AUSTRALIAN COMPETITION & CONSUMER COMMISSION

Digital Platform Services Inquiry – September 2021 Report on market dynamics and consumer choice screens in search services and web browsers

Issues Paper

March 2021

Contents

Glossary of terms used

Term	Description
ACCC	Australian Competition and Consumer Commission
Android choice screen	The choice screen presented to users of new Android mobile devices, which provides users with a choice of search engines, announced by Google on 2 August 2019
Apps	A software program that allows the user to perform a specific task either on a designated device or online
Browsers	An application that enables users to visit web pages on the Internet, such as Google Chrome, Firefox, Safari, and Microsoft Edge
CMA	Competition and Markets Authority, UK
Desktop device	Personal computer devices, including laptops
Device ecosystem	Integrated suites of hardware and software services that connect and relate to one another (namely, search services, web browsers, operating systems and devices)
Downstream search services	Search services that access search results and adverts through negotiated syndication agreements. Downstream providers may supplement the syndicated results and adverts with additional information and features
DPI Final Report	The final report to the ACCC's Digital Platforms Inquiry, published in July 2019
EEA	European Economic Area
EU	European Union
Mobile device	Smartphones and tablet devices
Operating systems	Operating systems manage computer hardware (e.g., processing, memory, and storage) and all other programs in a computer. In the traditional IT stack, operating systems sit above hardware and below middleware and applications
Report	The ACCC's Digital Platform Services Inquiry's September 2021 Interim Report
Search service	Software systems designed to search for information on the World Wide Web, generally returning a curated, ranked set of links to content websites
September 2020 report	First interim report of the Digital Platform Services Inquiry (September 2020)
Specialised search service	Search engines that specialise in different types of search. For example, Expedia provides vertical search services for travel

Term	Description
Upstream search services	Search services that crawl the internet for new or updates websites, maintain an index of websites and use algorithms to determine which results to serve in response to a query
Widgets	A component of a mobile device’s home screen or user interface that displays information or provides a specific way for a user to interact with the operating system or an app

1. Overview

The Australian Competition and Consumer Commission (**ACCC**) seeks your views on potential competition and consumer issues in the provision of web browsers and general search services to Australian consumers and in particular, the impact of default arrangements. The ACCC also seeks views on the use of choice screens to address identified concerns.

Businesses and consumers use mobile devices (defined in this paper as being smartphones and tablet devices) and desktop computers enabled with web browsers (**browsers**) to access websites, and search engines (**search**) to locate information on the internet. Browsers are typically pre-installed on the software operating systems (**operating system**) of desktop and mobile devices and, in turn, a chosen search service is usually embedded within a browser to enable a user to search for information without a website address.

The ACCC's Digital Platforms Inquiry Final Report (July 2019) (**DPI Final Report**) found that Google had substantial market power in search services and search advertising.[1] As part of this analysis, the ACCC concluded that customer inertia and the effect of default settings is a barrier to expansion for smaller search engines. To facilitate competition in the supply of search services and search advertising and improve consumer choice, the ACCC recommended that:

> 'Google should provide Australian users of Android devices with the same options being rolled out to existing Android users in Europe; that is, the ability to choose their default search engine and default internet browser from a number of options. If Google does not introduce similar options for Australian Android users by six months from the date of the Report, the ACCC will submit to the Government that it should consider compelling Google to offer this choice.'[2] (recommendation 3)

This recommendation was based on Google's proposal to offer users of new and existing Android devices in Europe the choice of internet browser and search service on their devices.[3]

In its response to the DPI Final Report, the Australian Government asked that the ACCC monitor and report back to the Government in 2021 on Google's rollout of default internet browser and search engine choice options on Android devices in Europe.[4]

For its third interim report for the Digital Platform Services Inquiry (**Report**), due to the Treasurer by 30 September 2021, the ACCC will seek to provide its advice to the Government on Google's rollout of choice options on Android devices in Europe. In doing so, it will examine the provision of browsers and general search services to Australian consumers, the impact of default arrangements on these service offerings and the effectiveness of choice screens to address identified issues.

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1 See discussion at pages 64-76.

2 ACCC, Digital Platforms Inquiry Final Report, June 2019, p. 110.

3 See for example, the announcement in a blog post by Kent Walker, SVP of Global Affairs for Google, in March 2019 that the choice screen would increase choice for consumers: 'Now we'll also do more to ensure that Android phone owners know about the wide choice of browsers and search engines available to download to their phones. This will involve asking users of existing and new Android devices in Europe which browser and search apps they would like to use.' https://blog.google/around-the-globe/google-europe/supporting-choice-and-competition-europe/ , accessed 28 January 2021.

