5 Internet and online content

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The internet is essential to the way in which people in the UK communicate, find information, seek entertainment, shop and participate in society;

5.1 Key market developments in internet and online content

5.1.1 Sector overview

Eighty-eight per cent of adults now have internet access at home. Reach is highest among younger age groups, but over half (53%) of over-74s are internet users.

For most people, mobile devices are their most important device for accessing the internet. Consistent with high take-up, more than four in ten (42%) UK internet users, including nearly two-thirds of 16-34 year olds and 44% of 35-54s, regard their smartphones as their most important device for accessing the internet. For those aged 55 and above, fewer (13%) consider smartphones their most important device for internet access. Just under a third of over-54s consider laptops to be their most important device (31%), followed by tablets (27%) and desktops (22%).

The smartphone is the device that adults are most likely to own (76%); ownership is higher than for laptops (64%) and tablets (58%). Smartphone ownership is highest among younger adults; more than nine in ten 16-24s and 25-34s (both 96%) own one. Desktop PC ownership is now 29% across the UK, and ranks lowest of the most important devices for internet access in 2017 (11%). Entertainment is a powerful driver of online media consumption; video content sites such as YouTube provide a medium for individuals and organisations to share video content with others. According to comScore, YouTube had a crossplatform reach of 42 million users in March 2017, with viewers logging 728 hours' worth of total viewing time, at an average of 18 hours per viewer. Many of the most popular YouTube partners are major media networks such as Warner Music and Sony Music Entertainment.

The popularity of using mobile devices for online activities is also reflected in increased expenditure in mobile advertising. Overall, UK expenditure on internet advertising increased by 20% year on year to £10.3bn in 2016. Mobile is driving much of this growth. Total mobile advertising expenditure grew by 44% to £3.9bn in 2016, amounting to 38% of total internet advertising, and mobile display advertising accounted for more than half (51%) of all internet display advertising.

UK internet and online content market	2010	2011	2012	2013	2014	2015	2016	2017
¹ Internet take-up (%)	75	77	79	80	82	85	86	88
¹ Smartphone take-up (%)	n/a	27	39	51	61	66	71	76
¹ Tablet take-up (%)	n/a	2	11	24	44	54	59	58
¹ Laptop take-up (%)	51	55	61	62	63	65	64	64
¹ Consideration that the smartphone is the most important device for internet access (%)				15	23	33	36	42
² Total digital audience (million)	n/a	n/a	n/a	n/a	48.2	47.5	50.3	50.4
³ Digital advertising expenditure (£bn)	4.8	5.4	6.0	6.6	7.6	9.2	10.3	n/a
³ Mobile advertising expenditure (£m)	94	219	554	1,044	1,642	2,678	3,866	n/a

Figure 5.1: UK internet and online content market: key statistics

Source: ¹Ofcom consumer research, ²comScore MMX multi-platform, UK, data for March 2015, March 2016 and March 2017; ³IAB/ PwC Digital Adspend Study

Note: Caution is advised in comparing values before and after February 2011 because of a change in comScore methodology. **Note:** Revenue and expenditure figures are adjusted for CPI (2016 prices).

In this chapter we examine developments in internet and online content. Reflecting the reality of convergence, aspects of some of these developments are discussed in more detail in other sections of this document, in particular those relating to audiovisual content and audio content.

- Section 5.2 examines consumers' use of mobile applications. The section primarily draws on the findings from Ofcom's research among a panel of consumers who have downloaded a mobile research app on to their smartphone.
- Section 5.3 considers internet access. We examine the proportion of adults who have internet access, the devices they use to access the internet and the main activities they use the internet for. We also consider those who do not use the internet at all, and their reasons for not having an internet connection.
- Section 5.4 provides an overview of consumption of online content. Here we examine the most popular online services, websites and apps. We look at consumer behaviour unique to the internet, including a 'deep dive' into online video, focusing on YouTube. Finally, we look at changes in advertising revenues.

In summer 2016, Ofcom launched a mobile research app on the Android platform.

5.2 Use of mobile apps in the UK

The app was provided by our technical partner P3, and it logs the apps people use and how often they use them (but not what they are using them for). In this section, we analyse the data collected from this research, to compare the ways in which users access different types of apps on their mobile devices. We have calculated the average number of sessions for the top 20 apps, within a number of categories defined by Ofcom.¹

Ofcom mobile research app

Last year we piloted a new methodology to measure the consumer experience of using mobile services across the UK. This approach involves establishing a panel of UK consumers who then install an Ofcom-branded research app on their Android smartphone. The app, provided by our technical partner P3, passively measures the consumer experience of using mobile services, as the panellists use their phones. The data used in this report were collected between 27 September 2016 and 23 December 2016.

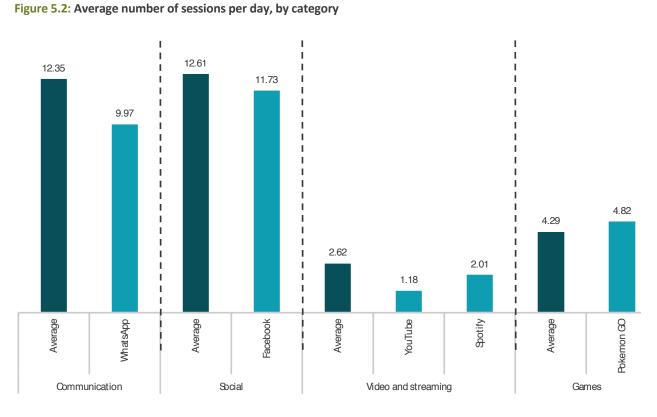
The data used in the section below are based on the behavioural panel which comprised 1,200 panellists selected to be representative of the UK population in terms of gender, age and geography. The results, however, may not be representative of the UK population as a whole, as they are based on Android users who chose to opt in to the research (Android users make up around 46% of all smartphone owners²). More information about this research can be found at https://www.ofcom.org.uk/ research-and-data/telecomsresearch/mobile-smartphones/ consumer-mobile-experience.

Users on social networks opened their apps close to 13 times a day

Our data show that, on average, apps in the social networking category (such as Facebook and Twitter) were used most frequently, with a daily average of 12.61 sessions per user across the category as a whole, compared to 12.35 sessions for communications apps (e.g. WhatsApp and Skype). Analysis of individual app use showed that Facebook was the most frequentlyused single app of those included in our research, with an average of 11.73 sessions per user per day.



Those using gaming apps opened an app 4.29 times a day, on average. Pokémon GO was the most frequently-used gaming app, and users opened it an average of 4.82 times a day. Video and streaming apps such as YouTube and Spotify were less frequently opened by users, logging an average of 2.62 sessions per day. Spotify users opened the app an average of 2.01 times a day. But the number of times an app is opened may not reflect its use: Spotify users, for example, may keep the app running in the background and very rarely close and re-open it.



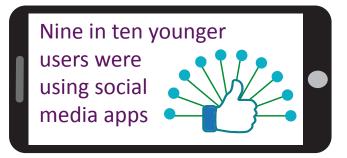
Source: Ofcom mobile research app, 27 September 2016- 23 December 2016

Base: Behavioural panel (1200 panellists)

Note: Includes use over Wi-Fi as well as mobile data. Use of some apps may be understated as the research does not capture apps running in the background, or if the app is open for less than five seconds (e.g. this may affect WhatsApp).

Use of social and communications apps was high among all age groups

About 90% of panellists used apps in the communications category. Use of WhatsApp, one of the most frequently used communications apps, was highest among adults aged 25-34 (74%). Overall, more than half of all age groups used WhatsApp during the period of our research.



The use of social media apps declines with age; nine in ten (91%) 18-24s use at least one app compared to 69% of over-54s. Similarly, Facebook, the most frequentlyused app, has the highest reach among 18-24s (74%) and the lowest among over-54s (46%).



The use of video and streaming apps was highest among those aged 18-24 (94%), with a high proportion accessing YouTube (93%), which was the most frequently-used video and streaming app across all age groups. Almost five in ten (49%) 18-24s used Spotify compared to just one in ten over-54s.

Almost half of 18-24 year olds had Spotify, compared to just one in ten among 55+



People aged 18-24 were more likely than 25-34s to have used at least one gaming app during the research period (43% vs. 39%). The high reach of Pokémon GO among 25-34s (23%) may be explained by Pokémon nostalgia; people in this age group are likely to remember the first Pokémon games that were released more than 20 years ago. Just 4% of over-54s used Pokémon GO.

