verian

Mobile Browsers Consumer Research

Understanding and usage of mobile browsers on smartphones for the Competition and Markets Authority (CMA) web browsers market investigation

Verian Group UK

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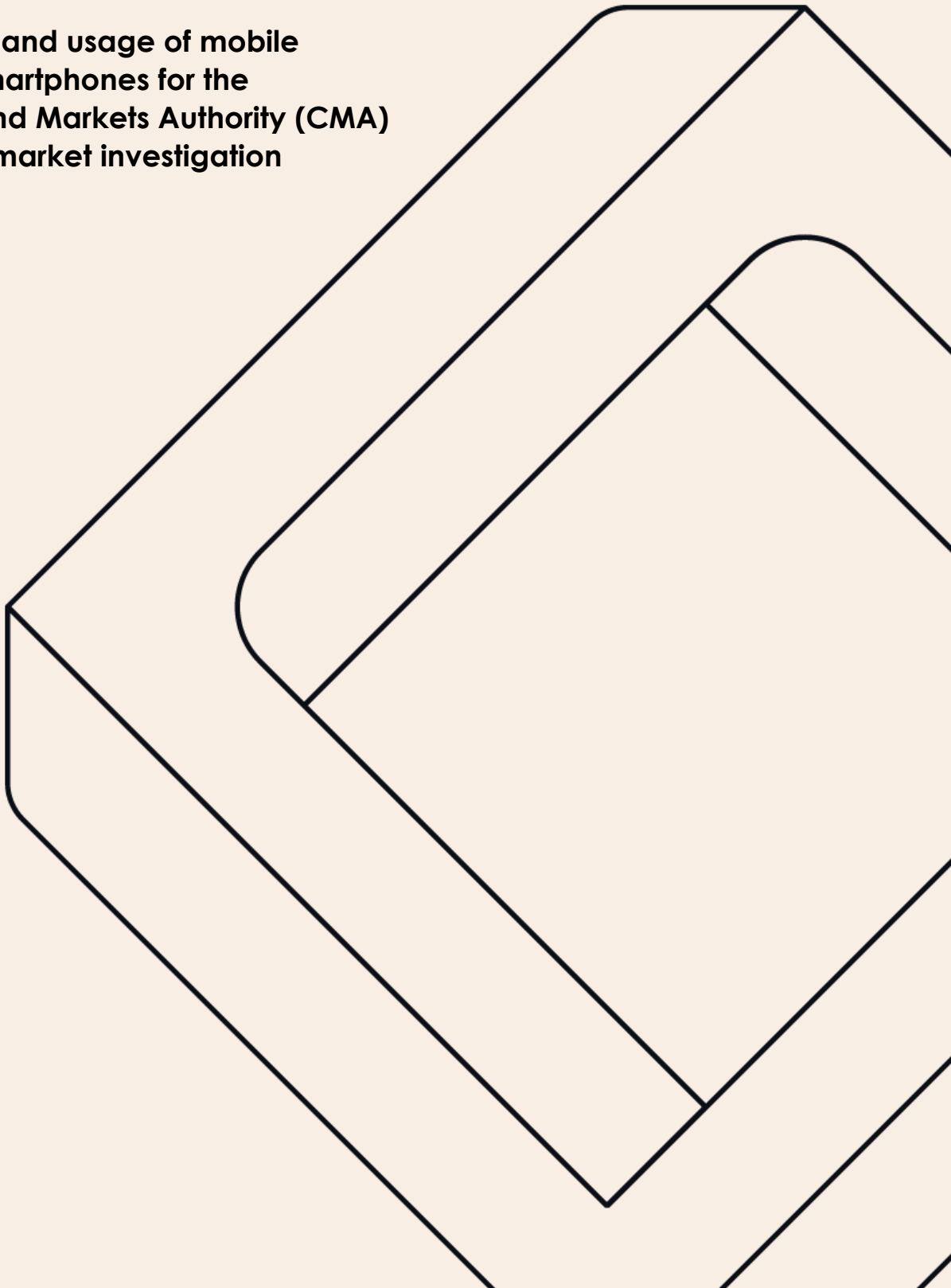

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Executive Summary

Chapter 1: Introduction and background

In November 2022, the Competition and Markets Authority (CMA) launched a market investigation in respect of the supply of mobile browsers and browser engines on mobile devices in the UK. Mobile browsers and cloud gaming - GOV.UK (www.gov.uk).

As part of its investigation, the CMA appointed Verian (formerly Kantar Public) to conduct research with UK smartphone users. The research sought to understand consumer behaviour in the mobile browser market, with a particular focus on the role of preinstallation and the drivers of browser choice on smartphone devices.

The research comprised two phases:

- A **qualitative phase** to inform the development of the survey questionnaire and to explore the research issues in more depth. The study involved 40 interviews conducted in January and February 2023 with a purposive sample to ensure inclusion of participants across a range of demographics, operating systems and browsers, and digital literacy. As part of each interview, participants were observed completing several browser-related tasks on their smartphone.
- A **quantitative phase** which involved a survey of 3,060 UK adults aged 16+ who owned a smartphone for personal use, where they had a role in choosing the phone. The survey was conducted in the period 13 March - 8 April 2024 using a screened sample from Verian's Public Voice panel, a high-quality representative panel recruited using random probability (rather than quota) sampling.

A summary of the main findings, drawing on both quantitative and qualitative phases is provided below.

Chapter 2: Profile of smartphone owners

- In line with industry statistics, Apple smartphones were the most popular device with 50% of smartphone users owning an iPhone; the next most used devices were Samsung (31%), Google (5%), Motorola (3%), Huawei (2%) and Xiaomi (2%).
- When comparing users' current and previous smartphones, the majority had stayed with the same brand (76%) and 21% had switched brand. While there was some switching of brands amongst Android users, 92% of all Android users stayed within the Android operating system. Similarly, 90% of iOS smartphone users reported that their previous phone was an iOS smartphone.[1]
- iOS smartphones were more popular among women, younger people and those with higher levels of education and income. Conversely, Android devices were more popular among men, older people, and those with a lower education or income.
- iOS smartphone users spent more time than Android users on their mobiles each day, with iOS users reporting a daily average of 3 to 4 hours, compared with 2 to 3 hours for Android users. These differences are likely to be partly driven by differences in users' age profiles (iOS users being younger on average than Android users).
- Most users preferred apps (60%) over websites (15%) when using their smartphone, with the remainder having either no preference or no opinion. Preference for apps was skewed

[1] When referring to the Apple operating system, the term 'iOS' is used. When referring to smartphones that run on the iOS operating systems, the terms 'iOS devices' or 'iOS smartphones' is used. When referring to analysis of phone brands, 'Apple' is used.

towards younger and high-income users, iOS smartphone users, and those who considered themselves to be very confident in using their smartphone and the apps available on it.
- Overall, 95% of smartphone users owned at least one other internet-enabled device. There was a clear preference for other Apple devices among iOS phone users, with Android phone users tending to use non-Apple branded devices.
- In the qualitative interviews, participants described a range of usage patterns. While the most confident used multiple apps and were comfortable with most activities, the least confident used their smartphone for a very narrow range of activities and were reluctant to make any changes.

Chapter 3: Smartphone technical confidence and engagement

- Smartphone technical confidence was based on self-reported level of confidence in 'using your smartphone and the different apps available on it': 94% of users reported they were either 'very confident' (53%) or 'fairly confident' (40%) using their smartphone.
- Smartphone technical confidence was strongly related to age; the proportion who felt 'very confident' declined across the age groups, from 81% of 16-24s to only 23% of those aged 65+.
- Smartphone technical confidence also varied slightly by operating system with iOS smartphone users being more likely than Android users (58% compared to 49%) to feel 'very confident', although the younger age profile of the iOS users most likely contributed to this finding.
- Users with a mental health condition were more likely than those without to report feeling 'very confident' in using their smartphone (61% compared to 52%), whereas users with a physical health condition were less likely than those without to report feeling 'very confident' (41% compared to 56%). These patterns likely reflect the relationship between reported health conditions and age: younger respondents were more likely to report a mental health condition while older respondents were more likely to report a physical health condition.
- The survey also measured confidence specifically in relation to web browsers. A composite confidence measure based on confidence in downloading a browser (see Chapter 6) and confidence in changing default browser (see Chapter 9) was created which classified 37% of people as having high confidence in managing browsers on smartphone. However, confidence in these measures was largely based on perception rather than behaviour. For example, only 33% of those who felt they could 'definitely' change the default browser had actually changed their current default browser in practice.
- More than one in ten users (12%) were not confident in either task (i.e. did not feel they could download a new browser or change the default browser); rising to 30% of users aged 65 and over.
- 70% of users had rarely or never thought about how they use browsers on their smartphones before the survey, demonstrating that this topic is of low salience to most users. Men, younger people and those with higher education were most likely to have thought about these topics before.
- It was also rare in the qualitative research for anyone to have considered the topic in any detail before, with some participants unaware that they were using a browser to access the Internet on their smartphone.
- In the qualitative research, self-reported confidence tended to be higher than actual technical capability.

Chapter 4: Smartphone acquisition

- Most users set up their phone themselves without help (72%); however, this was more likely for younger users, men and those with a higher level of education.
- When asked to select the five most important factors in determining smartphone purchase, around half of users mentioned each of price, brand, camera, battery life and storage capacity/memory. Security, privacy and web browser availability were viewed as the least important factors (mentioned by between 7% and 14% of users).
- When examining the single most important factor for users, price (27%) and brand (23%) were the main drivers for purchase. Android users were more likely to be driven by price (38% of Android users vs 16% of iOS smartphone users) while iOS users were more driven by brand (33% of Android users vs 13% of iOS users). Privacy features and browser availability on device were the lowest priority factors for both operating systems.
- In the qualitative interviews, it was common for participants to say they had set their phone up initially but had retained the set-up with each subsequent handset. Those with the lowest confidence had received help setting up their phone from a family member or friend.
- Participants in the qualitative research were clear that the browser was not in any way a factor affecting smartphone purchase.

Chapter 5: Awareness of web browsers

- The survey measured awareness of web browsers in two ways: unprompted (spontaneous) awareness followed by prompted awareness, using a list of browsers. When asked to type in names of browsers they had heard of (spontaneous awareness), smartphone users named 2.4 browsers on average, and 11% of smartphone users were not able to name any browsers. Google or Google Chrome[2] was by far the most common spontaneous mention (84%), with Safari spontaneously mentioned by around half as many (42%).
- When shown a list of browsers and logos (prompted awareness), the number of browsers respondents recognised doubled to a mean of 5.2. Chrome still received the highest level of awareness (97%), but prompted awareness was also relatively high for Internet Explorer (86%), Microsoft Edge (76%), Safari (74%) and Firefox (68%).
- Men, younger respondents, and respondents with higher levels of education or income were familiar with more browsers on average than older respondents, women or those without qualifications or low income.
- Participants in the qualitative research broadly thought Google Chrome and Apple Safari were reputable, trustworthy brands. Aside from Firefox and Internet Explorer, qualitative participants had very limited opinions of or associations with alternative browsers.

Chapter 6: Installation, downloading and usage of mobile browsers

- Most users had no more than two browsers installed on their phone: 43% had one installed browser, 40% had two, and only 15% had three or more. The mean number of installed browsers was 1.9 for Android and 1.7 for iOS.
- Google Chrome (72%), Safari (45%) and Samsung Internet (22%) were the most installed browsers. Edge, Internet Explorer and Firefox were installed on between 7% and 10% of smartphones, with other browsers installed by less than 5%.
- Among iOS smartphone users, Safari and Chrome were the most installed browsers (89% and 54% respectively) while for Android users Chrome (90%) and Samsung Internet (45%) were the most installed browsers.
- Most iOS smartphone users (72%) used Safari as their main browser, especially younger iOS users aged 16-24 (81%). iOS users aged 65+ were more likely to use Chrome (32% vs 15% of those aged 16-24). Most Android users (77%) used Chrome as their main browser.

[2] When coding spontaneous mentions, 'Google' was coded as 'Google Chrome.' This may have led to an over-estimation of spontaneous awareness of Chrome if people conflated the search engine with the browser.

- Most smartphone users (69%) used the preinstalled browser on their phone as their main browser, while 16% had downloaded a different browser and 6% had transferred the browser from their previous phone.
- When used as a main browser, Safari and Samsung Internet were usually preinstalled (91% and 89% respectively), while Chrome on iOS and less mainstream browsers[3] were more likely to have been downloaded (43% and 64% respectively).
- Six in ten users (58%) indicated a main browser preference, while 42% used the preinstalled browser without considering if they preferred this to other browsers. Chrome on iOS and less mainstream browsers were more likely to be used based on preference (75% and 78%, respectively), while Safari and Samsung Internet were least likely to be used based on preference (46% and 37%, respectively).
- Browser preference was mainly based on familiarity and ease of use. Compared to Safari, Chrome was more likely to be chosen based on brand trust & cross-device compatibility. Privacy and security were not major drivers in browser choice, although Safari users were slightly more likely than Android users to choose on this basis.
- Overall, 85% considered that they could definitely (57%) or probably (28%) download a different browser, while 15% were not confident that they could do this. Low confidence in downloading a browser was concentrated among women, older people, people with lower levels of income and education, and people with lower levels of knowledge and engagement with respect to mobile browsers.
- In the qualitative interviews, the reasons for using a browser differed by user type, ranging from the most technically capable and engaged to the most disengaged and lacking in technical confidence. The five user types included:
    - The 'able but indifferent' who felt there were no differences between smartphone browsers, and saw no reason to use an alternative browser.
    - The 'brand loyal' who had committed to either Google or Apple across product types, felt familiar with them, and recognised the benefits of syncing their browser use across their smartphone and computer.
    - The 'unknown unknowns' who had the lowest confidence, had not realised they were using a browser, and had a strong preference for familiarity.
    - The 'practical switchers' who had encountered an issue with their existing browser so had downloaded an alternative.
    - The 'active switchers', who had downloaded an alternative browser for privacy reasons or to avoid using mainstream tech brands.

Chapter 7: Browser placement

- In the survey, smartphone users were asked where on their phone they would find their most used browser. The most commonly selected location for the main web browser was the home screen (63%). A further 29% said their browser was pinned to their screen (note: respondents could pick more than one location).
- Apple smartphone users were more likely than users of other phone brands to say that their browser was pinned to their screen (36% compared to 28% of Google and other Android users, and 19% of Samsung users).
- There was an equal split between those who positioned or chose their browser location (41%) and those who left it in the default position without considering alternative locations (42%). Older users, women, the least technically confident, and iOS smartphone users were less likely to position or choose a browser location.

[3] Less mainstream browsers refers to all browsers other than Safari, Chrome and Samsung Internet which between them accounted for 93% of main browsers among survey respondents.

- The qualitative research identified a certain type of user that wanted to 'curate' their screen organisation and had pinned their most used apps to the home screen. Beyond the 'curators', participants tended to be fairly disengaged with the location of apps on their phone. While qualitative participants knew that apps could be moved, they were not always aware that pinned apps could be moved.

Chapter 8: Knowledge of default browsers and in-app browsing

- The survey asked three 'quiz style' true/false questions to gain a more objective measure of knowledge of browser settings, beyond self-reported browser confidence.
- Users demonstrated a good level of knowledge in terms of changing default browsers, but lower levels of knowledge in relation to the more technical concepts of in-app browsing.
    - Most users (70%) correctly identified that the default mobile browser on a phone can be changed.
    - About half of users (47%) were aware that different apps on a smartphone may use different web browsers depending on the app.
    - Few users (19%) understood that a weblink within an app would not always open in their default browser. A greater proportion (47%) incorrectly believed the opposite, i.e. that a weblink within an app would always open in their default browser.
- Two in ten users (19%) gave an incorrect answer to all three questions. This was higher among women (23%), older people (31% of users aged 65 and over), those with no qualifications (29%), and those with lower levels of self-reported technical confidence in managing browsers (54%).
- In the qualitative research, it was common for default browsers to be conflated with preinstallation, except among the most confident and capable; qualitative participants often described the default as 'the browser that comes with the phone'.
- In-app browsing was poorly understood and had rarely been considered before, with qualitative participants typically unaware that a browser was operational 'behind the scenes'.

Chapter 9: User journey to change default browser

- Overall, 77% of users considered that they could definitely (39%) or probably (38%) change their default browser without needing to ask someone else or search online, while 23% were not confident that they could do this.
- However, just one in five users (21%) stated that they had changed their default browser; this was higher among men (26% vs 15% of women), Android users (27% vs 14% of iOS smartphone users), Samsung phone users (29% vs 14% Apple and 20% Google phone users), and those displaying the most knowledge of mobile browsers (37% with high knowledge vs 5% with low knowledge).[4]
- Where users had switched their default browser, most (89%) said they had found this either very easy (57%) or fairly easy (32%).
- The main reasons for **switching** default browser were user preference (51%) and a desire to synchronise browsers across other devices (45%). Android users were more likely than iOS smartphone users to switch based on user preference (56% vs 42%).
- The main reason for **not switching** browser was a preference for the existing default (34%). Other than this, reasons mainly centred around apathy: 20% said the web browser used was not important to them and 25% said they had never thought about this.
- Barriers to switching the default browser varied by level of confidence in managing browsers. High confidence users mainly said they hadn't switched because they preferred the default

[4] As measured by the True/False questions discussed in Chapter 8 (see also definition provided in section 1.3).

(50% vs 12% of those with no confidence). For low confidence users, barriers to switching mainly focussed on lack of knowledge or engagement: never thought about this (40% vs 18% of high confidence users), didn't how to change browser (21% vs 0%), or didn't know they could change the default browser (15% vs 1%).
- All participants in the qualitative interviews were asked to try to change their default browser. While the most confident and capable were able to change the default easily, it was not unusual for participants to fail to switch. Participants tended to encounter the most difficulty when accessing settings, as they were unsure what to look for or where to look.

Chapter 10: Prompts and notifications to change default browser

- Respondents that had changed their default browser were asked about prompts to change back. When shown an example of a prompt to change their browser back to the default, 62% of this subgroup indicated they had seen this prompt before.
- Awareness of prompts was higher for younger users and those spending 3 hours or more on their phones daily.
- Among respondents who had seen the prompt, 71% found the prompt either 'usually helpful' (30%) or 'occasionally helpful' (41%).
- All participants in the qualitative interviews were shown examples of prompts. Overall, those from third parties were more likely to be understood than the prompts from Safari or Chrome, which some participants mistook for software updates.
- In the qualitative research, prompts were more likely to be seen as useful if they were from a trusted messenger, in other words, from their existing browser, or from a new one they had just downloaded. On the other hand, participants felt that they might see a pop-up as annoying if it interrupted them, and they might ignore or dismiss it as a result.

Chapter 11: Browser behaviour on desktop or laptop computers

- Three in four smartphone users (74%) also used a computer such as a laptop, MacBook or Chromebook for personal activities. A series of questions were asked about browser use on computers which were designed to mirror the equivalent set of questions on mobiles.
- There was a slightly greater spread of browsers **installed** on computers compared to mobiles: 62% of computer users vs 55% of mobile users had two or more browsers installed. There was a greater presence of less mainstream browsers such as Edge, Internet Explorer and Firefox installed on computers compared to mobiles.
- There was also a broader spread of main browsers **used** on computers compared with mobiles. On computers, 16% used Edge (vs 2% on mobiles), 6% used Firefox (vs 2% on mobiles), and 4% used Internet Explorer (vs 1% on mobiles).
- There is survey evidence of an association between computer browser use and mobile browser use, although we are unable to infer a causal relationship, or the direction of any such relationship. Nine in ten respondents (86%) who used Safari as their main browser on computer also used Safari as their main browser on their mobile. There was also a high correspondence for Google Chrome (67% of Chrome computer browser users also used Chrome on mobile). While Firefox was used as the main browser for just 2% of mobile users overall, 34% of respondents using Firefox as their main computer browser also used Firefox as their main mobile browser.
- There was more switching of default browsers on computers compared with mobiles. Overall, 39% of computer users had switched their default browser compared with 21% of mobile users.
- Similarly, there was more active browser management on computers compared with mobiles: computer users were more likely to choose or download a browser based on preference (68% vs 58% on mobiles) and less likely to passively use preinstalled browser (32% vs 42%).

- In the qualitative research, participants sometimes felt that differentiating features were only relevant in the context of a computer browser, whereas differences between smartphone browsers were minimal.

1. Introduction

1.1 Background and objectives

In June 2021, the Competition and Markets Authority (CMA) launched a market study into mobile ecosystems, setting out its intention to gain a better understanding of a major component of the digital economy, and to gather evidence to inform an assessment of whether competition is working well for consumers and citizens in the UK.

The CMA reached the view that it had reasonable grounds to suspect that the features of these markets prevent, restrict or distort competition in the UK. Therefore, they referred the supply of mobile browsers and mobile browser engines for a single in-depth market investigation by an independent inquiry group. This market investigation launched on Tuesday 22 Nov 2022: Mobile browsers and cloud gaming - GOV.UK (www.gov.uk).

As part of its investigation into mobile browsing and cloud gaming, the CMA appointed Verian (formerly Kantar Public) to conduct quantitative and qualitative research with UK consumers who own a smartphone.

The research sought to understand consumer behaviour in the mobile browser market, with a particular focus on the role of preinstallation and the drivers of browser choice on smartphone devices. More specifically, this research sought to investigate:

- How users access the internet on their smartphone, the activities they undertake on their smartphone and the role of their browser in choosing their smartphone.
- How users access or choose their current browser.
- Whether users consider the features of different browsers, which features are most important, and satisfaction with current smartphone browser.
- The factors influencing browser choice on the smartphone, the role of preinstallation and browser default settings on the smartphone.
- Expectations, understanding and perceptions about switching/changing mobile browser, and the motivations for switching or staying.
- Any barriers preventing users from switching/changing their mobile browsers, and confidence about changing browsers and default.
- Experience of those who have switched/changed mobile browser.

Verian began working on the research in January 2023 and the qualitative phase was completed by March 2023. In March 2023, the Market Investigation was suspended following a Competition Appeal Tribunal judgment and order. The Market Investigation was recommenced on 24 January 2024. Due to the pause, the research was put on hold for a year, hence the significant gap between the quantitative and qualitative stages.

1.2 Summary of methodology

The research comprised two phases, and this report covers combined findings from both phases. A more detailed coverage of findings related to the qualitative phase stage of the study can be found here.

Full details of the methodology can be found in the technical report. A summary of the two phases is provided below.

Qualitative phase

The qualitative study provided an in-depth understanding of consumer understanding and behaviour in relation to use of browsers on mobiles. This stage of the research served a dual purpose:

- To inform the development of the survey questionnaire – for example to help inform survey question wording for technical features of mobile browsers and what definitions people needed to better understand these features.
- To provide further depth to complement the survey findings.

This phase involved 40 interviews conducted in January and February 2023. Interviews were conducted both face-to-face at a central location and via online video platform (Zoom). Purposive sampling was used to ensure inclusion of participants across a range of demographics, as well as to ensure a good spread by mobile operating system, choice of browser and digital literacy.

As part of each interview, participants were instructed to conduct several tasks on their smartphone, narrating their thought processes while researchers observed (in person during face-to-face interviews, or screen-sharing their smartphone during Zoom interviews). The tasks included:

- Accessing a website as they normally would (to find information or news); then repeating the task via alternative browsers (for those with more than one smartphone browser), or repeating via a browser if they initially used a search app.
- In-app browsing on a social media app.
- Downloading an alternative browser onto their smartphone.
- Changing the default browser on their smartphone.

This allowed for a more objective examination of smartphone users' technical capability which helped to provide context for the self-reported confidence measures collected in the survey.

Quantitative phase

This stage comprised a survey of 3,060 adults aged 16+ who owned a smartphone for personal use, and who had a role in choosing the phone. The sample was drawn from Verian's **Public Voice panel**, a high-quality representative panel recruited using random probability (rather than quota) sampling.

The initial target population for this survey was defined as 'all permanent residents of the UK aged 16+'. The sample for the survey was drawn from the 22,758 respondents on the Public Voice panel who fulfilled this eligibility criteria at the time of sampling. The panel was implicitly stratified by age group, then by region and then by subregional geography before a systematic random sample was drawn for this project.

At the start of the survey, participants were screened to ensure that the survey only included:

- Smartphone users who had a role in choosing their phone (those who were given a phone which they had no part in choosing, or which was provided by their employer, were screened out).
- People who used their smartphone for personal use, including those who also used it for work (those who only used their phone for work purposes were screened out).
- Smartphone users who knew the brand of their phone (a very small number who did not know this were screened out as it was not possible to classify their phone or operating system).

The survey was conducted in the period 13 March to 8 April 2024. The conversion rate[5] based on Public Voice issued sample was 32%. The design-weighted conversion rate which takes account of the disproportionate sample design was 39%[6]. The composite response rate was 3%[7].

Data were weighted to correct for varying probabilities of sample selection and to calibrate the sample to align with population data[8].

All differences commented on in this report are statistically significant at the 95 per-cent level of confidence, unless otherwise indicated.

1.3. Key definitions used in this report

1.3.1. Terminology

Throughout this report people who took part in the qualitative research are referred to as participants' while those completing the survey are referred to as 'respondents'.

When referring to the Apple operating system, the term 'iOS' is used. When referring to smartphones that run on the iOS operating systems, the term 'iOS devices' or 'iOS smartphones' is used. On occasion, 'Apple' is used, for example when discussing analysis of phone brands.

1.3.2. Quantitative findings terminology

The quantitative survey results use several measures in the report to help explain variations among smartphone owners in terms of level of confidence, knowledge and engagement in issues related to mobile phone browsers. Some of these are composite measures based on two or more questions. For reference, the definitions of these measures are provided here. Full details of questions asked in the survey can found in in the Technical report, Appendix A.

Smartphone technical confidence

This is based on the question TECHCONF and describes self-reported level of confidence in 'using your smartphone and the different apps available on it'. The categories are:

- Very confident
- Fairly confident
- Not confident – combines 'not very confident' and 'not at all confident'

Confidence in managing web browsers on smartphone

This is a composite variable based on a combination of two self-reported confidence measures: DOWNCONF (confidence in ability to download and use a different web browser on your phone) and DEFAULTCONF (confidence in ability to change default browser on your smartphone). The categories are:

[5] The number completing the survey and passing quality assurance checks divided by the number issued for fieldwork.

[6] The sampling probabilities applied to each panel member varied in an effort to produce a maximally representative respondent sample. The difference between the basic conversion rate and the design-weighted conversion rate is because those expected to respond at a lower-than-average rate were sampled at a much higher-than-average rate, and vice versa.

[7] This composite response rate is the product of (i) the panel recruitment survey response rate, (ii) the panel retention rate, and (iii) the response rate of the Mobile Browsers survey itself. Further information is provided in the Technical Report (section 5.1).

[8] Using the ONS Annual Population Survey of 2022 (the latest available) with respect to sex*age group, birth country (UK/other), and region.

- High confidence – Think could definitely download new browser AND change default browser
- Medium confidence – Think could definitely do one of these activities or probably do both activities
- Low confidence – Think could probably not or definitely not be able to both download OR change default (but not both)
- No confidence – Think could probably or definitely not be able to download AND change default browser

Mobile browser engagement

This is based on the question MOBENGAGE and describes the level of engagement with issues related to mobile browsers 'Before today how much thought if any had you given to the topics you have been asked about today?'.

- Engaged – had often thought about these topics/thought about these topics from time to time
- Not engaged – had rarely or never thought about these topics before the interview

Knowledge of mobile browser settings

This is a composite measure based on answers to three true/false questions which covered objective knowledge of default browsers and in-app browsing on mobiles (TFGRID2).

- High knowledge – all three questions correct
- Medium knowledge – At least one question correct
- Low knowledge – all three questions incorrect

Physical, cognitive and mental health conditions

Measures for these conditions were derived from the question HEALTH, which asked respondents to select from a list of conditions and illnesses any that affect them.

For the purposes of this analysis:

- A 'physical condition' encompassed any of the following: issues with vision, hearing, mobility, dexterity, stamina or breathing.
- A 'cognitive condition' encompassed any issues with learning, understanding, concentration or memory, as well as any social or behavioural conditions such as autism spectrum disorder (ASD) or attention deficit hyperactivity disorder (ADHD).
- A 'mental health' condition encompassed any conditions or illnesses which affect the user's mental health. No specific mental health examples were provided in the survey.

1.3.3. Quantitative findings terminology

Smartphone confidence

The qualitative research refers to high and low technical confidence. This measure was based on screening questions at recruitment stage that asked participants to self-classify their level of confidence downloading and using a new app on their smartphone, and changing the settings for an app on their smartphone. Low confidence was classified by those rating 4 or under for both questions (on a scale of 1 to 10).

During the interview, researchers observed the degree of participants' technical literacy. While participants could self-report as very confident with their smartphone, there was variation in the level of actual technical proficiency exhibited by this group. Some who self-classified as technically

confident were observed to be capable of fairly straightforward activities on their smartphone, but uncomfortable with more complex tasks. On the other hand, some participants had a much better technical understanding and were very comfortable with their smartphone, including more complex areas. These participants are referred to in the report as 'confident and capable'.

Presentation of quotations

Verbatim quotes are used throughout the report to illustrate findings, as below:

> "Quote."
>
> **Operating system, Participant's age, Level of self-reported technical confidence, Whether they had an additional browser on their smartphone**

2. Profile of smartphone owners

This chapter provides an overview of the profile of smartphone owners. Key areas covered include prevalence of smartphone brands and operating system, time spent daily on smartphones and the activities commonly performed on them. These areas are broken down by key demographic markers, namely gender, age, household income, education and smartphone operating system.