4 Australian Government 'Regulating in the digital age: Government Response and Implementation Roadmap for the Digital Platforms Inquiry'. December 2019. p, 8, p. 11, p. 13, p. 15.

As part of this Report, the ACCC is seeking views on the following key areas:

1) The impact of pre-installation and default settings on consumer choice and competition particularly in relation to online search and browsers.
2) Trends in digital ecosystems and supplier behaviour in search services, browsers and operating systems that may impact the supply of search and browsers to Australian consumers.
3) The extent to which existing consumer harm can arise from the design of default arrangements.
4) The effectiveness of Google's choice screen roll out in Europe and whether it is fit for purpose within Australia.
5) Whether there are any proposals, other than choice screens, that may facilitate competition and improve consumer choice in the supply of general search services and browsers in Australia.

Further detail on the key issues for the Report are provided at **Section 4** below.

The ACCC is releasing this Issues Paper to invite industry participants and other interested parties to provide views and information.

The ACCC encourages you to provide your views on the issues that are most relevant to you, as well as on any other issues you consider relevant to the Report. You do not have to address every question in this Issues Paper. Wherever possible, please provide reasons for your views and any evidence available to support your views.

Key dates

This ACCC invites submissions on the matters outlined in this Issues Paper by **15 April 2021**.

The ACCC will provide the Report to the Treasurer by 30 September 2021. The Report will be publicly released.

Responding to the Issues Paper

The ACCC invites your views by way of written feedback in response to this Issues Paper.

The ACCC will also directly contact some market participants to request specific information.

Invitation for written submissions

You may provide your submission to the ACCC in the form of a public or confidential submission, noting that the Inquiry is a public process and that, in general, submissions will be placed on the ACCC website to allow for public consultation (see section below on **Treatment of confidential information**). You are encouraged to speak with our team before providing a confidential submission if you have any questions at all regarding the ACCC's processes for dealing with confidential information.

Written submissions to this Issues Paper should be emailed to digitalmonitoring@accc.gov.au by **15 April 2021**.

If you would like to be notified of updates in relation to the inquiry, please email your details to digitalmonitoring@accc.gov.au.

Treatment of confidential information

The ACCC invites interested parties, where appropriate, to discuss confidentiality concerns with the ACCC in advance of providing written material.

The Inquiry is a public process and feedback (written and oral) will generally be posted on the ACCC website.

The *Competition and Consumer Act 2010* (the **CCA**) allows interested parties that provide feedback to the Inquiry to make claims for confidentiality in certain circumstances.

The ACCC can accept a claim of confidentiality from a party if the disclosure of information would damage their competitive position, the ACCC is satisfied the confidentiality claims are justified, and it is not necessary in the public interest to disclose the information. The ACCC will consult with a party where possible and appropriate prior to publishing any information over which that party has claimed confidentiality.

Making a claim of confidentiality

1. So that the ACCC can consider whether the confidentiality claim is justified, you must provide reasons why the information is confidential and why disclosure of the information would damage your competitive position.
2. If you are claiming confidentiality over all of your submission, you must provide reasons why all of the information in your submission is confidential. As the Inquiry is a public process, please consider whether there are any parts of your submission that may be published without damaging your competitive position.
3. If you are claiming confidentiality over a part of your submission, the confidential information should be provided in a separate document and should be clearly marked as 'confidential' on every relevant page. Alternatively, you may wish to provide (1) a public version for publication on the ACCC website with the confidential information redacted, and (2) a confidential version with all of the confidential information clearly marked.
4. Contact us at digitalmonitoring@accc.gov.au if you have any questions regarding making a submission containing confidential information.

About this Issues Paper

This Issues Paper provides further detail about the Inquiry, and draws attention to particular issues of interest to the ACCC for the Report. It is structured as follows:

- **Section 2** provides further detail about the scope of the Inquiry, the Government's request that the ACCC examine and report on Google's rollout of choice screens in Europe and the focus of this Report.
- **Section 3** provides high level background information about:
  - i) the ACCC's findings in relation to general search services; the supply of browsers and operating systems in Australia; how these services interrelate; and key suppliers of these services in Australia
  - ii) the European Commission Android decision and Google's implementation of a choice screen for general search providers on new Android phones in Europe.
- **Section 4** contains further detail on the key issues for the Report, along with specific questions for interested parties.