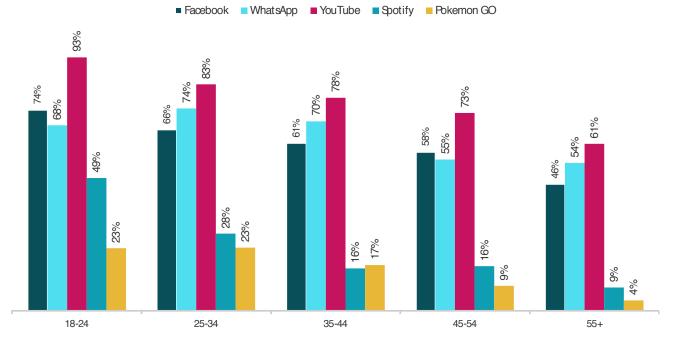


Figure 5.3: Selected social, communication and entertainment apps, by age of users

Source: Ofcom mobile research app, 27 September 2016- 23 December 2016 **Base:** Behavioural panel (1200 panellists)

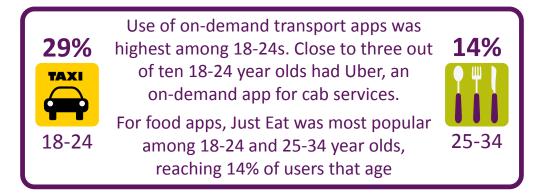
Note: Includes use over Wi-Fi as well as mobile data. Use of some apps may be understated as the research does not capture apps running in the background, or if the app is open for less than five seconds (e.g. may affect WhatsApp).

Eight in ten users aged 18-24 use at least one finance-related app

The finance category includes banking as well as point-of-sale apps. These include apps such as Android Pay, which allows users to add a card from any bank to use for contactless payment. Eighty per cent of users aged 18-24 used at least one finance app during the fieldwork period, compared to just 46% of over-54s. Almost half of users aged under 55 used a finance app on their device.

Almost two-thirds of users aged 18-24 used a fitness app, compared to a third of over-54s. There was a similar trend for use of the Fitbit app, with almost 11% of 18-24s using this app compared to 5.5% of over-54s.

Older consumers were more likely to use smart home apps: about 4% of over-44s had used Hive, a smart home app, compared to just 1% of 18-24s, who are less likely to own property to make use of a smart home app.



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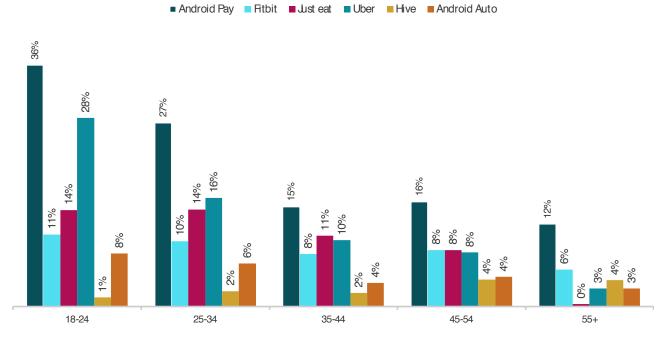


Figure 5.4: Selected finance, health and on-demand apps, by age of users

Source: Ofcom mobile research app, 27 September 2016- 23 December 2016 **Base:** Behavioural panel (1200 panellists)

Note: Includes use over Wi-Fi as well as mobile data. Use of some apps may be understated as the research does not capture apps running in the background, or if the app is open for less than five seconds (e.g. may affect WhatsApp).

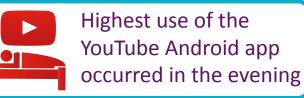
WhatsApp and Facebook apps are used most at the end of the working day

Use of WhatsApp totalled 451,631 opened sessions, by the 771 users who had the app across the research period. Analysing this by time of day shows that use of the app climbs gradually throughout the morning, and does not fall until 7pm. The highest proportion of use (7%) occurred between 5pm and 6pm.

Facebook use peaks in the late evening

Facebook was the most popular app in the social media category- the application had 215,623 sessions in total across the period, by 721 users. Use of the app was highest between 5pm and 10pm, and peaked during 9pm and 10pm, at 7% of total sessions. Overall use of social media apps remains high throughout the late evening until after midnight.

Use of video and streaming app YouTube was most popular during the evening. For YouTube, 65,064 sessions were made by 915 users across the research period. Use of YouTube was highest between 5pm and 11pm, with the highest proportion of sessions occurring at 10pm (7.5% of total sessions). The Spotify app was opened 32,644 times by 255 users across the research period. In contrast to YouTube, the app was opened a greater number of times from the start of the typical working day (8am) and throughout the afternoon, peaking at 5pm. The surge at 8am is likely to be due to users opening the app to listen to music during their commute.



For the 177 users of Pokémon GO in our panel, the app was opened a total of 58,423 times. Use was high throughout the day, with a drop in the late evening. The highest proportion of sessions for Pokémon GO came at 1pm (8%), where those hoping to be catching the pocket monsters were likely on their lunch break.

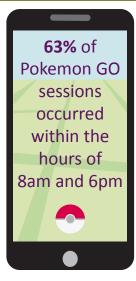
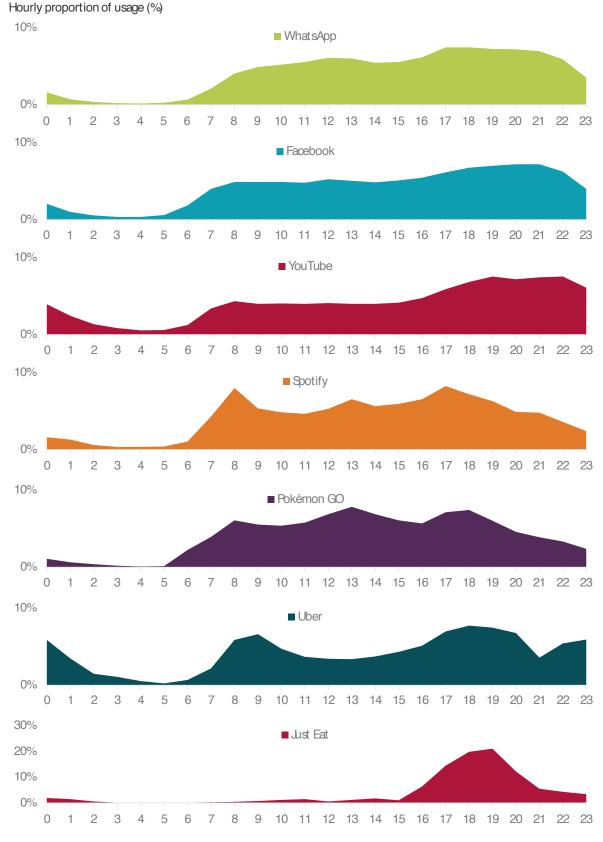


Figure 5.5: Selected apps: daily breakdown of sessions



Source: Ofcom mobile research app, 27 September 2016- 23 December 2016

Base: Behavioural panel (1200 panellists)

Note: Includes use over Wi-Fi as well as mobile data. Use of some apps may be understated as the research does not capture apps running in the background or if the app is open for less than five seconds (e.g. may affect WhatsApp).

5.3 Internet and devices

5.3.1 Introduction

In this section We consider internet access as a whole, as well as the take-up of internet-enabled devices.

5.3.2 Take-up and use of internet-enabled devices

Almost nine in ten UK adults have home internet access in 2017

In 2017, 88% of UK adults claimed to have internet access at home, via any device, and more than 90% of under-55s had access, in line with previous years. More than half of over-74s (53%) now have internet access at home, up from 45% in 2016.

Figure 5.6: Proportion of adults with home internet access



Source: Ofcom Technology Tracker, H1 2017

Base: All adults aged 16+ (n=3743)

Significance testing: Arrows indicate any significant differences at the 99% confidence level between UK 2016 and UK 2017, between each age group in 2016 and 2017 and between each socio-economic group in 2016 and 2017.

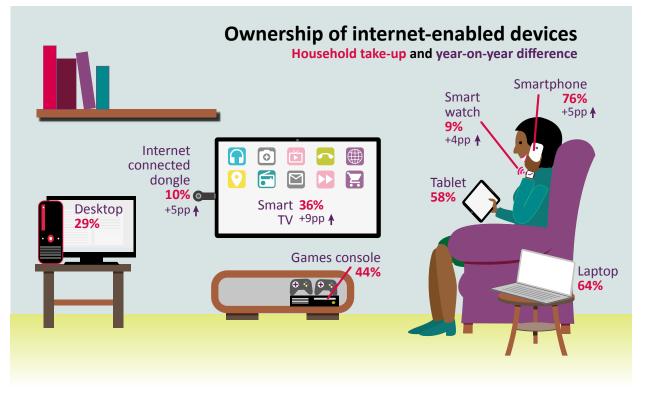
QE2: Do you or does anyone in your household have access to the internet/ world wide web at home (via any device, e.g. PC, laptop, mobile phone etc.)?