Based on the survey screening criteria (see section 1.2), the population of smartphone owners eligible for the survey included all aged 16+ in the UK who owned a smartphone which they used for personal use (as well as work if applicable), where they had a decision-making role in either purchasing or choosing their phone, and who knew the brand of their phone.

2.1. Operating system, brand and switching

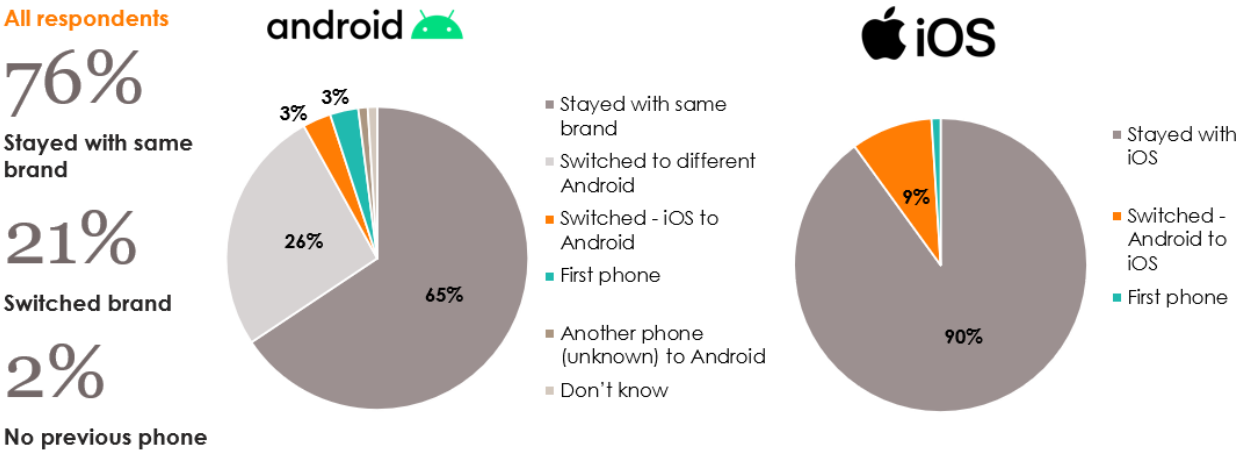
In line with industry statistics[9], Apple smartphones were the most popular device with 50% of smartphone users owning an iPhone. Other phone brands included Samsung (31%), Google (5%), Motorola (3%), Huawei (2%) and Xiaomi (2%). All Apple smartphones run on the iOS operating system, and all other smartphones bar Huawei run on Android. Given this, prevalence of the two lead operating systems, iOS and Android, were close to an equal split across the screened-in sample (50% iOS to 48% Android).

When comparing users' current and previous smartphones, the majority had stayed with the same brand. Overall, 76% of respondents stayed with the same brand and 21% switched brands (Figure 2.1). For the remainder, their current phone was their first smartphone. For users currently on iOS smartphones, 90% had iOS on their previous phone, 9% had moved across from Android and for the remaining 1% their current phone was their first smartphone. For Android users, 65% were using the same brand as their previous smartphone and 26% were using a different brand, but still an Android. In sum, 92% of Android users stayed within the Android operating system. 3% had switched from iOS, 2% had switched from an unknown/un-recorded brand and for the remaining 3% their current phone was their first smartphone.

When comparing previous and current smartphones amongst those who had owned a smartphone prior to their current model, more than 9 out of 10 users stayed with the operating system they had previously (91% iOS to 95% Android). Regarding movement between the two systems, Android users were more likely to switch to iOS than vice versa (9% Android to iOS compared to 3% iOS to Android).

[9] https://www.uswitch.com/mobiles/studies/mobile-statistics/mobile-phone-market-statistics/

Figure 2.1: Brand of current and previous smartphone, by operating system



PREMOB - Now thinking about the smartphone you used before you [bought/got] your current personal smartphone, was that the same brand you have now or a different brand? (If different brand) PREMOBCNFIRM – Which of the following smartphone brands was your previous smartphone? All (n=3,060), Android (1,455), iOS (1,536)

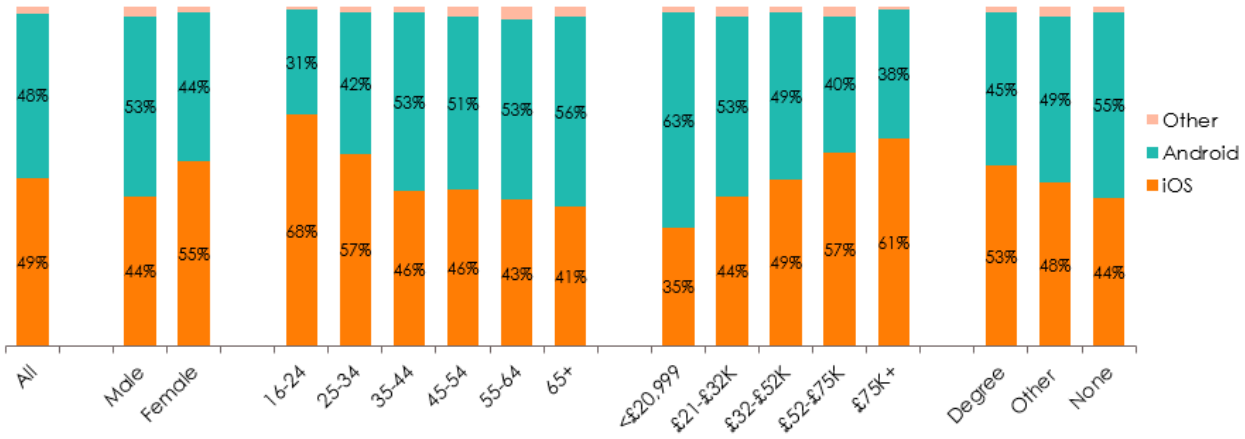
2.2. Differing characteristics between iOS and Android users

There are some notable differences between the operating system in terms of demographic profiles (Figure 2.2). Overall, iOS was more popular among women, younger people and those with a higher level of education and a higher household income. Conversely, Android was more popular among men, older people, those with a lower education, and those with a lower household income. The strongest differentiators between the two systems were age and household income.

For example, of those aged 16-24 years 68% were on iOS and 31% on Android. In contrast, for users aged 65 years and older, 41% were on iOS and 56% on Android. Two in three of all who have a household income under £21,000 were on Android (63%). In contrast, around two in three (61%) of all who have a household income of £75,000 or more were on iOS.

There was less variation in operating system choice by gender and education. For example, 44% of men were on iOS, 53% on Android. For those with degree-level education, 53% were on iOS and 45% on Android.

Figure 2.2: Operating system of smartphone, by age, gender, income and education



WHICHOS - All (3,060) Males (1,407) Females (1,630) 16-24 (366) 25-34 (501) 35-44 (588) 45-54 (549) 55-64 (482) 65+ (574) Up to £20,999 (512) £21,000 to £31,999 (442) £32,000 to £51,999 (641) £52,000 to £74,999 (460) £75,000 or more (524) Degree or above (1,236) Non-degree level (1,504) No qualifications (313). All 'Other' operating systems are Huawei.

2.3. Use of smartphone for personal reasons and work

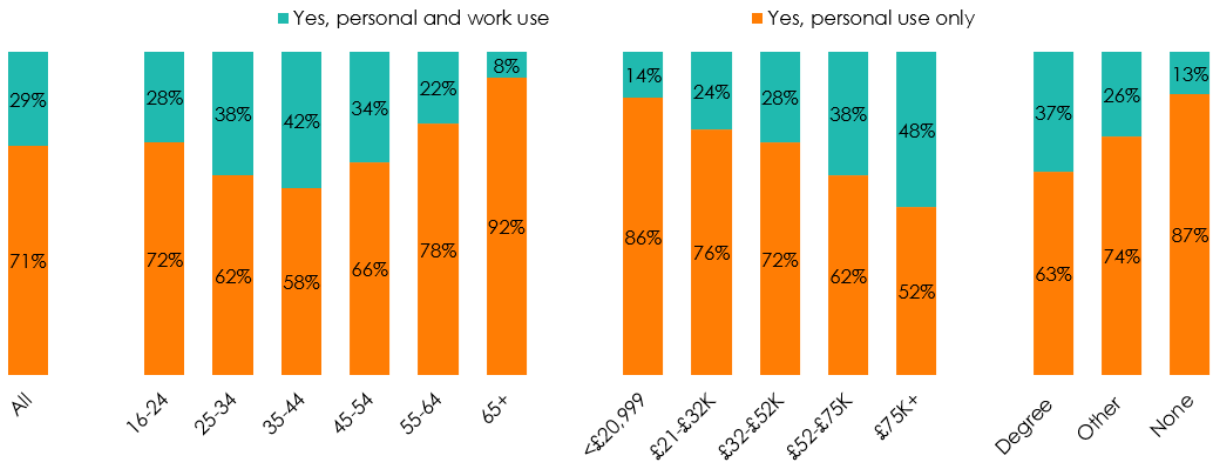
As described in section 1.2, respondents who used their smartphone for work only, or who were provided with their smartphone by their employer were screened out of the survey. Respondents who used their smartphone for a mix of personal and work and where it was not provided by their employer were retained. Of those who passed these screening questions, 71% used their smartphone for personal use and 29% for a mix of personal and work use. It should be noted that screened-in respondents may have a smartphone that they use for work use only, or that was provided by their employer, in addition to the smartphone they use for personal use or mix of personal and work use.

To further ensure respondents answered regarding the phone they use for personal use, or largely for personal use, the questionnaire routinely refers to respondents' 'personal smartphone'. Those who used their main smartphone for both personal and work use were retained in the sample if the smartphone was not provided by their employer.

Respondents of working age, those with higher income and those with higher education were more likely to use their phone for both work and personal use: For example,

- 42% of people aged 35-44 years (vs 8% of people aged 65+);
- 48% of people earning £75,000+ (vs 14% of those earning less than £20,999); and
- 37% of people with a degree qualification (vs 13% of those with no qualification).

Figure 2.3: Whether smartphone is used for personal use only or a mix of personal and work use, by key demographics

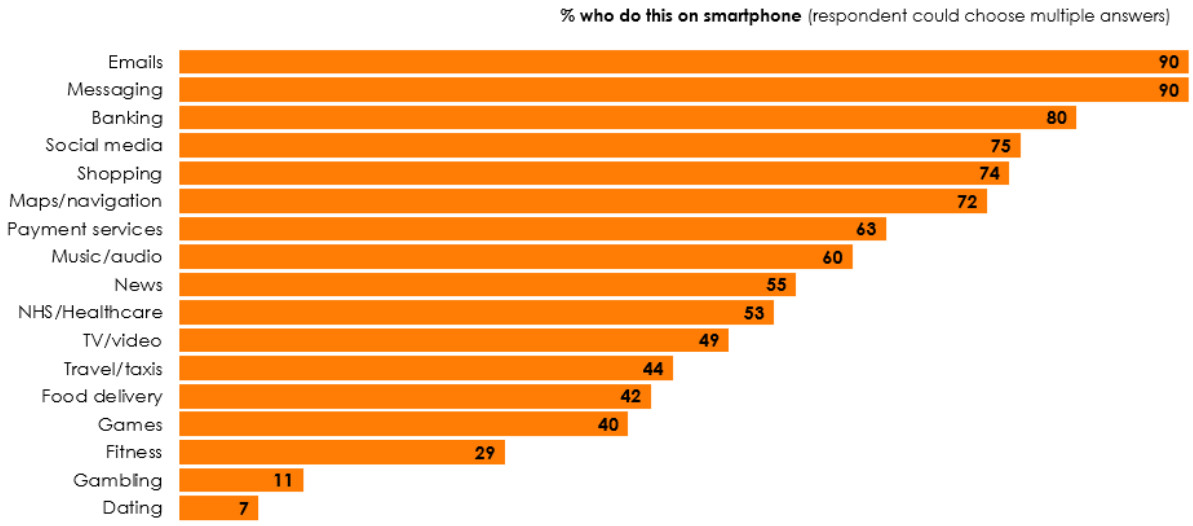


SCREEN1 – Do you have a smartphone for personal use? All (n=3424) 16-24 (391) 25-34 (517) 35-44 (614) 45-54 (597) 55-64 (560) 65+ (723) Up to £20,999 (512) £21,000 to £31,999 (442) £32,000 to £51,999 (641) £52,000 to £74,999 (460) £75,000 or more (524) Degree or above (1,358) Non-degree level (1,677) No qualifications (360)

2.4. Activities performed and time spent on smartphones

Respondents were asked to choose which from a list of 17 different smartphone activities they used their smartphone for. The most common activities performed were email and messaging (90% of all respondents), banking (80%), social media, shopping and maps/navigation (72-75%). The least common activities performed were using fitness apps (29%), gambling (11%) and dating (7%) (Figure 2.4).

Figure 2.4: Activities performed on smartphone



MOBACTIV - Which, if any, of the following do you do on your smartphone? All (n=3,060)

In the qualitative interviews, participants described a range of usage patterns. The most confident tended to use the widest range of apps and functions and were comfortable with set up and changing settings. Those who felt confident but who were observed as having medium technical capability tended to use their phones for a slightly more limited range of functions but were very confident doing so. They often said they felt that they probably underutilised their smartphone's capabilities, and sometimes had not spent much time configuring settings.

> "I wouldn't say I was an expert, but yes I kind of know how to put things onto it, configure them and get rid of them if I don't want them"
>
> **Android, 59, High confidence, No additional browser**

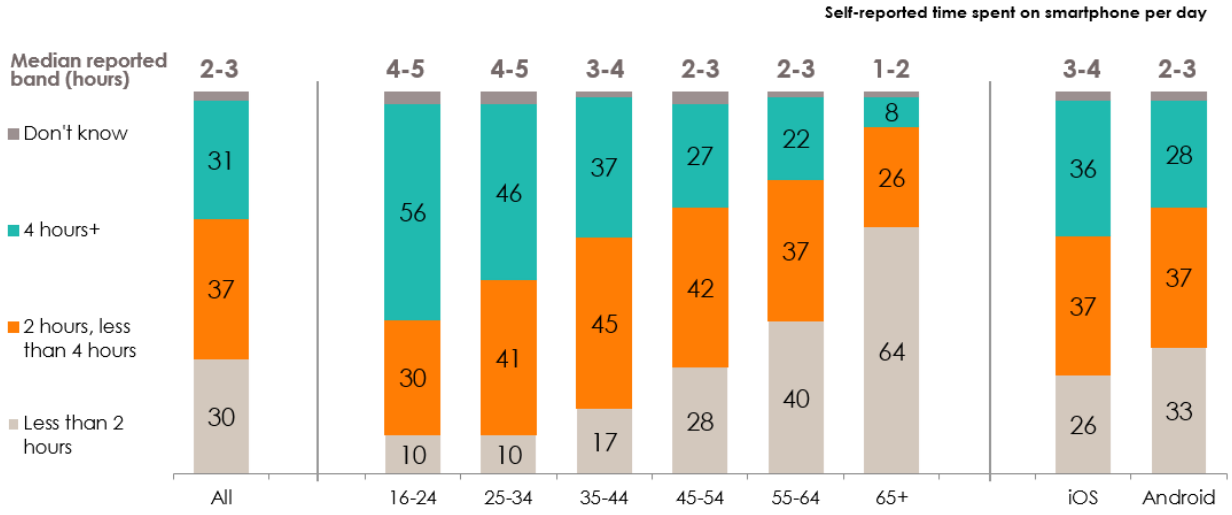
Low confidence users had the most limited range of apps and tasks they felt comfortable with on their smartphones and were more likely to prefer their computer for certain tasks such as banking or shopping, for security reasons, screen (and text) size and the ability to print.

> "My husband put the banking apps on here but it's too small to read so I don't use them on my phone."
>
> **iOS, 57, Low confidence, No additional browser**

The survey captured the amount of time users spent on their smartphones per day (Figure 2.5). The median banded hours spent on smartphones was 2 to 3 hours per day. There was a strong relationship between time spent on smartphones and age. Of note, 56% of those aged 16-24 spent an average of 4 or more hours on their smartphone each day. In contrast, only 8% of those aged 65 years or older spent this much time on their smartphones per day. Those aged over 65 years were much more likely to be spending less than 2 hours on their smartphones per day (64% of all aged 65+), whereas only 10% of those aged 16-34 years of age spent this amount of time on their phones each day.

Time spent on phone also varied by operating system: iOS users were more likely than Android users to spend longer hours on their smartphones each day with the median hours for iOS equalling 3 to 4 hours as opposed to 2 to 3 hours for Android. However, as section 2.2 highlights, iOS users were younger than Android users. Therefore, differences in time spent on phone by operating system are likely to be driven by differences in the operating systems' user age profiles.

Figure 2.5: Time spent on smartphones daily, by age and operating system



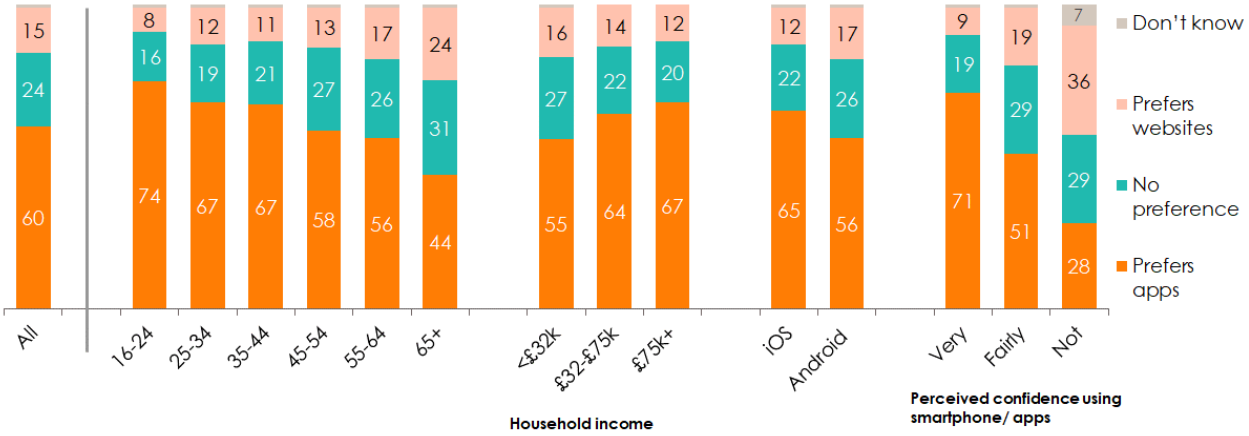
MOBTIME - About how long do you spend on your smartphone on a typical day? All (3,060) 16-24 (366) 25-34 (501) 35-44 (588) 45-54 (549) 55-64 (482) 65+ (574) iOS (1,536) Android (1,455).

2.5. Preference for apps vs websites

When using their smartphone for the activities covered in Figure 2.4, on balance users preferred apps (60%) to websites (15%), with the remainder either having no preference or not giving an opinion. However, this varied across subgroups, with a preference for apps more skewed towards younger and high-income users, iOS users and those who considered themselves to be very confident in using their smartphone and the apps available on it (Figure 2.6).

The preference for apps over websites was observed across all age groups, although the strength of this preference decreased by age: 74% of 16-24s preferred apps decreasing to 44% of those aged 65+. Preference for apps was also stronger among those with a household income of £75,000+ (67% vs 55% of those earning less than £32,000), iOS smartphone users (65% vs 56% of Android users), and the most technically confident (71% vs 28% of the least confident).

Figure 2.6: Preference for apps or websites, by age, income, operating system and confidence in smartphone use



MOBNATIVE – Thinking about the smartphone activities you mentioned at the previous questions. In general, do you prefer to download and use an app or visit a website when using your smartphone? All who do at least one activity on their smartphone (n=3,045) 16-24 (364) 25-34 (500) 35-44 (587) 45-54 (549) 55-64 (480) 65+ (565) <£32k (947) £32-£75k(1100) £75k+ (523) iOS (1,529) Android (1,447) Very confident (1,613) Fairly confident (1,251) Not confident (181)

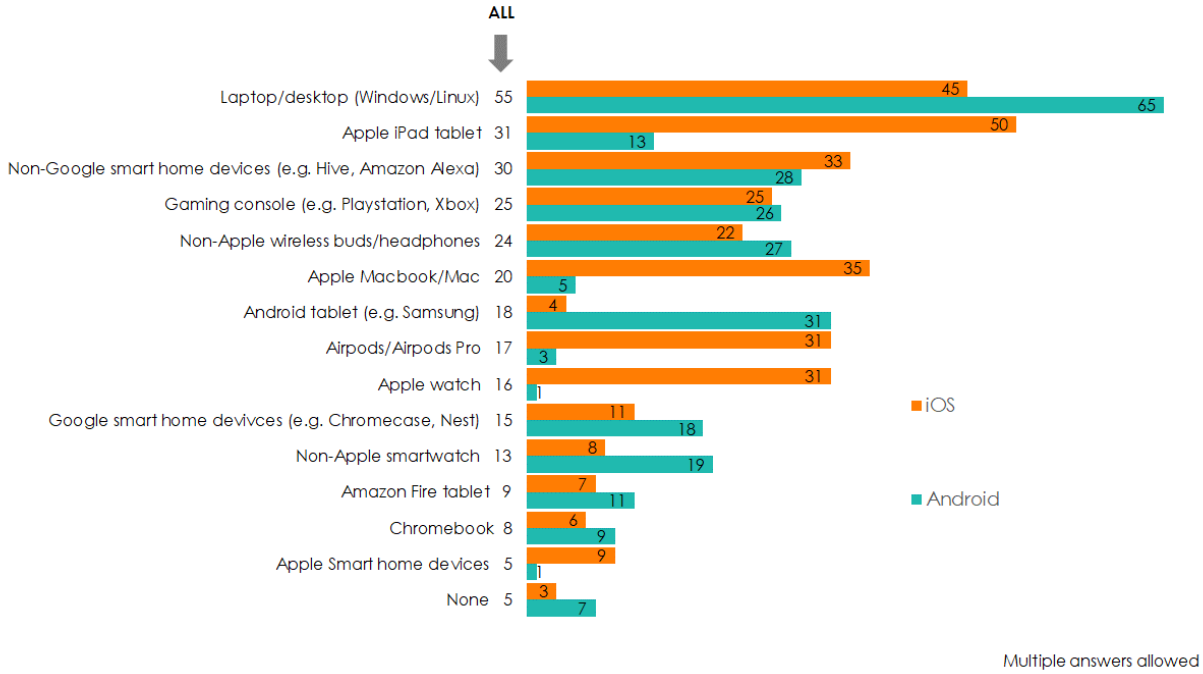
Feedback from the qualitative interviews about the reasons for preferring apps over websites is detailed in section 6.5.

2.6. Other internet devices used

Overall, 95% of smartphone users had at least one other internet-enabled device. Devices listed in the question were labelled with brand and as shown in Figure 2.7, there was a clear preference for Apple devices among iOS smartphone users, with Android phone users tending to use non-Apple branded devices.

The use of browsers on smartphones compared with computer/MacBook devices is covered in Chapter 11.

Figure 2.7: Other internet devices owned, by operating system



OTHDEVICE - And which of these other devices that access the internet do you personally use, not including any devices provided by an employer? (3,077) Apple (1536) Android (1455)

3. Smartphone technical confidence and engagement

This chapter begins with an overview of users' general technical confidence in using their smartphone and the applications on it. General smartphone technical confidence is then profiled in relation to key demographics, including health conditions. The chapter further includes self-reported confidence in performing specific browser-related tasks: downloading a new web browser, and changing which browser is set as the default.

The purpose of this chapter is to characterise the differences between those who are less and more engaged and technically confident with managing smartphone browsers. Chapters 6 and 9 expand on some of these points, providing further detail around the user journey when these browser-related tasks are actioned.

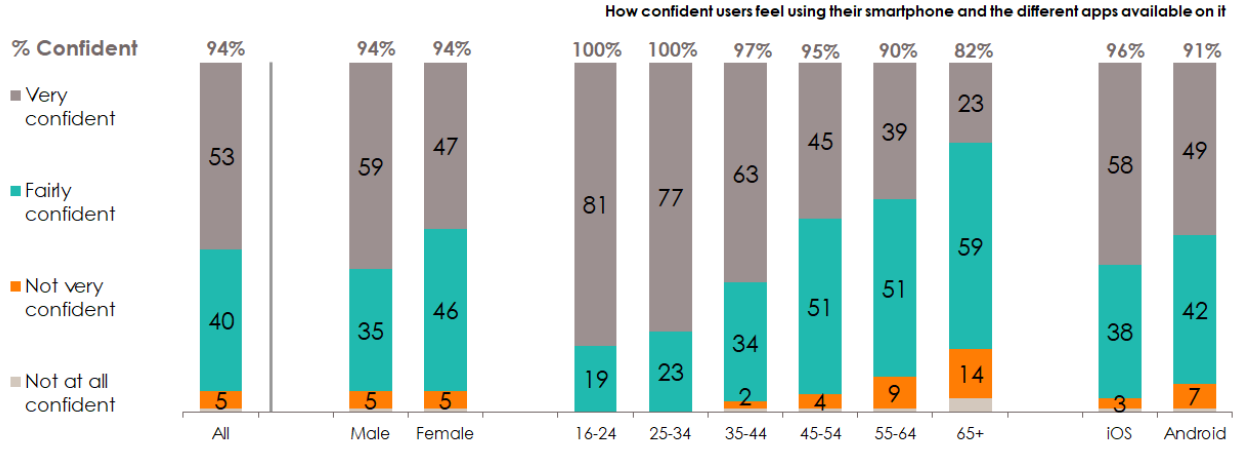
3.1. Confidence in using smartphone and apps

As defined in section 1.3, overall smartphone technical confidence was based on a question which collected self-reported level of confidence in 'using your smartphone and the different apps available on it'. On this measure, self-reported smartphone technical confidence was high, with 94% of users reporting they were either 'fairly confident' (40%) or 'very confident' (53%) at using their smartphone (Figure 3.1).

Self-reported confidence in using a smartphone was strongly related to age. The proportion of users who considered themselves to be 'very confident' declined across the age groups, from 81% of 16-24s to only 23% of those aged 65+. Conversely, the proportion who considered themselves 'not confident' increased from 0% to 18% across these age groups.

While overall smartphone technical confidence was the same (94%) for both genders, men were more likely than women to report that they felt 'very confident' in using their smartphones (59% of men compared to 47% of women). Smartphone technical confidence also varied slightly by operating system: iOS smartphone users were more likely than Android users (58% compared to 49%) to feel 'very confident', although the younger age profile of the iOS users most likely contributed to this finding.

Figure 3.1: Self-reported confidence using a smartphone and the different apps available on it, by gender, age and operating system



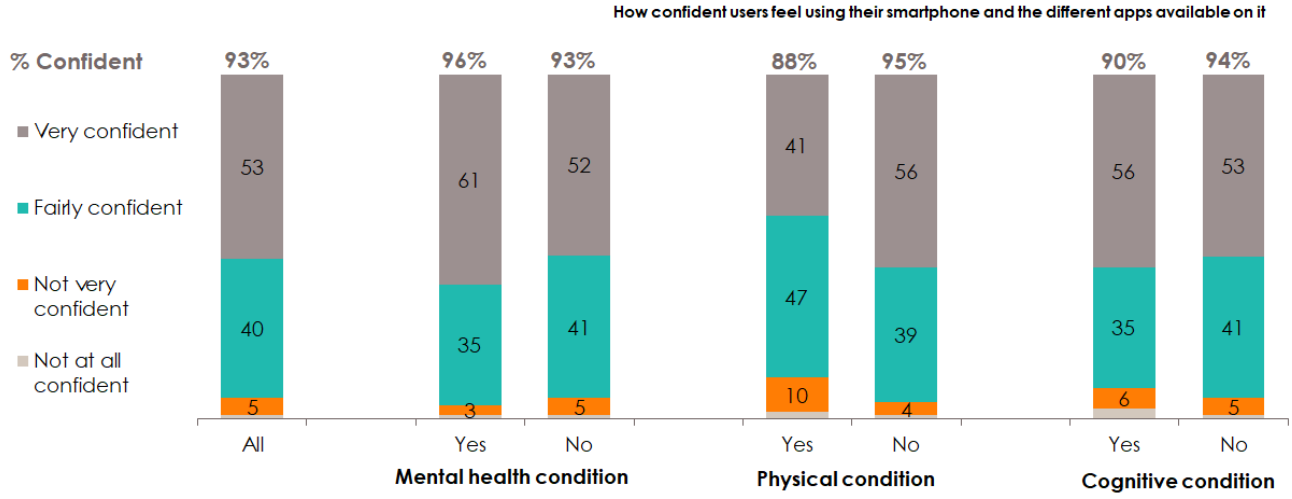
TECHCONF - How confident, if at all, are you with using your smartphone and the different apps that are available on it? Total sample (3,060) Males (1,407) Females (1,630)16-24 (366) 25-34 (501) 35-44 (588) 45-54 (549) 55-64 (482) 65+ (574) iOS (1,536) Android (1,455).

Another key area of interest is whether technical confidence is related to any physical, cognitive or mental health conditions that users may have (see section 1.3 for how these conditions were categorised).