2. Scope of the Inquiry and advice to Government

In December 2019, the Treasurer directed the ACCC to conduct a five year inquiry into markets for the supply of digital platform services. The Inquiry will provide a report to the Treasurer every six months with each report focusing on different digital platform services. The goods and services included in the Treasurer's Direction for the Inquiry are:

(a) digital platform services

(b) digital advertising services supplied by digital platform service providers

(c) data collection, storage, supply, processing and analysis services supplied by:

   (i) digital platform service providers; or

   (ii) data brokers.

Services included under the Inquiry definition of digital platform services are:

(a) internet search engine services (including general search services and specialised search services)

(b) social media services

(c) online private messaging services (including text messaging, audio messaging and visual messaging)

(d) digital content aggregation platform services

(e) media referral services provided in the course of providing one or more of the services mentioned in paragraphs (a) to (d)

(f) electronic marketplace services.

As part of the Inquiry, the Treasurer directed that the ACCC take into consideration a number of matters over the duration of the Inquiry, including:

(a) the intensity of competition in the markets for the supply of digital platform services

(b) practices of individual suppliers in the markets for digital platform services which may result in consumer harm

(c) market trends, including innovation and technology change, that may affect the degree of market power, and its durability, held by suppliers of digital platform services

(d) changes over time in the nature of, characteristics and quality of digital platform services arising from innovation and technological change, and

(e) developments in markets for the supply of digital platform services outside Australia.

The first six monthly report was provided to the Treasurer on 30 September 2020 and published on 23 October 2020. That report provided an in-depth focus on online private messaging services in Australia. It also updated the ACCC's previous analysis in relation to search and social media platforms and identified competition and consumer issues common across these platforms.

The second six monthly report will be provided to the Treasurer by 31 March 2021. It will focus on mobile app marketplaces and examine issues including the use and sharing of data by apps, the extent of competition between app providers on Google and Apple's app marketplaces, and the app marketplaces' relationships with consumers.

Potential outcomes from the five-year Digital Platform Services Inquiry

The Inquiry, and in particular this Report, may lead to a range of outcomes, including but not limited to:

- findings regarding structural, competitive or behavioural issues affecting the supply of search services and browsers, and the supply of operating systems on desktop and mobile to the extent that it relates to the supply of search services and browsers,
- increased information about the operation and the extent to which search services, browsers, operating systems and devices interoperate within a device ecosystem,
- increased information about competition in the supply of syndicated search services and browsers, and the supply of operating systems on desktop and mobile to the extent that it relates to the supply of search services and browsers,
- ACCC action to address any conduct that raises concerns under the *Competition and Consumer Act 2010*, and
- recommendations to the Government to address systemic issues.

Ministerial Direction

The full Ministerial Direction can be found on the ACCC website.