Smartphones are the most widely owned internet-enabled device

In 2017, 76% of UK consumers owned a smartphone, up 5pp year on year. Laptops were the second most commonly-owned internetenabled device in households (64%), followed by tablets (58%). The largest increase in take-up was of smart TVs; ownership increased by 9pp to 36% of households. Ownership of internet-connected dongles (e.g. a device such as Chromecast or Roku) also increased, up by 5pp since 2016 to 10%. Ownership of smart watches is up by 4pp since 2016, to 9% of households.

Tablet (58%), laptop (64%) and desktop (29%) ownership remained flat between 2016 and 2017.

Figure 5.7: Ownership of internet-enabled devices



Source: Ofcom Technology Tracker, H1 2017.

Base: All adults aged 16+ (2017 n=3743).

Significance testing: Arrows indicate any significant differences at the 99% confidence level between UK 2016 and UK 2017.

Note: The question wording for DVD Player and DVR was changed in Q1 2009 so data are not directly comparable with previous years. * Internet-connected dongle or set-top box includes NOW TV set-top box, Roku, Google Chrome, Amazon Fire TV stick, Amazon Fire TV, Apple TV.

Close to four in ten under-55s own an internet-enabled smart TV

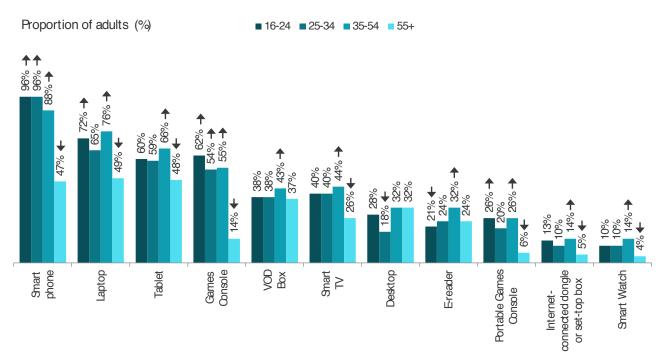
Less than half of under-55s own an internet-enabled smart TV. Those aged 35-44 are significantly more likely than over-54s to own one, at 44% compared to 26%.

There is a significant difference in smartphone ownership between over-54s and younger adults; almost all 16-24s and 25-34s own a

smartphone (both 96%) compared to less than half of over-54s (47%).

For 16-24s, ownership of games consoles overtook ownership of tablets in 2017 (at 62% and 60% respectively). Almost half of over-54s own either a laptop, tablet or smartphone, but they are less likely than other age groups to own internet-enabled devices, with the exception of a desktop, where they are level with 35-54s.

Figure 5.8: Take-up of internet-enabled devices, by age



Source: Ofcom Technology Tracker, H1 2017

Base: Adults aged 16+, 16-24 n = 512, 25-34 n = 544, 35-54 n = 1202, 55+ n = 1485

Note: Ranked by overall household ownership

Internet-connected dongle or set-top box includes NOW TV set-top box, Roku, Google Chrome, Amazon Fire TV, Apple TV Significance testing: Arrows indicate any significant differences at the 99% confidence level between UK adults overall'and each age group

AB households are more likely than the UK overall to own internet-enabled devices

Households in the higher socioeconomic groups are more likely than the UK average to own internetenabled devices, with the exception of games consoles, where the figure is comparable across socio-economic groups. Smartwatch ownership is significantly higher among AB groups than any other group, at 15%. The AB and C1 groups are more likely than average to own smartphones, laptops and desktops.

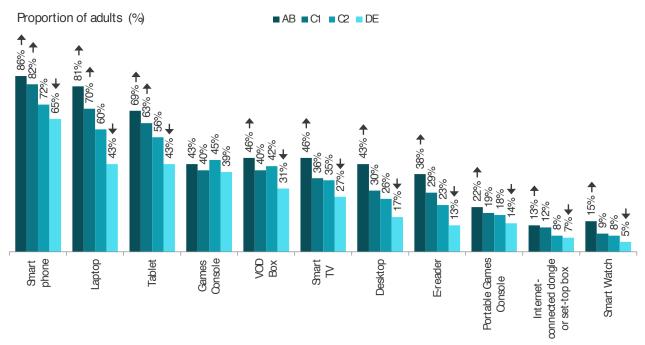


Figure 5.9: Take-up of internet-enabled devices, by socio-economic group

Source: Source: Ofcom Technology Tracker, H1 2017

Base: Adults aged 16+, AB n = 826, C1 n = 1109, C2 n = 81, DE n = 994

Note: Ranked by overall household ownership

Internet-connected dongle or set-top box includes NOW TV set-top box, Roku, Google Chrome, Amazon Fire TV, Apple TV **Significance testing:** Arrows indicate any significant differences at the 99% confidence level between UK 2017 and each socioeconomic group

Smartphones are the most important device for internet access

Four in ten UK internet users considered smartphones to be their most important device for accessing the internet in 2017. This is a significant increase since 2016 (Figure 5.11). Only around one in ten considered a desktop PC to be the most important way to access the internet, while there was a drop in the proportion considering a tablet to be most important (from 20% to 16%), despite flat take-up levels.

UK internet users aged 16-24 and 25-34 were more likely than the average user to choose the smartphone as their most important device for internet access. By contrast, over-54s were more likely than average to consider laptops, desktops and tablets their most important device for internet access. This age group was the least likely to own a smartphone, and the least likely to consider it their most important device for internet access.

Figure 5.10: Most important device for internet access

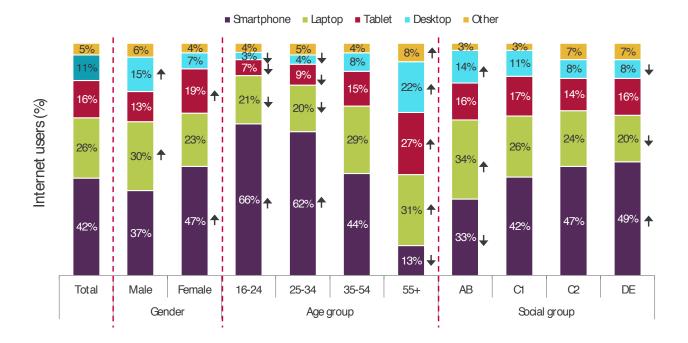


UK internet users aged 16-54 considered the smartphone to be the most important device for internet access...

...while UK internet users aged 55 and over considered the laptop to be the most important device.



Figure 5.11: Most important device for internet access



Source: Ofcom Technology Tracker, H1 2017

Base: All adults aged 16+ who use the internet at home or elsewhere (n = 3221 UK).

Significance testing: Arrows indicate any significant differences at the 95% confidence level between males and females, between UK 2017 and each age group and between UK 2017 and each socio-economic group.

QE11 (QE40): Which is the most important device you use to connect to the internet, at home or elsewhere? 'Other' responses include: 'netbook', 'games console', 'e-reader', 'TV set', 'smart watch', 'other portable/handheld device', 'other device', 'none' and 'don't know'.

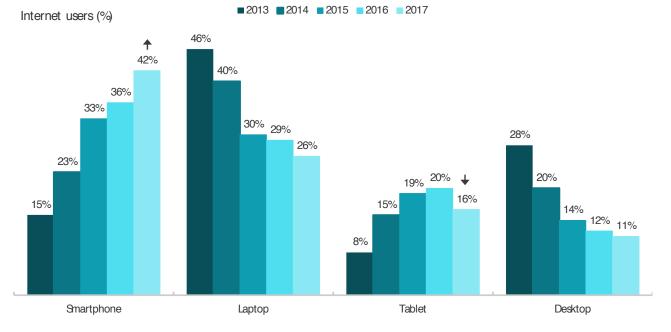


Figure 5.12: Most important device for internet access: 2013 to 2017

Source: Source: Ofcom Technology Tracker, data from Q1 2014, then H1 2015-2017 Base: All adults aged 16+ who use the internet at home or elsewhere (n = 3221 UK).