Users with a mental health condition were more likely to report feeling 'very confident' in using their smartphone than those without a mental health condition (61% compared to 52%). In contrast, users with a physical health condition were less likely than those without a physical condition to report feeling 'very confident' (41% compared to 56%) and were twice as likely to report feeling not confident in using their smartphone (12% compared to 5%) (Figure 3.2). There were no significant differences in confidence using a smartphone when comparing users with and without a cognitive condition.

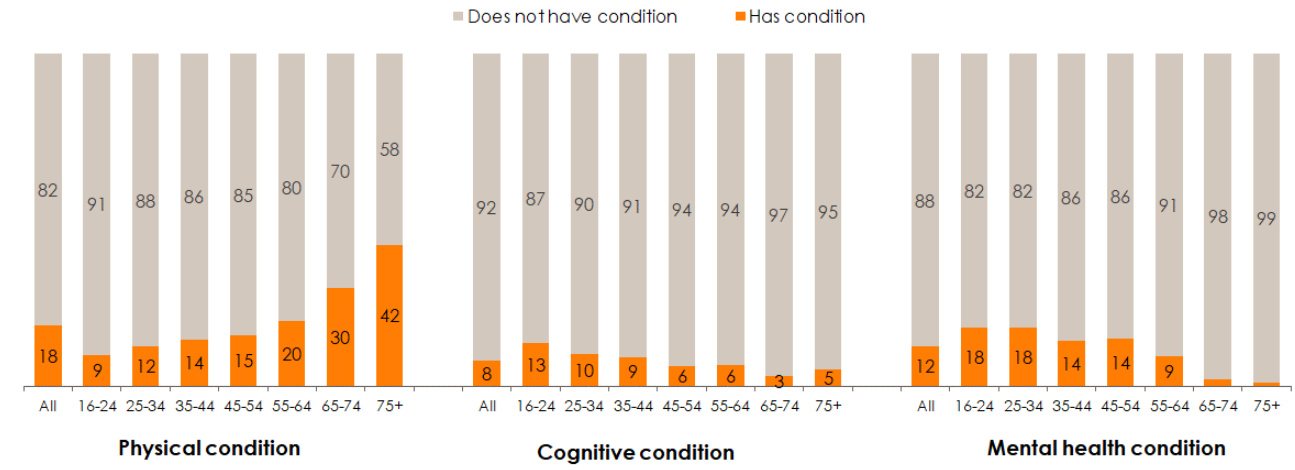
When considering the relationship between physical and mental health and confidence, it is worth noting that some of these patterns might be partly explained by the age profile of those identifying as having these conditions (Figure 3.3). Self-reported mental health conditions were more concentrated among young people (18% of those aged 16-34 vs 2% of those aged 65+) which might be driving the higher confidence among this group, while self-reported physical health conditions were more concentrated among older people (42% of those aged 65+ vs 9% of those aged 16-24) which might be driving the lower confidence among this group.

Figure 3.2: Self-reported confidence using a smartphone and the different apps available on it, by health conditions



TECHCONF - How confident, if at all, are you with using your smartphone and the different apps that are available on it? Total sample (3,060). Mental health condition – yes (357) no (2,703), Physical condition – yes (536) no (2,524), Cognitive condition – yes (238) no (2,822).

Figure 3.3: Age of respondents, by self-reported health conditions



PHYSHEALTH, COGHEALTH and MENTALHEALTH (Composite variables based on answers at HEALTH) All (3,043) By age 16-24 (401) 25-34 (540) 35-44 (425) 45-54 (515) 55-64 (467) 65-74 (361) 75+ (234)

PHYSHEALTH, COGHEALTH and MENTALHEALTH (Composite variables based on answers at HEALTH) All (3,060) By age 16-24 (366) 25-34 (501) 35-44 (588) 45-54 (549) 55-64 (482) 65-74 (389) 75+ (185)

3.2. Confidence in managing web browsers on smartphones

Further to self-reported confidence regarding general smartphone use, the survey also measured confidence in relation to managing web browsers. This was informed by two measures framed around possible browser-related tasks performed on smartphones: whether the respondent felt they could download a new web browser onto their smartphone; and whether they felt they could change which browser on their smartphone was set as the default browser.

This section covers an overview of these measures, with more detailed findings on this provided in section 6.4 (downloading a new browser) and 9.1 (changing default browser).

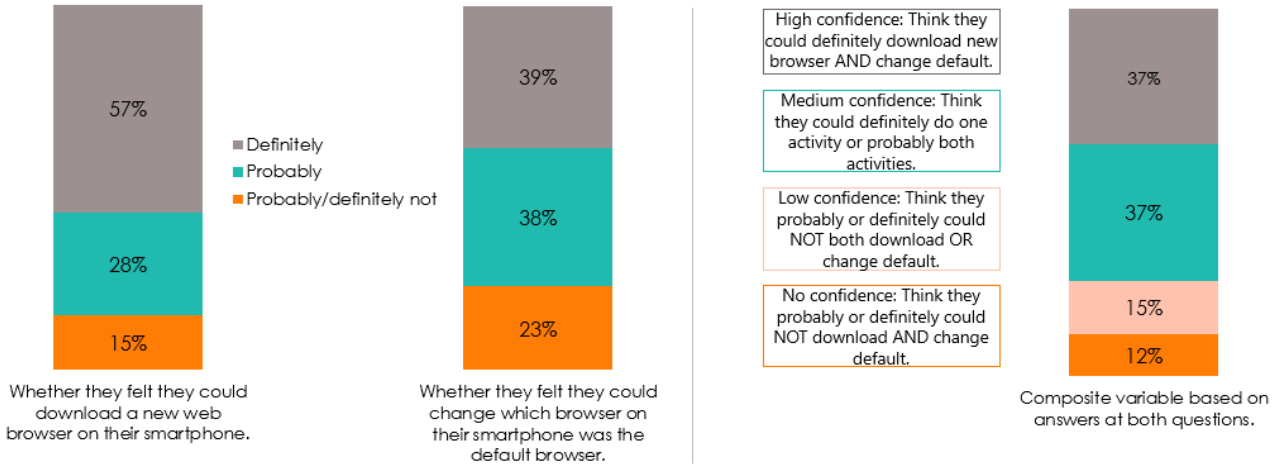
Responding to the first measure, 57% of users felt they could definitely download a new browser, 28% said they could probably do it, and 15% said they probably or definitely could NOT download a new web browser on their smartphone. Overall, self-reported confidence to download a new web browser was high with 85% feeling they could definitely or probably complete the task.

Confidence in managing web browsers was lower at the second measure, 'changing which browser was set as the default browser'. Here, 39% of users felt they could definitely do the task, 38% said they could probably do it, and 23% said they probably or definitely could NOT change the default browser settings. Overall, 77% considered that they could definitely or probably complete the task.

It is important to note here that confidence in changing the default browser may have been based on perception rather than experience. For example, of those who felt they could 'definitely' change the default browser, only 33% of this group later reported in the survey that they had changed their current default browser.

A composite measure based on these two confidence measures was created to give an overall measure of confidence in relation to managing browsers on smartphones (see section 1.3 for the full derivation) (Figure 3.4).

Figure 3.4: Confidence managing mobile browser settings



DOWNCONF - Imagine that you are asked to download and use a different web browser on your smartphone. Do you think you could do this on your own, without needing to either ask someone else or search for information online? (3,060), DEFAULTCONF - Do you think you could work out how to do this on your own, without needing to ask someone else or search for information online? Total sample (3,060)

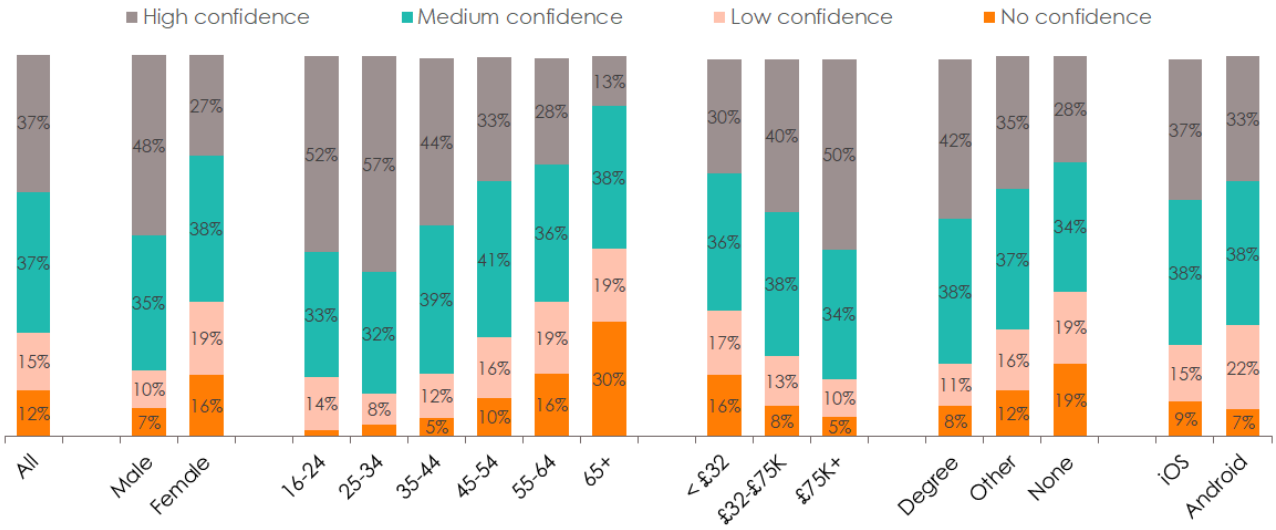
Section 9.4 provides more detail about the user journey for those who had completed these tasks. In particular the qualitative research demonstrated that, whilst self-reported confidence to complete these tasks is relatively high, when observing users performing the tasks they often encountered difficulties. Here, the purpose is to profile those users who were and were not confident in managing web browsers on smartphones.

Similar to self-reported confidence in general smartphone use, confidence in managing mobile browsers was lower amongst women, older users and those with lower levels of education (Figure 3.5).

In summary the proportion categorised as having 'no confidence' was most concentrated among the following subgroups:

- Women (16% vs 7% of men)
- Older people aged 65+ (30% vs 2% of those aged 16-24)
- Lower household incomes (16% earning less than £32,000 vs 5% earning at least £75,000
- Users with no educational qualifications (19% vs 8% with a degree)

Figure 3.5: Confidence managing mobile browser settings, by key demographics



DDCONFDR4 (Composite variable based on answers at DOWNCONF and DEFAULTCONF) All (3,060) Male (1,407) Female (1,630) 16-24 (366) 25-34 (501) 35-44 (588) 45-54 (549) 55-64 (482) 65+ (574) Low income <£32k (954) Medium income £32-£75k (1,101) High income £75k+ (524) Degree-level qual (1,236) Other qual (1,504) No qual (313) iOS (1,536) Android (1,455)

Similar to the findings for smartphone technical confidence, users with a physical health condition were more likely than those without one to be categorised as 'not confident' in managing smartphone browser settings (18% vs 10%). However, as noted in section 3.1 above, this may be partly explained by the age profile of users with a physical health condition. Given the correlations between age and the health measures, it could be that age is more likely to be the driver than health when considering the relationships between health and confidence in using a smartphone or managing smartphone browsers.

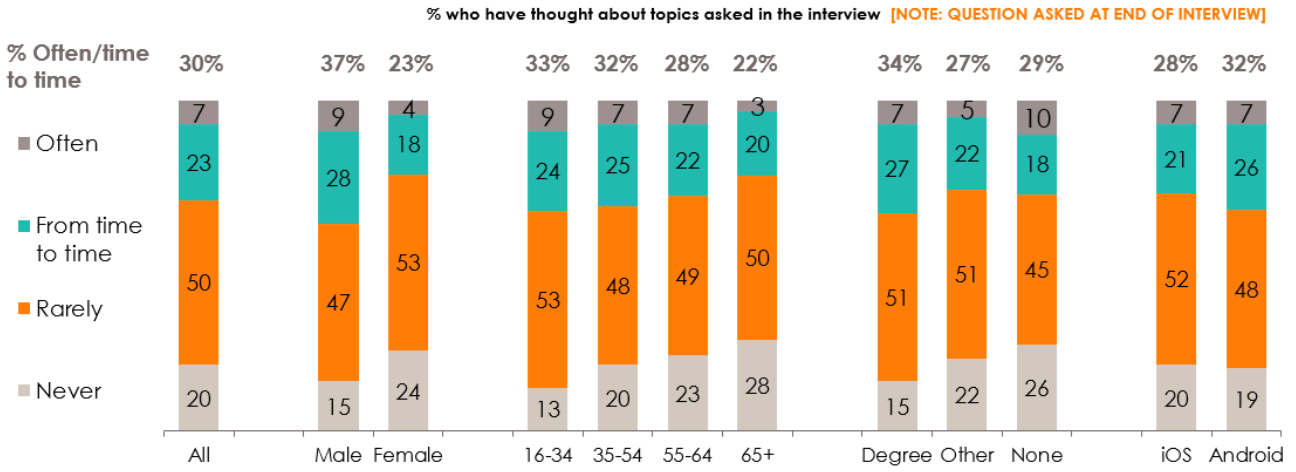
3.3. Engagement with the topic of smartphone web browsers

At the end of the survey, respondents were asked the following question to gauge the extent to which users had engaged with this topic before the interview: 'We have asked you several questions about how you use your smartphone to access the internet, and the way that you use web browsers on your smartphone. Thinking only about smartphones. Before today how much thought, if any, had you given to the topics you have been asked about today?'.

Overall, 70% had either rarely or never thought about how they use browsers on their smartphones, demonstrating that this topic is of low salience to most users (Figure 3.6). By demographics, men, younger people and those with higher education were most likely to have thought about these topics: the proportion who said they had thought about these topics 'from time to time' or 'often' was higher for men (37% vs 23% of women), those aged 16-34 (33% vs 22% of those aged 65+) and those educated to degree level (34% vs 29% of those with no formal qualifications).

Lack of engagement with smartphone browsers also came across strongly in the qualitative interviews. It was rarely something that participants had thought about before, or noticed.

Figure 3.6: Engagement in questionnaire topics, by key demographics



MOBENGAGE - Thinking only about smartphones. Before today how much thought, if any, had you given to the topics you have been asked about today? All (3,060) Male (1,407) Female (1,630) 16-24 (366) 25-34 (501) 35-44 (588) 45-54 (549) 55-64 (482) 65+ (574) Degree (1,236) Other (1,504) None (313) iOS (1,536) Android (1,455)

4. Smartphone acquisition

This chapter explores the purchasing and setting up of smartphones. The chapter covers how users acquired and set up their smartphone, the relationship between smartphone set up and self-reported confidence using smartphones, as well as the most important factors in determining which type of smartphone to purchase or acquire.

4.1. How phone was acquired

Most users (79%) purchased their phone as new or as part of a contract upgrade, while 14% bought a used/refurbished phone, and 7% said the phone was given to them.

This analysis excludes any users who said their phone was provided by their employer, and who did not have a say in choosing the phone themselves (see section 1.2 for details of survey inclusion criteria).

4.2. Setting up a smartphone

Respondents were asked, when they got their current personal smartphone, who set it up so that it was ready for use, for example selecting the language, time zone and Wi-Fi network.

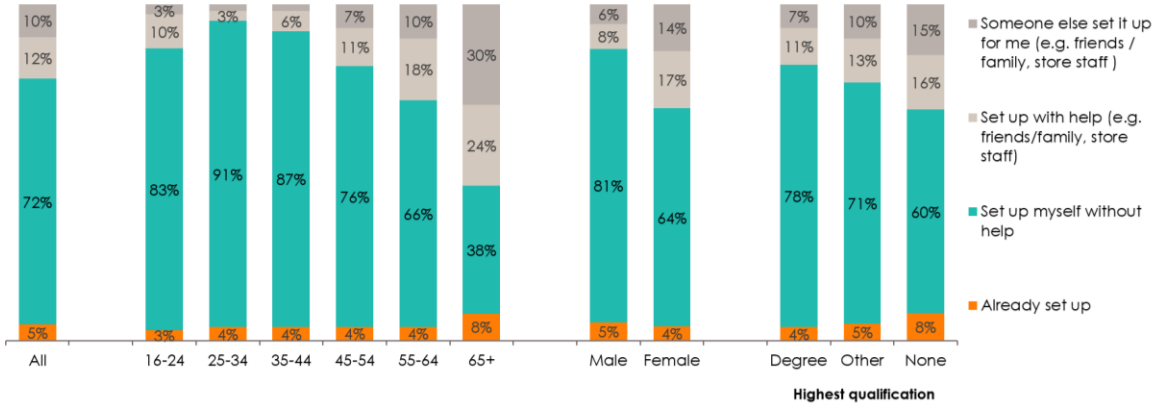
Most users (72%) set up their phone themselves without help, while 12% had help setting up (for example from family and friends or store staff), 10% said someone else set up their smartphone, and 5% said their phone was already set up (Figure 4.1).

Across a range of demographic categories, smartphone set up varied. The highest percentages of users who set up their smartphone themselves was within the younger age categories: 16-24 (83%), 25-34 (91%) and 35-44 (87%). After this, the percentage of users setting up their smartphone themselves began to decrease and was lowest in the age categories 45-54 (76%), 55-64 (66%) and most noticeably 65+ (38%).

Men were more likely than women to set up their smartphone themselves (81% vs 64%), while women tended to have more help with setting up their phone.

Users with a higher level of education (degree level qualification) were also more likely to set up their phone themselves (78%) compared to those with no educational qualifications (60%). Those with lower education levels tended to have more help from others when setting up their smartphone.

Figure 4.1: Smartphone set up, by age, sex and education level



MOBSETUP – When you got your current personal smartphone, who set it up so that it was ready for use (for example, selecting the language, time zone and Wi-Fi network)? All who own a smartphone for personal use (n=3060) 16-24 (366) 25-34 (501) 35-44 (588) 45-54 (549) 55-64 (482) 65+ (574) Male (1,407) Female (1,630) Degree or above (1,236) Non-degree level (1,504) No qualifications (313)

When setting up their phone, most users (84%) transferred all their settings, apps and data from a previous phone, while 13% set it up from scratch.

In the qualitative interviews, those with the lowest confidence had received help setting up their phone. This could be a family member (the respondent's spouse, child or grandchild) or a neighbour with technical skills (e.g. working in IT). Typically, the person helping with set up took responsibility for choosing and downloading apps, organising where apps were placed and showing the respondent how to use them. Therefore, these participants often could not distinguish between preinstalled apps and those chosen by the person who had set up the phone.

Some of those who set up their smartphone themselves said they had done so initially but had imported the same set up with each subsequent handset. Some also described the set-up process as something they had rushed through.

> "When I set up my phone you just go through the steps as quick as you can to get to the other end."
>
> **iOS, 28, High confidence, No additional browser**

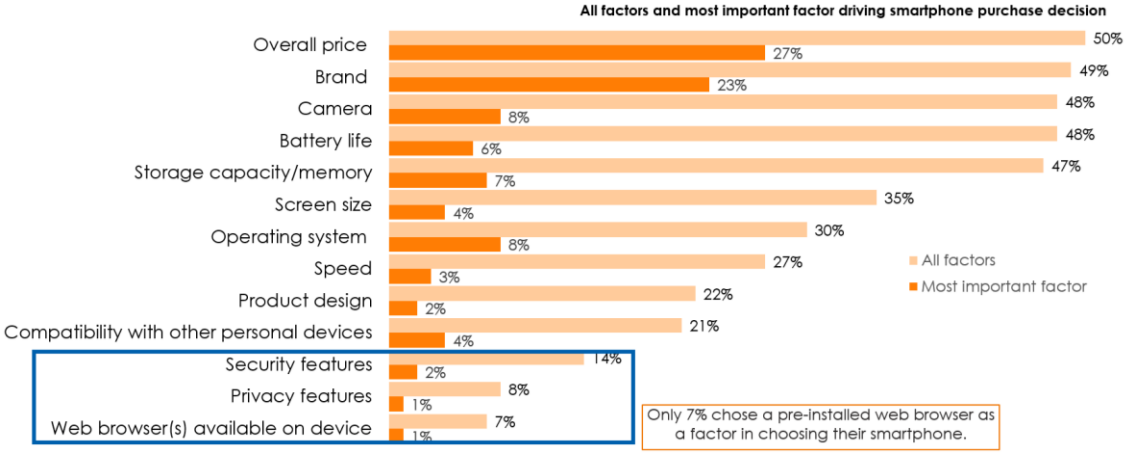
4.3. Important factors in determining smartphone purchase

Survey respondents were asked which factors were most important in their decision to purchase or acquire their smartphone. Respondents were able to choose up to five factors. If more than one purchase factor was selected, respondents were asked to select the most important factor (Figure 4.2).

When considering all factors within their top five, around half of users mentioned price, brand, camera, battery life and storage capacity/memory as being important. All five of these factors were of similar importance, ranging from 47% to 50% of users choosing them. This contrasts to other factors which were mentioned by no more than one in three users, with security (14%), privacy (8%) and web browser availability (7%) the least important factors.

When examining the single most important factor for users, price (27%) and brand (23%) stood out as being the main drivers for purchase, each mentioned by around one in four. Other factors were selected as being most important in less than 10% of cases. In particular, product design, security, privacy features and web browser availability on a device were only chosen as the most important factor by 1-2% of users.

Figure 4.2: Factors important in decision to purchase smartphone

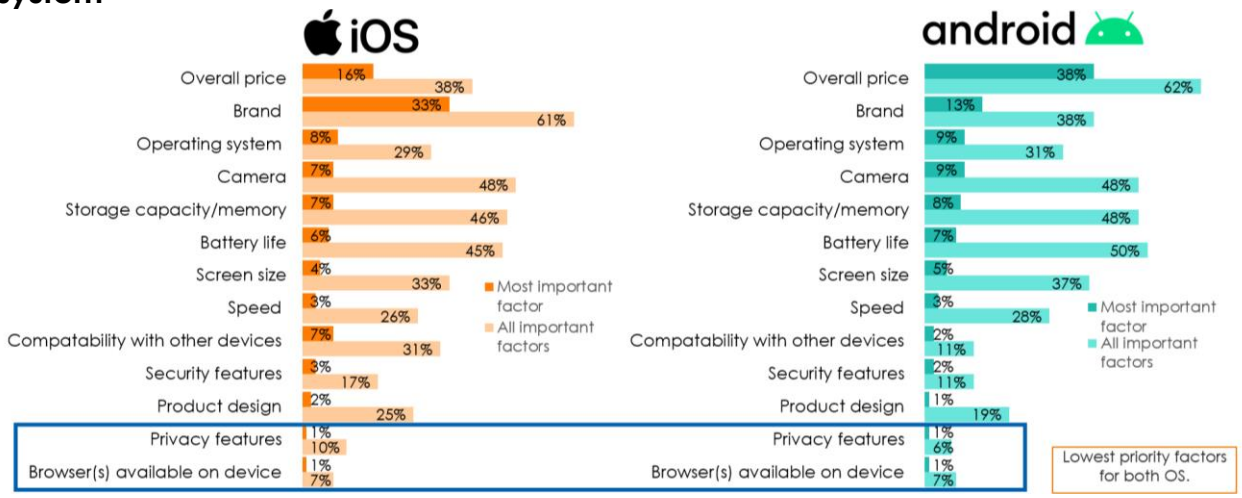


MOBFACTORA – Thinking back to when you first [bought/got] your current smartphone. What factors were important in your decision to [purchase/choose] it? You can choose up to five responses. If there are more than five important factors, choose the five most important. All (3,060) MOBFACTOR1 – Which one of these was the most important factor? All who selected at least one factor at MOBFACTORA (3,043)

Figure 4.3 shows how this varied by operating system. When considering all important factors, primarily, Android users were more likely to be driven by price (62% of Android users compared to 38% of iOS smartphone users) while iOS users were more driven by brand (61% of iOS users compared to 38% of Android users). Across both iOS and Android smartphone purchases, privacy features and browser availability on device were the lowest priority factors for both operating systems.

When examining the most important factors for users, these patterns are reinforced. Overall price was considered the most important factor by 38% of Android users, compared to 16% of iOS smartphone users while brand was considered the most important factor for 33% of iOS users compared to 13% of Android users.

Figure 4.3: Factors important in decision to purchase smartphone, by operating system



MOBFACTORA – Thinking back to when you first [bought/got] your current smartphone. What factors were important in your decision to [purchase/choose] it? All (3,060) MOBFACTOR1 – Which one of these was the most important factor? All who selected at least one factor at MOBFACTORA (3,043) Android (1,445) iOS (1,530)

In the qualitative interviews, participants said that the preinstalled browser was not in any way a consideration in their decision to purchase their smartphone.

5. Awareness of web browsers

This chapter explores unprompted and prompted awareness of different web browsers. The chapter highlights differences in levels of awareness, particularly between operating systems and phone brands, as well as by key demographics.

5.1. Unprompted awareness of different browsers

In the survey, respondents were asked an open text question to gauge spontaneous awareness of browsers "A web browser allows you to access the web on a smartphone, either by taking you to the website address you have typed in or by providing you with a set of search results: Which web browsers have you heard of? Please type in as many as you can think of, separated by a comma, or if you are not sure select 'none'". Verbatim responses were then coded against an established list of browsers.

It is important to note that mentions of 'Google' were coded as 'Google Chrome.' This may have led to an over-estimation of spontaneous awareness of Chrome if people conflated the search engine with the browser. While the definition of 'browser' was included in the question, qualitative research (see below) demonstrated considerable confusion between browsers and search engines. As the Google brand name is included in both the browser and search engine, this may have affected responses to this question. This confusion is further evidenced by a proportion of users who named search engines such as Bing (11%), Yahoo (6%) and Ask Jeeves (1%).

Figure 5.1 displays a visualisation of the frequency at which different browsers were named unprompted. More detailed data illustrating spontaneous awareness alongside prompted awareness can be found in Figure 5.4.

Figure 5.1: Word cloud showing spontaneous recall of web browsers

BROWSPONT A web browser allows you to access the web on a smartphone, either by taking you to the website address you have typed in or by providing you with a set of search results Which web browsers have you heard of? Please type in as many as you can think of, separated by a comma, or if you are not sure select 'none' All (3,060). Word cloud image excludes search engines other than 'Google', which was coded as 'Google Chrome' – for further detail see Figure 5.4.

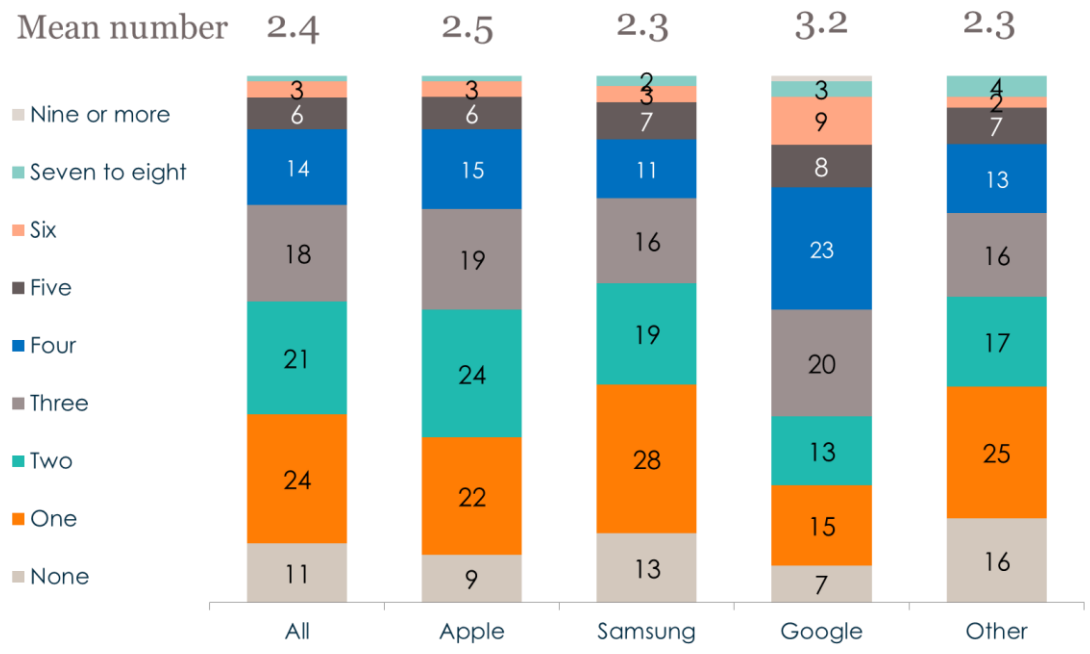
Spontaneous recall of web browsers highlights the prominence of the Google brand with 84% of all smartphone users spontaneously mentioning 'Google Chrome/Google' (shown in Section 5.2 Figure 5.4). Although Apple Safari was the next most-named browser, it was named by around half as many people (42%). Other browsers mentioned spontaneously by at least one in ten users included Mozilla Firefox (32%), Microsoft Edge (24%), Internet Explorer (14%) and Opera (10%). One in ten (11%) were unable to spontaneously recall any browsers.

As is also shown in Figure 5.4, unprompted awareness of Google Chrome/Google was consistent for users of iOS and Android (each 84%). However, iOS smartphone users were more likely to name Apple Safari (61% of iOS users compared to 23% of Android users) and Android users were more likely to spontaneously name Mozilla Firefox (36% vs 29% of iOS users) and Microsoft Edge (28% vs 20% of iOS users). However, only 7% of Android users named Samsung Internet unprompted. Furthermore, only 9% of Samsung users named Samsung Internet unprompted despite this browser being preinstalled on Samsung phones.

