, and siblings in East England.

Samira spends a lot of her free time scrolling videos on a video-sharing platform. Her dad explained that he had started seeing Samira's behaviour change around image, including restricting what she eats after joining the platform.

"She's become a bit more concerned about weight and image." **Dad of Samira, 13, East England**

He felt that this was a combination of her becoming a teenager and being more aware of what she looks like, as well as the content she was engaging with online. He explained that two platforms in particular, as well as the media more generally, were impacting how Samira felt about her body image.

"She seems to be obsessed with all Korean stuff at the moment and a lot of those girl bands it's just image, what they wear, and their shape, and I think that probably influences her as well."

Dad of Samira, 13, East England

When reviewing Samira's screen time, the majority of the content that she was engaging with was related to K-pop²⁰, make-up tutorials aimed at teenagers, and 'What I eat in a day' trends.

Nina's parents were aware that their daughter, 15, came into contact with lots of content related to body image online. Her dad said:

¹⁹ Being cancelled refers to someone (typically a well-known figure) being boycotted or ostracised online.

²⁰ The term K-pop stands for Korean popular music and refers to the mainstream form of music originating within South Korea. It encompasses various music genres, including pop, electronic, rock, hip hop, and jazz. In the past decade, K-pop has grown in popularity within the Western music scene.

"She came in once and said, 'I wish my bum was bigger'; they just get bombarded with what they should look like, what the perfect figure is, and what they should be wearing online."

Dad of Nina, 15, South West England

While Nina was primarily interested in fitness content because of her sporting goals of becoming a professional athlete, she acknowledged that a lot of the content she sees is related more to modelling and weight loss as opposed to athletic performance.

"It's like just like models and bikinis with small waists and stuff."

Nina, 15, South West England

Negative offline experiences could carry over into children's online worlds and vice versa

In some cases, children who were experiencing bullying offline appeared to be more likely to experience it online as a result.

CASE STUDY - CONDUCT

Poppy, 17, experienced various types of bullying at school. She explained that she often struggled to make friends with people in her year group as they were "cliquey" and that she had more friends in the year below her. While she said that it was generally normal for her to receive negative comments from people in her year group, there was a group of boys who would go out of their way to bully her. This included them physically pushing her in the corridors when she was younger and abusive messages being put in her bag.

During the first lockdown in Spring 2020, the bullying transitioned online. Poppy had created a public account on a social media platform where she posted positive, inspirational quotes. She decided to do this as she was generally interested in mental health and thought that during that particular time people were likely to want to see more positive content.

It was on this account that she received a message from a user she didn't recognise, which started by asking her to send them nude images. When she declined, the person messaging her started to send increasingly rude and abusive messages.

"It was like quite sensitive stuff like quite hateful stuff, basically the police got involved."

Poppy, 17, South East England

Poppy spoke to a teacher and her parents about the incident, who decided to get the police involved, however they were unable to track who had sent her the messages. Poppy believes that the messages came from the same group of boys who bullied her at school as she said that the messages were similar to the ones put in her bag.

She found the experience upsetting but explained that she didn't feel it had impacted her too greatly overall as she was "used to" receiving comments like this at school. She also reflected that she was pleased it had been her who received those messages as she believed she had the resilience to deal with them.

"I don't think it impacted me too much because I was very used to people saying stuff around school like that

Poppy, 17, South East England

Noah, 13, had also been bullied offline and seen elements of this play out online. After falling out with some of his friends offline, they began to bully him online—"hacking" his account on an online multiplayer game and spending his in-game currency, creating embarrassing photos of him, and talking about his late father in a group chat behind Noah's back.

Similarly, children were aware that their actions online, or content that was shared about them online, could damage their reputation.

Demi, 13, had a video of her fighting shared around and did not know who had seen it or what people would think of her as a result. She found the experience unsettling as she did not know that the video had been shared until she came across it on social media.