Significance testing: Arrows indicate any significant differences at the 99% confidence level between UK 2016 and UK 2017. QE11 (QE40): Which is the most important device you use to connect to the internet, at home or elsewhere? 'Other' responses include: 'netbook', 'games console', 'e-reader', 'TV set', 'smart watch', 'other portable/handheld device', 'other device', 'none' and 'don't know'.

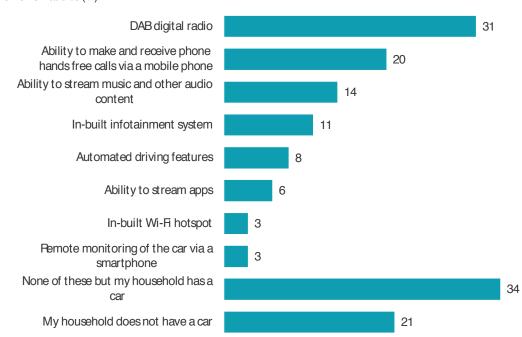
Almost a third of UK households (31%) had a car with a DAB digital radio in 2017, while one in five could make and receive hands-free calls via a mobile phone.

5.4 Communications functionality in cars

Slightly fewer reported being able to stream audio content from their smartphone to their car (14%) or having an in-built infotainment system (11%).

Take-up of more integrated connectivity services is lower; 3% have a car with a built-in Wi-Fi hotspot, the same proportion as say they have remote monitoring of their car via their smartphone. These features may be offered as options with new cars, and may require the user to pay a monthly subscription. The proportion of cars with at least some of these features is likely to rise, and features may become increasingly standard in cars, as has happened with DAB radios- the proportion of new cars sold with a DAB as standard was 84.5% in 2016.¹ And from April 2018, new cars sold in the EU will have embedded SIMs as a result of the requirement to have the 'eCall' emergency service contact system installed as standard. Some manufacturers may see this as an opportunity to offer additional services using this system.

Figure 5.13: Features in car(s) used by household



Proportion of UK adults (%)

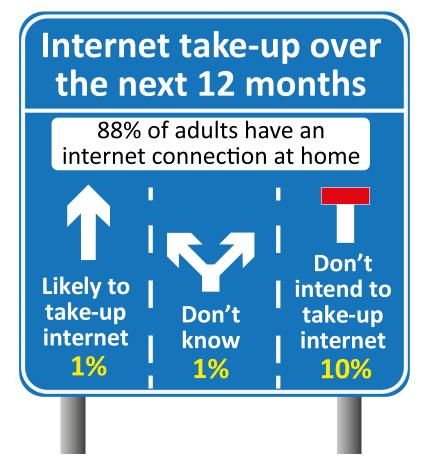
Source: Ofcom research,2017 **Base:** All adults (n = 1062)

Q14: Which of the following features does the car (or cars) used by your household have? Select all that apply, even if you do not personally use the feature [MULTICODE]

5.4.1 Digital inclusion

One in ten UK adults have no intention to get access to the internet in 2017

Twelve per cent of UK adults did not have access to the internet at home in 2017, and 10% of adults said they did not intend to get it in the next 12 months (the same as in 2016). Figure 5.14: Internet take-up and intentions: 2017

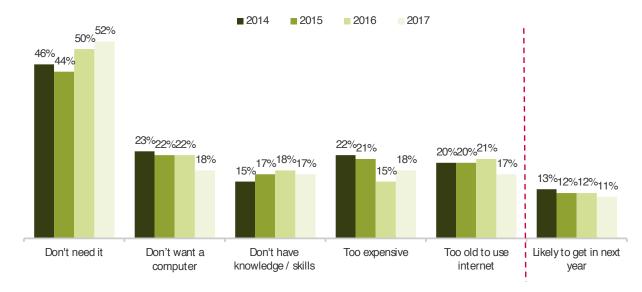


Source: Ofcom Technology Tracker, H1 2017 Base: All adults aged 16+ (n = 3743). Significance testing: Arrows indicate any significant differences at the 95% confidence level between 2016 and 2015. QE2: Do you or does anyone in your household have access to the internet / world wide web at home (via any device)?/ QE32 (QE24): How likely are you to get internet access at home in the next 12 months?

More than half of UK adults without internet access do not think they need it

More than half of UK adults who did not have access to the internet at home in 2017 said they did not think they needed it. This was the most frequently-cited reason, and was driven by over-54s, the most likely group to say this (90%). Other frequently-cited responses for not having home internet access were that the respondent did not have a computer, or thought that broadband was too expensive (both 18%).

Figure 5.15: Main reason for not having a home broadband connection



Proportion of those without broadband (%)

Source: Ofcom Technology Tracker. Data from Q1 2014, then H1 2015-2017

Base: All adults without the internet aged 16+ (n=597)

Significance testing: Arrows indicate any significant differences at the 99% confidence level between UK 2016 and UK 2017. **QE33 (QE25A):** Why are you unlikely to get internet access at home in the next 12 months?

5.5 Online content

This section explores the content and services that people access and use online, including social media, online video-sharing services and mobile payment services.

5.5.1 comScore

To inform our analysis of people's use of online content and services in the UK, we have drawn on data collected by comScore, a media measurement and analytics company.

The UK Online Measurement Company (UKOM) was formed in 2009 with a mandate from the advertising industry to establish measurement standards for digital media. UKOM appointed comScore as their exclusive partner for online media audience measurement in the UK in 2012. comScore will continue as UKOM's exclusive data supplier until at least March 2018.

This chapter predominantly draws on three comScore sources:

- For analysis of laptop and desktop computer internet activity only, we use comScore Media Metrix (MMX) which employs comScore's Unified Digital Measurement (UDM) methodology, explained below.
- 2. For analysis of mobile internet and app activity only, on Android and iOS smartphones, iPads and Android tablets, we use comScore Mobile Metrix which also employs comScore's Unified Digital Methodology for Android and iOS smartphones and iPads. Android tablet use is captured on tagged entities.

 For analysis of internet activity across platforms, we use comScore MMX Multi-Platform which provides metrics on desktop video.

Finally, smartphone and tablet user behaviours are supplemented by consumer research from comScore MobiLens Plus (this is not part of the data suite endorsed by UKOM).

Methodology

comScore's Unified Digital Methodology (UDM) combines panel and census measurement techniques to obtain digital audience measurement statistics. UDM uses comScore's global measurement panel to determine audience reach and demographics. Census-level activity is captured from publishers' digital content, such as on websites, videos and computer and mobile applications. comScore combines censuslevel data with those captured from the panel to help provide a more accurate view of audiences and their consumption habits. This approach allows comScore to capture more accurate consumption activity from

publishers, and attribute this to audience demographics in a way that is not affected by cookie deletion, blocking, and rejection.

Video

VMX measures across the entire spectrum of web surfing and buying behaviour, including details of streaming media consumption. It uses the same UDM methodology that is used in MMX to combine the detail of person--centric panel insights with the coverage of census-based, site--centric or app-based video measurement. VMX uses the same dictionary as MMX.

VMX reports streaming / downloaded video on PCs (home and work) and census-only based measurement on mobile platforms. There are two technical methods of delivering video, both measured by comScore: streaming requires a live client/server connection maintained during transmission, and progressive download covers videos that are downloaded before playback. Both user-initiated and autolaunched videos are counted.

Metrics

Throughout this report we make reference to a number of metrics, defined below:

Unique audience – the total number of unique persons who visited a website or used an application at least once in a given month. Persons visiting the same website more than once in the month are therefore counted only once in this measure.

Active audience – the total number of people who visited any website or used any application at least once in a given month; i.e. the number of people online and using any specific platform in a given month, no matter which website or app they used.

Digital audience – the total number of people who visited any website or used any application at least once in a given month; i.e. the number of people online and using any specific platform in a given month, no matter which website or app they used. Active reach – the proportion of the active audience made up by the unique audience of a website.

Time spent per month – the average time spent browsing a website per unique visitor per month (excludes time spent watching online video and listening to streamed music).

Dictionary

Each of the entities reported by comScore is attributed to a level in comScore's Client Focused Dictionary. Several entities (including apps) can exist within one service (e.g. BBC Sport and BBC iPlayer) and comScore's dictionary defines how these entities are structured and related to each other. It is client-focused because comScore's clients define how their brands and websites appear in reports according to this dictionary. All comScore reports use the same six-tiered dictionary structure, as explained below:

Property [P] - The highest level of reporting within the dictionary. Properties represent all full domains (i.e. felmont. com), pages (i.e. sports.felmont. com/tennis), applications or online services under common ownership or majority ownership for a single legal entity. A property may also contain any digital media content that is not majority-owned but has been legally signed over for reporting purposes by the majority owner.