The extent to which different users show more familiarity with web browsers is summarised by looking at the mean number of brands spontaneously mentioned.

The mean number of browsers named spontaneously was 2.4, as shown in Figure 5.2. There was little variation in the mean between operating systems, although more variation in levels of spontaneous awareness was observed by phone brand. Apple users spontaneously named slightly more browsers than Samsung users (means of 2.5 vs 2.3) while Google phone users named the most browsers (mean of 3.2 browsers named).

Figure 5.2: Number of browsers named unprompted, by phone brand



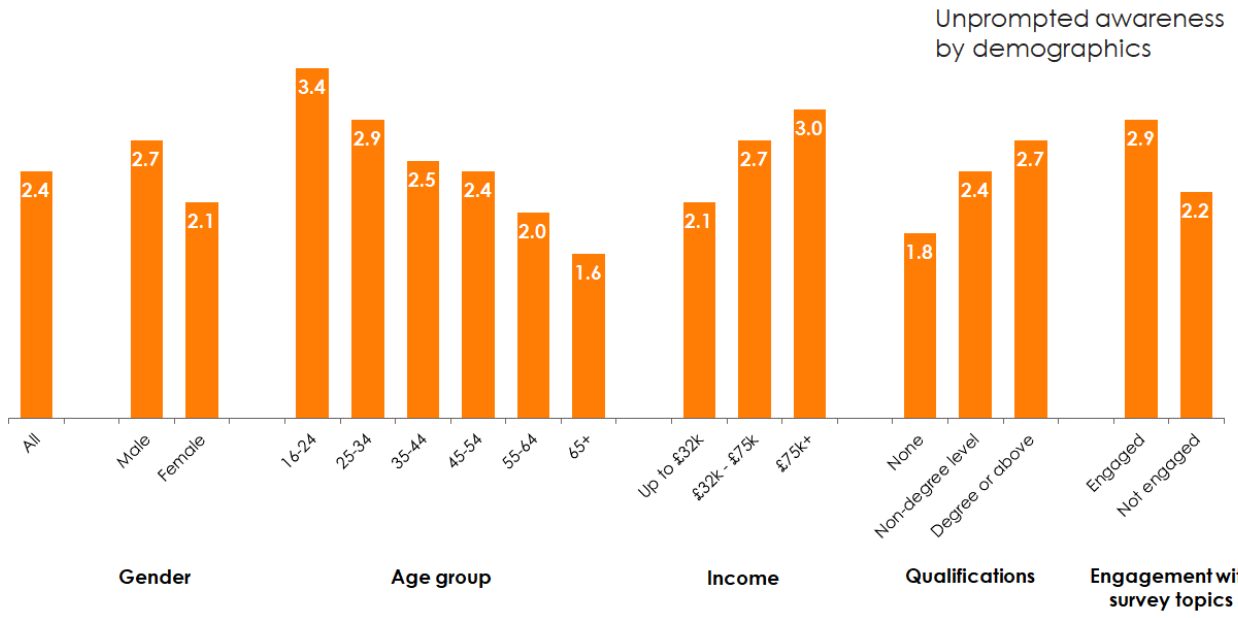
BROWSPONT A web browser allows you to access the web on a smartphone, either by taking you to the website address you have typed in or by providing you with a set of search results Which web browsers have you heard of? Please type in as many as you can think of, separated by a comma, or if you are not sure select 'none' All (3,060) Apple (1,545) Samsung (939) Google (167) Other (409).

Figure 5.3 shows the mean number of browsers named by different demographics of smartphone users. Spontaneous awareness of browsers was higher for men than women (mean of 2.7 vs 2.1), younger respondents (means decreasing from 3.4 among 16-24s to 1.6 among those aged 65+), and among those with higher levels of education and income. Smartphone users who were more engaged with the smartphone topics covered in the survey (see section 1.3 for the definition of this) also showed higher levels of spontaneous awareness.

Spontaneous awareness of Chrome was high across all household income groups. Those with medium and high household incomes (£32,000+) were more likely than those in the lowest income band (less than £32,000) to name Safari, Firefox, Edge and Internet Explorer, and were familiar with more browsers overall (means of 2.7 to 3.0 for the medium to high income bands, compared to 2.1 among those earning less than £32,000). Those without a degree-level qualification spontaneously named 1.8 browsers, compared to those with a degree-level qualification or above, who named an average of 2.7.

Smartphone users aged 16-24 were more likely than older respondents to display spontaneous awareness of most browsers. For example, 44% had heard of Mozilla Firefox (compared to 32% overall), 32% had heard of Microsoft Edge (24% overall) and 18% had heard of Opera (10% overall). Younger smartphone users also named more browsers on average than older: those aged 16-24 named 3.4 browsers on average, compared to 1.6 browsers for those aged 65+.

Figure 5.3: Unprompted awareness of web browsers, by demographics



BROWSPONT A web browser allows you to access the web on a smartphone, either by taking you to the website address you have typed in or by providing you with a set of search results Which web browsers have you heard of? Please type in as many as you can think of, separated by a comma, or if you are not sure select 'none' All (3,060) Men (1,407) Women (1,630) 16-24 (366) 25-34 (501) 35-44 (588) 45-54 (549) 55-64 (482) 65+ (574) Less than £32k (954) £32k - £75k (1,101) £75k+ (524) Degree level or above (1,236) Non-degree level qualifications (1,504) No qualifications (313) Engaged with topics (917) Not engaged with topics (2,143)

5.2. Prompted awareness of web browsers

Following the spontaneous awareness question, respondents were shown a list of 15 web browsers which were shown with images of their logos and asked which they had heard of.

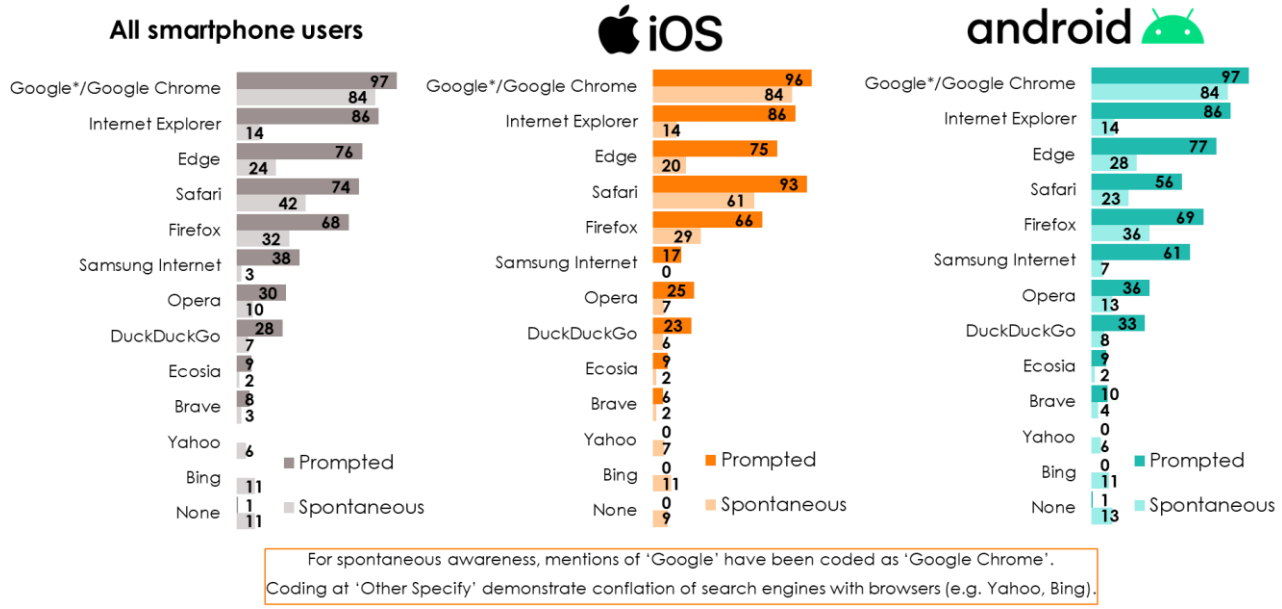
Figure 5.4 shows the prompted awareness compared with spontaneous awareness for all browsers.

Prompted awareness resulted in increased awareness for all browsers, particularly those outside of the more mainstream browsers. Chrome still received the highest level of awareness at 97% (an increase from 84% spontaneously mentioning this). Large increases from unprompted to prompted awareness were observed for Internet Explorer (from 14% to 86%) and Microsoft Edge (from 24% to 76%).

Differences by operating systems aligned with expectations. When prompted, 93% of iOS smartphone users had heard of Safari, compared to 56% of Android users. On the other hand, when prompted, 61% of Android users were familiar with Samsung Internet, compared to 17% of iOS users.

Similar expected patterns in prompted awareness were observed for mobile phone brand. Apple users were most likely to be familiar with Safari (93%), Samsung users were most likely to have heard of Samsung Internet (76%); this is likely to be associated with the browsers that are preinstalled on smartphones from different brands. Users of Google phones and other brands were more likely than Apple and Samsung users to have heard of a range of browsers including less mainstream brands such as Firefox, Opera and DuckDuckGo.

Figure 5.4: Awareness of web browsers, by operating system

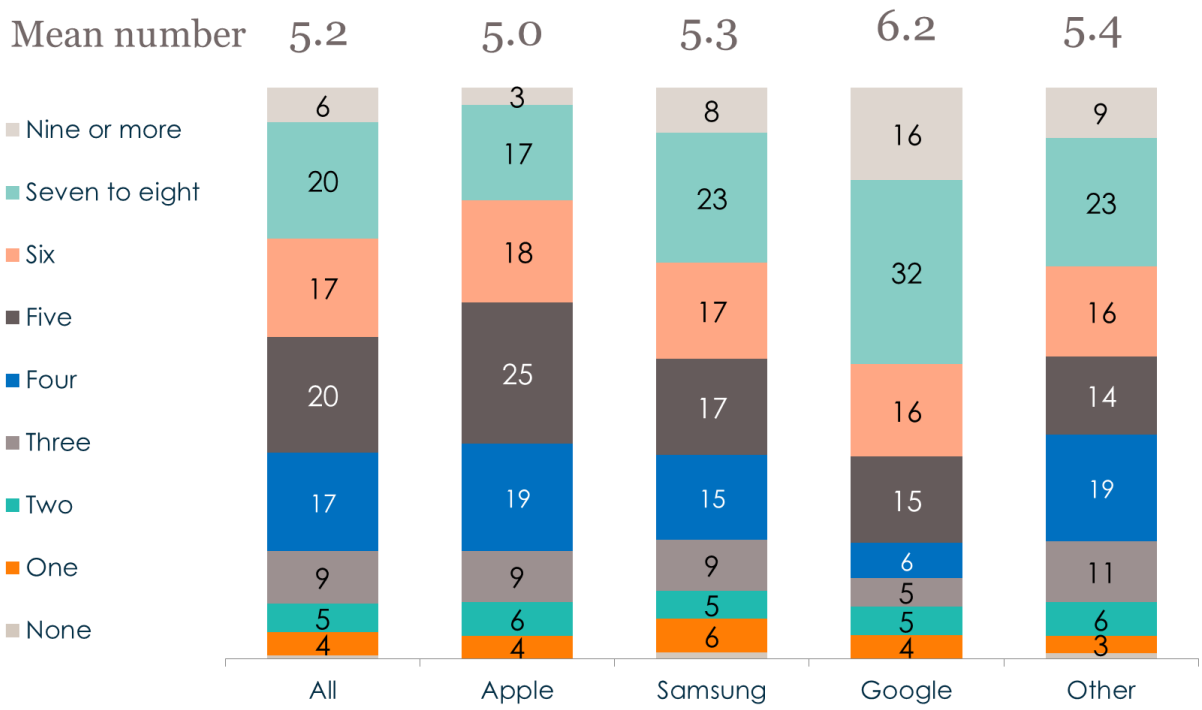


BROWPROMPT - Now please look at the list below, and answer again using this list. Before today, which if any of these web browsers had you heard of? All (3,060) iOS (1,536) Android (1,455)

As shown in Figure 5.5, the mean number of browsers that smartphone users had heard of (after prompting) was 5.2, more than double that of unprompted awareness (2.4). Unlike unprompted awareness, Android users had a higher mean of 5.4, compared to iOS users (mean of 5.0). The same pattern was present for phone brand (an average of 5.3 for Samsung vs 5.0 for Apple phones). Once

again, Google phone users showed the highest levels of awareness, with this group naming 6.2 browsers on average after prompting.

Figure 5.5: Number of browsers recognised when prompted, by phone brand



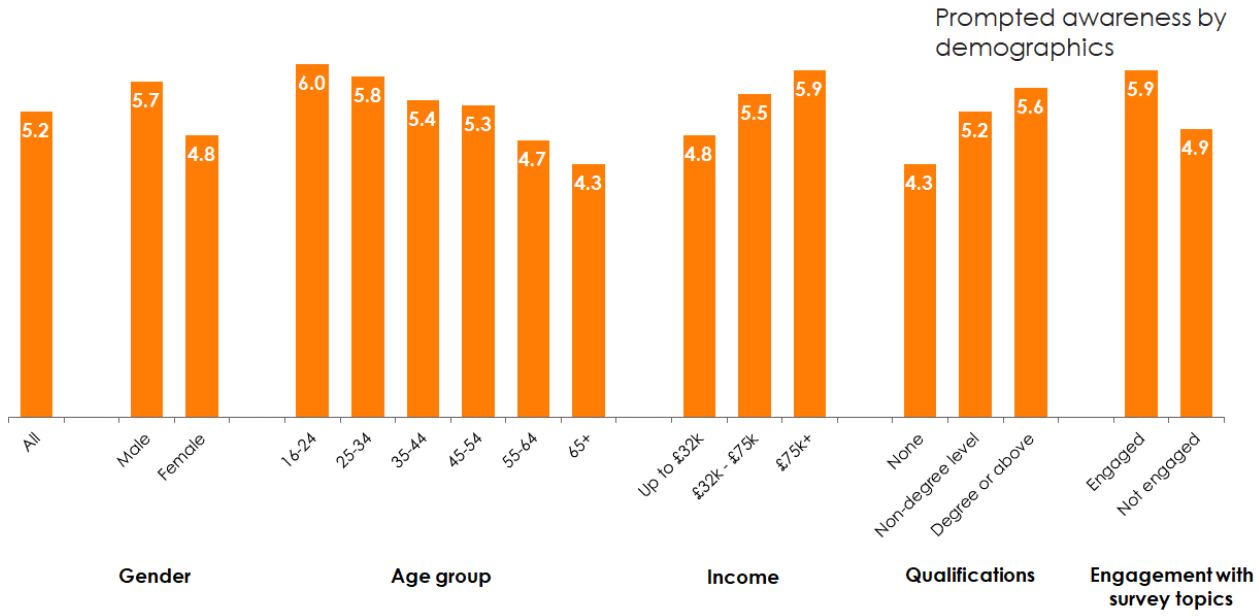
BROWPROMPT - Now please look at the list below, and answer again using this list. Before today, which if any of these web browsers had you heard of? All (3,060) iOS (1,536) Android (1,455)

Looking at prompted browser awareness by key demographics (Figure 5.6), the results were similar to those observed in relation to spontaneous awareness, shown in Figure 5.3. Men had heard of more browsers on average than women (a mean of 5.7 vs 4.8). In particular, men were more likely than women to have heard of some of the less mainstream browser brands such as Opera (43% of men vs 18% of women), DuckDuckGo (38% vs 18%) and Brave (13% vs 3%).

Age, household income, and education level were all related to higher prompted awareness of browsers. Younger users recognised more browsers than older users, with the mean number of browsers decreasing from 6.0 of those aged 16-24 to 4.3 for those aged 65+.

Those with a household income of at least £75,000 also recognised more browsers (mean 5.9) than those with a household income of less than £32,000 (mean 4.8). Samsung internet was the exception, with those earning under £32,000 more likely to have heard of this (43%) than those earning £75,000 or more (32%). This may be partly explained by the income profile of phone brands: those earning under £32,000 were more likely to use a Samsung phone and those earning upwards of £75,000 were more likely to use an Apple phone. Those with a degree-level education also recognised more browsers (mean 5.6) than those with no qualifications (4.3).

Figure 5.6: Number of browsers recognised after prompting, by demographics



BROWPROMPT - Now please look at the list below, and answer again using this list. Before today, which if any of these web browsers had you heard of? All (3,060) Men (1,407) Women (1,630) 16-24 (366) 25-34 (501) 35-44 (588) 45-54 (549) 55-64 (482) 65+ (574) Less than £32k (954) £32k - £75k (1,101) £75k+ (524) Degree level or above (1,236) Non-degree level qualifications (1,504) No qualifications (313) Engaged with topics (917) Not engaged with topics (2,143)

In addition, smartphone users who were most engaged with these mobile topics were more likely than those least engaged to have heard of (prompted) other browsers outside of the well-known brands, such as Google Chrome and Internet Explorer. This was particularly the case for lesser known and privacy-driven browsers such as Opera (46% of those classified as engaged vs 24% of those classified as unengaged) and DuckDuckGo (39% vs 23%).

The qualitative interviews explored awareness and perceptions of different browsers. Participants were shown a list of unlabelled app logos (including browsers and non-browsers) and asked to name the logos they recognised. Supporting the survey findings, the most widely identified were Chrome, Safari, Edge and Firefox.

However, as mentioned above, participants often confused browsers with search engines. This was common across respondent types, except for the most technically confident and capable. As the way participants used browsers was to search by typing into the address bar, they often saw browsers and search as the same thing. The only difference identified between the two was that search apps did not retain the information, whereas in a browser, tabs could be kept open. Some participants did not know, for example, which search engine would be used if they typed in the address bar. Confusion between search and browser was slightly higher for Chrome, and participants sometimes mistook the Google search app for Chrome and vice versa.

5.3. Perceptions of web browsers

On the whole, Safari and Chrome were the most trusted browsers by participants in the qualitative research. iOS smartphone users associated Safari with security from hacking and felt it benefitted from being designed to be used with Apple products. Almost all participants (except a sub-group of those who had strong views about tech companies and privacy, described in section 6.3 as 'Active Switchers) said they trusted Chrome because it was a Google product, and that large, established tech companies were reputable.

> "I trust iPhone so I would trust anything that they've put on it automatically."
>
> **iOS, 28, High confidence, No additional browser**

> "Chrome is a big company, so I would think they have good security, firewalls and so on."
>
> **iOS, 52, High confidence, Additional browser**

While Internet Explorer was not included in the stimulus, some participants mistook the Edge logo or Samsung Internet logo for Internet Explorer, or mentioned Internet Explorer spontaneously. Participants who correctly identified the Edge logo typically had used it at work. Internet Explorer was sometimes associated with being an unwanted default on computers, and was regarded as slightly outdated. Similarly, those who knew of Firefox had usually come across it several years previously on a computer. Among those who knew it, Firefox had a reputation of being a challenger to mainstream browsers, offering better security or privacy, though there was also a sense that it had now been replaced by Chrome.

There were minimal views of other browsers, as participants had never heard of them or, if they recognised the name, had never used them. Users of DuckDuckGo associated it with higher privacy. Brave had been used by one respondent who had heard it was faster, but this did not align with their experience.

Overall, discussions of participants' views of browsers were limited, as participants typically had very few opinions about browsers, and did not perceive there to be significant (if any) differences between browsers.

> "In my opinion [browsers] kind of all do the same thing effectively, so I don't have a huge preference and it's not something I spend too much time thinking about."
>
> **iOS, 27, High confidence, Additional browser**

6. Installation, downloading and usage of mobile browsers

This chapter explores how people used browsers on their mobile. The chapter covers the profile of mobile browsers installed and used most, whether their most used browser was preinstalled or downloaded, factors affecting web browser choice, a qualitative typology of users illustrating the reasons for using a browser, level of confidence in downloading a different browser, and the extent to which browsers are used to look up information on smartphones compared to alternative routes.

6.1. Browsers installed and used

Before answering questions about smartphone web browsers, survey respondents were provided with the following definition "A web browser allows you to access the web on a smartphone, either by taking you to the website address you have typed in or by providing you with a set of search results".

Smartphone users were asked about **all** browsers installed on their smartphone and - if more than one - which was their **most used** web browser (Figure 6.1).

Across all smartphones, Google Chrome (72%), Safari (45%) and Samsung Internet (22%) were the most installed browsers. Edge, Internet Explorer and Firefox were installed on between 7% and 10% of smartphones, with other browsers used by less than 5%.

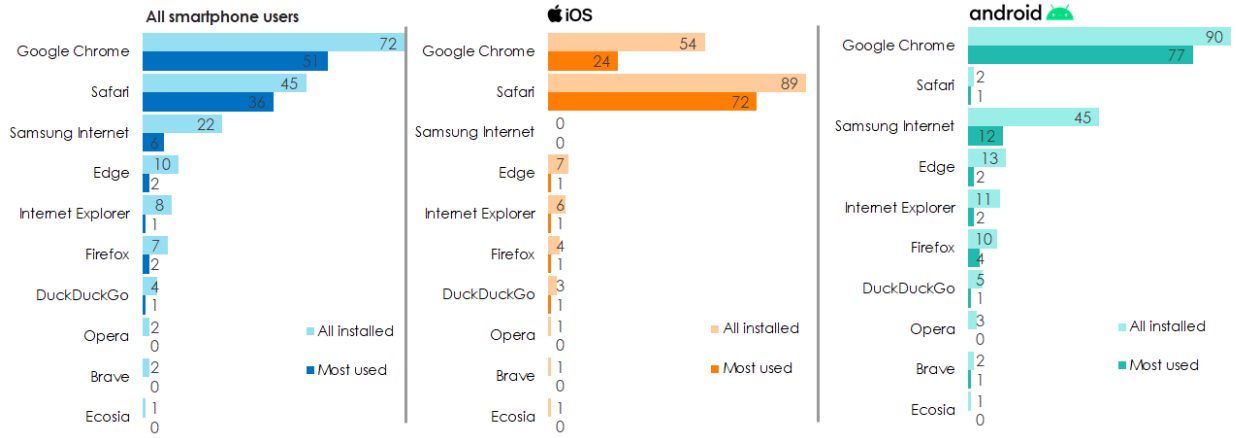
The top three most used (main) browsers followed the same order as installations: 51%, 36% and 6% mostly used Chrome, Safari and Samsung Internet, respectively.

Safari will be preinstalled on all iOS smartphones (iPhones) and therefore, as expected, the large majority (89%)[10] of iOS smartphone users said that Safari was installed on their phone. The main secondary browser for iOS was Google Chrome (54% installed) with other less mainstream browsers installed on between 1% and 6% of iOS smartphones.

The main browsers that will be preinstalled on Android phones are Samsung Internet (Samsung phones only) and Google Chrome. The survey data reflect the market dominance of these two browsers for Android: 90% of Android users had Chrome installed, and 45% had Samsung Internet installed. However, most Android users favoured Chrome (77%) over Samsung Internet (12%) as their main browser.

[10] It is assumed that the 11% of iOS smartphone users who said that they did not have Safari installed had deleted the Safari app from their phone (most of this subgroup used Chrome as their only browser).

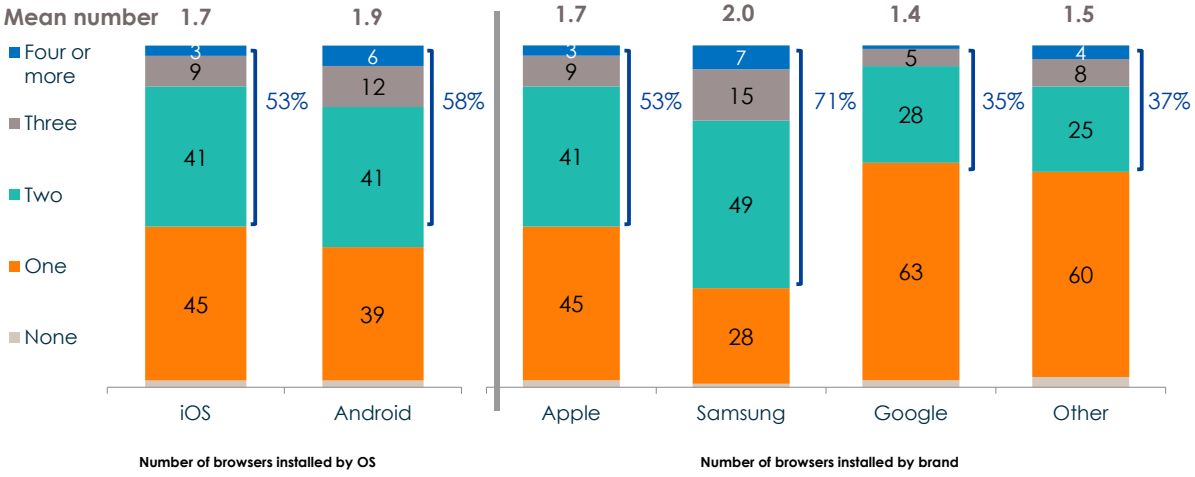
Figure 6.1: All browsers installed and most used browser, by operating system



BROWINSTALL Which web browsers do you currently have installed on your smartphone? Bases: All (3,060) iOS (1,536) Android (1,455).
BROWMOST - You said you have the following web browsers on your smartphone. Which ONE of these do you use most often? All who name a browser on their phone (2,992) iOS (1,501) Android (1,426)

Most users had no more than two browsers installed on their phone: 43% had one installed browser, 40% had two, and only 15% had three or more. Android users were slightly more likely than iOS users to have multiple browsers installed (58% compared with 53%). The mean number of installed browsers was 1.9 for Android and 1.7 for iOS (Figure 6.2). There was further variation in the number of browsers installed by phone brand. Samsung users had more browsers installed than Apple and other Android brands (an average of 2.0 compared with between 1.4 and 1.7 for other brands), which is likely to reflect the fact Samsung phones come with two preinstalled browsers: Samsung and Chrome.

Figure 6.2: Number of browsers installed and mean number of browsers, by operating system and phone brand



BROWINSTALL Which web browsers do you currently have installed on your smartphone? Bases: All (3,060) iOS (1,536) Android (1,455). Apple (1,545) Samsung (939) Google (167) Other (409)

Main browser choice varied by age. For iOS smartphone users, Safari was the main browser choice for 81% of 16-24s decreasing by age to 59% of those aged 65+. While Safari was still the favoured iOS

choice for all age groups, older iOS users were more likely than younger users to choose Chrome as their main browser (32% of those aged 65+ compared with 15% of those aged 16-24). For Android users, there was much less age variation in choice of main browser.

6.2. Preinstalled vs downloaded browsers

To aid understanding, the following explanation of a preinstalled browser was provided to respondents: 'A pre-installed web browser is one that is already on a smartphone when first purchased. Any other web browsers would need to be downloaded'.

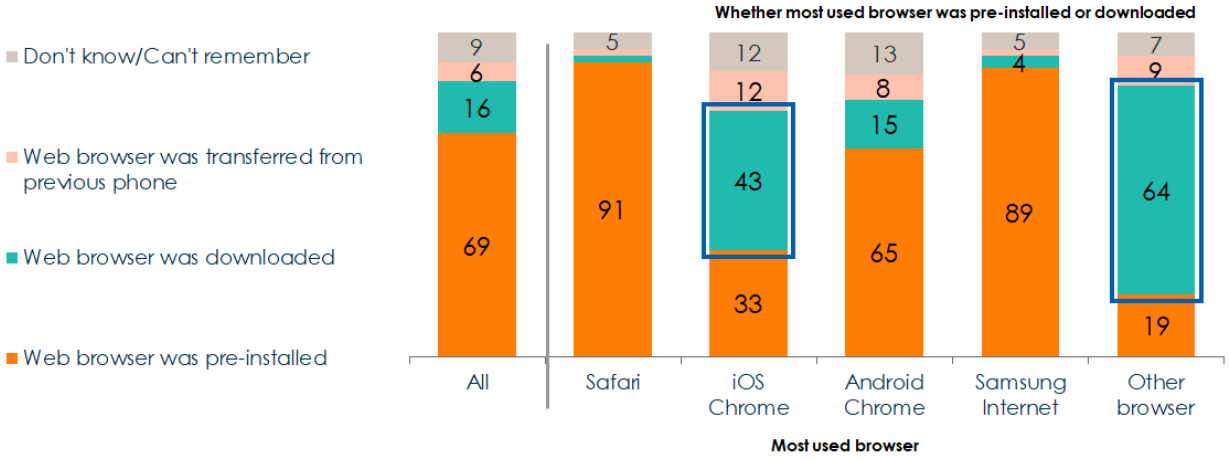
Focusing on their main browser, the majority of smartphone users (69%) said they had used the browser which had already been preinstalled on their phone, while only 16% had downloaded a different browser and 6% said they had transferred this directly from their previous phone.

The propensity to use the preinstalled browser option vs download a different browser varied by which browser was mainly used (Figure 6.3). Almost all who mainly used Safari and Samsung Internet said this was their preinstalled browser (91% and 89% respectively). Chrome browser use on Android was also skewed towards preinstallations (65%) rather than downloads (15%). On the other hand, iOS smartphone users who used Chrome as their main browser were more likely to report that it was downloaded than preinstalled (43% vs 33%).

