Overview

Online Nation is a new annual report that looks at what people are doing online, how they are served by online content providers and platforms, and their attitudes to and experiences of using the internet. It brings the relevant research into a single place and aims to act as a data- and insight-driven resource for stakeholders at a time of significant evolution in the online landscape.

In this report we set out business models and industry trends, alongside people’s use of and attitudes to the internet. Put together, this provides a valuable and unique evidence base to better understand any potential harms resulting from the use of online services. Alongside this report we have published our latest research on adults’ media use and attitudes, and our latest research into online harms, which we commissioned jointly with the Information Commissioner’s Office (ICO).

Ofcom’s purpose is to make communications work for everyone. The growing relationship between market developments and consumer behaviour in online markets, and in the communications sectors that we regulate, make it ever more important to understand and keep track of the online landscape. We also have a duty to research and promote media literacy, which includes promoting an understanding of what is happening online.

The report is structured as follows:

- In the first two chapters we set out how we measure and understand the online landscape, looking at people’s use, attitudes and impact, and industry developments.
- The following four chapters look in detail at specific aspects of the online experience, helping us to understand how online communications and media serve people in the UK.
  - A chapter on user data sets out how collecting people’s data is key to internet firms’ business models and to people’s online experience.
  - We then focus on search and discovery to examine how people navigate the internet, how online firms help them find the information and content they are looking for, as well as content they are not looking for, but which they might find relevant or appealing.
  - A chapter on social media explores how the internet enables people to communicate, share content and follow news, but which is also the source of many concerns about being online.
  - The final chapter, on video, examines how technological advances and changing consumer behaviour have affected how people consume content and how it is presented to them.
Executive summary

The internet has transformed how people consume media and communicate

Connected devices, high-speed internet access and new services are transforming how people communicate and consume media content. In 2019, almost nine in ten (87%) UK households had internet access, with 82% of people using home broadband and 70% using a 4G mobile service to get online.

Adults who use the internet spent, on average, 3 hours 15 minutes a day online in September 2018, up by 11 minutes since 2017. Children and young adults spent much more time online than they did watching television.

But one in ten people do not use the internet

In 2019, 13% of adults reported that they do not use the internet. This has remained unchanged since 2014. People over 54 are less likely to use the internet (19% for 55-64s, 33% for 65-74s and 48% for those aged 75+). Working-age adults in DE socio-economic group1 households are more than three times as likely as those in non-DE households to be non-users of the internet (14% vs. 4%).

The main reason for not going online is the perceived lack of need for the internet, cited by 47% of respondents, followed by someone else going online for the non-user (12%).

There are great benefits to being online...

The internet has made it easier and cheaper to communicate and to create and share content and information. It has enabled new business models which have transformed economic and social activities. Every week 74% of internet users send or receive emails (44 million people) and 49% use the internet for instant messaging communications (29 million); 73% search and browse the internet (43 million) and 36% download information for work/school/university (21 million); 51% use the internet for banking or paying bills (30 million) and 46% for online shopping (27 million); 23% use the

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1 The DE social grades comprise semi-skilled and unskilled manual workers (D) and state pensioners, casual and lowest grade workers, unemployed with state benefits only (E).
internet to find health information (14 million) and 19% look for public services information on government sites (11 million).²

...but eight in ten adults have concerns about some aspects of internet use

While most internet users (59%) agree that the benefits of going online outweigh the risks, most also have concerns about being online. Just over half (53%) strongly agree that they are concerned about the internet. Compared to our 2018 survey, the proportion of adults who expressed an unprompted concern with aspect(s) of internet use appears to have increased (from 59% to 78%³).

Using a broad definition (ranging from experiences that are mildly annoying to seriously harmful), 61% of adults and 79% of 12-15 year-olds have had a potentially harmful experience online in the last 12 months.

