Online Nation

2020 Summary report

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About Online Nation

Online Nation is an annual research report, published for the first time in 2019. Using research produced both by Ofcom and others, this report and the accompanying interactive data look at what people in the UK are doing online, how they are served by online content providers and platforms, and their experiences of using the internet, alongside business models and industry trends. As well as looking at long-term trends, this year’s report includes more recent data looking at online behaviour in the UK during the coronavirus (Covid-19) pandemic.

Alongside this we have published our latest Adults’ media use and attitudes report and research into internet users’ concerns about and experience of potential online harms, with advice on the research design provided by the Information Commissioner’s Office (ICO).

The report follows a similar structure to last year, with chapters on:

- **the online consumer** – covering the most popular online services and their use in the UK and consumers’ attitudes towards and understanding of them;
- **the online industry** – covering online sector growth and trends from a UK perspective; and
- three final chapters looking in detail at specific aspects of the online experience, helping us to understand how specific online communications and media are used by people in the UK and how businesses monetise and operate their services. This year, we include three detailed chapters on **online games**, **video-sharing platforms** and **online communication services**.

As in 2019, this report is an important part of our work to understand communications markets and consumer behaviour. We have a duty to research and promote media literacy, which includes promoting an understanding of what is happening online.

There have recently been a number of developments around Ofcom’s remit in regard to online services. Namely, Ofcom is preparing to take on new duties for the regulation of UK-based video-sharing platforms (VSPs) and the UK Government has announced that it is minded to appoint Ofcom as the regulator of the forthcoming online harms regime. While the information in this report may have relevance to a number of different areas of our remit, it does not put forward policy guidance or make any policy recommendations.

This document summarises some of the findings from our main report.
Summary report

Smartphones are driving UK internet use to an all-time high

Over four-fifths of time online is on mobile devices as take-up of connected devices grows

Ofcom research shows 87% of people aged 16+ in the UK used the internet in 2019,1 broadly consistent since 2014. In September 2019, 81% of measured time spent online was on a mobile or tablet device. Meanwhile, the number of internet users who use only their computers or laptops to go online continues to decline steadily, from 12% in 2017 to 4% in 2019.2

The shift away from computer-only use may also have been partly due to the take-up of new connected devices. Our research shows that in 2020, a fifth (22%) of UK adults had a smart speaker in the home and 11% of all UK households own some kind of ‘smart home’ technology (including devices such as smart home security, smart lighting or smart heating). The number of households with internet-connected smart TVs rose to 51% of all adults in 2020, up from 40% in 2019.3

Figure 1 provides a view of the most popular smart technology devices among consumers in the UK.

Figure 1: Incidence of internet-connected devices in the household, 2020

1 Ofcom Adults’ Media Literacy Tracker 2019. More recent research from Ofcom’s 2020 Technology Tracker suggests that 89% of households in the UK have access to the internet, up from 87% in 2019. This is probably linked to an increase in households which only use smartphones to go online, up from 3% in 2019 to 5% in 2020 (fixed broadband has remained stable at 80%).

2 Comscore MMX Multi-Platform, Total Internet, Adults 18+, Sep 2019, UK. Throughout our report, September 2019 is used as a base sample month, as it is one of the most stable months in terms of internet use (for instance, it is largely outside school and national holidays).

3 Ofcom Technology Tracker 2020
Adults in the UK spent an average of 17 minutes more online each day compared to 2018

In September 2019, adult internet users in the UK each spent 3 hours 29 minutes online (on a mobile, tablet or computer) each day on average, up from 3 hours 11 minutes in 2018. 4 In comparison, on average, adults spent 3 hours 19 minutes watching TV on a TV set each day, 5 and 2 hours 40 minutes listening to radio each day. 6

We also include more recent consumption data from March and April 2020, when the whole of the UK was under lockdown. In April 2020, internet users in the UK spent an average of 4 hours 2 minutes online each day, a record figure, 7 and 37 minutes more each day per online adult compared with January 2020. On average, 18- to 24-year-olds spent over an hour more online each day than adults overall. 8

Figure 2: Average time spent online per visitor per day, by age: November 2019 to April 2020

Source: Comscore MMX Multi-Platform, Total Internet, Adults 18+, Nov 2019 - Apr 2020, UK.