It is worth noting that responses to this question are based on user perception and therefore there are some anomalies which are likely to reflect user confusion. For example, it is not technically possible that 33% of iOS smartphone users had Chrome preinstalled as Chrome is only available on iOS through download. Anomalies in responses may reflect user confusion or lack of recall. In the qualitative research, participants (particularly with lower confidence) often could not recall whether a browser was preinstalled or whether they had downloaded it. Some with low confidence were observed to have a preinstalled browser on their phone but did not use it or know what it was.

Less mainstream browsers (that is other than Safari, Chrome and Samsung Internet) were also much more likely to be downloaded than preinstalled (64% vs 19%), again in line with expectations given that these are not preinstalled on either iOS or Android phones.

Figure 6.3: Whether most used browser was preinstalled or downloaded, by main browser brand



PREINST - You said that you [mostly] use [BROWMOST] as your web browser on your phone. Did you or someone else download this web browser onto your smartphone, or was it already installed on the phone when you got it? All who named a browser on their smartphone (2,992) Safari (1,084) iOS Chrome (364) Android Chrome (1,098) Samsung Internet (175) Other (213)

Downloading a different browser to use as a main browser indicates a degree of active browser management beyond passive acceptance of system defaults[11]. Downloading of the main browser was more common among men (21% vs 12% of women), and among those classified as having a high level of confidence in managing web browsers on their phone (23% vs 11% of those classified as having no confidence).

In the qualitative research, participants with higher confidence were more likely to have and use an alternative browser on their smartphone. A prerequisite to downloading an alternative browser was that participants understood that they were using a browser to access the internet on the smartphone, and therefore that alternatives were available. In the qualitative sample, it was fairly common for participants to be unaware that they were using a browser, primarily because they had not thought about it before, or in part because they confused their browser with a search engine. Those with the lowest confidence were the least likely to understand that they were using a browser, and tended to describe it as 'the internet'.

It should be noted that in the qualitative research there were examples of very low confidence participants whose smartphone had been set up by a family member, who had downloaded an alternative browser for them. These participants did not notice that there was an alternative, preinstalled browser on their phone that they were not using.

[11] It is worth noting that this question focused on main browser use. It is therefore possible that users had downloaded other browsers which were not used as a main browser.

6.3. Factors affecting web browser choice

The consumer survey asked respondents whether there were any particular reasons **why** they used their (main) browser. The findings help to differentiate between consumers who passively use default settings without making a conscious choice, and those who have a specific browser preference (Figure 6.4).

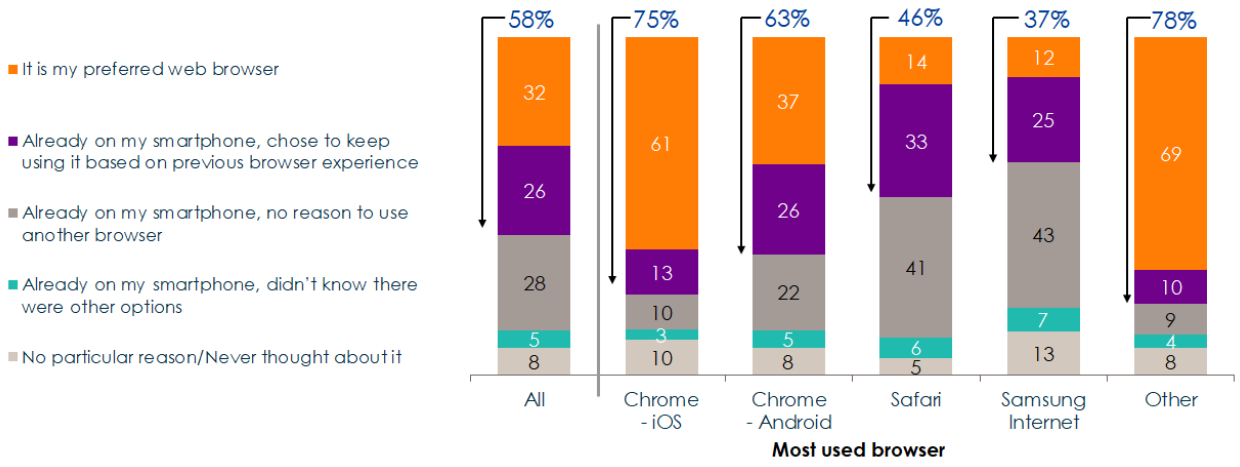
Indication of preference was made of up those who: i) chose their browser because it was their preferred browser; and ii) did not change their preinstalled browser but chose to keep using it based on previous browser experience.

More passive users were classified as those who: i) used the preinstalled browser and had no reason to use another browser; ii) used the preinstalled browser and didn't know there were other options; and ii) had never thought about this before.

Overall, 58% of users indicated a main browser preference, leaving 42% who were more passive users; that is who used the preinstalled browser without considering if they preferred this to other browsers.

Chrome on iOS and other less mainstream browsers were more likely to be used on the basis of user preference (75% and 78%, respectively), while Safari and Samsung Internet were least likely to be used based on preference (46% and 37%, respectively).

Figure 6.4: Reasons for using main browser, by brand of main browser



WHYMOST1 - You mentioned that [BROWMOST] is your most used web browser on your personal smartphone. Why do you use this particular web browser on your smartphone? All who name a browser on their phone (2,992) iOS Chrome (364) Android Chrome (1,098) Safari (1,085) Samsung Internet (n=175) Other (213)

Choosing a main browser based on user preference was also higher among the following subgroups[12]:

- Men (63% vs 53% of women)
- More educated (62% of people with a degree vs 53% with no qualifications)

[12] For definitions of confidence and engagement measures see section 1.3.

- Android users (62% vs 55% of iOS smartphone users)
- People who had downloaded a different main browser (84% vs 52% who relied on a preinstalled default)
- People who set up their phone without help (62% vs 48% of those relied on others to help them set it up)
- People who were classified as highly confident in managing browser settings (72% vs 48% with low confidence and 38% with no confidence)
- More engaged users (72% of those classified as 'engaged' compared with 52% of those classified as 'not engaged').

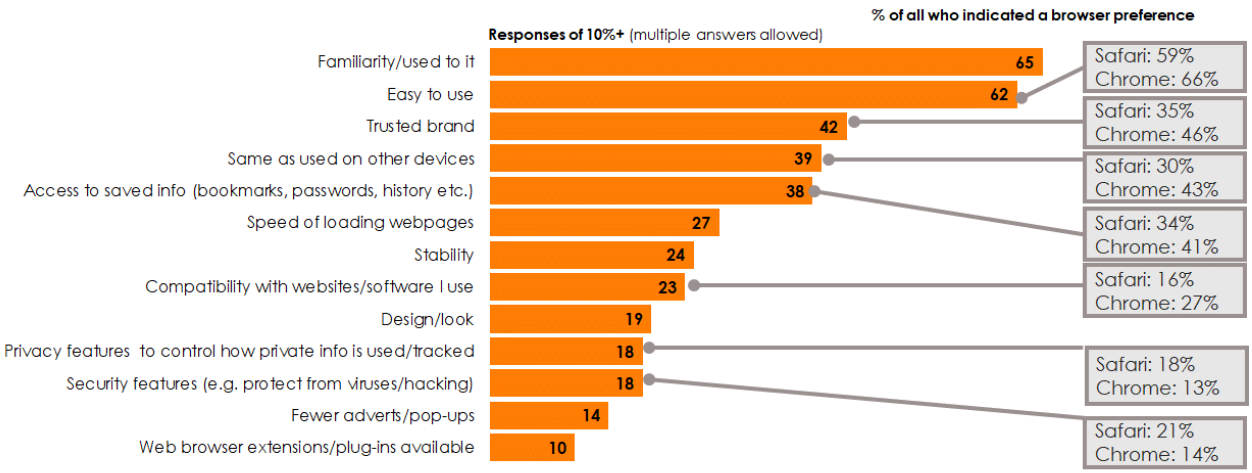
To help uncover the underlying reasons for browser preferences, the subgroup of people who were classified as indicating a browser preference were then asked **why** they preferred this specific browser.

Figure 6.5 indicates that browser preference was mainly based on familiarity (65%) and ease of use (62%), while around four in ten mentioned each of trusted brand, to sync with other devices, and to retain access to saved browser data such as passwords, bookmarks etc.

Other less important reasons centred on browser performance (speed, stability), compatibility with websites used, and visual design. Privacy and security features of browsers were among the least important factors in browser choice, each of these mentioned by 18% of users who indicated a preference.

Figure 6.5 also indicates differences in main browser preference by the two most popular browsers: Safari and Chrome. This indicates that Chrome was more likely to be preferred as a result of brand trust (35% Safari, 46% Chrome), wanting to sync across devices (30% Safari, 43% Chrome), and cross-compatibility with other devices (16% Safari, 27% Chrome). On the other hand, Safari was slightly more likely to be preferred based on privacy (18% Safari, 13% Chrome) and security (21% Safari, 14% Chrome).

Figure 6.5: Reasons for browser preference (among those who indicated a preference), by operating system



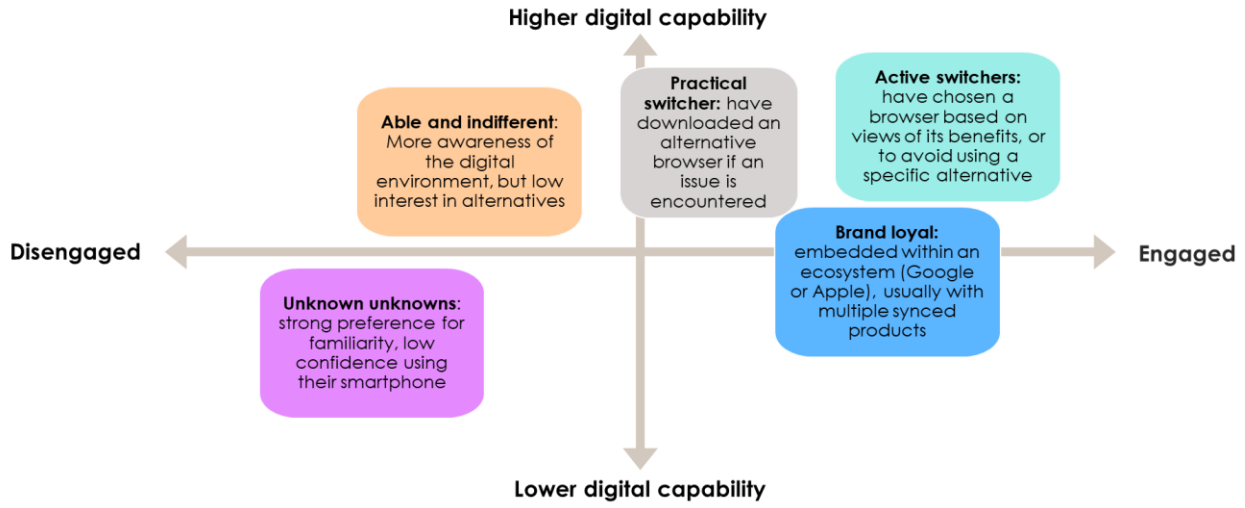
WHYMOST2 - Are there any particular reasons why you prefer this web browser on your smartphone? All who indicated a preference re most used browser (1,716) Chrome (997) Safari (485)

More technically confident users selected a wider range of reasons for preferring a web browser beyond the headline reasons of familiarity and ease of use. Those who were classified as having a high level of confidence in managing web browsers were more likely than lower confidence users to select all reasons listed in Figure 6.5 with the exception of ease of use, familiarity and the desire to match browsers used on other devices (for each of these there was no difference by level of confidence).

These findings are supported by the qualitative data, where participants valued familiarity and continuity on smartphones and sought to minimise changes. Participants with lower confidence were actively wary of changing things on their phone, while those with medium to high confidence still demonstrated habitual behaviour. Familiarity in this context could mean familiarity with the browser they have always used on the smartphone, or brand familiarity with a browser they have used elsewhere (e.g. on a computer or a previous smartphone).

In the qualitative research, the reasons for using a browser differed according to a respondent's technical confidence and competence, and their level of engagement with what is available. This user typology is illustrated in figure 6.6 below.

Figure 6.6: Typology of users in the qualitative research



In the qualitative research, brand loyalty was often cited as a reason for using either Safari or Chrome. The '**brand loyal**' user often expressed preference for a brand and commitment to their wider product range across devices. Some iOS users believed that it was better to use Safari on the iPhone as they were designed to work together. Less commonly, iOS users perceived some security benefits to using Safari. The 'brand loyal' were more likely to recognise benefits of syncing their browser use across their smartphone and computer, with saved passwords being a key benefit. Some users within this group were less actively 'loyal' but felt locked into the brand they were familiar with, having set it up at some point in the past. This meant that being a user of Google products (e.g. on computers) could lead iOS users to download and use Chrome.

"I've personalized that browser so much, it is always going to be my go to browser".

Android, 38, High confidence, no additional browser

Another reason for downloading an alternative browser was experiencing a problem with the preinstalled browser. These '**practical switchers'** often could not remember the specifics but recalled that they had encountered a problem with a page working on a particular website, so had downloaded an alternative. They often then kept both browsers on their phone so they had an alternative in case they experienced issues in the future. Rather than use them both interchangeably, they tended to continue to use the preinstalled browser, keeping the alternative for specific uses.

More rarely in the qualitative research, participants had consciously downloaded an alternative browser, either for specialist purposes, or to actively avoid using the preinstalled browser. This group of '**active switchers**' tended to have stronger views about privacy and mainstream tech companies and would seek out brands that they associated with privacy. Other participants in this group might only use an alternative browser to conduct activities where they valued privacy more highly, e.g. searching for pirate streaming, while continuing to use the preinstalled browser for most activities.

Beyond this, there were two user types who had not personally downloaded or used alternative smartphone browsers.

The '**able but indifferent**' were users who were technically fairly confident, but who saw no reason to use an alternative browser. They believed all browsers on smartphones to be very similar and could not think of any reason someone might want to use an alternative. This group might have noticed that there was a browser preinstalled on their phone, but saw no issues with using it.

"I tried a couple of different ones, like Google Chrome, but I didn't find that much difference with it. So there's no incentive to download it when Safari is just there on the phone anyways."

iOS, 28, High confidence, No additional browser

The '**unknown unknown**' users had the lowest confidence using their smartphones. They were unlikely to recognise that they used a browser to access the internet on their smartphone, and therefore had no opinions about them. They were often extremely wary of the idea of learning to use a new browser, and more strongly tied to using a browser they were used to.

"I don't know why it's Chrome on my phone, my daughter set it up. But I always used Chrome to look for anything…I don't like complicated things because otherwise if I do something wrong, I don't know how to come back, sometimes, so I prefer to do the usual route."

Android, 66, Low confidence, No additional browser

6.4. Confidence in downloading a different browser

Chapter 3 (section 3.2, Figure 3.4) covered the profile of people categorised according to a derived measure which combines confidence in both downloading a different browser and changing the default. In this section we take a closer look at the profile of people who felt most and least confident in their ability to download a new browser.

Overall, 85% considered that they could definitely (57%) or probably (28%) download a different browser, while 15% were not confident that they could do this.

The proportion who felt they could definitely download a different browser was more concentrated among the following subgroups:

- Men (66% vs 47% of women)
- Younger people (76% of 16-24s and 80% of 25-34s vs 27% of those aged 65+)
- Those with higher levels of income (72% of those with a household income of £75,000+ vs 48% of those earning less than £32,000)
- People with higher levels of education (64% of people with a degree vs 42% of people with no qualifications)
- People with high knowledge scores in relation to mobile browser settings (77% vs 27% with low knowledge scores)
- People with higher levels of mobile browser engagement (71% vs 51% with low engagement)

Conversely, this means that low confidence in downloading a different browser was concentrated among women, older people, people with lower levels of income and education, and people with lower levels of knowledge and engagement with respect to mobile browsers.

Section 9.4 provides more detail from the qualitative research in relation to people's experience of downloading a different browser as part of an observed task where users were asked to change their default browser.

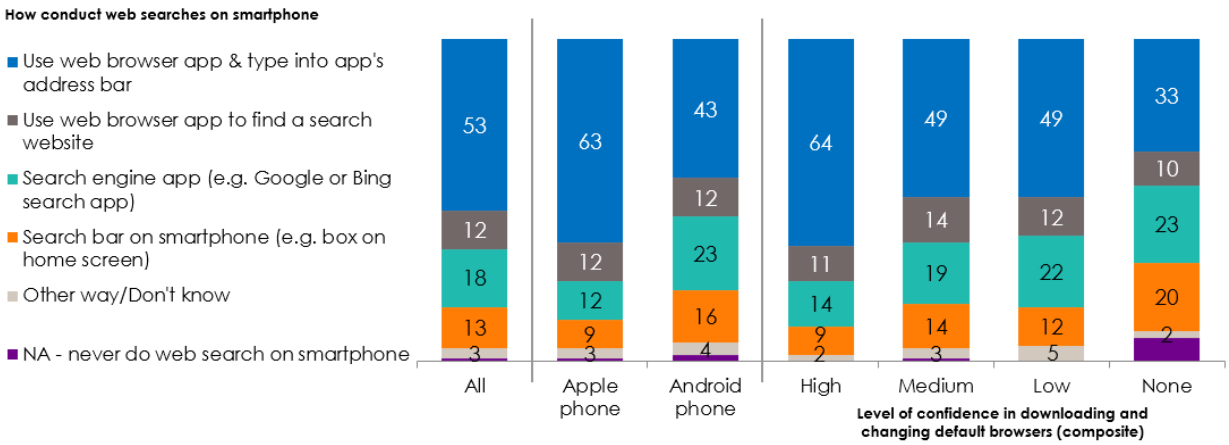
6.5. Use of web browsers when seeking information on the web

Smartphone users were asked how they typically looked for information online when using a smartphone. Around half (53%) said they did this directly via the web browser app. Other routes included using a search engine app (18%), a search engine accessed via their web browser (12%) and a search bar (or example located on their home screen) (13%); 3% never used their smartphone for web searching (Figure 6.7).

iOS phone users were far more likely to use a web browser app (63% compared with 43% of Android phone users), while Android users were more likely to use a search engine app or search bar (40% compared with 21%). Aligned to these findings, web browser apps were more commonly used among those who mostly used Safari (68% compared with 45% of Chrome users, 42% of Samsung Internet users and 50% who mainly used a different browser).

Patterns of behaviour in searching for information on the web also varied by level of confidence in managing web browsers. High confidence users were much more likely to use a web browser app (64% compared with 33% of those with no confidence) and much less likely to use a search engine app or search bar (22% compared with 43%).

Figure 6.7: How users look up information online when using a smartphone, by phone type and confidence in managing browsers



LOOKFOR - Below are some of the different ways that you can look for information on the web when using a smartphone. When you want to do this on your smartphone, which of the following do you do most often? All (3,060) iOS (1,536) Android (1,455) High confidence (1,109) Medium (1,156) Low (448) None (347)

Younger users tended more towards using web browser apps for online searching (74% of 16-24s compared with 34% of those aged 65+) while older users were more likely to use a search engine app or search bar (47% of 65+ compared with 17% of 16-24s).

Participants in the qualitative research were observed while accessing information online on their smartphones, using the routes they typically took. Participants often expressed a preference for using an app over a browser where possible. Participants preferred apps as they were considered a more user-friendly way to access content, designed and adapted for the smartphone. Apps were also preferable as they did not interrupt the user with requests to accept cookies. Participants who had search apps or widgets would sometimes prefer to use them over a browser, as typing directly into a search widget on their phone was seen as slightly more convenient. However, not all those with search widgets used them or had noticed them, particularly among those with low confidence.

> "If you're finding things outside of an app you have to be quite careful about what you're looking for, so I prefer to use the app. I just think when I've used the Chrome option or just internet explorer, I find your searches can be a bit skewed, it often asks for different types of data, they asks for cookies, which apps don't have as much of...apps don't trick you into allowing more."
>
> **Android, 33, High confidence, No additional browser**

Routes online varied depending on the task. For example, search widgets tended to be used for reference purposes, whereas browsers were more likely to be used to navigate to a specific website. One of the key reasons participants said they would use browsers over alternate routes was when they wished to return to the information later – as search apps would not keep the 'tab' open. Participants would often use multiple tabs in a browser as a way of storing a selection of websites.

7. Browser placement

The location of a browser on a smartphone can affect its prominence within the phone architecture and may affect the way in which browsers are used. This chapter covers the ways in which smartphone users accessed their browser, and the extent to which users have played a role in the positioning of their browser on their smartphone.

7.1. Location of web browser on smartphone

In the survey, smartphone users were asked where they would find their most used browser and were presented with a list of possible options. Respondents were encouraged to look on their phone if they were unsure, and they could pick as many locations as applied (therefore responses are not mutually exclusive).

Respondents were presented with six possible locations. The home screen is a common location for web browser apps. The list included three possible home screen placements:

- Browser is pinned to my screen (stays in the same location even if I swipe to a new page).
- On my home screen
- In a folder (grouped with other apps) on my home screen

Other placements available included:

- On a page other than home screen
- In a folder (grouped with other apps) on a page other than home screen
- Don't know where it is

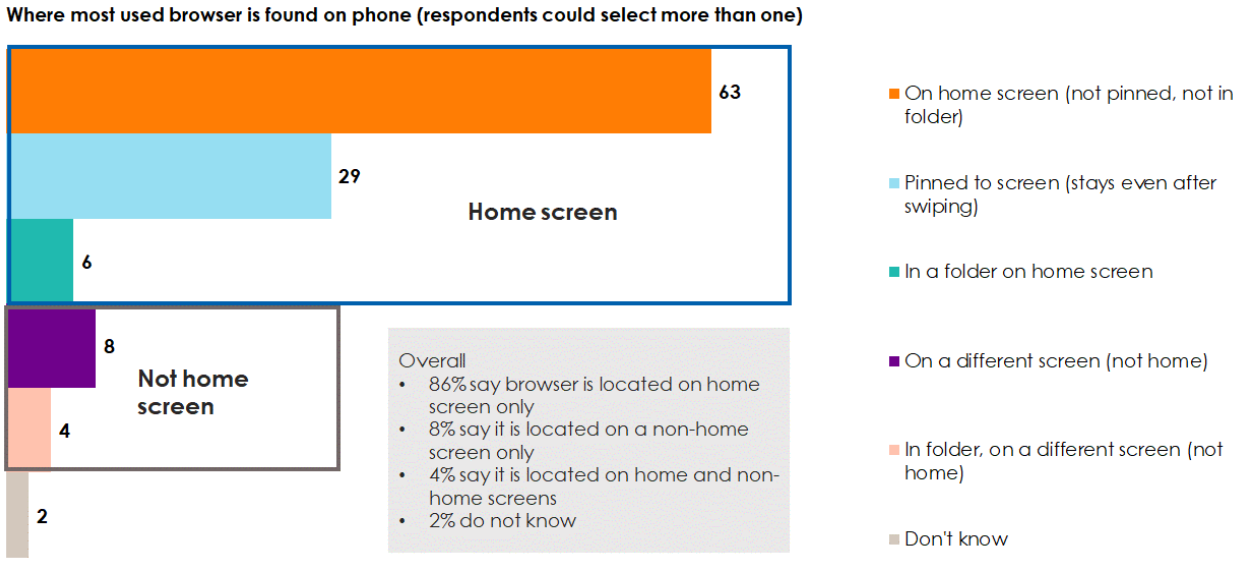
The most commonly selected item for the location of web browsers was on the home screen, with two in three (63%) selecting this option and 29% selecting that their browser was pinned to their screen. Other locations were selected by less than 10% (Figure 7.1).

Figure 7.1 also displays a summary measure which groups together categories. This broader measure is helpful as it is possible that some users were confused about the concept of a 'pinned' browser app, and may have confused this with a placement on the home screen more generally.

The summary measure shows that overall:

- 86% said their browser was located somewhere on their home screen (and not on another screen)
- 8% said it was located on another screen (not on their home screen)
- 4% said it was located in both locations
- 2% did not know

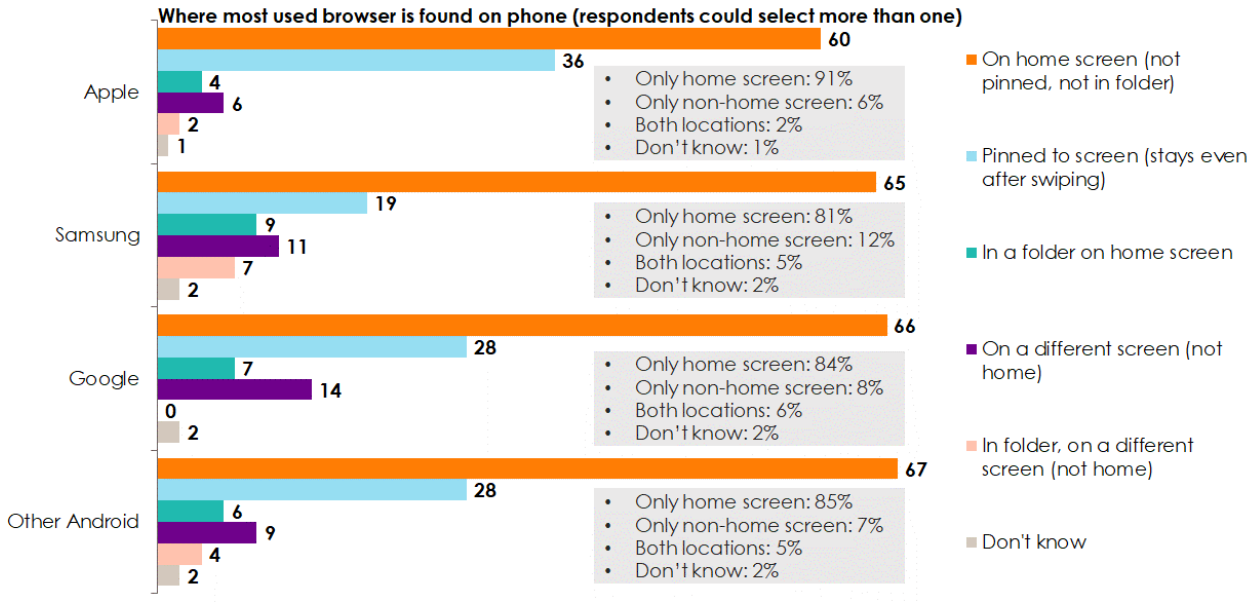
Figure 7.1: Placement of browser on smartphone



BROWLOC1 - You mentioned that you [mostly] use [BROWMOST]. If you wanted to open your [BROWMOST] web browser on your smartphone, in which of these places would you find it? All who cite a most used browser (2,992)

Figure 7.2 displays the same information by brand of phone. Across all phones, at least 80% accessed their browser solely on the home screen (either pinned, on the home screen or in a folder). The main difference by brand was that Apple owners were more likely than all other brands to say that their browser was pinned to their screen (36% compared to 28% of Google and other Android phones, and 19% of Samsung phones).

Figure 7.2: Placement of browser on smartphone, by mobile phone brand



BROWLOC1 - You mentioned that you [mostly] use [BROWMOST]. If you wanted to open your [BROWMOST] web browser on your smartphone, in which of these places would you find it? All who cite a most used browser (2,992) Apple (1,508) Samsung (924,) Google (165) Other android brand (395)

The propensity to report that their main browser was pinned to their home screen was also higher among the following subgroups:

- Younger people (45% of those aged 16-24 vs 16% of those aged 65+)
- Those who used Safari as their main browser (40% vs 23% of Chrome users, 21% of Samsung Internet users and 29% of those who mostly used another browser)
- People classified as having high levels of confidence in managing their browser settings (36% vs 12% of those with no confidence).

Older users were more likely to have their main browser located unpinned on their home screen (74% of those aged 65+ compared with 49% of those aged 16-24).

7.2. Whether users chose placement of their browser

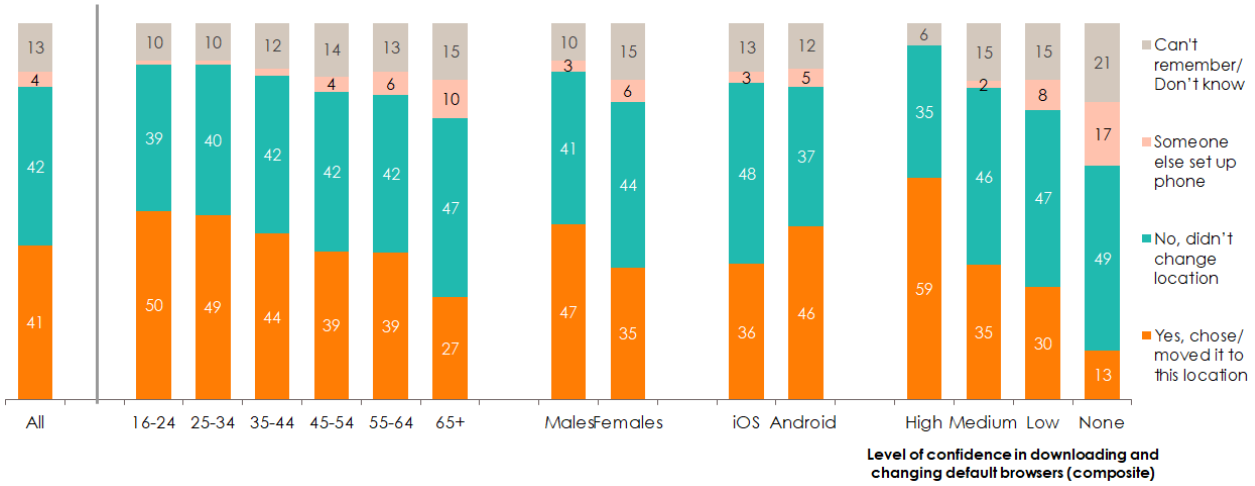
Smartphone owners who were able to identify where their browser was located were asked if they (or someone else) specifically chose this location, or whether it was left in its default preinstalled location without considering any other location.