"I got in a fight at school...it was shared all around [social media platform]. That was so jarring."

Demi, 13, London

Another respondent, Tommy, 12, was also involved in a fight which was shared on social media. Like Demi, he hadn't realised that the fight had been shared until people started teasing him about it. Tommy's mum explained that he had not wanted to be involved in the fight and that the experience had left him upset.

"I worry sometimes because he is easily swayed... there was a video taken of him in a fight... you kept saying you didn't want to do it, but they were egging you on in that video to throw a punch."

Mum of Tommy, 12, Midlands

For other children, the local environment they lived in appeared to play a role in their risk of experiencing online harm

For some children, where they lived, and the online social networks linked to this, put them at risk of coming into contact with content that had the potential to cause them harm.

Sexual content, violence

Several children explained that there were large group chats or popular accounts on a particular social media platform that pertained to a local area, a postcode, or a school, that would have hundreds of members or followers. These usually involved people posting about and re-sharing local "drama" and gossip – the content varied but included videos of fights, people exposing someone else's nude images on 'bait out pages'²¹, as well as videos showing violent and gory content to others in the local area.

"At my [old school], people would be getting their nudes baited out 24/7 and there'd even be like bait out pages that people would send [to]. I'm pretty sure a lot of these people didn't even know who the person on the bait out page was, but people would send a nude out of spite to the bait out page and get it posted to the main story with a whole bunch of like 50 other people's nudes. I've seen about 50 of those pages in my time, literally probably more, to be fair. From year 7 to year 1 I, it was crazy."

Jaden, 17, London

"There's quite a few exposing pages...On Valentine's Day, bare people were exposed. There was a girl at my school, she sent a [nude] picture to a boy and a boy sent it to all the group chats and she got put on an exposing page."

Demi, 13, London

In one case, a child was actively engaging in the online social networks of an area she had previously lived in, as a way of building online friendships and staying in the loop of the 'drama' that was going on. This, at times, included her getting into arguments with others online to act as 'back up' for her friends.

"It's good so I can keep up to date on what's going on [in London] ... sometimes they'll get me to back them up [in online arguments]."

Jada, 14, Midlands

²¹ 'Bait out pages' are pages or accounts on social media which are known to share, or 'expose', leaked nude images, often of children and young people.

Platform design and functionality appeared to shape risk of harm

Online services often seek to minimise friction for users and enhance their experience with features and functions that make it easier for them to use the platform.

However, this research has shown that some of these platform features and functions may also have the effect of increasing the risk of harm. For example, because they increase the likelihood of exposure to a hazard (potentially harmful content/contact) or incentivise behaviour that puts children at greater risk of exposure or harm.

Features that make it easy to connect with others or for others to connect with them can increase children's exposure to hazards

Features that seemed to contribute to the risk of children having harmful experiences included those that made it easy for them to expand their online network and interact with others, or for others to interact with them.

An example of this was a feature of a video-sharing platform that enables users to easily add new connections based on 'friend of friend' networks, location or being within the same group chat. By rapidly increasing a child's network of connections, it also increased the risk of their exposure to hazardous content or contact via this larger network.

Children across the sample told researchers that they regularly used this feature as it offered a list of suggestions of friends or people they might know.

Noah, 13, for example, said that when he wanted to try and meet people from other schools, his older sibling suggested that the adding feature on this particular platform would be the best way to do that.

This feature allows children easy access to long lists of possible contacts who they may have very little connection to – several children explained that they rarely personally knew the majority of people recommended to them via this feature.

As a result, many of the children in the sample simply didn't know who many of their contacts were. This appeared to shape the types of interactions children were having online, and the likelihood that some of these interactions might be hazardous.

CASE STUDY - CONTENT, CONTACT

Jaden, 17, lives in London with his mum. He spends a lot of his time online gaming and on social media, particularly on the video-sharing platform with the contact adding function described above.