Media Title [M] - A Media Title is an editorially and brand-consistent collection of content in the digital landscape that provides the marketplace with a view of online user behaviour. This may represent a domain, a group of domains, online service or application.

Channel [C], SubChannel [S], Group [G] and SubGroup [SG] -Within a Media Title there may be grouped URLs of editorially consistent content that make up a Channel. For some of the largest Media Titles, Channels themselves may be broad, and Subchannels, Groups and Subgroups within the larger Channels may prove useful for categorisation within the comScore Dictionary.

552 Overview

The UK's online audience stood at 50.4 million people in March 2017

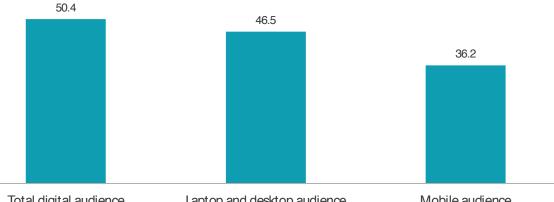
The total UK digital audience (i.e. the online audience active on laptops, desktops or mobile devices¹), was 50.4 million in March

2017. The audience for laptop and desktops was 46.5 million in March 2017, while the mobile audience (i.e. those accessing the internet via

Android and iOS smartphones and/ or tablets) stood at 36.2 million.

Figure 5.16: Active digital audience: March 2017





Total digital audience

Laptop and desktop audience

Mobile audience

Source: comScore MMX Multi-platform, UK, home and work panel, March 2017;

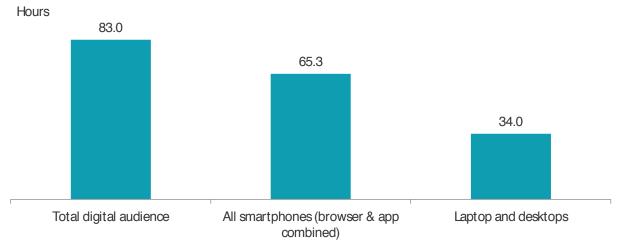
Note: 'Digital audience' is the unique audience across desktop/laptops and mobile. 'Mobile audience' includes Android smartphones and iOS smartphones and tablets. Only those entities that have been tagged as part of the census network report Android tablet usage data.

The UK digital audience spent an average of 83 hours online per person in March 2017

Overall in March 2017, the average time spent online by smartphone internet users was 65.3 hours. This is greater than the average time spent online by internet users on laptops

and desktops (34 hours in March 2017). A great deal of consumption is likely to come from work use, or those who regularly use the internet in a professional capacity.





Source: comScore MMX Multi-Platform, UK, March 2017, (bases include ages 6+ for desktops/laptops, 18+ for mobile devices).

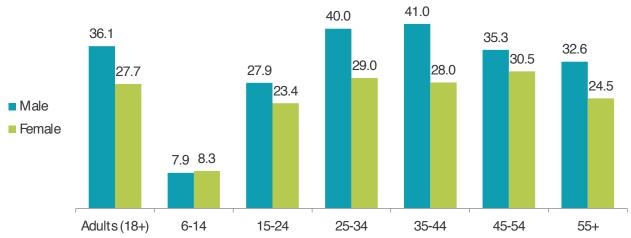
¹This includes smartphones and tablets.

Men spend more time than women online on laptops and desktops

Across all users aged 18+, men spent more time than women online on a laptop or desktop computer in March 2017. Male users aged 25-34 spent the greatest amount of time online at work and home, at 40 hours. Among female users, those aged 25-34 spent the most time online on a laptop

or desktop computer, at 29 hours.

Figure 5.18: Average time online on laptop/desktop, by age and gender: March 2017



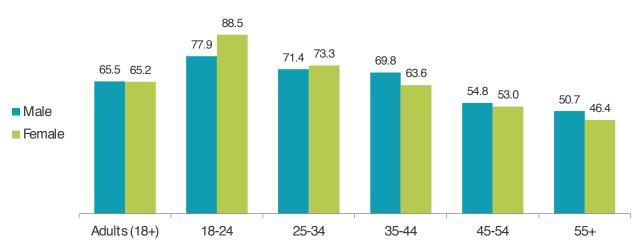
Average hours per visitor

Source: comScore MMX, Demographic Profile Report, home and work panel, UK, March 2017 **Note:** Time spent online is a measure of time spent browsing web pages on laptop and desktop computers only.

Younger women spend more time than men online using smartphones

Women aged 18-34 spent more time than men online on their smartphones in March 2017. For men and women, the 18-24 age group spent the most time online, at 77.9 hours for men and 88.5 hours for women. Adults aged 55 and over spent the least amount of time online using their smartphones.

Figure 5.19: Average time online on a smartphone, by age and gender: March 2017



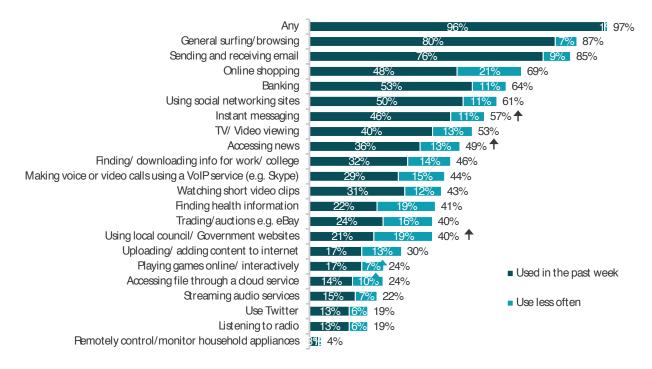
Average hours per visitor

Source: comScore Mobile Metrix, Demographic Profile Report, Total Internet, March 2017, UK. **Note:** Includes Android and iOS smartphones

General surfing and browsing is the most popular internet activity in 2017

In 2017, general browsing was the most popular internet activity, with 80% of adults claiming to have browsed the internet in the past week. Sending and receiving emails was the second most commonlycited activity; 76% of adults claimed to have done this in the past week. Around half of adults in the UK had used the internet for banking or online shopping in the past week.

Figure 5.20: Claimed use of the internet for selected activities



Source: Ofcom Technology Tracker. Data from Q1 2014, then H1 2015-2017 **Base:** All adults without the internet aged 16+ (n=597)

Significance testing: Arrows indicate any significant differences at the 99% confidence level between UK 2016 and UK 2017. **QE33 (QE25A):** Why are you unlikely to get internet access at home in the next 12 months?

Google websites attracted more than 48 million UK visitors in March 2017

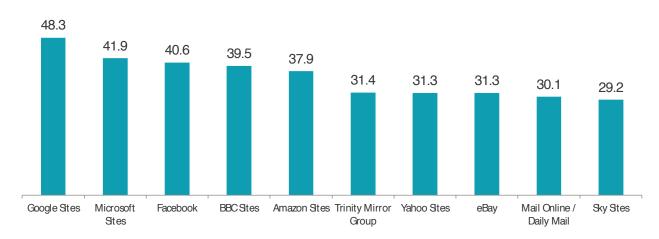
To identify the organisation with the largest total online audience, across all its services, we report on an organisation's comScore 'property' (all the sites and apps owned by the organisation).

Google websites (including Google Search and YouTube) were visited

by 48.3 million users in the UK in March 2017, with Facebook and Microsoft attracting a similar number of users (41.9 million and 40.6 million unique users respectively).

Four of the ten most popular comScore internet properties in the UK were organisations based in the UK: the BBC, Sky sites, Trinity Mirror Group and Mail Online/Daily Mail. The four UK organisations in the top ten were all related to media and communications, including traditional media companies such as broadcasters (BBC sites and Sky sites) and print businesses (Trinity Mirror Group and Mail Online/Daily Mail).

Figure 5.21: Top ten most popular comScore properties among the total digital audience: March 2017



Unique audience (millions)

Source: comScore MMX Multi Platform, UK, March 2017

All sites listed are at the property level [P]. Please note MMX multi-platform includes laptop/desktop browsing, laptop/desktop video streams, on-network and Wi-Fi mobile browsing and app use.

More than 40 million people visited YouTube and Google search in March 2017

As shown in Figure 5.22, Google websites were visited by 48.3 million users in the UK in March 2017. The unique audience of the Google Sites comScore property reflects the large audience for the services that are captured within this group, including Google Search and YouTube. In March 2017, YouTube and Google Search had similar unique visitor counts at around 40 million, far more than the third highest, Google Maps (30.9 million unique visitors). Gmail, Google's email service, had 23.2 million unique visitors in the same month. Google's Blogger

service, which allows users to create and share blogs free of charge, had close to 10 million unique visitors across the Blogger domains.