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4 Source: Comscore MMX Multi-Platform, Total Internet, Adults 18+, Sep 2018 & 2019
5 BARB, Avg. Daily Minutes based on adults in TV households, Adults 18+, Sep 2019
6 RAJAR 2019 Q3, Adults 18+ listeners; excludes internet listening; 3-month weight
7 Comscore MMX Multi-Platform, Total Internet, Adults 18+, Jun 2015 - Apr 2020, UK. This is the first time Comscore has recorded an average time spent per user per day surpassing four hours since June 2015 (a change in methodology means that we cannot compare April 2020 results with results prior to 2015).
8 Comscore MMX Multi-platform, Total Internet, Age: 18+ and 18-24, Jan 2019 - April 2020, UK.
The internet has become more important than ever for accessing news, information and civic processes

In September 2019, news and information sites reached almost 99% of all adult internet users in the UK, who each spent an average of 12 minutes on these sites each day. While this was in line with September 2018, time spent on news and information sites increased in 2020 as users kept up to date with developments relating to the coronavirus pandemic. Compared to the start of the year, visitors to news sites each spent 3 minutes more on the sites each day on average in March 2020 (15 minutes 43 seconds), though this fell slightly in April 2020 (15 minutes 32 seconds). ⁹

As outlined in our online consumer chapter, although our research shows that television remained the most popular way to consume news in 2019 (used by 75% of adults ahead of 66% who use the internet for news), the gap has narrowed since 2018 as online sources grow and consumption of television news falls (from 79% in 2018). Use of social media sites as a source for news grew from 2018 to 2019: 49% of adults said that they use social media as a source for news in 2019, up from 44% in 2018. ¹⁰

More recent survey data on the coronavirus pandemic and news services, conducted by Ofcom since 27 March 2020, suggests that over the course of the lockdown BBC services have been used most. Some 78% of adults have been using BBC services for news about the coronavirus, compared to 37% who reported using social media (by the eighth week of the survey, 15-17 May). People appeared to access news less frequently as the lockdown continued in the UK; about a quarter (24%) said they accessed news about the coronavirus more than 20 times a day in our first survey at the end of March, falling to just 8% in mid-May. About two in five people say they have seen false or misleading information about the coronavirus. ¹¹

The importance of being online during this time was demonstrated further in March 2020 by the growth in reach of education (+3 percentage points, pp), health (+4pp) and government (+13pp) sites since January 2020, ¹² trends which are outlined in further detail in our online consumer chapter.

However, more than one in ten adults do not use the internet

Our media literacy research suggests that the number of people who use the internet remained stable in 2019. Some 13% of adults (aged 16 or over) said they never went online, a figure that has remained broadly consistent since 2014. Older adults and DE adults were more likely to not use the internet (27% of DE adults, 30% of adults aged 65-74, and 51% of adults aged 75+). More than half (52%) of people who did not go online said that they were just not interested in doing so, while 6%
said that they do not have the right equipment or it is too expensive. Our 2020 tracker research suggests 2% of households with children do not have access to the internet.

As with internet take-up, our 2019 media literacy research suggests that over 65s and adults in DE households are also less likely to use online banking (53% and 46% respectively, compared to 73% among all adults), to complete government processes such as renewing passports or driving licences (44% of over-65s and 47% of DE households, compared to 59% of all adults), or look online for public services information (39% of DE households, compared to 54% of all adults).

Although UK consumers use a range of online services, major online platforms continue to make up the majority of time spent online

On average, more than a third of measured time spent online is spent on Google- or Facebook-owned sites

As explored further below, our research suggests people in the UK use a range of services for entertainment, information and keeping in touch. Notably, some of the fastest-growing services during the coronavirus crisis are not owned by Google, Apple, Facebook, Amazon and Microsoft (known as GAFAM). For example, TikTok, owned by Chinese tech company Bytedance, increased its reach among adults in the UK from 5.4 million to 12.9 million between January and April 2020, while Houseparty, owned by Epic Games, increased from 175,000 to 4 million. Zoom, run by former Cisco Webex engineer Eric Yuan, reached 13 million adult internet users in April 2020, up from 659,000 in January 2020.