Adults’ and children’s exposure to potential online harm in the past twelve months

<table>
<thead>
<tr>
<th>Experenced potential online harm</th>
<th>Adults</th>
<th>Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Of adults have had potentially harmful online experiences in the last 12 months</td>
<td>61%</td>
<td>79%</td>
</tr>
<tr>
<td>Of children (12-15) had potentially harmful online experiences in the last 12 months</td>
<td>47%</td>
<td>39%</td>
</tr>
<tr>
<td>Relating to interaction with other people/content</td>
<td>71%</td>
<td>39%</td>
</tr>
<tr>
<td>Relating to data/privacy</td>
<td>39%</td>
<td>39%</td>
</tr>
<tr>
<td>Relating to hacking/security</td>
<td>30%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Source: Ofcom-ICO research 2019

Which, if any, of the following things have you come across on the internet in the last year? PROMPTED

There are high concerns about the potential online harm to children

When prompted, 83% of adults expressed concern about harms to children on the internet. The greatest concern was bullying, abusive behaviour or threats (55%) and there were also high levels of concern about children’s exposure to inappropriate content including pornography (49%), violent / disturbing content (46%) and content promoting self-harm (42%). Four in ten adults (39%) were concerned about children spending too much time on the internet.

Many 12 to 15-year-olds said they have experienced potentially harmful conduct from others on the internet. More than a quarter (28%) said they had had unwelcome ‘friend’ or ‘follow’ requests or unwelcome contact, 23% had experienced bullying, abusive behaviour or threats, 20% had been ‘trolled’⁴ and 19% had experienced someone pretending to be another person. Fifteen per cent said they had viewed violent or disturbing content.

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² Ofcom Technology Tracker 2019
³ The results of the two surveys are not directly comparable and can only be interpreted as indicative.
⁴ A person who engages in ‘trolling’ is one who deliberately says something controversial in order to start arguments or cause upset.
Social media sites, and Facebook in particular, are the most commonly-cited source of online harm for most of the types of potential harm we asked about. For example, 69% of adults who said they had come across fake news said they had seen it on Facebook. Among 12 to 15-year-olds, Facebook was the most commonly-mentioned source of most of the potentially harmful experiences.

Most adults say they would support more regulation of social media sites (70%), video sharing sites (64%) and instant messenger services (61%). Compared to our 2018 research, support for more online regulation appears to have strengthened. However, just under half (47%) of adult internet users recognised that websites and social media sites have a careful balance to maintain in terms of supporting free speech, even where some users might find the content offensive.\(^5\)

**Changes in online behaviour are driven by being constantly connected, particularly to mobile internet**

Internet use is increasingly on smartphones. On average, a UK adult smartphone user spent 2 hours 34 minutes per day online on their smartphone in September 2018. Smartphone users spend 68% of the total time people spend online on their smartphone, up from 44% in 2015. When time spent on tablets is added in, 75% of people’s total time online is on mobile devices. More than half (51%) considered the mobile as their most important device for accessing the internet in 2018.

More than a third (35%) of the total time spent online in the UK is on sites owned by Google or Facebook. This reflects the primacy of video and social media in people’s online consumption, particularly on smartphones. Around nine in ten internet users visit YouTube every month, spending an average of 27 minutes a day on the site. A similar number visit Facebook, spending an average of 23 minutes a day there.

But overall, people have a varied online diet, on average spending a minute or more each day on 15 different internet sites and apps. Sites and apps that were not among the top 40 sites ranked by time spent accounted for 43% of average daily consumption. Just over one in five internet users said that in the past month they had used ‘lots of websites or apps they’ve used before’ while a third (36%) said they ‘only use websites or apps they’ve used before’.

\(^5\) Ofcom-ICO research 2019
Average share of time spent online per day by adult digital population, split by property[^6]: September 2017 and 2018 (hours:minutes)

Source: Comscore MMX Multi-Platform, Age: 18+, Sep 2017 & 2018, UK

**Advertising is the primary source of revenue for most online sectors**

Online advertising generated £13.4bn in the UK in 2018 (up 13% since 2017). This represents 57% of total UK advertising revenue (television was the second largest sector at £5.1bn – 22% of total advertising revenue). Growth was driven by mobile advertising, which increased by 29% in 2018 and accounted for 51% of all online ad spend. Fifty per cent of online advertising revenue came from search, and 39% from display advertising, similar to last year.

Google and Facebook together generated an estimated 61% of UK online advertising revenue in 2018. Their websites are the most visited by adults in the UK, but their share of revenue is far greater than time spent (35%).

Subscription is growing fast as a business model, particularly for entertainment and news where it accounted for 64% and 39% of revenue globally.