Figure 5.22: Most-used apps and services within the Google Sites property, by unique audience: March 2017



Unique audience (millions)

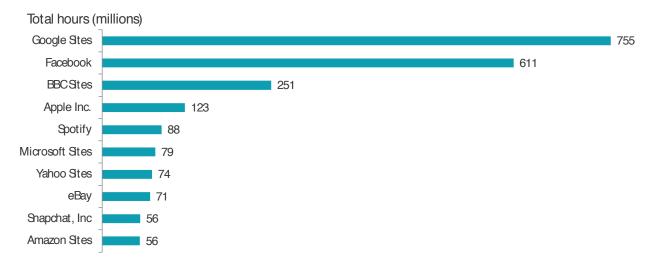
Source: comScore MMX Multi Platform, UK, March 2017

All sites listed are recorded under Google Sites [P] Please note; only sites which have recorded more than a million unique audience visits are shown. Figures are unduplicated across sites. comScore entities are [M] YOUTUBE.COM, [C] Google Search, [C] Google Maps, [C] Google Gmai, [M] ANDROID.COM, [M] Blogger, [C] Google+, [C] Google Shopping, [C] Google Calendar, [C] Google Earth (App)

People spent more than 700 hours browsing Google websites and apps in March 2017

In March 2017, UK visitors to Google-owned sites¹ and apps spent nearly 755 million hours on them across laptops, desktops and mobile devices. Per person, visitors spent on average 16 hours a month browsing Google-owned sites and apps. The second most popular property, by time spent, was Facebook (611 million hours), which includes Facebook, Messenger, Instagram and WhatsApp. There were three properties that were not among the ten most popular, in terms of their digital audience size, but were among the ten most popular by time spent: Snapchat, Apple Inc. and Spotify.

Figure 5.23: Top ten comScore properties among the total digital audience, by time spent: March 2017



Source: comScore MMX Multi Platform, Key Measures, UK, March 2017, UK.

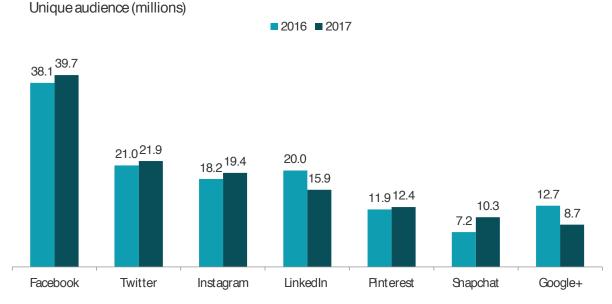
Note: All sites listed are at the property level [P]. Time spent online is a measure of time spent laptop/desktop webpage browsing, and on-network and Wi-Fi mobile browsing and application data.

5.5.3 Social media and messaging

Facebook continues to have the highest audience reach among social networking sites

Facebook continues to be the largest social network service in the UK. In March 2017, it attracted a digital audience of 39.7 million (more than three-quarters of active internet users). This was larger than next biggest sites, Twitter (21.9 million) and Instagram (19.4 million). For the majority of social networking sites there has been growth in unique audience since March 2016, with the exceptions of Google+ and LinkedIn. As of March 2017, Google+ (8.7 million) and LinkedIn (15.9 million) were both down by around 4 million unique visitors since the previous year. Snapchat had the largest growth in unique audience since 2016, up by 3.1 million to 10.3 million in March 2017.

Figure 5.24: Digital audience of selected social networking sites: March 2016 and March 2017



Source: comScore MMX Multi Platform, UK, March 2017

Note: comScore entities used were [C] Facebook.com, [P] Linkedin, [P] Twitter, [M] Instagram.com, [P] Pinterest.com, [P] Snapchat, Inc, [C] Google+.

Two of the most-used messaging apps are owned by Facebook

More than half of the total mobile audience used Facebook Messenger (61%) and half used WhatsApp (50%) in March 2017. Both properties are owned by Facebook. The Snapchat mobile app had a reach of 28%, with 10.1 million unique visitors in March 2017.

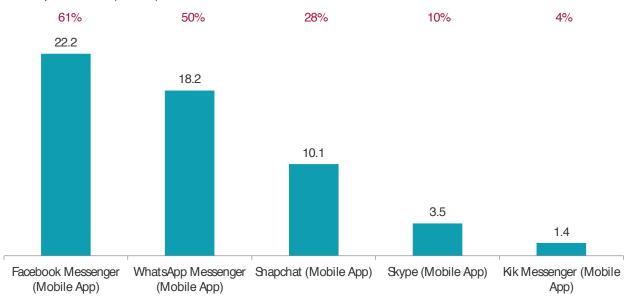


Figure 5.25: Mobile audience of selected mobile messenger apps: March 2017

Source: comScore Mobile Metrix, Key Measures, UK, March 2017

Note: Mobile use includes Android smartphones and iOS smartphones and tablets. Only those entities that have been tagged as part of the census network report Android tablet usage data. comScore entities used were [S] Facebook Messenger (Mobile App), [C] WhatsApp Messenger (Mobile app). [M] Snapchat (Mobile App) (w/history), [S] Skype (Mobile App), [M] Kik Messenger (Mobile App)

Unique audience (millions) and reach as %total mobile audience

5.5.4 Online video-sharing services

In this section, we examine takeup and use of online video sharing sites in the UK, such as YouTube and Vimeo. These online video sites generally include other features and functionalities as well, such as the ability to comment on videos or share them on other social media sites such as Facebook and Twitter.

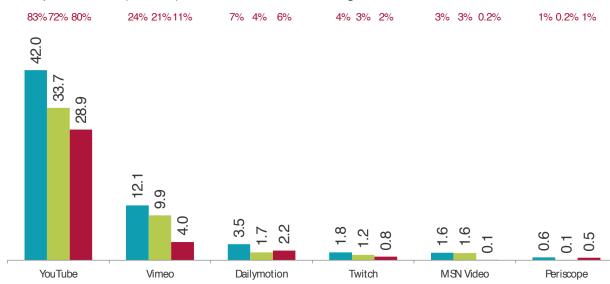
YouTube had more than three times the audience reach of the next most popular video-sharing website

Of all the selected online videosharing sites, YouTube had the largest digital audience in the UK, at 42 million in March 2017 (an active reach of 83% across the total digital audience). The laptop and desktop audience for YouTube was 4.8 million higher than the total mobile audience (33.7 million and 28.9 million respectively).

Vimeo had the second largest unique audience in March 2017, at 12.1 million. Of the selected entities, Dailymotion.com was the only video-sharing site which had a greater audience among those accessing via a mobile device (2.2 million) than among those using laptops and desktops (1.7 million).

Twitch.TV had a unique audience of 1.8 million (4% active reach) and had a similar unique audience across mobile devices and laptop and desktops (1.2 million and 0.8 million respectively).¹

Figure 5.26: Unique audience for selected online video-sharing sites: March 2017



Unique audience (millions) and reach as a % of total digital audience

Source: ComScore MMX Multi Platform, Key Measures, UK, March 2017.

Note: MMX multi-platform includes laptop/desktop browsing, laptop/desktop video streams and mobile use. Mobile use includes Android smartphones and iOS smartphones and tablets. Only those entities that have been tagged as part of the census network report Android tablet usage data. ComScore entities used were: [M] YOUTUBE.COM, [P] Vimeo, [P] DAILYMOTION.COM, [M] PERISCOPE.TV, [c] MSN Video (w/history), [P] TWITCH.TV

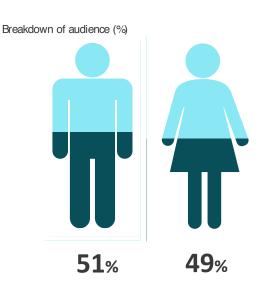
¹Twitch.TV is a live streaming video platform targeted at video gamers. It allows users to watch live streams of users playing video games, or stream content themselves. The service has a particularly high reach among the younger age groups, in March 2017, 45% of its digital audience was aged 15-24. Reach for Twitch was particularly high among males aged 18-24, at 38% (compared with 7% of females aged 18-24). Source: ComScore MMX Multi Platform, UK, March 2017

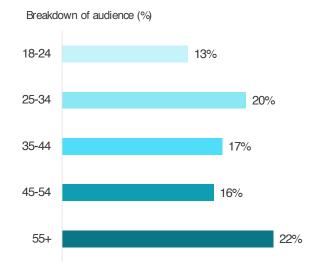
Viewers aged 18-24 spent more time watching YouTube videos than any other age group

Twenty-two per cent of YouTube's total audience are aged 55 and over, while 20% are 25-34, and 13% are 18-24. The gender split is close, at 51% male vs. 49% female.