In September 2019, Comscore data showed there were 13 ‘properties’, or groups of websites and apps owned by the same company, accessed by UK adults that register average use each day on mobile, tablet or computer of a minute or more; 57% of average time spent online was on these 13 properties, while the remaining 43% of time spent online is across a long tail of properties (each made up of many websites). More than a third of all measured time online was spent on Google- (which includes YouTube as well as other Google sites) and Facebook-owned sites (39% in September 2019, up from 37% in September 2018).

13 Ofcom Adults’ Media Literacy Tracker 2019.
14 Ofcom Technology Tracker 2020.
15 Ofcom Adults’ Media Literacy Tracker 2019.
16 Comscore MMX Multi-Platform, Age: 18+, Jan, April 2020, UK.
17 For instance, Google properties include Google Search, YouTube, Gmail and other Google-owned sites.
18 Note that Comscore does not integrate all online platforms, notably it does not measure internet use via smart TVs.
19 Comscore MMX Multi-Platform, Age 18+, Sep 2018 and 2019, UK.
2019 was another year of growth for the online advertising market

Measurement of time spent and conversion rates are features, alongside granular targeting using customer data and pay-per-view billing for advertisers, that have driven growth in online advertising and are hard to replicate in other media. Advertising is the primary revenue source for many online properties and has grown at a compound growth rate of 20% for the past five years. Google and Facebook sites combined had an estimated 78% of UK online advertising revenues in 2019.

Although 2019 was another year of growth for online advertising, the latest Advertising Association/WARC Expenditure report forecasts that the impact of the coronavirus in 2020 will result in year-on-year declines in paid search and online display advertising for the first time.

![Figure 3: share of average time spent online per day (hours:minutes)](image)

Source: Comscore MMX Multi-Platform, Adults 18+, Sep 2018 and 2019, UK. Note: excludes TV set use.

![Figure 4: Estimated share of UK online sectors by revenue stream: 2014-2019](image)

Source: Oliver & Ohlbaum estimates and analysis, based on data from AA/WARC, PwC Global Entertainment and Media Outlook, Enders Analysis (based on company data and AA/WARC), Zenith, Statista, the e-Commerce Foundation, company reporting and public filings. UK adjusted for CPI at 2019 prices by Ofcom. Figures are indicative only, with overlapping.

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20 Oliver & Ohlbaum estimates and analysis, based on data from AA/WARC, PwC Global Entertainment and Media Outlook, Enders Analysis (based on company data and AA/WARC), Zenith, Statista, the e-Commerce Foundation, company reporting and public filings. UK adjusted for CPI at 2019 prices by Ofcom.

21 Ofcom calculation, based on gross revenue data from AA/WARC and Oliver & Ohlbaum analysis.

22 Advertising Association/WARC Expenditure Report (press release), 30 April 2020
categories — and, as such, data presented may differ from other industry sources due to differences in sectoral definition or other methodological differences.

Consumers’ understanding of how online services are monetised remains mixed

According to our 2019 adults’ media literacy research, 87% of internet users said they are confident in their online abilities generally, while almost three quarters of internet users (73%) said that they are confident that they can manage who has access to their personal data online. 23

However, when it comes to recognising ads online and understanding the role advertising plays in online business models, only about half (53%) of all adults identified advertising as the main source of funding for search engines, while 43% were aware that YouTube’s main source of funding is advertising. These figures have remained broadly stable since 2018, 24 and are broadly in line with understanding among 12-15 year old users of these platforms (54%). 25

A sizable minority of internet users (45%) said they were not happy for companies to collect and use their personal information under any circumstances, up by six percentage points since 2018. In 2019, just 13% said they were happy for companies to collect personal information to show them more relevant advertising. 26 Trust in services to use their data responsibly is also relatively low; for instance, according to our 2020 research on internet users’ experience of harm online, 56% of adults trust Amazon to do so, 43% Google and 35% Facebook. 27

In 2019 and 2020, the internet has become more important than ever for staying connected and entertained

Online games are a mainstream pastime, particularly among children

As outlined in our online games chapter, Ofcom’s media literacy research shows that four in ten UK adults and three quarters of 5-15 year olds played games of some kind in 2019. Sixteen per cent of all adults played games online, rising to 48% among 16-24 year-olds, 28 and 59% of 5-15 year olds. 29

Online access has enabled distribution of games over the internet to consoles, PCs, smartphones, tablets and other smart technologies. Our research suggests that in 2009, 27% of adults played games on a dedicated console, falling to 16% in 2019, while the proportion playing games on mobiles increased from 6% to 23%. 30 Improvements in the broadband speeds available to consumers and the greater computing power of mobile and tablet devices has made gaming a more accessible pastime for a range of audiences, spreading play throughout the day.