Violence, gory content

Jaden said that having a large network of connections on this platform was seen as a source of status among his peer group. On account of this, Jaden was a regular user of this specific feature, and at one point had thousands of 'friends' on the platform (in fact, the maximum number allowed).

However, he reflected that having that many connections had led to a range of unwanted interactions with people who, though they were officially his 'friend', were in fact strangers. This meant he would see hazardous content on the platform or be added to group chats by people he didn't know.

Jaden had regularly seen graphic, violent, and gory content shared on this platform by contacts that he didn't know personally including content that, as described, would be illegal such as depictions of necrophilia and videos of fatalities.²²

"I would add people without realising. And I would be scrolling on stories, and they would post the weirdest things..."

Jaden, 17, London

Another function noted in the research as a potential hazard to children is one that pairs random users to chat online via text, video, or both.

Two children in the sample (aged 13 and 17) had used a 13+ platform and had been exposed to abusive and racist language within it. Both had tried using the platform because they had heard of friends using it or had seen vloggers trying it – almost as a dare, with the expectation that they might see inappropriate content.

When children had to 'opt out' of connection with others, this increased the risk of exposure to hazards

On one platform, if the children's profiles were set to public, other users could add them as 'friends' if they had a connection in common, without the children having to actively accept a 'follow' request (although they did receive a notification).

Many of the children in the sample had their profiles set to public, as they said they wanted to expand their online networks of friends or people they might know. However, given the size of some children's networks and the fact that many of their 'friends' were not well known to them, this wider group of 'friends of friends' in effect often included strangers, people they were not sure they knew, or people they barely knew.

Features that seemed to contribute to the risk of children having harmful experiences included those that enabled children to be added to networks or group chats with people in their online network, without the option of declining, e.g., the user is required to opt-out by leaving a chat as opposed to having an active choice on whether to engage before they are added.²³

Kirsten, 14, described negative interactions she'd had as a result of a stranger messaging her on a video-sharing platform after they added her using the feature described above. On one occasion, someone that she didn't know added her, and sent a series of racist slurs. This experience was made worse when, while trying to block the sender, she said she accidentally responded, which led to a stream of further abusive messages. Kirsten explained that as a result she deleted her account and created a new account later on.

"Someone sent me a message and then I tried to block them but instead I responded and then they sent me a lot more - so I just deleted the app in a panic."

Kirsten, 14, North England

Similarly, Noah, 13, explained how he and his friend were added to a group chat on this platform by a stranger that they had both connected to via the contact adding feature, having been told to do so by friends at school. The group chat he was added to included images of graphic violence, some of which Noah was so shocked and surprised by that he viewed them twice, trying to process what he was seeing.

Noah explained that large group chats where violent and graphic content were shared were relatively commonplace amongst his peers. Therefore, while Noah was shocked by what he saw in the group chat he was aware that this type of group chat existed before he was added to one.

Noah reflected that he had not had the option to accept the invite to the group chat and had been added without him being able to make a decision about whether he wanted to be in it. He thought it would be better

²² Safeguarding risk assessments were carried out as appropriate, for details see Revealing Reality's Safeguarding and Ethics Policy

 $^{^{23}}$ These were factors children reported as influencing who was recommended to them within the app.

if you had to accept the invite, rather than to be added straight into it – particularly given how large some networks were on the platform and how many strangers he was typically connected to.

"I think that they should give you the option to actually accept the [group chat] invite."

Noah, 13, London

Some children reported that they'd been exposed to further hazardous content over time as a result of social media and video-sharing feeds adapting what they served

Many digital platforms use algorithms that refine the content being served to users based on their input behaviours – for example, capturing data on what they spend the most time watching or hovering over, what they 'like' and what they share. Over time, this means that platforms get better at serving content that its algorithms suggest a user will enjoy. There was evidence of this being experienced by children across the sample who were using social media and video-sharing platforms, with the 'feed' of content shifting over time to reflect particular types of content they'd shown previous engagement with. An unintended consequence of the platform suggesting more content that the user has shown an interest in over time is that it can include hazardous content.