[^6]: Properties are groups of websites and apps owned by the same company. For instance, Google properties include Google Search, YouTube, Gmail and other Google-owned sites.
Revenues for key online sectors in the UK

<table>
<thead>
<tr>
<th>Key Sector</th>
<th>Primary business model</th>
<th>2018 Global revenue (£m)</th>
<th>% Global revenue change y-o-y</th>
<th>2018 Estimated UK share of global market (%)</th>
<th>2018 Estimated UK revenue per capita</th>
<th>Example key companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search</td>
<td>Advertising</td>
<td>83,582</td>
<td>13%</td>
<td>7%</td>
<td>£101</td>
<td>Google search, Bing</td>
</tr>
<tr>
<td>Social media</td>
<td>Advertising</td>
<td>49,545</td>
<td>17%</td>
<td>6%</td>
<td>£45</td>
<td>Facebook, Twitter</td>
</tr>
<tr>
<td>(Free) video</td>
<td>Advertising</td>
<td>21,046</td>
<td>30%</td>
<td>8%</td>
<td>£27</td>
<td>YouTube</td>
</tr>
<tr>
<td>News</td>
<td>Advertising</td>
<td>16,385</td>
<td>7%</td>
<td>4%</td>
<td>£11</td>
<td>Guardian Group, Sky news</td>
</tr>
<tr>
<td>Shopping</td>
<td>Transaction</td>
<td>1,541,571</td>
<td>9%</td>
<td>5%</td>
<td>£1,094</td>
<td>Amazon, eBay</td>
</tr>
<tr>
<td>Entertainment</td>
<td>Subscription</td>
<td>61,698</td>
<td>15%</td>
<td>5%</td>
<td>£47</td>
<td>Netflix, Spotify, BBC</td>
</tr>
<tr>
<td>Gaming</td>
<td>Transaction</td>
<td>82,662</td>
<td>15%</td>
<td>5%</td>
<td>£63</td>
<td>Zynga</td>
</tr>
<tr>
<td>Online directories</td>
<td>Advertising</td>
<td>14,124</td>
<td>7%</td>
<td>9%</td>
<td>£18</td>
<td>Rightmove, Gumtree</td>
</tr>
</tbody>
</table>

Source: O&O analysis based on data from AA WARC, PwC Global Entertainment & Media Outlook, Enders Analysis (based on company data and AA/WARC), Zenith, Statista and company information and public filings

Note UK figures are indicative only and may differ from other industry sources

**There is limited understanding of how people’s data is collected and used**

Analysis of the ‘tags’ used by the most popular sites in the UK indicates highly sophisticated **recording of user behaviour**. ‘Tags’ are pieces of code which allow sites to carry out a function, such as collecting information or loading content. They are integral to how users are tracked on the internet and presented with content that is relevant to them, including personalised adverts. The number of tags on desktop sites ranges from an average of three for search engines to 77 on leading news websites.
Most internet users (74%) say they feel confident about managing their personal data online and the majority of people are happy for companies to collect their information under certain conditions (with 39% saying they are not happy for companies to collect and use their personal information). However, 17% of adult internet users say they don’t mind if organisations use information about them to decide the content they are shown, and only 18% don’t mind information being used to determine the adverts they are shown.

Awareness of the ways in which data is collected is mixed. Seven in ten (71%) adults are aware of cookies being used to collect information through websites, six in ten (60%) say they know about information being collected from social media accounts and just under half (49%) are aware of information being collected through smartphone apps. Most (69%) say they accept terms and conditions without reading them.

Trust in online services to protect user data/use it responsibly varies significantly. Among ten leading UK sites, trust among users of these services was highest for BBC News (67%) and Amazon (66%) and lowest for Facebook (31%) and YouTube (34%).

There is also limited understanding of how search engines are funded

With an estimated 400 million active sites on the internet, the ability to search and discover content and information is critical. People rely on search engines and particularly Google (97% of internet users say they use it, followed by 14% who say they use Bing).

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7 Piggy-backing refers to where tags are ‘chained together’ as one connects to another, then another and so on.
Around half of UK online advertising revenue comes from paid-for search (£6.7bn in 2018). However, there is still widespread lack of understanding about how search engines are funded. Fifty-four per cent of adult internet users correctly said they are funded by advertising, with 18% giving an incorrect response and 28% saying they did not know.