23 Ofcom Adults’ Media Literacy Tracker 2019.
24 Ofcom Adults’ Media Literacy Tracker 2019.
26 Ofcom Adults’ Media Literacy Tracker 2019.
27 Internet users’ concerns about and experience of potential online harms (“Ofcom-ICO research 2020”).
28 Ofcom Adults’ Media Literacy Tracker 2019.
30 Ofcom Adults’ Media Literacy 2019.
Figure 5: Percentage of game players who play while undertaking other activities

Source: TouchPoints GB 2019. Base: all adults (15+) who played any game on any device in the last 12 months.

UK revenues for game software exceeded £3.8bn 2019, compared to £2.6bn for video and £1.4bn for music. Overall total consumer expenditure on games software, gaming hardware and culture was £5.3bn in 2019.

A vibrant creative industry has grown up around user-generated video

Enormous amounts of user-generated video content are uploaded online across a range of services. Research for this year’s report suggests that 90% of adults and 98% of children aged 8-15 who use the internet have used a video-sharing platform (VSP) in the past year. 32% of these adults report spending more time watching videos on VSPs than watching live broadcast TV, rising to 57% among 18-24 year olds. Looking specifically at YouTube, UK adult visitors of the platform spent an average of nearly 29 minutes on the site every day in September 2019. 18-24s spent more than twice as long as average on YouTube, at 65 minutes every day.

As outlined in our chapter on video-sharing platforms, the range of video content available to users online is vast, with user-generated content having come to define these services. On YouTube, although branded and broadcaster content has a high-reach, the long tail of user-generated content continues to account for the majority of time spent, with the top 20 most viewed channels on YouTube accounting for just one fifth (21.5%) of total time spent on the platform by adults in September 2019. Channels with content designed specifically for digital viewing (‘digital native’ content) make up 67 of the top 100 channels (by reach).

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32 Ukie, UK Consumer Games Market Valuation. Adjusted for CPI at 2019 prices by Ofcom.
33 Ofcom video-sharing platforms research 2020 (adults).
34 Comscore MMX Multi-Platform, YouTube.com, Age: 18+, Sep 2019, UK. Note: Excludes TV set use.
35 Comscore MMX Multi-Platform, YouTube partners report, Age: 18+, Sep 2019, UK. Note: Excludes TV set use.
Game-related content is one significant driver of viewing to streaming sites and video-sharing platforms. As described further in our online games chapter, 15% of adults say they watch gaming videos on online sites every month, increasing to almost two in five (37%) for 18-24 year-olds. In September 2019, 2.2 million adults in the UK visited Twitch – a leading live streaming platform for gamers – rising to 4.2 million in April 2020. A fifth (21%) of adults who watch gaming videos say that they prefer watching other people playing video games to playing games themselves.

The video-sharing platforms and online games chapters also outline the ways in which creators and intellectual property owners can monetise their content through these platforms, including by earning shares of advertising or subscription revenues generated by platforms or third-party services. Our research suggests that 40% of adults and 59% of 8-15 year-olds who use video-sharing sites have made a video and uploaded it online. Seventeen per cent of adults who do so report receiving money or gifts. Meanwhile, 4% of game-playing adults say they spend money each month on supporting a streamer, increasing to 8% for 18-24 year-olds.