In particular this was seen with feeds that presented a mixture of content from users/accounts that the child proactively followed, but also content that they were not following.

CASE STUDY - CONTENT

Leo, 17, lives with his family in the North East England. At the time of fieldwork, Leo was a regular gymgoer and saw a lot of gym, fitness, and body-sculpting related content on his social media feeds.

He reported that, prior to developing an interest in the gym over the first Covid lockdown, his feed on a social media platform was mostly focused on funny memes and car-related content. Over time, however, it became dominated by gym focused content, most of which was images of very muscley and extreme body shapes.

"My feed at the time was probably more car-related and more meme-related. But then as you start going to the gym, you start watching videos on people and you start looking at more like influencers I'd say, and your friends will say 'oh look at this person, he goes to the gym'. And then over time your feed just slowly becomes more of the gym."

Leo, 17, North East England

Though Leo said that he tried not to compare himself to the body types he saw online and reflected that many of the people in the photos might be using substances like steroids to build their muscle, he admitted that on occasion he did compare himself unfavourably with these types of images.

"Some of them use steroids, so it's kind of an unachievable goal. You're comparing yourself to the top athletes really."

Leo, 17, North East England

Similarly, as previously mentioned, Samira, I 3, was keenly interested in K-Pop and followed some K-Pop accounts on a video-sharing social media platform. She saw a large amount of K-Pop and other recommended content on her feed often placed alongside health and beauty content. As the amount of this K-Pop and body-focused content grew on her feed, some of it began to include references to dieting and restricted eating, which Samira's parents felt had fed into her negative eating behaviour.

Features that reduce friction may encourage children to use platforms or games for extended periods, contributing to opportunity costs

Platforms use a range of features that aim to improve user's experiences by reducing friction. One consequence of this, identified in the research, is that children find it easy to keep consuming content, prolonging the amount of time they spend online. These features appeared to play a role in the opportunity costs they were experiencing as a result of spending so much time online.

Frequently cited examples of these were features that automatically serve users with content, removing the need for them to make any decisions or actively seek content to engage with. The continual feed of content presented on many social media platforms is an example of this. These feeds enable children to keep scrolling (sometimes for hours) without ever needing to actively search for something, and without the platform prompting or encouraging them to stop. While some children were aware that there were features on their devices that could help them to monitor or restrict their time, e.g., time limits on apps, they weren't being used consistently by anyone in the sample.

Jane, 14, for example, said that she could get "sucked into" scrolling on her feed on a video-sharing social media platform and spend far longer on the platform than she intended, meaning she missed out on offline activities.

"I don't like the fact that you can go on [the platform] and you'll be on it for 30 minutes and you won't realise. Cos like I'll get home from school and like promise myself I'm going to walk the dog. I'll go upstairs, check my phone, I'll see these notifications, go on them and be on [the platform] for like 25 minutes."

Jane, 14, North England

Like Jane, many children in the sample were spending extended periods on social media platforms at the cost of other offline activities. During his diary task, for example, Tommy, 12, spent over nine and a half hours on a video-based platform in one day scrolling through videos.²⁴

Other features that reduced friction and encouraged children to spend long periods online included 'auto-play' feature, which automatically queues up 'recommended' videos as soon as one ends, removing the need to search for something new to watch. The combination of the recommendations and automatic serving of content also meant that some children were exposed to hazardous content that they had never actively searched for.

Features that quantify or attach value, as well as build anticipation, can encourage riskier behaviour online

Online platforms use a range of features that display quantified information about social activity – whether that's the number of 'likes' or reactions on a post, the number of views on a video, or the number of friends or followers a user has.

Children across the sample reported that they engaged with these features a lot, using them for various reasons, e.g., from working out what content to pay attention to, to identifying new people to follow online. Often children were reluctant to admit that getting validation through these metrics was important to them, but their behaviour would suggest many of them paid close attention to how many likes, comments and follows they received.