While 97% of internet users still use search engines to look for things online, a variety of other services are also used. Nearly two-thirds of people (65%) go more often to specific sites to find specific things, such as a news site for news stories or a video site for videos; and 30% say they used to have a search engine as their home page but no longer do. Recommendation engines are a key way for platforms to help people discover content and products - 70% of viewing to YouTube is reportedly driven by recommendations, while 35% of what consumers purchase on Amazon comes from recommendations.

Sources used to search for things on the internet, proportion of all respondents (%)

Source: Ofcom Search questionnaire 2019
Question: Q2. Which of the following do you use to search for things on the internet? (THIS INCLUDES ANY TYPE OF SEARCH FOR ANY TYPE OF INFORMATION OR CONTENT)
Base: UK adults aged 16+ (2131)

While social media use remains high, Facebook use has declined

Around 70% of UK adults have a social media account and about one in every five minutes spent online is on social media. On average, UK internet users spend 39 minutes each day on services including Facebook, Snapchat, WhatsApp, Instagram, Tumblr, Twitter, LinkedIn, Reddit and Pinterest.

Facebook is still the largest social media site in the UK in terms of reach, consumption and revenue, although its use has fallen in the last two years (from 95% of social media users in 2016 to 88% in 2018). Use of Facebook-owned properties WhatsApp and Instagram both grew in the same period. There is an increase in people using multiple services; just 20% of social media users only used Facebook in 2018 (down from 32% in 2018). However, users spend much more time on
Facebook, at an average of 23 minutes a day per user, compared to around nine minutes on Snapchat and five minutes on Instagram, and 74% of Facebook users check it at least once a day.

**Social media is an important part of many aspects of internet use** including keeping in touch with friends and family, sharing photos and videos, and staying up to date with news and current affairs. In 2018, 44% of adults claimed to consume news via social media.

**Around half of 12-year-olds have a social media profile.** Most social media sites including Facebook, Twitter, Instagram and Snapchat have a minimum age requirement of 13, but 21% of 10-year-olds, 34% of 11-year-olds and 48% of 12-year-olds say they have a profile.

**Social media sites used by adults: 2013-2018**

Source: Ofcom Adults’ Media Literacy Tracker 2018

**UK online use is becoming increasingly video-centric**

Video accounted for the majority of UK internet traffic in 2017, at 70% of data transferred, including activities such as streaming TV and video, as well as making video calls and online gaming.

**YouTube is the largest video site/app, with 92% of UK internet users accessing it once a month for 27 minutes per day on average.** This is mostly to watch music (62% of video service users) and ‘how-to’ videos (57%). YouTube is also increasingly used as a search tool, with 40% of UK adults searching directly via the YouTube website or app in 2019.
### Type of video content consumed online

<table>
<thead>
<tr>
<th>Type of Video Content</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music videos</td>
<td>62%</td>
</tr>
<tr>
<td>'How-to' videos, tips or tutorials about things I want to do</td>
<td>57%</td>
</tr>
<tr>
<td>Funny videos / jokes / pranks / challenges</td>
<td>56%</td>
</tr>
<tr>
<td>Short entertainment videos (film trailers, clips from TV programmes or highlights)</td>
<td>42%</td>
</tr>
<tr>
<td>Reviews about things I may want to buy</td>
<td>39%</td>
</tr>
<tr>
<td>News / current affairs / documentaries</td>
<td>29%</td>
</tr>
<tr>
<td>Sports/ football clips or videos</td>
<td>29%</td>
</tr>
<tr>
<td>Whole TV programmes or films</td>
<td>25%</td>
</tr>
<tr>
<td>Game tutorials, walk-throughs, watching other people play games</td>
<td>13%</td>
</tr>
<tr>
<td>Vlogs from vloggers/ influencers (like Zoe$\ddagger$ or Thatcher Joe)</td>
<td>10%</td>
</tr>
<tr>
<td>Political speeches or campaigns</td>
<td>9%</td>
</tr>
<tr>
<td>Other types of videos</td>
<td>4%</td>
</tr>
<tr>
<td>Religious speeches or events</td>
<td>3%</td>
</tr>
</tbody>
</table>

**Source:** Ofcom Adults’ Media Literacy Tracker 2018  
**Question:** IN19B. (SHOWCARD) And what types of videos do you tend to watch on these sites and apps? (MULTI CODE) **Base:** Those who ever watch videos on sites or apps like YouTube, Vimeo, Snapchat or Facebook