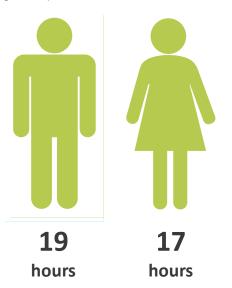
Time spent per viewer is higher among younger adults. Of the age groups below, 18-24s made up the lowest number of viewers on YouTube in March, but spent more time on average per viewer watching than any other age group (32 hours). Over-54s had the lowest levels of engagement, spending 7 hours on average per person.

Figure 5.27: YouTube viewer profile, by gender and age: March 2017

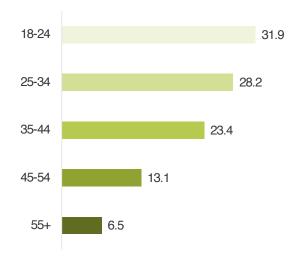




Average hours per viewer



Average hours per viewer



193

Source: comScore Video Metrix Multi Platform, Demographic Profile, UK, March 2017

The most popular YouTube partners are backed by major media networks

Of the ten most popular YouTube partners¹, almost all are backed by major multimedia networks. Warner Music – owned by Access Industries – had the highest reach of viewers across all of YouTube's partner network. Sony Music Entertainment (previously SonyBMG) also has a presence within its own properties, the Orchard (11.8 million viewers), and through VEVO (22 million viewers), a joint venture with Universal Music Group and Warner Music Group. Machinima, Inc. is the only property within the top ten that has a core focus on video games culture, and is a subsidiary of Warner Bros. Entertainment Inc. Broadband TV and Style Haul are both owned by the German network, RTL Television.

The properties found within the top YouTube partners span a variety of different content providers. This is mostly due to the rise of multichannel networks (MCNs). These are networks made up of a range of media brands or independent content creators. Broadband TV, which has the second highest number of unique viewers, provides services for a broad spectrum of clients, including NBA and Sony Pictures as well as independent creators. This wide choice of channels enables MCNs to reach a high number of viewers.

VEVO is among the highest for average minutes spent per viewer, suggesting that people are watching more videos on VEVO than on Warner Music's channels, possibly because of a wider range of artists and videos being part of VEVO's network. However, viewer numbers do not always result in high levels of viewing hours. Despite having the largest proportion of viewers in the top ten. Warner Music had the fourth lowest use per viewer; viewers spent 35 minutes on average watching Warner Music content. In contrast, Style Haul ranked the lowest number of viewers among the top ten but had the highest levels of engagement on each video, at 90 minutes per viewer. This could be because the multichannel network supports creators who produce content that is usually longer than 10 minutes (typically focusing on fashion and lifestyle), compared to the shorter music videos hosted by groups such as Warner Music, VEVO and SonyBMG.

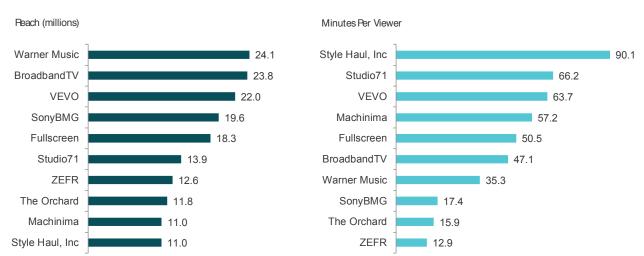


Figure 5.28: Top ten YouTube partners, by reach and minutes per viewer: March 2017

Source: comScore Video Metrix Multi Platform, UK, March 2017

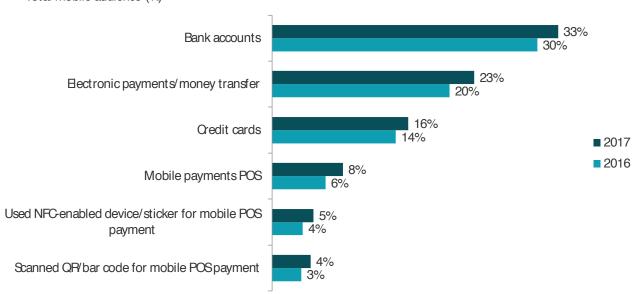
5.5.5 Mobile payments

In this section we examine take-up and use of online retail sites and mobile payment services in the UK.

A third of mobile users accessed their bank account via their mobile phone in March 2017

Thirty-three per cent of mobile users accessed their bank account from their mobile phone at least once a month (across a threemonth average); a 3pp increase since 2016. Overall, there has been year-on-year growth in the use of banking services via a mobile phone; electronic payments / money transfers increased by 3pp among mobile internet users in 2017, with 23% using their mobile phone for this at least once a month. Mobile payments using near-field communications (NFC) or QR codes were less popular than banking services (at 5% and 4% respectively), but were slightly up on 2016. There are a range of mobile payment services that use NFC technology to allow users to make contactless payments using their mobile phone. Apple Pay (launched in July 2015 in the UK) and Android Pay (May 2016) both use NFC technology, enabling users to make contactless payments in shops and to pay for public transport in London. As with contactless card payments, the individual banks and vendors that support Apple Pay and Android Pay limit the amount of money that can be paid using these services. As businesses continue to roll out next-generation chip and pin readers with NFC-enabled capability, we can expect to see a continued increase in mobile payments.

Figure 5.29: Selected mobile payments and financial services activities conducted by total mobile audience: March 2016-March 2017



Total mobile audience (%)

Source: comScore MobiLens Plus, UK, three-month averages ending March 2016 **Base:** Total mobile audience 13+

5.5.6 Online advertising

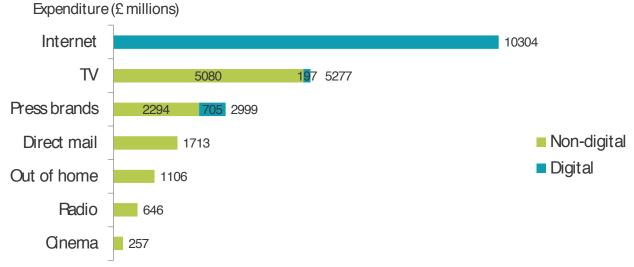
In this section we use data reported by the AA WARC Expenditure Report April 2017 and the IAB/PwC Digital Adspend 2016 (data reported by the industry to IAB/PwC).

Internet advertising expenditure exceeded £10bn in 2016

Internet advertising continues to be the largest category of ad spend in the UK,¹ accounting for 46% of total estimated UK advertising spend in 2016. Estimated TV advertising spend in 2016 was £5.3bn (including digital spend²), the majority of which (£5.1bn) was spot advertising.

Among the press brands, digital advertising stood at £705m in 2016, exceeding the total ad spend for radio (£592m) and cinema (£238m). Within the press brand category, regional news brands held the lowest share of digital spend at £193m, while national news brands' digital expenditure was £230m, and digital advertising expenditure on magazines was highest at £282m.





Source: AA/WARC, Expenditure Report, April 2017

Note: 'Press brands' is a consolidation of magazine brands and national and regional news brands.

Broadcaster VoD, digital revenues for news brands and magazine brands, radio station websites are also included within the internet total of £10,304m, so care should be taken to avoid double counting.

Note: The AA/WARC data is net of discounts, and includes agency commission, but excludes production costs.

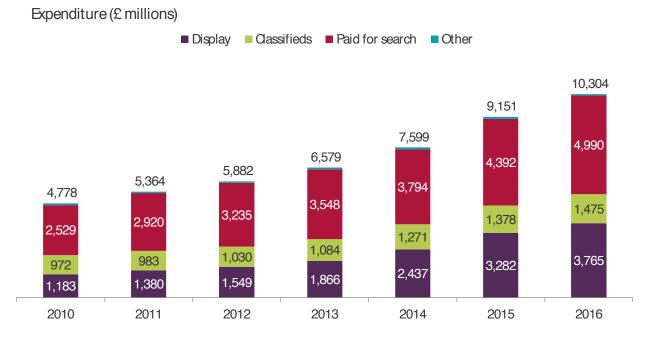
Paid-for search advertising accounted for under half of all digital advertising expenditure

In the following sections, we use data from the IAB/PwC Digital Adspend 2016 report. All figures are in real terms as adjusted for CPI.