These features could, however, contribute to harmful experiences by promoting content that directed users off-platform or suggesting to children that particular pieces of hazardous content were popular, and therefore worthy of their attention and engagement.

Demi, for example, explained that a particular video on a social media platform, posted by one of her favourite content creators, had more comments than usual which captured her interest. This encouraged her to find out what everyone was talking about. Reading through the comments, she was then directed off-platform and exposed to pornography on another social media platform.

"All these people were commenting, I wanted to know what it was about."

Demi, 13, London

The seeming desire for highly visible online approval appeared to encourage some children to act in risky ways online. The content they saw, and associated engagement from other users, led them to believe that more shocking or attention-grabbing posts might get them more engagement and validation for their own posts from other users.

²⁴ The diary task asked participants to note their usual media activities each day over a seven-day period. See ANNEX 7 for more details on this exercise

Gabi, for example, said that she enjoyed it when people liked and shared her posts on a blogging site about her struggles with her mental health. She said this encouraged her to continue posting more and more personal disclosures about her experience. Gabi felt that this encouragement to continue sharing her difficulties may have contributed to her poor mental health lasting for longer than it would have otherwise.

"People would like and share my blog posts, and it would make me feel really good."

Gabi, 16, Scotland

Likewise, Liam was motivated by a desire to increase his follower count on a social media platform and decided to set his account to 'public' - as was common among the children in this sample - in the hope that more people would add him as a friend. As a result of this, he received unwanted contact from strangers, including scam messages and messages with links to pornography.

"When I was younger, I had a public account because I cared more about followers, but I just know it doesn't mean anything. I don't really care about it, to be honest."

Liam, 14, Northern Ireland

Some children reported that posts labelled as 'sensitive' or that advise people not to watch or click on them can have the opposite effect on them, as they built anticipation around what they might see.

"The most graphic content I've seen is on [social media platform] because you get posts that are blurred and it says, 'sensitive content' and it's so stupid because kids are going to want to click on it. If you're going to post stuff like that you should just maybe put it so if someone can see it straight away they can just scroll past instead of actually making me watch it."

Mariem, 16, Midlands

Few children engaged with safety features, in particular age restrictions

Age restrictions are a feature that platforms use to protect children by making it their policy that children under a certain age are not allowed on their platform. Social media and video-sharing platforms tend to require their users to be at least 13, while many games have higher age limits.

Some platforms tailor what children are allowed to do on their services based on their minimum age requirement or their 'user age'. For example, functionalities and restrictions exist for users under the age of 16 or 18, such as being unable to send direct messages (even to accounts they are friends with) or unable to see adult content.

However, most children in the sample were registered as older than their real age on their online profiles, having provided a false date of birth when signing up for the first time. ²⁶ Most had randomly selected a date, with some giving their parents date of birth when setting up their accounts.

Of the full sample of 42 children, ten children that were under the age of 13 had profiles on, and were regularly using social media platforms with a minimum age restriction of 13. Many older children told researchers that they had also started using platforms before they turned 13. Most did not see an issue with this and felt it was something they had to do to not miss out on what their friends were getting up to online.

Some children were aware that platforms offered a more limited experience or functionality to accounts registered as children, and so had deliberately registered as an older age. This was their way of ensuring they had access to all the features platforms had on offer, with little reflection on what the negative consequences might be.

"Yeah, I've always made sure I'm [registered as] over 18 because otherwise you don't get all the features."

Gabi, 16, Scotland

 $^{^{\}rm 25}$ A 'user age' is the age registered on an online account or profile.

²⁶ Ofcom has conducted quantitative research to further explore the proportions of children who have 'user ages' online making them older than they actually are, and therefore potentially placing them at risk from seeing age-inappropriate content or contact. Full details of this research can be found at by selecting the following: Children's Online User Ages data tables, Children's Online User Ages data tables.