People in the UK are also using a range of online services to keep in touch with friends and family

People in the UK are increasingly using services provided over the internet to communicate with one another – through online voice, video, text and email services. As outlined in our chapter on online communication services, there is wide use of online voice, video, text and email communications

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36 Ofcom online games research 2020 (adults).
37 Comscore MMX Multi-Platform, TWITCH.TV, Age: 18+, Sep 2019, April 2020, UK.
38 Ofcom online games research 2020 (adults).
39 Ofcom video-sharing platforms research 2020 (children and adults).
40 Ofcom online games research 2020 (children and adults).
services among all age groups: 73% of UK adult internet users used online text messages, 54% used online voice calls, 35% used video calls and 55% used emails at least weekly. Nine in ten adult internet users used any of those four services at least weekly.  

Although there are many online communication services available, consumers tend to use services from only a small number of providers. Ofcom research carried out in February 2020 shows that WhatsApp and Facebook Messenger are the most popular services for online text messages, voice calls and video calls. The level of use of WhatsApp for text messaging is now very similar to the usage and reach of SMS among adult internet users. While slightly more adult internet users reported using SMS (94%) than WhatsApp (71%) for text messaging in the last 12 months, on a daily basis consumers are using WhatsApp (40%) and SMS (41%) to a similar extent. Internet users also used online voice calling and mobile network calls to a similar extent, with 31% making daily online voice calls, and 38% making daily mobile network calls.

Figure 7: Comparative use of WhatsApp and SMS for text messages, by frequency: last 12 months

Use of these services has increased dramatically during the coronavirus pandemic, in particular, the use of video calling. Until early this year, online video calling was used to a much lesser extent than other online communication services, with 35% of online adult consumers using online video calling at least weekly in the 12 months to February 2020. In May 2020, this had doubled to 71% of online adult consumers using online video calling services at least weekly with 38% using them at least daily. Our research suggests that 7% of adult internet users used video calling for the first time as a result of the coronavirus pandemic.

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41 Ofcom online communication services research 2020.
42 SMS stands for short message service, a widely used type of text messaging sent over mobile networks.
43 Ofcom online communication services research 2020.
44 Ofcom Covid-19 news and information: consumption and attitudes.
45 Ofcom Covid-19 news and information: consumption and attitudes.
Social and interactive functionality are increasingly a feature of a range of online services

Social and interactive features are by no means limited to social media and communications services. As communication functionality is integrated into a wider range of online services, people are using a range of apps to fulfil different needs and communicate with different groups of people.

For instance, games platforms have integrated features which allow players to chat and connect in groups, share content and play together. Our research suggests that one in ten (9%) UK game-playing adults have used a games social network such as Steam or Xbox Live in the past month. Of those who use the communication features of games and game-related platforms, a third (33%) talk to friends more via these platforms than via other forms of online communication, and more than half (53%) talk about a wider range of topics, not just the games they are playing. Multiplayer games, meanwhile, allow for the creation of more formal social groups, such as guilds or clans: one in 20 UK adult game players and three in 20 child game players have joined or taken part in this kind of game social group in the past month. Fifty-two per cent of 8-15s who take part in these groups say they do so to socialise with other people, and 83% say they do so to play with friends. 46

Meanwhile, social media and online communication services are integrating game features into their platforms. Snap Games, for instance, allows users to play games alone or with friends on the Snapchat app, while video-chatting app Houseparty lets users play games with each other and take part in quizzes. Our research suggests that 15% of UK adult players have played games on a social media platform. 47

Among those who post videos on video-sharing sites, 49% of adults say they do this to share their experience with friends or family. Of those who comment on video-sharing sites (45% of adult users), 61% say they mostly do this on the videos of people they know personally.48 The figure below maps video sharing and social functionalities on some popular services.