Overall, there was an even split between users who chose the browser location on their phone (41%) and those who left it in its default position (42%). The remainder said that they didn't know, either because someone else had set up the phone (4%) or because they couldn't remember (13%) (Figure 7.3).

The tendency to actively choose a browser location was higher among younger people (50% of 16-24s vs 27% of those aged 65+), men (47% vs 35% of women), Android users (46% vs 36% of iOS smartphone users), and those classified as most confident in managing their browser settings (59% vs 13% of those with no confidence).

Those who used a preinstalled browser were more likely to leave it in its default location (33% positioned the browser, 55% did not), while browsers which were downloaded were much more likely to be positioned (77% positioned the browser, 11% did not).

Figure 7.3: Whether chose location of browser by age, gender, operating system and confidence in managing browser settings



BROWLOC2 - Just to check, did you (or someone else) move your web browser to this location or was it there already when you started using your current smartphone? All who knew location on smartphone of their most-used browser (2,938) 16-24 (359) 35-34 (487) 35-44 (573) 45-54 (527) 55-64 (466) 65+ (526) Males (1,361) Females (1,555) iOS (1,478) Android (1,396) High confidence (1,094) Medium (1,122) Low (429) None (293)

This reflects the finding in the qualitative research that participants with high confidence were most likely to have moved their browser location. Those with high confidence and capability tended to want to 'curate' their screen organisation and would pin their most used apps to the homepage. This often, but not always, included a browser app. As might be expected, this group had the best understanding of how to move apps.

> "The home page icons are laid out because I laid them out that way. I deleted everything off the home page and then installed all the apps that I wanted that weren't on the phone and then decided which were the most useful ones and put them on the home page."
>
> **Android, 59, High confidence, No additional browser**

Though participants in the qualitative research universally understood that apps could be moved, not all of them knew whether pinned apps could be moved, and some had misconceptions about moving them. For example, one respondent believed that certain apps would drain battery life more quickly if pinned.

Beyond the most confident 'curators', participants tended to be fairly disengaged with the location of apps on their phone. Commonly, they had moved apps initially when first setting up their phone, and had imported their screen set up with each subsequent smartphone, with minimal movement thereafter. Beyond this, participants may have moved a small number of frequently used apps, especially if they had a large handset (meaning they wanted such apps in the bottom corners for accessibility). The most frequently used apps did not always include their browser. Further, app location was less important among users who used the search bar of their phone to navigate directly to apps, negating the need to scroll through screens to find an app.

"It doesn't really matter where they are, as the apps I use the most are on the second page."

iOS, 50, High confidence, No additional browser

The qualitative participants least likely to move apps were the least confident, who often expressed strong reluctance to move apps as they did not want to change anything on their phone. For this group, app location was often irrelevant, as they simply learnt the 'route' to their browser and repeated it. Some in this group had their most used browser located in less accessible locations (i.e. not on the homepage) while ignoring a preinstalled browser that was pinned.

The qualitative interviews suggest that those at either end of the confidence scale were least likely to be affected by the pre-existing position of a browser, as they either actively moved apps, or ignored prominently located ones. Conversely, those with medium to high levels of confidence were often unconcerned about moving apps, had not necessarily thought about moving pinned apps or were unsure whether they could.

"I don't use any other apps, just Safari, it's just easy on the front screen"

iOS, 28, High confidence, no additional browser

8. Knowledge of default browsers and in-app browsing

This chapter covers user's awareness of browser functionality on smartphones, including awareness of their default browser, and the profile of users in terms of their level of knowledge of default settings and in-app browsing, as measured by responses to three quiz-style true/false questions.

8.1. Awareness of default browser on smartphone

Before answering questions about default browsers on smartphones, survey respondents were provided with the following definition: 'A default browser is the web browser that usually opens up automatically, for example when you click on a weblink in a text message'.

Overall, 79% said they knew what the default browser was on their smartphone. In line with the patterns seen more generally throughout this report, this was more concentrated among men, younger people, those from higher income groups, and those who displayed more technical knowledge. It was also higher among iOS smartphone users and smartphone users who also had a computer/laptop device.

In more detail, the proportion who said they knew their default browser was higher among:

- Men (84% vs 74% of women)
- Younger people (92% of 16-24s vs 64% of those aged 65+)
- People with higher household incomes (91% of those earning over £75,000 vs 69% of those earning less than £32,000)
- People with higher knowledge of defaults and in-app browsing (93% of those rated as having high knowledge vs 55% of those rated as low knowledge)
- People who used Safari as their main browser (89% vs 74% who mostly used Chrome, 71% who mostly used Samsung Internet and 73% who mostly used a different browser)
- People who also had a computer (84% vs 66% of those who did not have a computer/laptop)

8.2. Objective knowledge of browser defaults and in-app browsing

8.2.1. Summary of knowledge

Throughout this report we refer to self-reported measures of knowledge and confidence, for example level of confidence in downloading a different browser or changing the default browser (see sections 3.2, 6.4 and 9.1). However, as explained in section 9.4 the qualitative research indicated that confidence did not always translate into capability when participants were asked to change settings on their phone via an observed task. As a result, we also wanted to gain a more objective measure in the survey to measure knowledge of browser settings.

Three 'quiz-style' statements were developed, and respondents were asked to say for each if they thought these were true, false or if they did not know either way.

A summary of the profile of responses to the three statements is provided in Figure 8.1. A more detailed analysis of responses to each individual statement then follows in Figures 8.3 to 8.5. Overall, the findings indicated a good level of knowledge in terms of changing default browsers, but a much lower level of knowledge in relation to the more technical concept of in-app browsing.

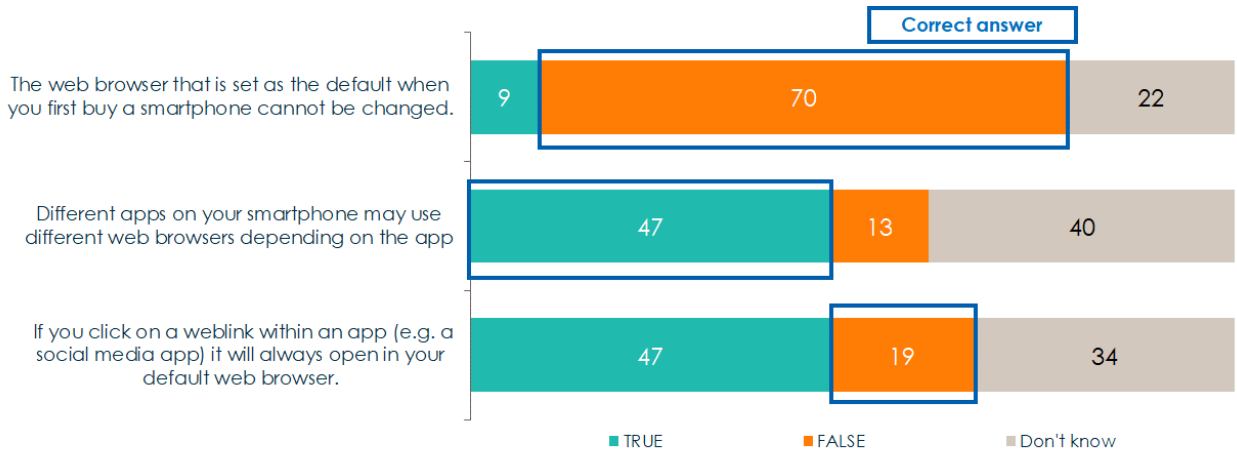
Figure 8.1 indicates that most users understood that they could change their **default browser,** with 70% correctly identifying the following statement as false: 'The web browser that is set as the default when you first buy a smartphone cannot be changed'. However, around one in ten users (9%) incorrectly believed that it was not possible to change their browser and 22% did not know whether they could change the default browser.

The second and third statements were designed to tease out levels of knowledge in relation to **in-app browsing** on smartphones. This refers to the browser used when users open a web page from within an app (such as the Google Search app or Facebook app) by tapping on the link, on a url for example. The in-app browsers used when the user clicks on a link within the app can be different from the users' default browser.

Just under half (47%) of users were aware that 'Different apps on your smartphone may use different web browsers depending on the app'. However, 13% incorrectly thought that the same browsers were used across all apps and 40% did not know which answer to choose.

The proportion of people who correctly knew that the following statement was false was much lower: 'If you click on a weblink within an app (e.g. a social media app) it will always open in your default web browser'. Only 19% correctly knew that a weblink within an app would not always open in their default browser. A far greater proportion of users (47%) incorrectly believed that a weblink within an app would always open in their default browser; and around a third of users (34%) did not know either way'.

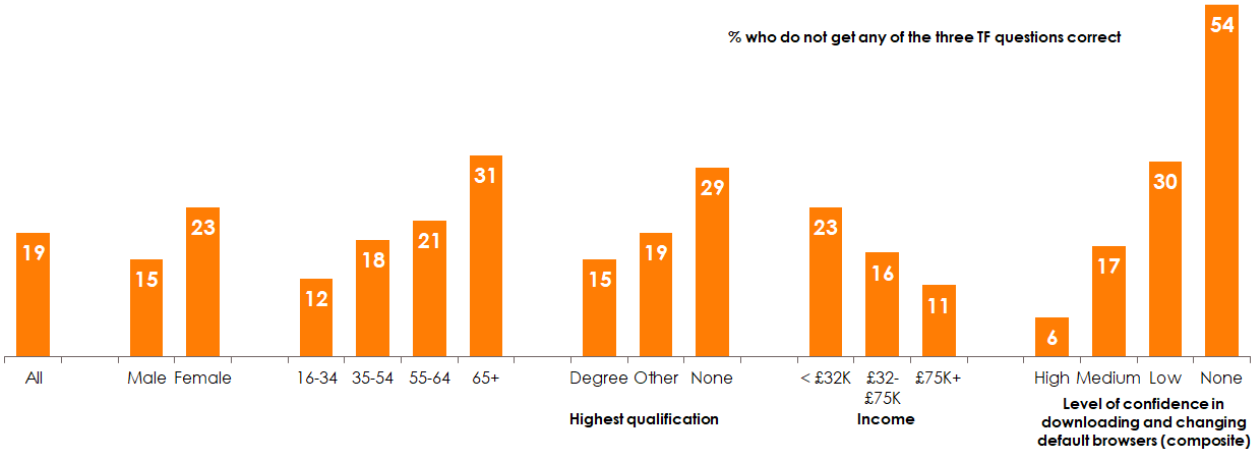
Figure 8.1: Knowledge of default browsers and in-app browsing, as measured by three true/false questions



TFGRID2 - For each of the next statements, please tell us whether you think the statement is true, false or if you are unsure either way. Total sample (3,060)

Figure 8.2 displays the types of smartphone users who were least likely to display knowledge on these issues across all three measures. Focussing on those who selected an incorrect or don't know answer to all three questions, lack of knowledge was concentrated among women, older people, those with lower levels of education and income, and those with low levels of technical confidence in managing browsers. The latter finding is especially striking with over half (54%) of the least confident getting all three true/false questions incorrect compared with 6% of the most confident. This shows that there is a high correlation between subjective confidence and measured knowledge.

Figure 8.2: Proportion who got all three true/false questions incorrect, by gender, age, highest qualification, income and confidence in browser management



TFGRID2 - For each of the next statements, please tell us whether you think the statement is true, false or if you are unsure either way. Total sample (3,060) Male (1,407) Female (1,630) 16-34 (867) 35-54 (1,137) 55-64 (482) 65+ (574) Highest qual Degree (1,236) Highest qual Other (1,504) No quals (313) Low income (954) Medium income (1,101) High income (524) Browser confidence: High (1,109) Medium (1,156) Low (448) None (347)

Knowledge about default browsers varied in the qualitative interviews and they were not always understood. The lowest confidence participants often found it confusing as they were not fully aware they were using a browser, so sometimes struggled to grasp the concept of a default browser.

It was very common for default browsers to be conflated with preinstallation, except among the most confident and capable. Participants often described the default as 'the browser that comes with the phone'. Some participants who had high confidence using their smartphone were still confused about some aspects of browsers, search and the relationships between browsers and brands.

> "I've often wondered if Apple do have like a paid relationship or partnership with Safari because I've often wondered why that's the default search engine or internet browser over Chrome or Edge."
>
> **iOS, 27, High confidence, Additional browser**

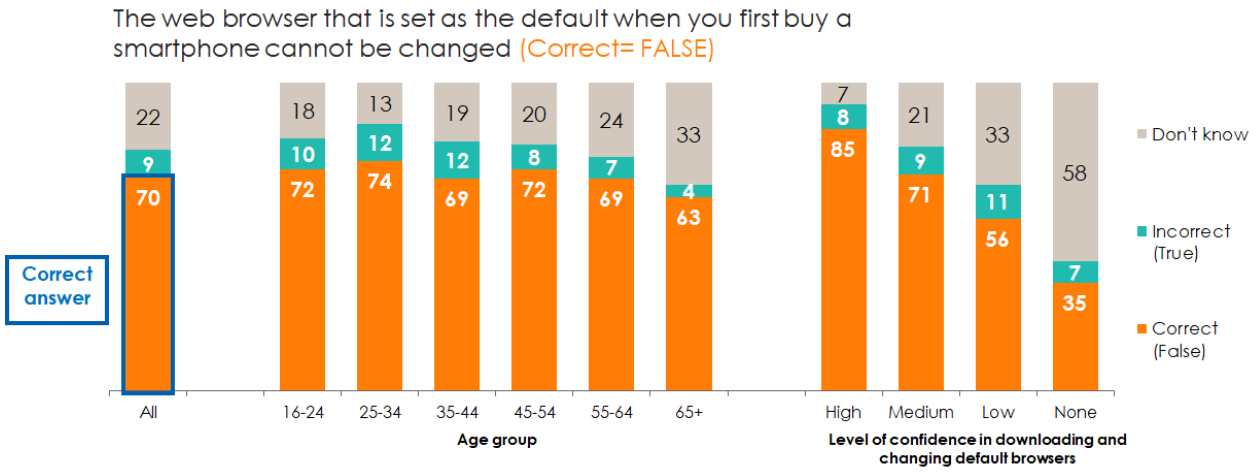
In contrast, those with the highest confidence were able to accurately define a default browser and understood that it can be changed.

> "It was whatever the setup system has as the go-to browser. So default browser usually be if I click on a link on an app or something else, it will open up in that browser."
>
> **Android, 39, High confidence, Additional browser**

8.2.2. User understanding: changing the default browser

As noted in section 8.2.1 above, overall, 70% correctly identified that the web browser set as the default on a smartphone can be changed. Consistent with the findings shown in Figure 8.2 and more generally throughout this report, younger people were more likely to select the correct answer (72% of 16-24s and 74% of 25-34s vs 63% of those aged 65+) and there was a strong association between knowledge and confidence in managing browser settings; the most confident were over twice as likely to select the correct answer as the least confident (85% compared with 35%) (Figure 8.3).

Figure 8.3: Whether the default browser can be changed (true/false), by age and level of confidence in managing mobile browser settings



TFGRID2 The web browser that is set as the default when you first buy a smartphone cannot be changed (True/false). All (3,060) 16-34 (867) 35-54 (1,137) 55-64 (482) 65+ (574) Browser confidence: High (1,109) Medium (1,156) Low (448) None (347)

Other subgroups with a higher rate of selecting the correct answer included:

- Men (74% vs 65% of women)
- More educated (76% with a degree vs 54% with no qualifications)
- Higher household incomes (81% earning at least £75,000 compared with 63% earning less than £32,000)

In the qualitative interviews, while participants had not tried to change the default on their smartphone, and often had not considered it before, there was an expectation that it was probably possible. This conclusion was often based on having encountered default browsers on a computer.

> "I don't even know if you can change it, there must be a way, but I've never thought about it."
>
> **iOS, 26, High confidence, No additional browser**

Some participants (both iOS and Android smartphone users) felt it was not possible to change from Safari, linked to the idea that iOS represented a more closed system compared to Android. This was a view expressed by a handful of more technically confident and capable participants, rather than being a widely held perception.

"There's no option to change the default browser on an iPhone, as it's all set and geared to Safari."

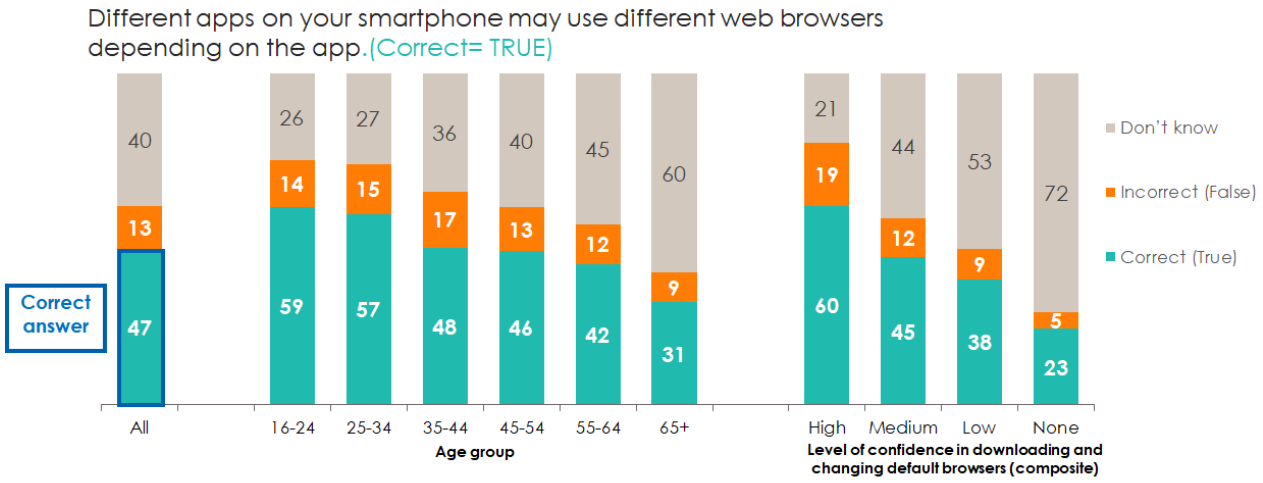
iOS, 43, High confidence, Additional browser

8.2.3. User understanding: in-app browsing

Whether different apps use different browsers

As noted in section 8.2.1, overall, 47% correctly identified that different apps on a smartphone may use different web browsers depending on the app. Consistent with other true/false statements, and the more general findings shown in Figure 8.2, younger people were much more likely to select the correct answer (59% of 16-24s and 57% of 25-34s vs 31% of those aged 65+), and there was a very strong relationship between knowledge and confidence: the most technically confident were over twice as likely as the least confident to select the correct answer (85% compared with 35%). (Figure 8.4).

Figure 8.4: Whether different apps use different browsers (true/false), by age and level of confidence in managing mobile browser settings



TFGRID2 Different apps on your smartphone may use different web browsers depending on the app (True/false). All (3,060) 16-24 (366) 25-34 (501) 35-44 (588) 45-54 (549) 55-64 (482) 65+ (574) Browser confidence: High (1,109) Medium (1,156) Low (448) None (347)

The qualitative interviews indicated how little participants understood or had ever considered the mechanics of in-app browsing before. Before discussing it in the interview, participants were not conscious that a browser was operational 'behind the scenes'. When prompted, they guessed that while browsing in-app, they were either solely within the app, using the app's version of the website, using their 'main' browser (though they did not think in terms of defaults) or using a 'partial' browser or extension.

Participants had rarely noticed differences between in-app browsing and their main smartphone browser in terms of experience, though when prompted, sometimes said they thought that in-app browsing:

- felt more restricted than their usual browser, as there was no search bar
- was slower than their usual browser
- was clunkier than their usual browser
- resulted in more targeted advertisements, compared to activity in their usual browser.

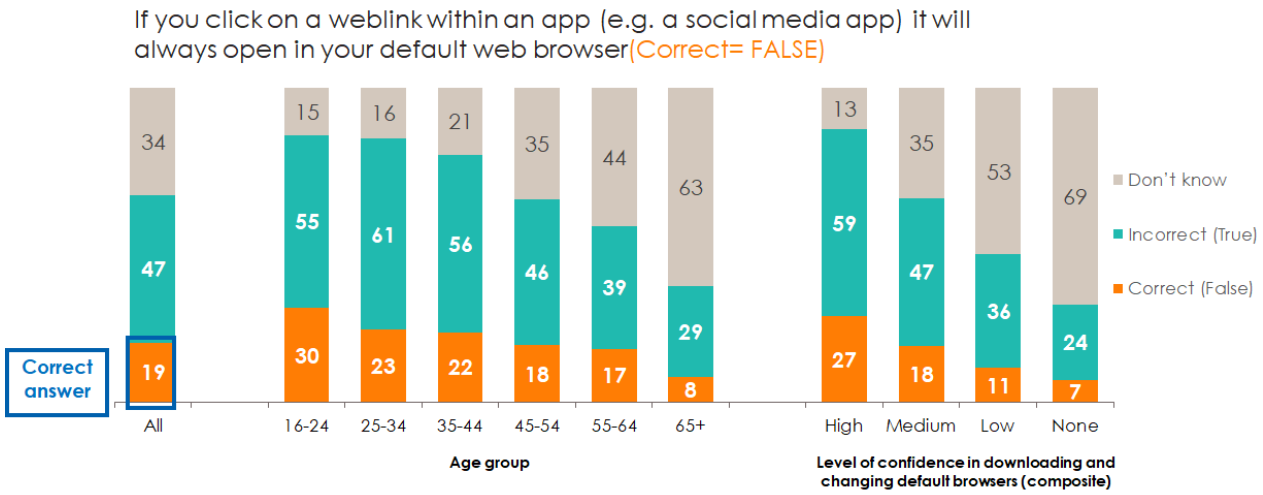
To explore perceptions about how in-app browsing was operating, participants were asked who they thought would have access to in-app browsing data. The most common guess was the social media company, and less often, the website visited. More rarely, participants guessed that their browser or phone manufacturer may have access to the data. In general, the idea of data tracking was more salient in the context of social media apps compared to browser apps.

It was relatively common for users to believe that data was likely to be tracked in social media apps. However, participants were most conscious of the data captured when they first clicked on a weblink on social media, rather than data produced by any subsequent browsing activity. Therefore, some younger participants would occasionally use their browser to look something up rather than click on the link within the social media app. Despite this, data privacy was not the main reason for switching from in-app browsing to a browser app. Participants said they were more likely to switch to a browser to keep tabs open to return to the page later (and therefore to enable them to continue scrolling in social media app) or to try to prevent impulse purchases on social media.

Knowledge that in-app browsers can be different from default browsers

As noted in section 8.2.1 above, overall only 19% correctly identified that clicking on a weblink within an app (e.g. a social media app) will not always open in the default web browser. Consistent with other true/false statements, younger people were much more likely to select the correct answer (30% of 16-24s vs 8% of those aged 65+), and again there was a very strong relationship between knowledge and confidence: the most technically confident being four times as likely as the least confident to select the correct answer t (27% compared with 7%). (Figure 8.5).

Figure 8.5: Whether weblinks within an app open in the default browser (true/false), by age and confidence in managing mobile web browsers



TFGRID2 If you click on a weblink within an app (e.g. a social media app) it will always open in your default web browser (True/false). All (3,060) 16-24 (366) 25-34 (501) 35-44 (588) 45-54 (549) 55-64 (482) 65+ (574) Browser confidence: High (1,109) Medium (1,156) Low (448) None (347)

While this specific question was not covered in the qualitative interviews, the results are in line with the wider findings that browsers had not been considered in the context of app use, that defaults were not always well understood, and that participants did not notice significant differences between smartphone browsers.

9. User journey to change default browser

This chapter covers perceived confidence in switching default browsers, the prevalence of switching default browser, which default browsers are chosen after switching, the experience of those who have switched default and the experiences of attempting to switch in the qualitative interviews. Finally, the chapter considers the barriers to switching among those who have not switched.

9.1. Confidence in switching default browser

Chapter 3 (section 3.2, Figure 3.4) covered the profile of people categorised according to a derived measure which combines confidence in both downloading a different browser and changing the default browser on a smartphone. Confidence in downloading a new browser is covered in section 6.4. In this section we take a closer look at the profile of people who felt most and least confident in their ability to change their default browser.

Overall, 77% of users considered that they could definitely (39%) or probably (38%) change their default browser without needing to ask someone else or search online, while 23% were not confident that they could do this.

The proportion who felt they could definitely change their default browser was more concentrated among the following subgroups[13]:

- Men (50% vs 28% of women)
- Younger people (57% of 16-24s and 59% of 25-34s vs 14% of those aged 65+)
- Those with higher levels of income (52% of those with a household income of £75,000+ vs 33% of those earning less than £32,000)
- People with higher levels of education (44% of people with a degree vs 32% of people with no qualifications)
- People with high knowledge scores in relation to mobile browser settings (61% vs 13% with low knowledge scores)
- People with higher levels of mobile browser engagement (55% vs 32% with low engagement)

Conversely, this means that low confidence in switching a default browser was concentrated among women, older people, people with lower levels of income and education, and people with lower levels of knowledge and engagement with respect to mobile browsers.

There were also variations by main browser used. Those using Samsung Internet as their main browser were more likely to display low confidence in their ability to switch default browser (31% stating that they could probably not/definitely not change their default browser, compared with 20% who mostly used Safari, 24% who mostly used Chrome, and 15% who mostly used a different browser)[14].

During the qualitative interviews, participants were asked if they thought they would be able to change their default browser. All participants except those with very low confidence expected they would be able to change the default. There was an expectation that it would be slightly fiddly, as participants typically had not tried to do it before and were unaware of the steps involved. Some, but not all, iOS users were slightly less confident that they would be able to change the default, due to a perception that iOS is more of a 'closed system'. In the same vein, an Android user who had switched from iOS within the last 3 years, felt that he would not have been able to switch on iPhone. One user

[13] For a definition of knowledge and engagement classifications, see section 1.3.

[14] It is worth noting that Samsung phone users tend to be older in profile.

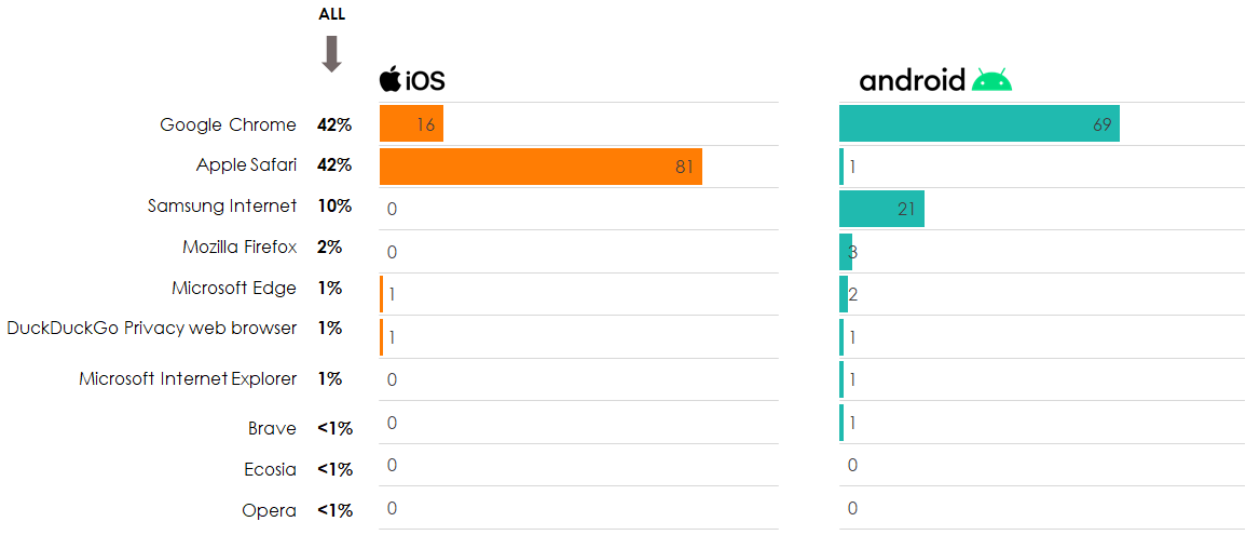
was less sure of her ability to change the default as she found her current smartphone slightly harder to use than brands she had used previously. As might be expected, those with low technical confidence did not think they would be able to change the default without help. As discussed further in section 9.4, self-assessed confidence did not always predict success when participants were asked to undertake the task.

> "I don't download apps, I've not loaded anything on the phone for so long."
>
> **iOS, 57, Low confidence, No additional browser**

9.2. Default browsers and whether changed default

The profile of default browsers as reported by those who knew their default browser is shown in Figure 9.1. Reflecting the pattern for the 'most used' browser (see section 6.1), most iOS smartphone users (81%) stated that their default browser was Safari, with Chrome stated to be the default browser for 16% of iOS users. Chrome was stated as the default browser by most Android users (69%), with 21% stating their default browser as Samsung Internet, and less than 5% mentioning any other brand of browser.