Many children in the study were actually registered as much older than they were. Carlo, for example, was registered as 45 on both of his key social media accounts, while Jaden thought he was registered as at least 50 years old.

Some children wanted their accounts to be as 'open' as possible when gaming to maintain access to features or people

Some of the children in the sample had deliberately ensured that other features intended to keep them safe were switched off, so that they had access to the full online experience.

Elliot, 13, played a console game (a first-person shooter video game) and took his performance on it very seriously. He told a researcher that given how good he is already he needs to play against the very best players in order to progress. To ensure he had access to the best players, he had made his console settings as open as possible. He wanted to ensure he could join adults' games on the console's online multiplayer function and that the content of messages he received wasn't censored, in case these included invitations to play or to other opportunities in the gaming world, like streaming.

"You need to play against good people. [Playing with adults] will open more doors." **Elliot, 13, Scotland**

Though he did not seem to be seriously harmed by his experiences while playing this game, Elliot's openness to interacting with adults had exposed him to a range of hazards he might not otherwise have encountered, including him having seen instances of racism and discussions of drug-taking.

Similarly, Ethan, 10, spoke about enjoying being able to play against lots of different people in public matches, but that he had also experienced racist abuse after entering a public match on a first-person shooter game.



Racism

"It was a public match, so you talk to other people in it...He said, 'You're black, that means you used to be my slave... and some other racist stuff."

Ethan, 10, London

Neither Elliot nor Ethan had decided to stop entering public matches as a result of the experiences they had had. They didn't want to give up on the perceived benefits of being able to play against a wide range of opponents.

Overall, children in the sample generally demonstrated a lack of interest in engaging with the safety features on online platforms, predominantly because they wanted to avoid the restrictions that it may put on their account. The reasoning behind this ranged from not wanting to miss out, to wanting to access the 'complete' online experience.

Few children engaged with reporting or moderation features, and many were sceptical about whether they would have any impact

There were few examples of children engaging with reporting or moderation features on social media or gaming platforms. Even those who had used these features previously were sceptical of what doing so would achieve.

Esme, 14, for example, was sceptical that reporting content actually resulted in any action being taken by platforms. She wasn't sure what they would be able to do as the content had already been exposed to other users, and therefore in her eyes the damage had been done. Esme did not reflect that reporting content might prevent greater numbers of users being exposed or might prevent the poster from doing so again in the future.

"I feel like there's some things that could be improved...I feel like when you report things, they don't actually do anything."

Esme, 14, North England

Similarly, when Elliot, 13, reported someone for racism, he was unsure whether action had been taken, which made him doubt the value of having reported the person at all.



Racism

"Once this guy was being racist. He just kept saying the N-word. I reported him for voice communication, I don't know if he got banned."

Elliot, 13, Scotland

Mariem, 16, was particularly critical of reporting and moderation features, and didn't believe that platforms were likely to take any action at all.

"What is [reporting] going to do? It's not going to stop the next person from seeing it. Because social media don't really care...they just want to post what they think people want to see, and that's it."

Mariem, 16, Midlands

Demi, 13, felt that reporting was too late as people would already have seen a hazardous piece of content. But she also felt that she wouldn't want to report anything in case someone's account was blocked, and she suffered repercussions for that. She also explained that being seen to "snake" on other people could have consequences for her reputation, in particular if she reported content from her existing network or people who she knew in person.

"I like staying out of stuff like that... there's nothing that they could do other than shut down the account. But it's still happened. Nothing has prevented it from happening. There's not really a point... I don't really report things. I don't want to be a snake."

Demi, 13, London

Some children were directed to platforms where different terms of service resulted in them encountering hazardous content

As seen above, even when age restrictions or terms of service did make it less likely for children to encounter hazardous content or interactions on one platform, children could be encouraged and enabled to 'jump' to platforms where this wasn't the case.