Total estimated digital advertising expenditure grew 12.6% year on year, from £9.2bn to £10.3bn in 2016. Paid-for search advertising was the largest format, and accounted for just under half of digital ad spend, at £5bn (49% of total digital ad spend) a 13.6% year-on-year increase.

Display advertising was the fastestgrowing type of digital ad spend, increasing by 14.7% year on year to £3.7bn in 2016 (a 35% share of total digital ad spend). Banner¹, content and native², and online video adverts, hold a similar share of display advertising. Banner adverts, at £1.42bn, accounted for 38% of display advertising spend. Content and native advertising accounted for 31% of display advertising (£1.17bn, up 27% year on year), followed by online video, at 29% of display advertising (£1.1bn, up 55% year on year).

Figure 5.31: Digital advertising expenditure, by type: 2010-2016



Source: IAB / PwC Digital Adspend 2016. Figures adjusted for CPI (2016 prices).

² Content includes websites, articles or content areas which are sponsored, or are advertisement features. Native advertising includes discovery tools with third-party links involving revenue shares.

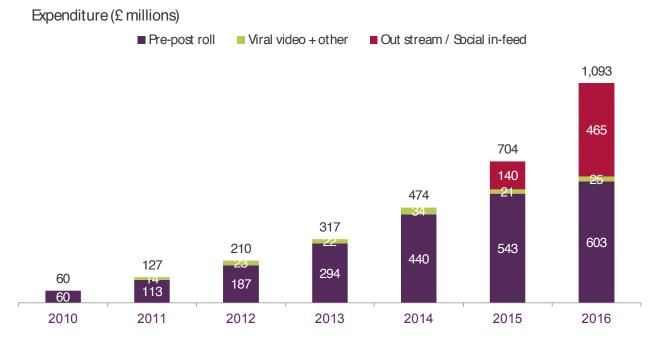
¹Advertisement embedded into a web page

Revenue from out-stream and social in-feed advertising more than doubled in 2016

Pre-post roll advertising¹ remained the highest source of revenue within digital display video advertising, generating £603m in 2016 in real terms (up 11.1% year on year), although out-stream / social in-feed video² was not far behind. Outstream / social in-feed ad revenue increased from £140m to £465m in 2016, making up 42.5% of total

digital display video advertising revenue. Revenue generated from viral video and other advertising³ grew from £21m to £25m.⁴

Figure 5.32: Digital advertising expenditure, by type: 2010-2016



Source: IAB / PwC Digital Adspend 2016. Figures adjusted for CPI (2016 prices).

Note: 'Viral video' was originally named 'social video'. It was changed to 'viral video' in 2015 to avoid confusion with video hosted on social media sites. It was also combined with 'other' video in 2015. 'Out-stream / social in-feed' is a new category from 2015, which includes video advertising on social media sites such as Facebook and Twitter.

¹ These are the video adverts that are shown before, during and after a user plays a video on a website or app.

² This includes static ads that appear in-feed or in-stream. Two examples of this would be social in-feed (e.g. Facebook) and also within news sites. An out-stream ad is a video ad unit

not tied to publisher video content, which runs within a standard ad placement and is designed to be viewable or playing when the user is on screen and moving around the page.

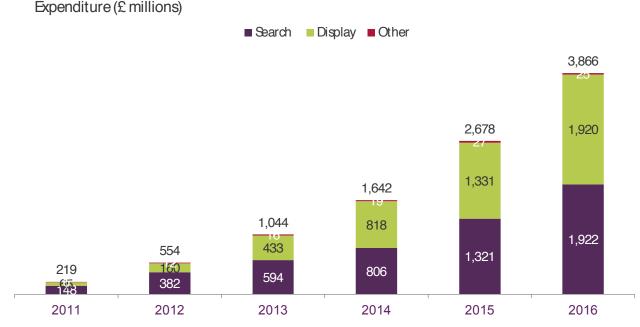
³ This includes 'viral' video content as well as videos served in a social environment such as Facebook or Twitter.

⁴ The drop in 'viral video + other' between 2014 and 2015 is because social revenues were re-categorised from this to 'outstream / in-read' video. The drop could also be due to inconsistencies between the years in terms of the number of media owners submitting revenues into that category. There is some re-classification but a change in submitters will tend to have a more noticeable effect

Mobile display advertising expenditure continues to grow substantially each year

Total mobile advertising expenditure grew by 44% (£1.2bn) year on year in real terms, to £3.9bn in 2016. Mobile search advertising spend grew by 45% in 2016 to £1.9bn, while mobile display advertising spend rose 44% to £1.9bn. Total mobile advertising amounted to 38% of total internet advertising and mobile display advertising accounted for over half (51%) of all internet display advertising.

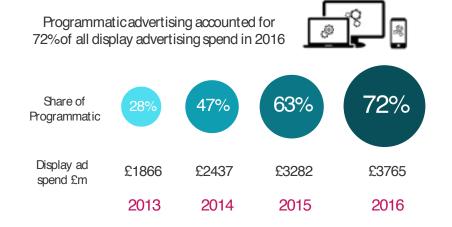
Figure 5.33: Mobile advertising expenditure: 2011-2016



Source: IAB / PwC Digital Adspend 2016. Figures adjusted for CPI (2016 prices).

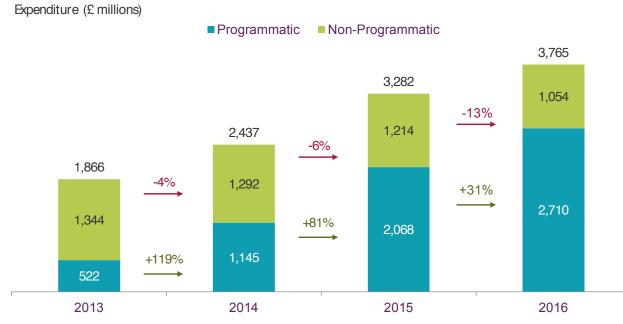
Close to three-quarters of all online display advertising is programmatic

The strong growth in display advertising has also been driven by the advent and adoption of advertising technology. Programmatic ad buying is the algorithmic (rather than manual or direct) trading of ads powered by data (collected by cookies or through log-in data). Programmatic advertising accounted for 72% of all display advertising spend in 2016, more than double its 2013 share.



Programmatic ad buying can be executed in an open marketplace through real-time bidding (where numerous advertisers bid for inventory or audience in real time) or in 'programmatic direct', where advertisers buy guaranteed ad impressions in advance from specific publisher sites within private marketplaces. Programmatic direct is most prevalent within the mobile space, accounting for more than 60% of trading across mobile video and display advertising. Open market place real-time bidding accounts for the majority of programmatic desktop display advertising, at 32%.

Figure 5.34: Share of programmatic advertising against display advertising expenditure

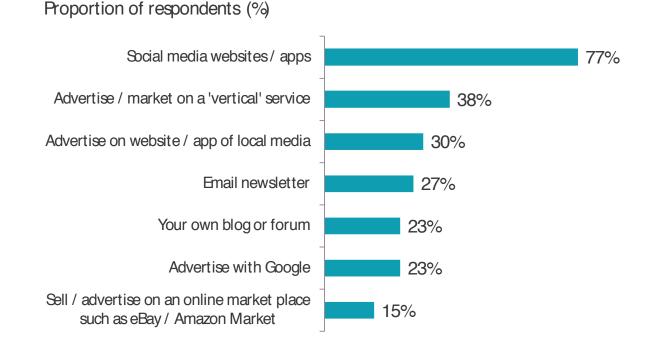


Source: IAB / PwC Digital Adspend 2016. Figures adjusted for CPI (2016 prices).

SMEs' use of the internet for marketing

Overall, 45% of the SMEs we surveyed in 2016 which had a fixed or mobile internet connection used online marketing in one form or another, rising to 69% of medium-sized organisations. More than three-quarters of those who said they did some form of online marketing used social media for marketing on at least a monthly basis. Just under a quarter (23%) advertised via Google, fewer than those who marketed or advertised on a 'vertical' service (such as an online directory or specialist website) or on the website or app of local media such as newspapers, radio stations or hyperlocal websites.

Figure 5.35: Types of online marketing done by SMEs



Source: Ofcom SME Tracker. Fieldwork May-July 2016

Base: online marketing users (n=764)

QA7. You said you use the internet for online marketing. Which, if any, of the following websites and tools does your organisation engage with or use on a regular basis – that is, at least once a month?