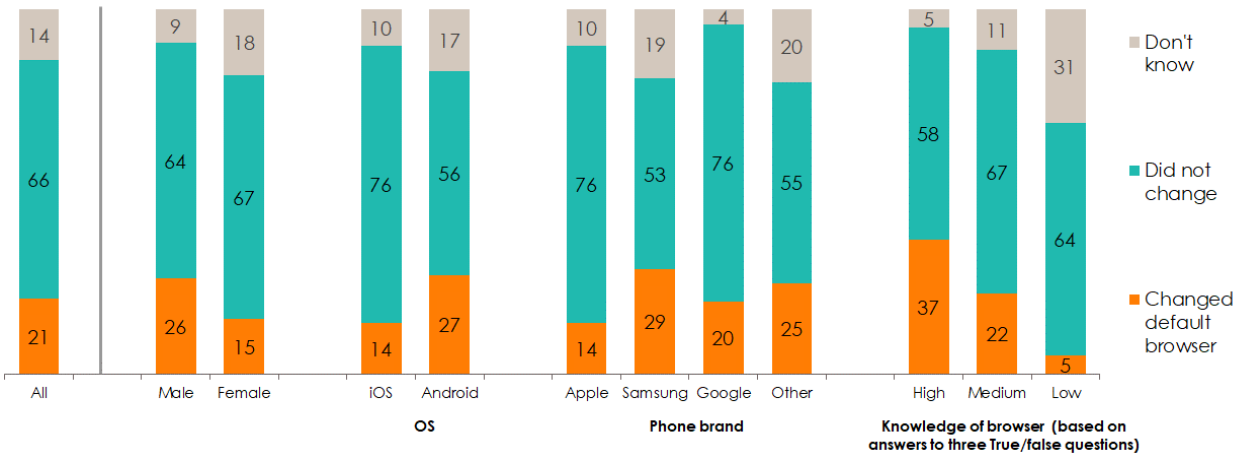
Figure 9.1: Default browser used, by operating system



BROWDEF Of the web browsers that you have on your phone, which one of these would you say is your 'default web browser'? All who knew their default browser (2,659) iOS (1,388) Android (1,213)

Overall, one in five (21%) stated that they had changed their default browser. The likelihood of changing default browser was higher among men (26% vs 15% of women), Android users (27% vs 14% of iOS smartphone users), those using a Samsung phone (29% vs 14% using an Apple phone and 20% using a Google phone), and those displaying the most knowledge of mobile browsers (37% with high knowledge vs 5% with low knowledge). (Figure 9.2).

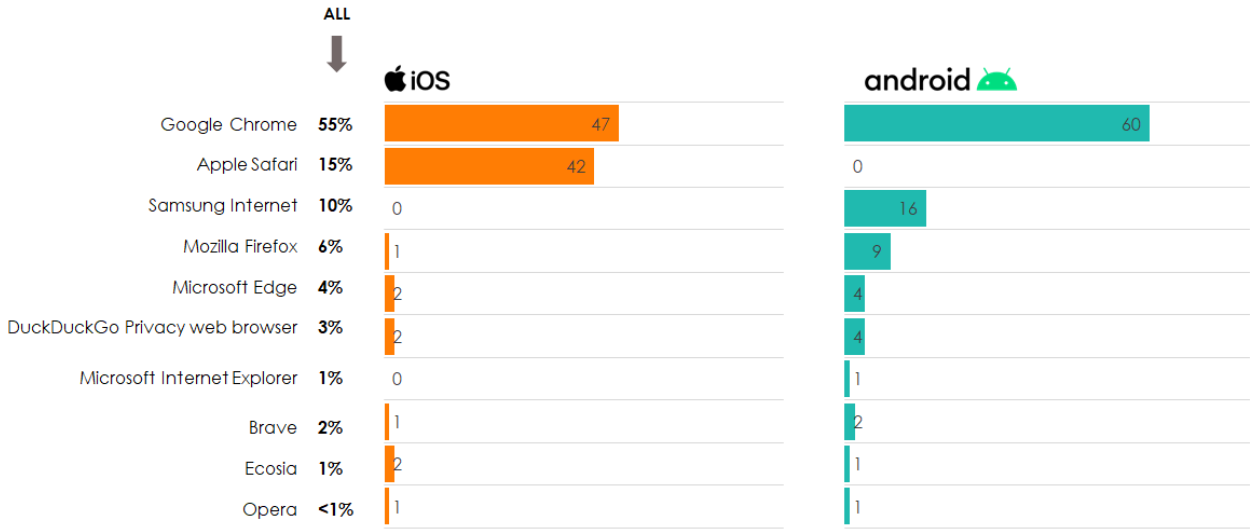
Figure 9.2: Whether changed default browser, by gender, operating system, phone brand and knowledge of browser management



BROWDEFHOW - Just to check, have you or someone else changed the default web browser on your current personal smartphone? All who cite a named browser on their phone (2,992) Male (1,380) Female (1,590) iOS (1,501) Android (1,426) Apple (1,508) Samsung (924) Google (165) Other (395) High knowledge – All 3 True/False questions correct (347) Medium - At least one correct (2,097) Low - All incorrect (548)

Figure 9.3 shows the current browser set as the default for those users that had changed their default browser. Most iOS smartphone users who had changed their default browser had switched to Chrome (47%) or Safari (42%), while most Android users who had changed their default browser had switched to Chrome (60%), Samsung Internet (16%) or Firefox (9%).

Figure 9.3: Browser set as default after switching (among all who have switched), by operating system



BROWDEF Of the web browsers that you have on your phone, which one of these would you say is your 'default web browser'? All who have switched default browser (572) iOS (199) Android (363)

In the qualitative interviews, two participants recalled changing their default browser. One iOS user had downloaded Firefox and Chrome and remembered being asked if she wanted to change her

default browser more than once. She said he had changed back and forth (between Firefox and Chrome) a few times. One Android user believed she had changed her default, though had actually not switched. She had seen a prompt about changing the default browser and had selected the preinstalled browser (Chrome). This suggests that some of those who think they have changed the default may not have actually switched, but may think they have as they feel they made a choice about the default (and may not have known what the default was before).This also suggests that switchers in the survey may shave switched back to their original default browser, or switched between a number of browsers[15].

It should be noted that, in the qualitative research, of those low confidence participants whose family member had downloaded an alternative browser, the interviewer observed that the default had not been changed in some cases. These participants were unaware that their most used browser was not their default browser, and did not knowingly use their default. This was not surprising as their method of using browsers was always the same (i.e. navigating directly to the app), and they were often reluctant to click on weblinks.

9.3. Ease of switching default browser and reasons for switching

As discussed in section 9.2, overall, 21% of survey respondents had switched their default browser. This section focuses on this subgroup, exploring how easy they found it to switch and what difficulties, if any, were encountered.

When viewing results in this section it is worth noting that, by definition, this subgroup will be more technically capable than average as they had all managed to change their default browser. It is therefore important to note that the findings in this section cannot be extrapolated to the wider population of smartphone users; for example, the findings will not include those who tried to change their default browser but failed, or those who have never tried at all.

It is also worth noting that the findings reported in this section, which are based on asking respondents to recall their experience of changing their default browser, have the potential to be associated with two types of error:

- **Recall error:** Switching default browser is unlikely to have been a sufficiently salient or memorable task to recall the process in detail. Therefore, if the task had been completed some time ago, recall error is likely.

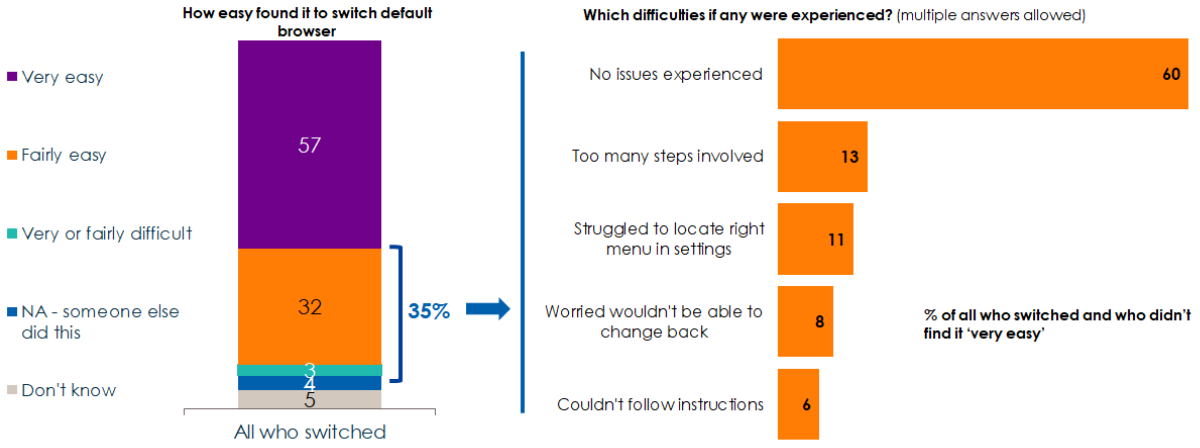
- **'Post-hoc rationalisation':** For example, users may think a task was 'easy' after they have successfully completed the task, even if they had some problems while completing the task.

With these caveats in mind, Figure 9.4 (left hand side) displays the ease and difficulty ratings of switching among users who had successfully switched. Overall, most (89%) said they had found this either very easy (57%) or fairly easy (32%), with only 3% reporting difficulty.

The subgroup who said they found it either 'fairly easy' or 'difficult' (in other words excluding those who said it was 'very easy', couldn't remember, or someone else had switched on their behalf) were asked what difficulties if any were experienced (Figure 9.4, right hand side). Most of this subgroup were not able to recall any specific difficulties; problems mentioned included too many steps (13%) and struggling to locate the right menu in settings (11%).

[15] The survey did not ask respondents how many times they had switched browsers.

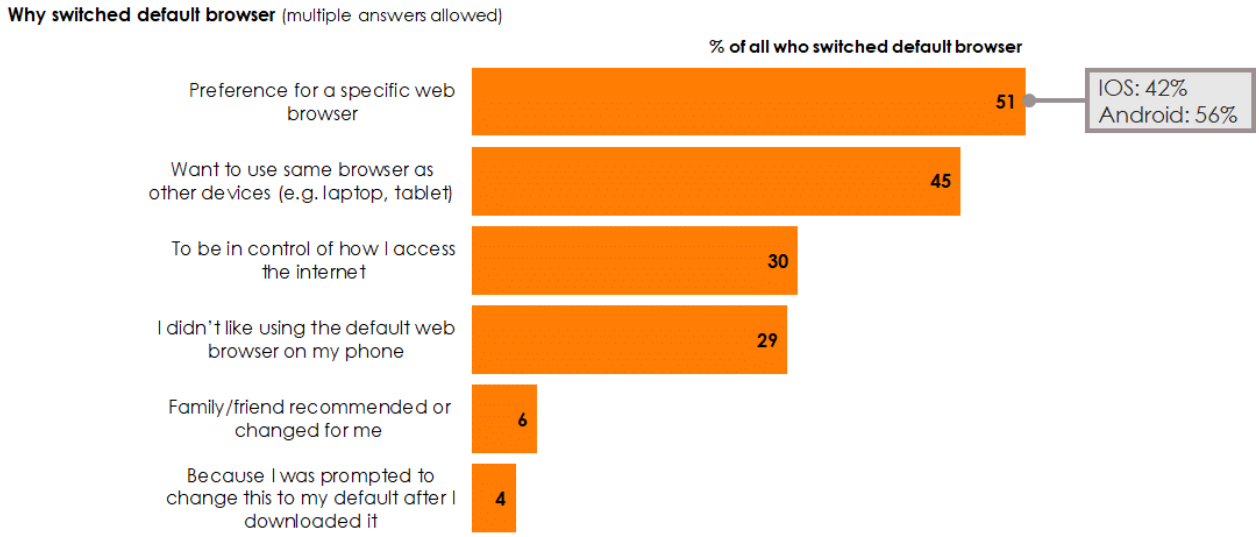
Figure 9.4: Extent and types of difficulties experienced in changing the default web browser



SWITCHEASE - How easy or difficult was it to change the default web browser on your current personal smartphone? All who switched (602) WHYDIFF - Which of the following issues, if any, did you experience when changing the default web browser on your current personal smartphone? All who found it fairly easy or difficult (217)

All respondents who had changed their default browser were asked why they had done so. The main reasons for switching default browser were user preference (51%) and a desire to synchronise browsers across other devices such as a laptop or tablet (45%). Android users were more likely than iOS users to switch based on user preference (56% vs 42%) (Figure 9.5).

Figure 9.5: Reasons why users had switched their default browser



WHYSWITCHDEF - Why did you change the default web browser on your current personal smartphone? All who switched default (602) iOS (203) Android (388)

9.4. User journey to change default browser

As part of the qualitative interviews, all participants were asked to try to change their default browser. The experience of changing the default varied significantly – while high confidence and capability participants completed it without any issue, it was not unusual for participants to fail to switch during the task.

The steps taken included:

- Downloading an alternative browser (if necessary).
- Responding to a prompt once new browser opened.
- Going to smartphone settings.
- Looking online for instructions.

Participants encountered difficulties at all points in the journey, but they were most likely to fail the task when looking in settings. The user experience and any difficulties encountered at each stage are described below.

9.4.1. Downloading an alternative browser

Participants who did not already have a second browser on their smartphone were directed to download one. On the whole participants navigated to the App store or Google Play store and were reasonably comfortable with downloading apps. Sometimes participants would search online first to help choose a browser (or in some cases to discover which other browsers existed).

The difficulties encountered were sometimes practical – it was common for participants to not have enough space on their smartphone or have forgotten their Apple password. Another issue lay in participants not knowing enough about browsers to be able to select an alternative, or to be able to confidently distinguish genuine browser apps. Low confidence participants were wary about which apps were legitimate. During the task, researchers observed lookalike apps advertised next to mainstream browser apps, and prompted participants not to select these. Finally, low confidence users said they were very unlikely to ever download an app themselves.

> "I'm always nervous about losing things or accidental deletion."
>
> **Android, 72, Low confidence, No alternative browser**

9.4.2. Responding to a prompt once new browser opened

Participants sometimes opened the new browser once it had downloaded, and either successfully responded to a pop-up about changing the default browser or looked for the option to switch within the new browser. Those that encountered a prompt felt it was very easy to change the default.

> " I thought that would be harder to do, I thought I'd have to go into the app and do different things, and un-default Safari, but [after seeing the prompt] it was literally three clicks."
>
> **iOS, 28, High confidence, No additional browser**

There were a number of difficulties encountered at this stage. Firstly, not all browser apps prompted users with the option to switch, and participants could not find the option within the app. Participants were also put off by other prompts and requests they encountered when first opening the app, including agreeing to Terms and Conditions, needing to sign in, or sync to their account. Secondly, if a prompt did appear, it was not always successful. Some prompts provided a set of instructions to switch (usually with a number of steps), which participants could not remember once they left the app. When they navigated back to the app, the prompt with instructions had disappeared. Finally, participants noted that if they encountered such a prompt themselves, they would likely dismiss it as they would want to test the browser before selecting it as their default.

9.4.3. Going to smartphone settings

While the most confident and capable participants found this straightforward, it was not unusual for participants to struggle at this stage. Participants did not intuitively know where to look, and some were quite unfamiliar with the way settings were structured, especially if they had changed operating system. Typically, participants would scroll through settings to try to guess where the default might be, and sometimes scrolled past the right setting, or if they did see it, noted that it was small and easily missed. Participants sometimes searched for 'default', which yielded no results.

> "There's a lot of inconsistency in how settings are done between different devices, so to do that on a Windows machine I would have to learn it and if I had to go and do it on an Apple I would have to learn it, so there's no consistency. Even within Android the different apps seem to have different configurations in different places, so it's almost like you have to learn it for every instance, so it's easy to forget and easy not to bother because it's too much hassle."
>
> **Android, 59, High confidence, No additional browser**

9.4.4. Looking online for instructions

Medium and high confidence participants felt that they always had the option to look online for support. However, those who could not change the settings themselves and searched online were unable to successfully apply the instructions. Despite searching for their smartphone model, one respondent found that the instructions did not align with the categories in their settings.

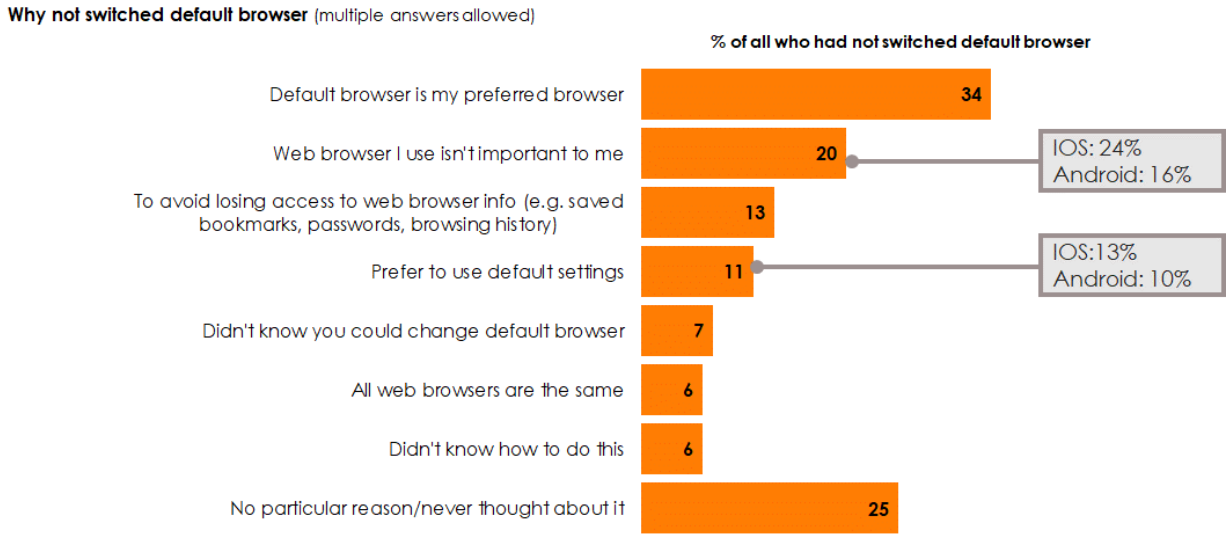
Overall, participants who struggled to change the default browser during the task said they would have been likely to give up if they were trying to do it themselves.

9.5. Barriers to changing default browser

In the survey, respondents who had not changed their default browser were asked their reasons for this. The main reasons for not switching were a preference for the existing default (34%). Other than this, reasons mainly centred around apathy: 20% said the web browser used was not important to them and 25% said they had never thought about this (Figure 9.6).

The reasons for not changing the default browser were similar for iOS and Android users, with two exceptions. iOS users were slightly more likely to select 'the web browser I use isn't important to me' (24% vs 16% of Android users) and that they 'prefer to use default settings' (13% vs 10%).

Figure 9.6: Reasons why users had not switched their default browser, by iOS

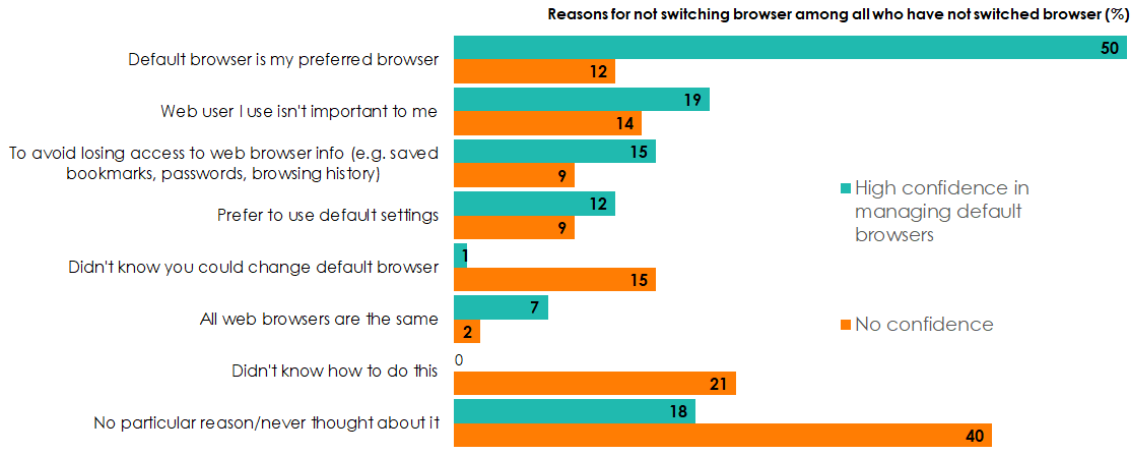


WHYNOCHANGE - Are there any particular reasons why you have not changed the default web browser on your smartphone? All who did not switch default (2,390) iOS (1,298) Android (1,038)

Reasons for not changing the default browser varied by level of confidence in managing browsers (Figure 9.7). Among those who had not switched their default browser, high confidence users mainly said this was because they preferred the default (50% vs 12% of those with no confidence), because the web browser used is not important (19% vs 14%) and because they did not want to lose access to stored web browser information (15% vs 9%).

On the other hand, for low confidence users, barriers to switching mainly focussed on lack of knowledge or engagement. The most common barriers among users with no confidence in managing web browsers were that they had never thought about this (40% vs 18% of high confidence users), that they didn't how to change browser (21% vs 0%), and that they didn't know they could change the default browser (15% vs 1%).

Figure 9.7: Reasons why users had not switched their default browser, by level of confidence in managing browsers



WHYNOCHANGE - Are there any particular reasons why you have not changed the default web browser on your smartphone? All who did not switch default (2,390) High confidence managing defaults (737) Low confidence (292)

In the qualitative interviews, the overarching barrier to switching the default and using an alternative browser was that it was, on the whole, a low salience issue. With the exception of 'active switchers', participants were unlikely to have thought about it before, did not think there were any benefits to alternatives, and preferred familiarity and minimal change.

> "I have no thoughts about a default. I don't care and I've no plans to do anything about mine."
>
> **iOS, 71, Low confidence, No additional browser**

10. Prompts and notifications to change default browser

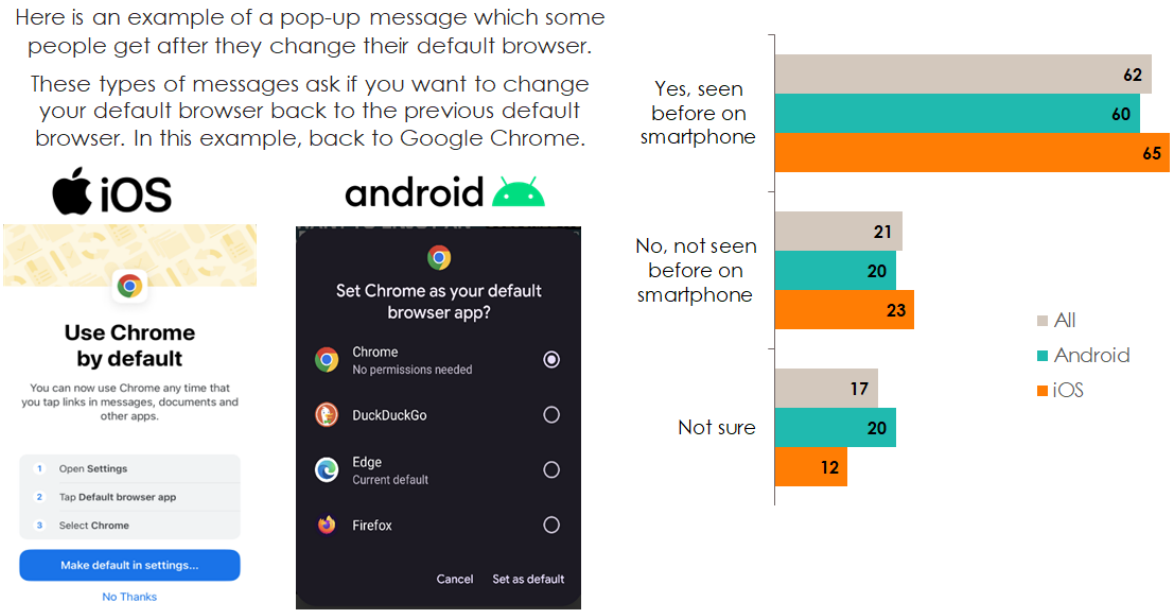
After changing a default browser on a smartphone, users are often prompted to change their browser back to the original preinstalled default. This chapter explores awareness and understanding of such prompts and, for those who had seen them, how useful they found them.

10.1.Awareness of prompts

Within the survey, respondents who had changed their default browser were shown an image which provided an example of a 'change back to default' type prompt, with an accompanying explanation. The image varied depending on whether they used iOS or Android, (see Figure 10.1). They were then asked if they had seen this prompt before.

Of those who had changed their default browser, about three-fifths (62%) recalled having seen a prompt like this. There was little variation by operating system, although Android users were slightly more likely to be unsure whether they had seen it (20% vs 12% iOS).

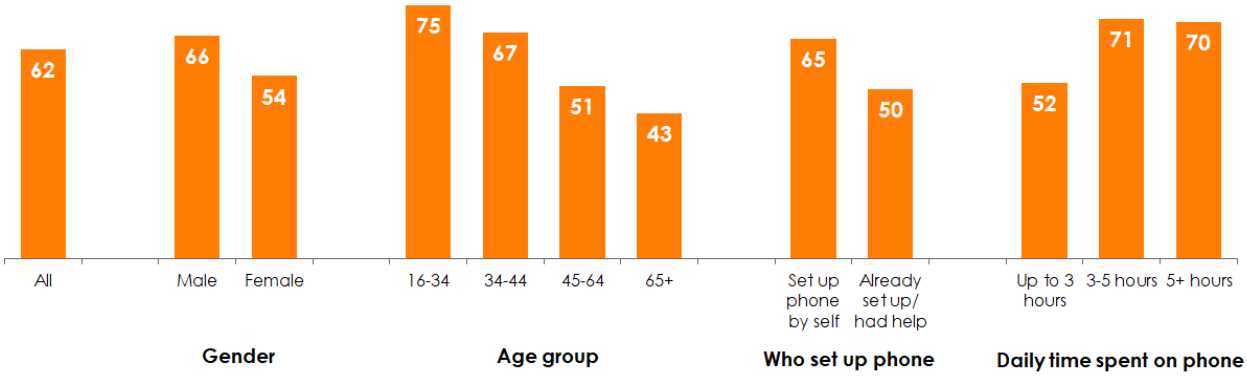
Figure 10.1: Screenshots of example 'change back default' prompts shown to respondents, and user awareness of prompts, by operating system



PROMPTSEEN - Have you ever seen a pop-up message similar to this on your smartphone, which asks if you want to change your default web browser back to a previous default browser? All who changed default browser (n=591) Android (388) iOS (203)

Among those who had switched their default browser, awareness of prompts was higher among men, younger people, those who had set up their phone themselves, and high-volume users (Figure 10.2).

Figure 10.2: Whether users had seen the prompt, by sex, age, phone set-up and time spent on phone



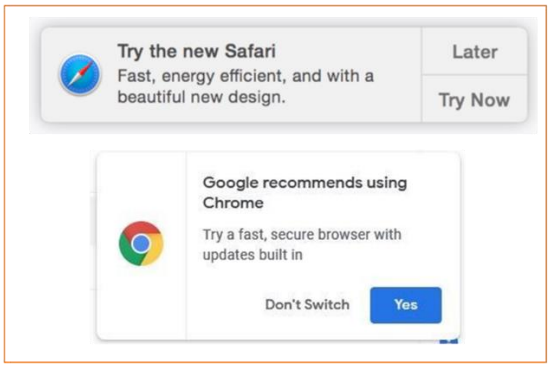
PROMPTSEEN - Have you ever seen a pop-up message similar to this on your smartphone, which asks if you want to change your default web browser back to a previous default browser? All who changed default browser (591) 16-24 (67) 25-34 (118) 35-44 (131) 45-54 (109) 55-64 (91) 65+ (75) Male (344) Female (241) Up to 3 hours per day (262) 3-5 hours (199) 5+ hours (120)

10.2. Understanding of prompts

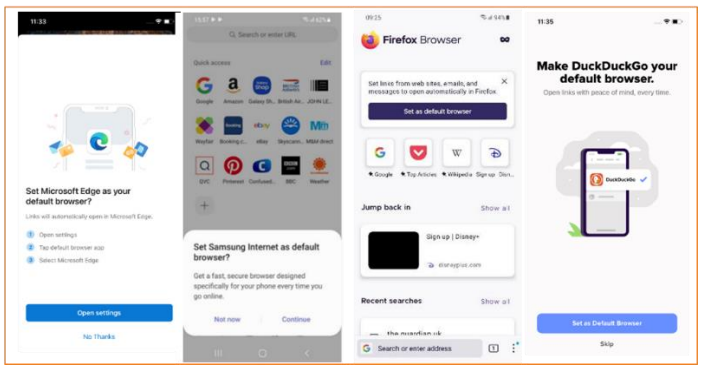
Participants' understanding of prompts was explored in the qualitative interviews. The example prompts used as stimulus differed from those used in the survey (see figure 10.3). In the qualitative interviews, all participants were shown examples of prompts from Safari, Chrome and third parties. Familiarity with the prompts was mixed, though participants tended to say that they thought they recognised Safari and Chrome prompts from their computer's browser, more than on their smartphone.