As mentioned previously, Ethan, I0, was directed by a user on one social media platform to search for pornography on a search engine. While the social media platform's community guidelines restricted posting of porn on their own platform, content on it could easily direct users to other online spaces that were more permissive of pornography.

Also mentioned above, Demi encountered pornography on one social media platform that did allow it to be posted, having been directed there by comments on one of her favourite influencer's posts on a different social media platform. While she was shocked by what she saw, as mentioned above, she did not think reporting the incident would have any impact.

"There were people in his comments, like, 'I've seen him on social media, I've seen these trousers'
...So I was like, you know, let me follow him on social media. I think that was the worst mistake I
made...It was literally pornographic, everything is just there."

Demi, 13, London

The type of hazard and its content appeared to shape risk of harm

Children came across a wide range of different potentially harmful hazards relating to the type of content or contact they were exposed to, while spending time online. This ranged from seeing videos of graphic violence, to messages from unknown strangers, to being asked to share nude images by someone they knew offline.

The nature and characteristics of these hazards – who generated them, what they depicted or said, what form they took – had a real impact both on whether children were likely to engage with them, and on how likely it appeared they were to contribute to harmful experiences.

Children were more likely to engage with hazards if they were generated or circulated by peers

Children across the sample reported that if a video or piece of content was "doing the rounds" at school, they often felt like they had to engage with it. The children felt it was important to know what was happening online, not to be excluded and to stay up to date with gossip. Children were also often exposed to content by their peers, whether or not they wanted to see it.

Tommy, 12, reported that when a nude video of one of his peers was shared at school, he struggled to avoid seeing it.

"A [nude] video of a boy was sent around... I don't have it on my phone...they showed it to me in school."

Tommy, 12, Midlands

Children were more likely to see or watch hazardous content that was sent to them directly by friends (i.e. people they actually know) or siblings. Some children spoke about being in the middle of a wider conversation with a friend, who then sent them something that they struggled to avoid. Some also spoke about not wanting to offend their friends by not watching a video.

"Lots of it is posted by people I'm friends with. My friend sent me this video — so many people were commenting I felt like I just had to watch it."

Jaden, 17, London

Eating disorder content

Gabi, 16, talked about a friend of hers who engaged regularly with pro-anorexia content on a blogging site, and even had her own blog to share this sort of content. Gabi described how this person being her friend made her far more likely to have come across this content, as opposed to stumbling across the same account accidentally.

"In high school I had this friend who published stories on [a blogging site], she also looked at a lot of pro-ana content, that's what led me to making my own pro-ana blog."

Gabi, 16, Scotland

Hazards that were perceived as personal to children seemed more likely to cause harm

Hazards tended to have more of an impact on children if they felt personally relevant to them. Compared to hazards that they felt were clearly not directed at them, like 'spam' or 'bot' messages, children were far more likely to ruminate or be affected by personalised or targeted content.

The most common example of this was bullying or threats from people that children knew offline.

As mentioned earlier, while being bullied by some people who he used to be friends with, Noah was most affected when he was sent a screenshot of conversations people had been having about his dad, who had passed away a few years previously. Noah was particularly upset by these jokes, compared to some of the others that had been directed at him, as they felt targeted and personal to him.

"The big question is why. Why were they doing this stuff to me over and over again? I don't talk to them anymore."

Noah, 14, London

On top of her experience of bullying and abuse mentioned previously, Poppy talked about someone at her school having sent her messages referring to her mental health and history of self-harm. As Poppy believed she had only told a member of school staff about these experiences, she found these messages extremely unsettling and became worried about who she could trust.

"Someone got hold of some sensitive information... which like basically as a student they shouldn't have...
only my [school staff] knew about that."