Figure 8: Summary of selected sites with video-sharing and social functionality

<table>
<thead>
<tr>
<th>Video sharing</th>
<th>Friends</th>
<th>Followers</th>
<th>Comments</th>
<th>Private messages</th>
<th>Likes</th>
<th>Hashtags</th>
</tr>
</thead>
<tbody>
<tr>
<td>YouTube</td>
<td>🌐</td>
<td>👤</td>
<td>📹</td>
<td>🏛️</td>
<td>👍</td>
<td>#</td>
</tr>
<tr>
<td>Facebook</td>
<td>🌐</td>
<td>👤</td>
<td>📹</td>
<td>🏛️</td>
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<tr>
<td>Instagram</td>
<td>🌐</td>
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<td>#</td>
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<tr>
<td>Twitter</td>
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<td>📹</td>
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<td>👍</td>
<td>#</td>
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<tr>
<td>Imgur</td>
<td>🌐</td>
<td>👤</td>
<td>📹</td>
<td>🏛️</td>
<td>👍</td>
<td>#</td>
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<tr>
<td>Vimeo</td>
<td>🌐</td>
<td>👤</td>
<td>📹</td>
<td>🏛️</td>
<td></td>
<td></td>
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<tr>
<td>TikTok</td>
<td>🌐</td>
<td>👤</td>
<td>📹</td>
<td>🏛️</td>
<td>👍</td>
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</tbody>
</table>

46 Ofcom online games research 2020
47 Ofcom online games research 2020
48 Ofcom video-sharing platforms research 2020 (adults)
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While online services bring many benefits, people continue to express high levels of concern about going online

81% of 12-15 year-olds and 62% of adults say they have had a potential harmful experience online in the past year

As in 2019, our research into internet users’ experience of harm online, commissioned jointly with the Information Commissioner’s Office (ICO), shows that most UK internet users recognise the benefits of the internet; most (57%) 12-15-year olds agree the internet makes children’s lives better and most (66%) adults agree the benefits of going online outweigh the risks.

Nevertheless, the majority say they have concerns about going online (89% of 12-15s, 86% of adults) and have had a potentially harmful experience online in the last year (81% 12-15s, 62% of adults). 12-15 year-olds are more likely than adults to report having experienced potential harms online, which may be related to the amount of time they spend online and range of online activities they engage in.

Figure 9: Adults’ and children’s reported exposure to potential online harm in the past 12 months

<table>
<thead>
<tr>
<th>Category</th>
<th>Adults</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relating to interaction with other people/content</td>
<td>43%</td>
<td>74%</td>
</tr>
<tr>
<td>Relating to data/privacy</td>
<td>37%</td>
<td>Excl. spam: 39%</td>
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<tr>
<td></td>
<td></td>
<td>13%</td>
</tr>
<tr>
<td>Relating to hacking/security</td>
<td>27%</td>
<td>27%</td>
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<tr>
<td></td>
<td></td>
<td>(30% 2019)</td>
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<tr>
<td></td>
<td></td>
<td>(26% 2019)</td>
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The research, outlined in more detail in our consumer, online games, video-sharing platforms and online communication services chapters, suggests that social media is the most common source of potentially harmful experiences among both adults and children.Twenty per cent of adults who have experienced a potential harm identify social media as the most recent source, followed by email (16%), search engines (8%) and instant messengers (8%). Meanwhile, 30% of 12-15 year-olds identify social media as a source of potential harm that they have experienced, followed by email (13%), instant messengers (12%) and video-sharing sites (8%).

Source: Ofcom desk research. Note: selected sites and functionality – see full report - video-sharing platforms chapter for full table and footnotes.

49 Ofcom-ICO research 2020
Industry continues to implement tools and approaches to help mitigate these harms, with some uptake by users

Some steps have been taken by industry to address these harms including providing a way for users to report content that violates the platforms’ terms of service, providing content moderation and funding media literacy and resiliency initiatives. New initiatives, such as information resources and signposting authoritative sources, have also been introduced in response to the coronavirus pandemic, described in detail by Ofcom’s Making Sense of Media programme.

This year, our research asked about users’ approaches to reporting potential harm and its outcomes. A fifth of adult internet users (19%) and a third of 12-15-year olds (29%) say they have acted to report harmful content that they have seen online, encompassing a range of actions such as clicking a report button, telling a friend or family member or informing their ISP. 15% of adults and 12-15-year-olds said they had reported content to a site; 51% of these adults said the content was removed, as did 44% of 12-15s. More than a third of both said they did not know what happened to the content.

Figure 10: Reporting outcomes on online services
15% of 12-15 year olds reported harmful content they have seen online to the platform.

Source: Ofcom-ICO research 2020. Base: All that have taken action and reported the offensive, disturbing or harmful content by clicking on the report button or by informing the website or social media site or gaming service in another way (adults = 374, 12-15s = 292). Only reporting above 5% shown.