Figure 10.3: Prompts used as stimulus in the qualitative interviews

Safari and Chrome prompts



Third party prompts



Overall, participants in the qualitative research were more likely to misunderstand Safari and Chrome prompts compared to third party prompts, irrespective of whether they had downloaded an alternative browser before. While more confident and capable participants understood that the prompts were asking users to switch, participants often misinterpreted them as browser software or security updates. On the other hand, participants generally understood that the third-party prompts were asking them to switch to a different default browser. This was partly due to the wording used in

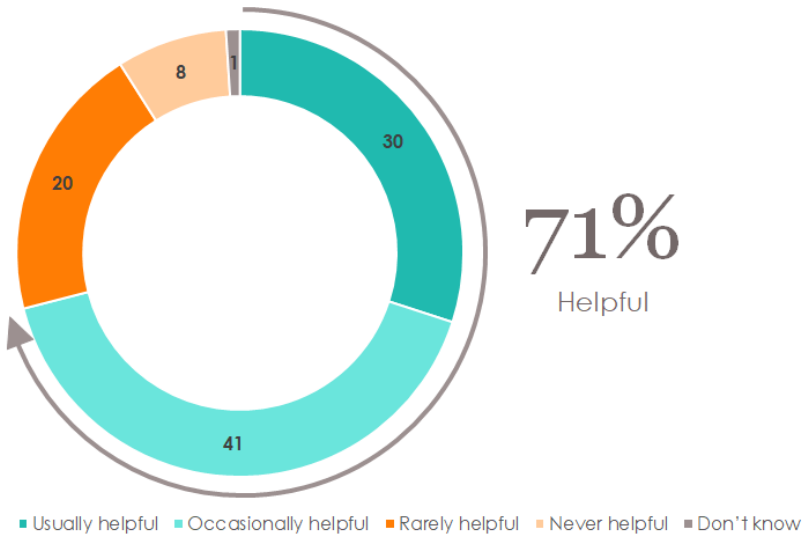
the Safari and Chrome prompts (with references to speed, efficiency and security, and omission of 'default browser').

> "I haven't seen it before. I'd be a bit confused if I saw the Safari one, because I regularly update my iPhone."
>
> **iOS, 26, High confidence, No additional browser**

10.3. Helpfulness of prompts

Among survey respondents who had switched their default browser and had seen the prompt to change it back, 30% found it 'usually helpful' and 41% found it 'occasionally helpful'. (Figure 10.4). Given this afore-mentioned sub-group is small, further analysis by sub-groups yields few significant differences.

Figure 10.4: Whether users found prompts helpful



PROMPTPURP - And still thinking about pop-up prompts that ask you to confirm which browser you want to use as your default browser. To what extent do you find these kinds of prompts helpful? All who have switched default browser and seen prompt to change back (365)

All participants in the qualitative interviews (not just those who had switched their default and seen a prompt) were asked whether they thought the example prompts provided to them during the interview were helpful. Views depended on whether participants trusted the messenger (i.e. the browser), and the context of the prompt's appearance. A common response across interviews was for participants to say they would be most likely to reject the prompt and to find it irritating. This was because they generally disliked prompts or pop-ups interrupting them, particularly on their smartphone. For this reason, they thought they would be unlikely to engage with it very closely, and would most likely click 'no' to get rid of it as soon as possible. However, some 'brand loyal' participants were more likely to click 'yes' in response to the prompt as they trusted who the message was from.

"Yeah that's helpful, it's telling you that Google is faster and if Google is saying that, it's probably right. So If I saw that I probably would switch."

iOS, 19, High confidence, Additional browser

In contrast, participants were often wary of prompts from browsers that they had not heard of, often saying that they would ignore a message from any brand or browser they did not recognise. In the context of actively downloading a new browser and receiving a third-party prompt, switching prompts were considered fair and useful. However, aside from 'active switchers', participants did not expect they would change their main browser, so did not think the prompt would be relevant to them. Further, 'practical switchers' who only used their alternative browser sporadically said they would find repeated prompts annoying.

"I've had lots of things I've opened before and it says, oh, why don't you use Edge? I'm like, no, I don't want to use Edge... I think all companies do it because they want you to use their software, not the other company's software."

Android, 39, high confidence, Additional browser

11. Browser behaviour on desktop and laptop computers

As shown in Chapter 2, 74% of smartphone users also used a computer for personal (not work-related) activities: 20% used a MacBook, 8% used a Chromebook and 55% used another type of laptop or desktop.

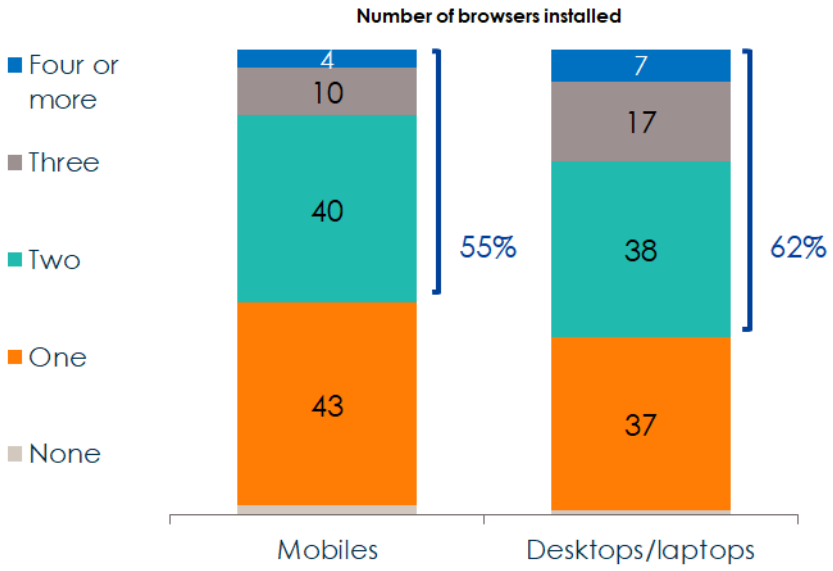
A series of questions were asked about browser use on computers which were designed to mirror the equivalent set of questions on mobiles. In this chapter we show the results for computers and mobiles side-by-side to explore differences in browser behaviour by type of device. The chapter covers browsers installed and most used, the relationship between browsers used across the two types of device, factors affecting web browser choice, preinstallation of browsers and changing of default browser across the two types of devices.

In this chapter, where we refer to 'computers' we refer to laptops and desktop computers. Tablets are not included within this definition. Where a respondent had more than one computer device, they were asked to answer in respect of the device which they mainly used for personal activities.

11.1. Browser use on computers

Looking first at the number of browsers installed, there was a slightly greater spread of browsers installed on computers compared to mobiles. On smartphones, 55% of survey respondents had two or more browsers installed and 15% had three or more browsers installed, compared with 62% and 24% respectively on computers (Figure 11.1).

Figure 11.1: Number of browsers installed on mobiles and computers

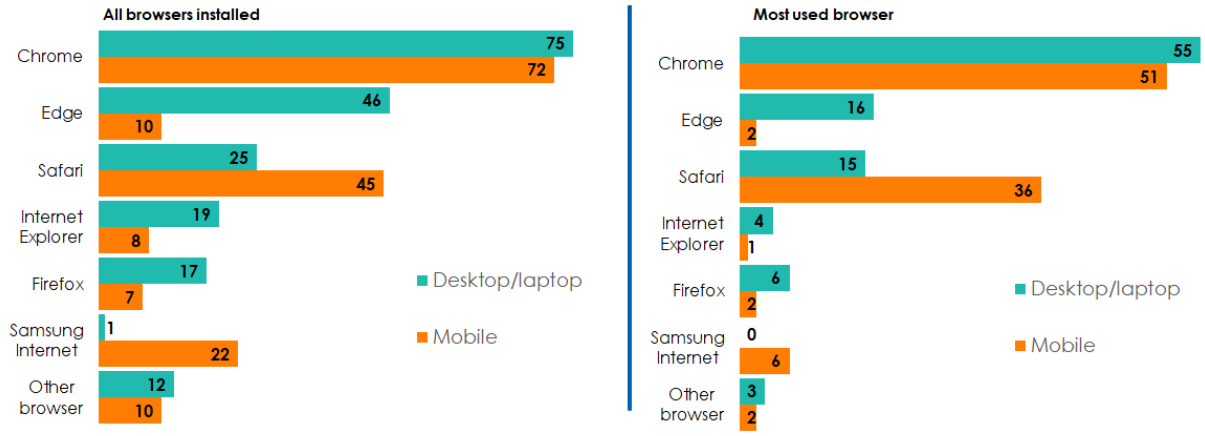


BROWINSTALL/COMPBROWINSTALL - Which web browsers do you currently have installed [on your smartphone/on this computer]? All mobile users (3,060) All who also have computer (2,282).

Some browsers were much more commonly installed on computers compared with mobiles. While Chrome was equally likely to be installed on computers and mobiles (75% and 72%, respectively), there was a greater presence of the following browsers on computers: Edge (46% on computers, 10% on mobiles); Internet Explorer (19% on computers, 8% on mobiles); and Firefox (17% on computers, 7% on mobiles). On the other hand, Safari and Samsung Internet were less likely to be used on computers than on mobiles (Figure 11.2, left hand side).

The most used (main) browsers on smartphones were either Chrome (51%) or Safari (36%). However, there was a broader spread of main browsers on computers: 55% mostly used Chrome, 16% used Edge, 15% used Safari, with other less mainstream browsers also more commonly used as main browser on computers compared to mobiles: Firefox (6% on computer vs 2% on mobile) and Internet Explorer (4% on computer vs 1% on mobile (Figure 11.2, right hand side).

Figure 11.2: All browsers installed and most used browser on mobiles and computers



BROWINSTALL/COMPBROWINSTALL - Which web browsers do you currently have installed [on your smartphone/on this computer]? All mobile users (3,060) All who also have computer (2,282). BROWMOST/COMPBROWMOST - You said you have the following web browsers on your [smartphone/computer]. Which ONE of these do you use most often? All who name a browser on their phone (2,992) All who name a browser on their computer (2,249)

11.2. Relationship between browser use on mobile and computer

There is interest in investigating whether the choice of browser on mobile influences the choice of browser on computer, and *vice versa*. However, in the survey, it is only possible to look at associations between two questions and we cannot infer a causal relationship. Nonetheless, it is helpful to explore the interaction between browser use on computer vs mobile to test hypotheses around linkages in browser usage across devices.

When reviewing the correspondence across devices it is worth noting that, as with iPhones, Safari is only available on Apple devices (MacBooks). So, unlike other browsers, Safari usage will be constrained by the share of respondents that have iPhones or MacBooks. The survey data indicates that Macbooks have a smaller share of the computer market than iPhones do of the mobile market. This will affect the level of correspondence between the two types of device (for example, Safari

users on computers will be more likely to be Safari users on mobile than the other way around, simply because iPhones are more common than Macbooks).

Of those who named a main browser on both mobile and computer, 55% used the same main browser on both and 45% used different main browsers.

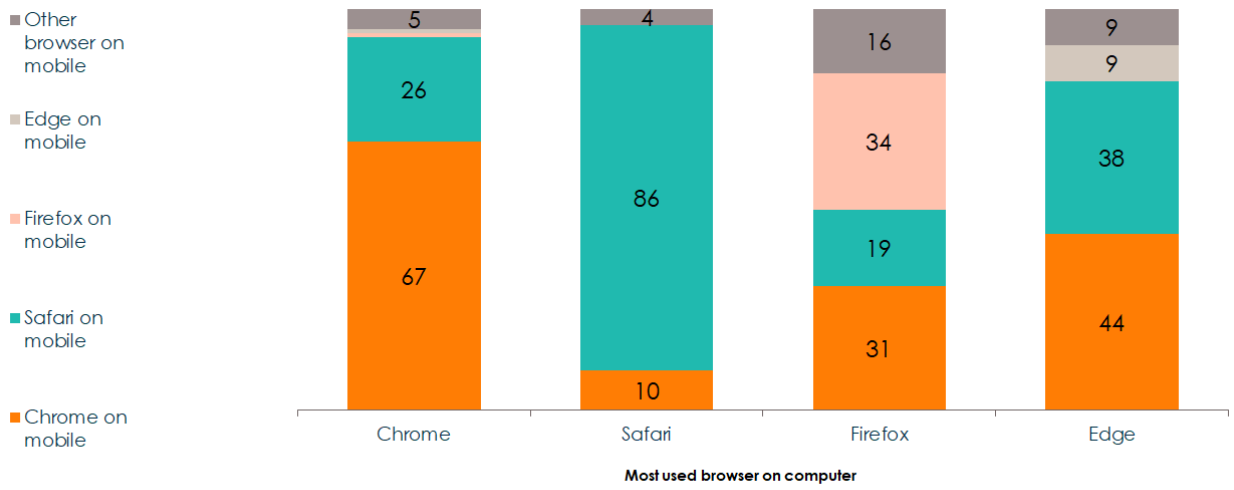
Figure 11.3 shows the level of correspondence across devices in more detail, focusing on the four most prevalent computer browser brands: Safari, Chrome, Edge and Firefox. For each most used computer browser, this shows the proportion of people who use the same browser on mobile.

The results suggest that browser usage on mobile and computer is linked. Figure 11.3 shows that the correspondence between most used computer browser and most used mobile browser was highest for Safari. Almost nine in ten respondents (86%) who used Safari as their main browser on their computer also used Safari as their main browser on their mobile. There was also a high correspondence for Google Chrome (67% of Chrome computer browser users also used Chrome on mobile).

The rate of correspondence for Edge and Firefox was not as high. Of those who used Firefox on computer, 34% used Firefox on mobile, while the rate of correspondence for Edge was only 9%. Given that Firefox was used as the main mobile browser by just 2% of mobile users overall (Figure 6.1), it is also noteworthy that where computer users had chosen Firefox as their main browser on computer, 34% also used Firefox as their main mobile browser.

In summary, the results in Figure 11.3 provide evidence of an association between computer browser use and mobile browser use, although as already noted we are unable to make any claims about causality. It might be that browser use on computers influences browser use on mobiles; that browser use on mobiles influences browser use on computers; or perhaps most likely that the association works in both directions.

Figure 11.3: Main browser on mobiles by main browser on computer



BROWMOST/COMPBROWMOST - You said you have the following web browsers on your [computer/smartphone]. Which ONE of these do you use most often? All computer users (2,992) All computer users who mainly use Chrome (1,241) All computer users who mainly use Safari (321) All computer users who mainly use Firefox (137) All computer users who mainly use Edge (362)

In the qualitative interviews there was not a detailed discussion of browsers used on computers, though participants sometimes mentioned it spontaneously. While some more 'brand loyal' participants described the benefits of syncing passwords and bookmarks across devices, other participants who used multiple browsers on their computers had not considered downloading them on their smartphones. No participants in this small sample said that they specifically chose their smartphone browser because they used it on their computer, or vice versa.

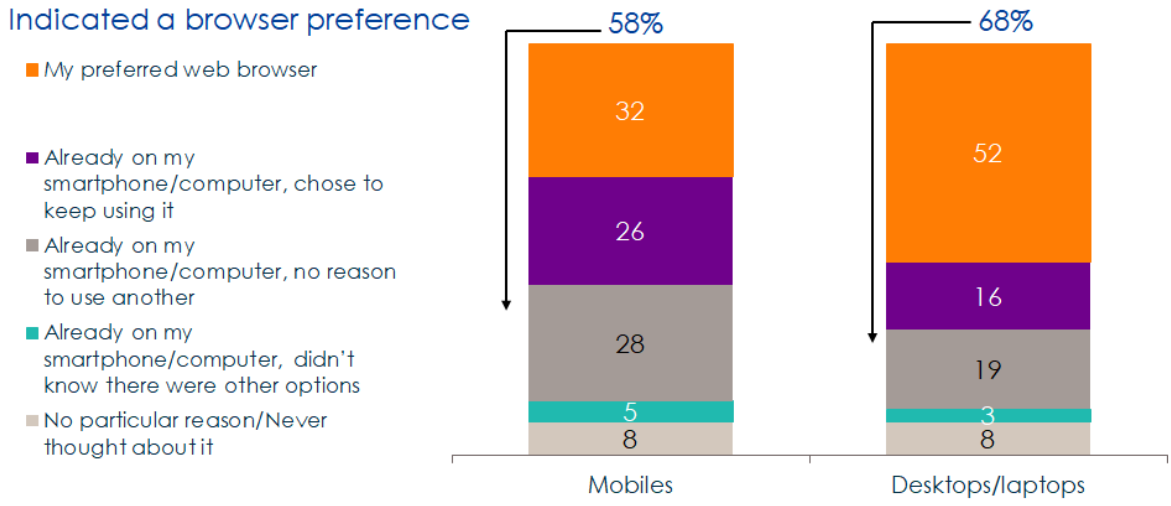
When discussing their views of the features of different browsers, some participants felt that differentiating features were only relevant in the context of a computer browser. By comparison, they felt their use of their smartphone browser was so basic and limited, it rendered the differences between browsers obsolete.

11.3. Factors affecting web browser choice on computers

As discussed in section 6.3, consumers who had indicated a main browser on their phone were asked **why** they used this particular browser. An equivalent question was asked in relation to most used browser on computer and the findings for both device types have been compared (Figure 11.4). These findings help to differentiate between consumers who passively use default settings without making a conscious choice, and those who have a specific browser preference (see section 6.3 for more details on the classification).

On mobiles, 58% of users indicated a main browser preference, leaving 42% who were more passive users; that is who used the default settings without considering other browsers. In comparison, computer users were more likely to indicate a main browser preference (68%) and less likely to passively accept default settings (32%).[16]

Figure 11.4: Reasons for using main browser, by mobile and computer



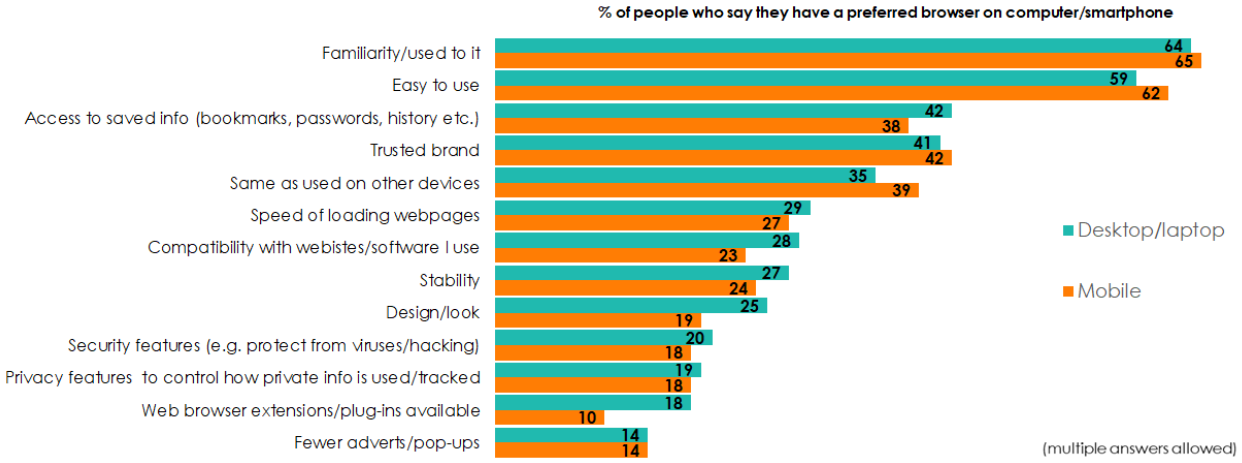
WHYMOST1/COMPWHYMOST1 - You mentioned that [BROWMOST/COMPBROWMOST] is your most used web browser on your personal [smartphone/computer]. Why do you use this particular web browser on your [smartphone/computer]? All who name a browser on their phone (2,992) All who name a browser on their computer (2,249)

[16] Within the slightly smaller subset of respondents that had both a mobile and a computer, this pattern remained; these users were more likely to accept the default settings on their mobile compared with their computer.

To help uncover the underlying reasons for browser preferences, the subgroup of people who were classified as indicating a browser preference were then asked why they preferred this specific browser. Figure 11.5 shows the results for mobiles vs computers.

This shows that, among those who indicated a browser preference, the reasons for using a browser on a computer were broadly similar to the reasons for using a browser on a mobile. For both types of devices, browser preference was mainly based on familiarity and ease of use, while around four in ten mentioned each of trusted brand, wanting to sync with other devices, and to retain access to saved browser data such as passwords, bookmarks etc. Availability of web browser extensions was slightly more likely to be mentioned in relation to browser choice on computers (18% vs 10% on smartphones). Security and privacy were each mentioned by around two in ten users, for both computers and mobiles.

Figure 11.5: Reasons for browser preference among those who indicated a preference, by mobile and computer



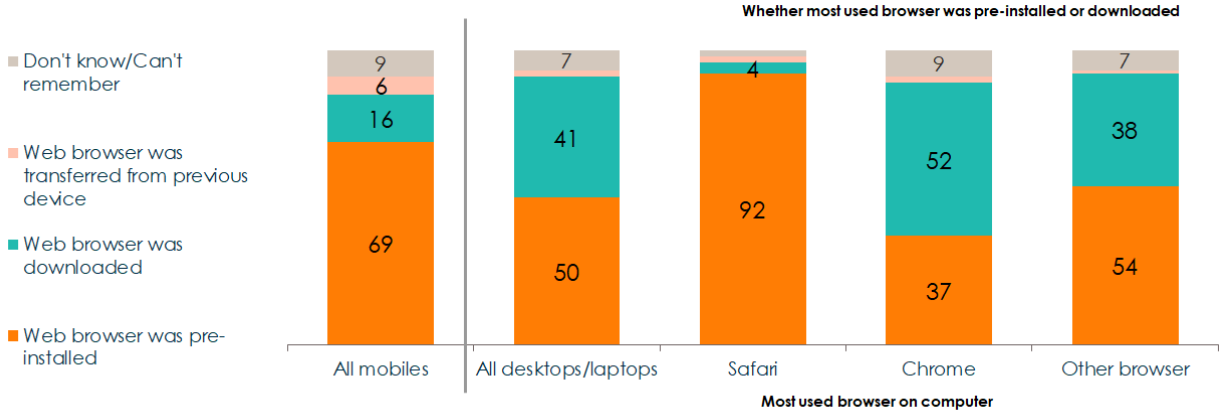
WHYMOST2/COMPWHYMOST2 - Are there any particular reasons why you prefer this web browser on your [smartphone/computer]? All who specify a preferred web browser on smartphone (1,716) All who specify a preferred web browser on computer (1,525)

11.4. Whether most used computer browser was preinstalled or downloaded

Computer users were much more likely than mobile users to have downloaded their most used browser: 41% of computer users had downloaded their browser compared with 16% of mobile users. By contrast computer users were less likely to have used the preinstalled default browser: 50% of computer users vs 69% of mobile users (Figure 11.6).

As found with browsers on mobiles (see Figure 6.3), the propensity to download or use a preinstalled browser on a computer varied by browser used. Almost all computer users (92%) who used Safari as their main computer browser said that Safari was preinstalled, consistent with MacBooks having Safari preinstalled. Chrome and other computer browsers were more likely to have been downloaded, 52% and 38% respectively.

Figure 11.6: Whether most used browser was preinstalled or downloaded on mobiles and computers, by main browser brand



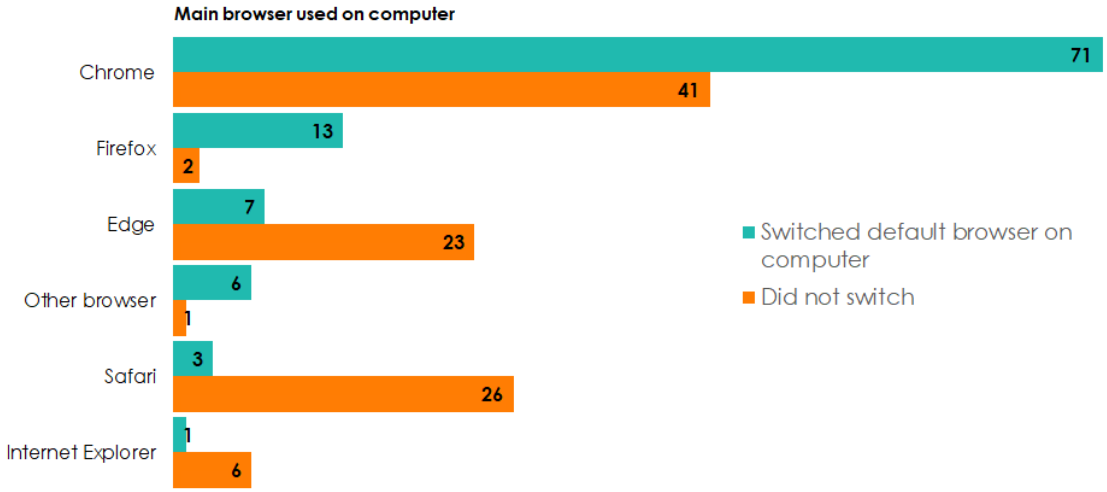
PREINST/COMPPREINST - You said that you [mostly] use [BROWMOST/COMPBROWMOST] as your web browser on your [phone/computer]. Did you or someone else download this web browser onto your [smartphone/computer], or was it already installed on the [phone/computer] when you got it? All who name a browser on their smartphone (2,992) All who name a browser on their computer (2,218) Main browser on computer: Safari (322) Chrome (1,256) Other (668)

11.5. Switching of browsers on computers

The survey found that there was more switching of default browsers on computers compared with mobiles. Overall, 39% of computer users had switched their default browser compared with 21% of mobile users.

The survey did not collect data on which browser was used as the default browser for computers. However, using the data on most used browser: of those respondents that had changed their default browser, 71% used Chrome as their main browser, 13% used Firefox and 7% used Edge. (Figure 11.7).

Figure 11.7: Main browser used on computer, by whether switched default browser on computer



COMPBROWMOST - You said you have the following web browsers on your computer. Which ONE of these do you use most often? (2,992) All who name a browser on their computer (2,218) Switched default on computer (863) Did not switch default (1,105)

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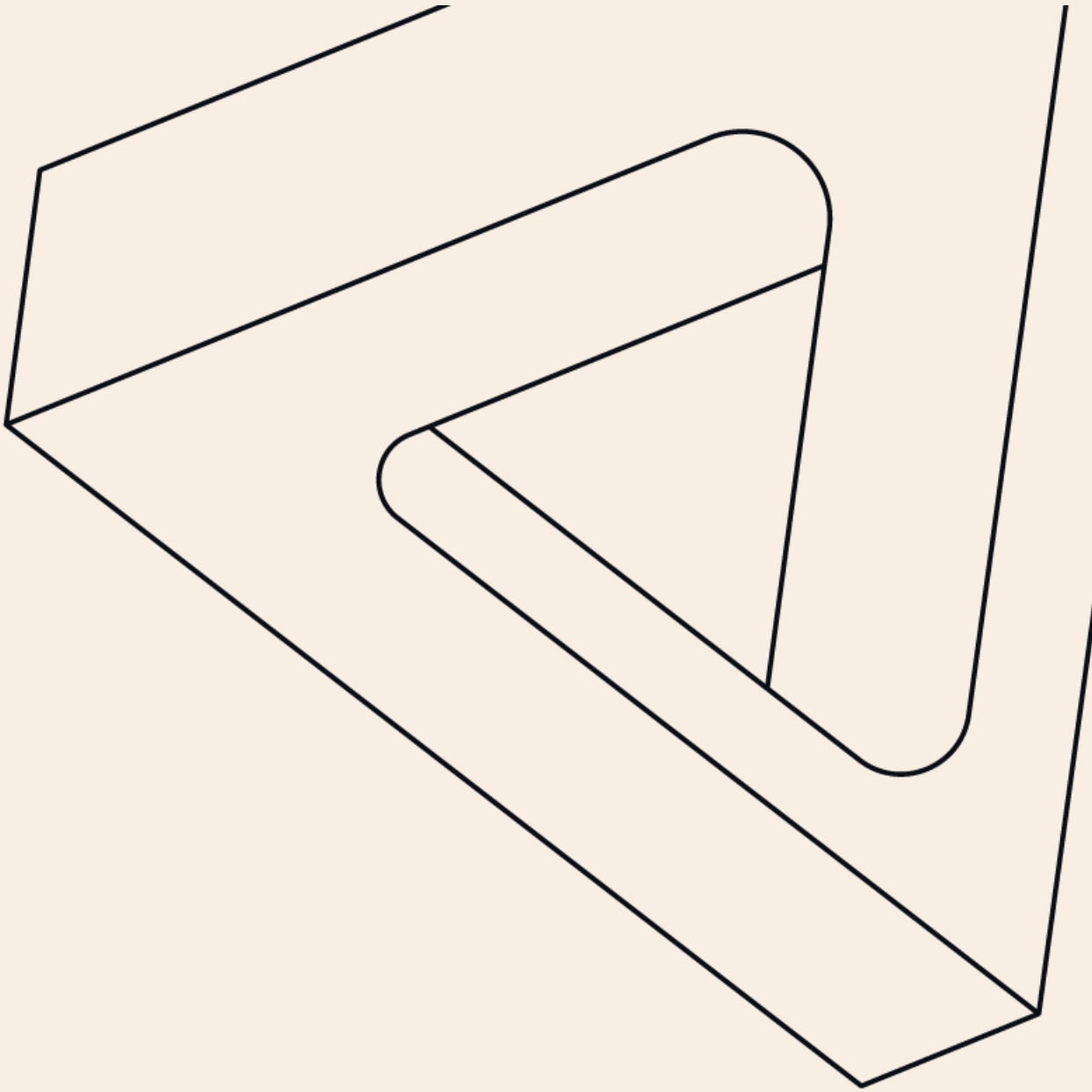

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