Poppy, 17, South East England

As described previously some children were more likely to be *exposed* to hazards as a result of their offline environments, including in some cases their local geographic environment. The researchers also saw that children seemed more likely to be *harmed* by content that was about their local area or people like them. This could include stories of violence or assault that had taken place nearby, or 'leaked' nude images of children of a similar age, even if they didn't know them personally. In Demi's case, it appeared that her offline environment was increasing both her exposure and the harm (see page 21 for her case study).

"Stuff gets sent around so quick. It's like you can't go anywhere without anyone knowing 'oh, that's that girl who this happened to.' I knew the girl [in a raid video], she was at my school."

Demi, 13, London

Hazardous content or interactions that were appealing because they were presented as, or were perceived to be, solutions to problems or insecurities, appeared to be particularly risky for children

Several children described experiences where they had engaged with content or interactions that they initially found appealing and later on felt they had been harmed by. In some cases, children were eager to engage with this content as they felt like it helped them, reassured an insecurity, or otherwise offered a solution to a problem. It was only later that they were able to identify that the content had contributed to harmful experiences.

As mentioned previously, Gabi, 16, was excited when she first engaged with content and online communities focused on mental health, as she felt it 'validated' her experiences and reassured her that other people were experiencing similar challenges. Over time, however, she began to see these communities as contributing to and perpetuating her mental health issues. She described how certain mental health communities were 'competitive', with people trying to 'out do' each other in terms of how much they were struggling, in order to receive the most attention. She felt that this environment not only meant that she was exposed to more content about negative experiences, but also incentivised anyone who was part of it to 'suffer more' as this was what was seen to be rewarded.

Hannah, 9, had appeared to open herself up to risk online through posting content inviting "new best friends" on a (age 13+) social media platform. She had seen other videos of the same format and using the same hashtags and perceived that other people were successfully using the platform to make new friends.

Hazards that were perceived to be cool, taboo, or conferred status were more likely to lead to potential harm

Similarly, children seemed more likely to engage with content that was perceived as cool, transgressive, exciting, or trendy.

Like engaging with content that felt like a solution to a problem, this could contribute to self-reinforcing cycles of engagement with hazards that felt good at first but could lead to harm in the long run.

Nina's, 15, engagement with content from several image and video-based social media platforms was primarily relating to fitness, fashion, and celebrities. On top of the fact that these images made up a large proportion of her feed, she described how the status or 'cool factor' that her peers associated with models and influencers made her far more likely to want to engage with the content they posted.

As mentioned previously, Lucy, 16, described how receiving unsolicited explicit images from boys she knew in person and through her online network when she was 14 had initially felt flattering and exciting, but she had since realised that this negatively impacted how she saw relationships for a number of years.

Conclusions

This research set out to explore children's journeys to online harms and specifically to map the risk factors that appear to make harm more or less likely online.

It has provided an understanding of how children experience harm online and some of the risk factors involved with this.

There are limitations to bear in mind, specifically reliance on self-reported harm by children and parents/carers. This research sought to go beyond this by capturing observation of children's online experiences through ethnography, screen recording of their devices, and social media tracking. This has resulted in a much richer picture of what children actually see and experience online and how the context (e.g., the platform design, behaviour of other users, wider content that children are exposed to) plays a role.

The research raises a number of implications and challenges, including:

- Some of the routes that appear to result in the most severe harm are often the most difficult for children to identify, remember and self-report (i.e., via cumulative exposure), making it difficult for research and monitoring to account for them systematically and representatively.
- Some of the hazards that appear to be the riskiest for children are also in different ways often
 appealing to them, at least at first. Content that appeals to an insecurity, feels like the solution to a
 problem, or presents as cool and attached to social status is often involved in cases where harm was
 severe.
- 3. The risk factors that the research points towards interact with each other and are context dependent. Not all children will be harmed in the same way. Some children report no impact or even hint at building resilience in the face of hazards that other children report as harmful.
- 4. Where safety measures do exist to protect children from hazards and harm, children are not incentivised to engage with them and will even actively try and circumvent them to access the services, content, and functionalities that they want to.