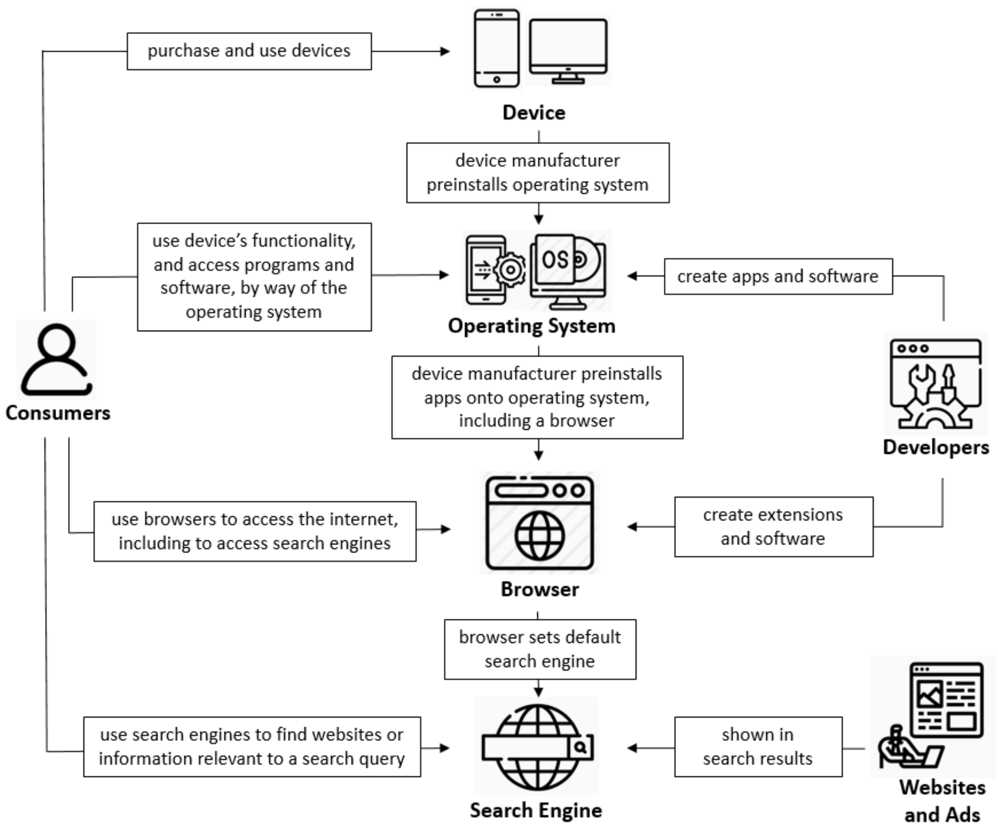
3. Industry Overview

Consumers can search for information and answers to queries on search engines through a number of ways: on desktops (desktop computers and laptops), mobile devices (smartphones and tablets), smart speakers and smart watches. The ACCC understands that desktop and mobile devices remain the primary ways through which consumers access search services, and this Report will focus on the supply of search services on these devices.

Desktop devices and mobile devices typically come with an ecosystem of services that are closely related and interconnected with each other (**device ecosystem**). In particular, a mobile or desktop device purchased by a consumer will have an operating system installed on the device that provides the consumer with a number of functionalities. The operating system provides a number of software applications and programs, typically including at least one internet browser on the device to enable users to access the Internet. Internet browsers often offer a default search service but users will have the ability to switch search services.

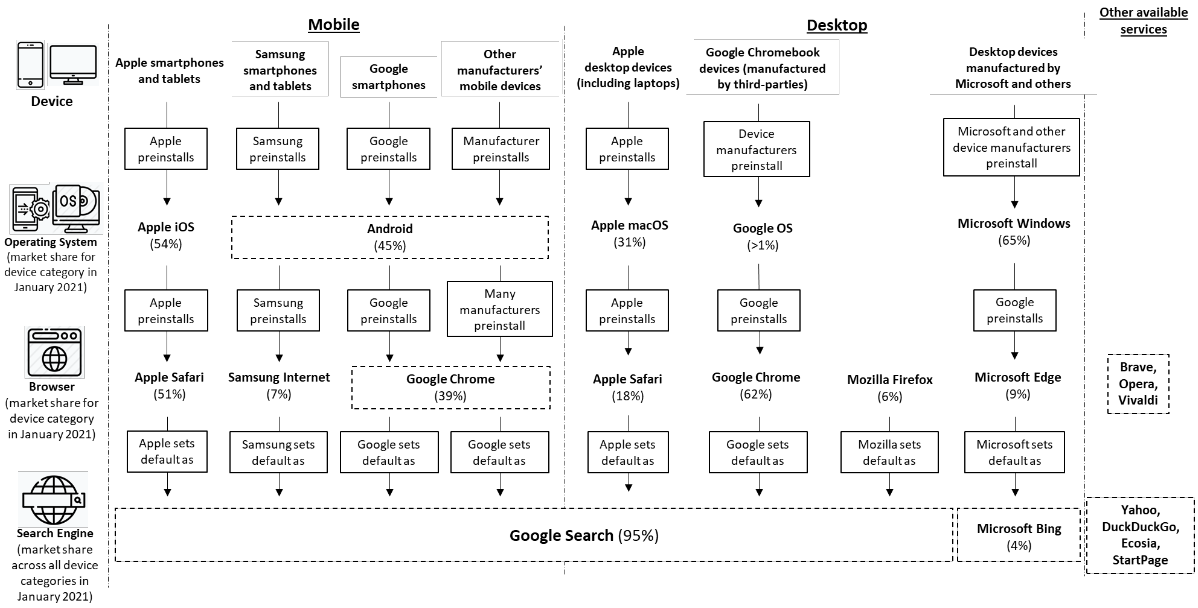
Figure 1 below sets out the multi-sided nature of these services, and the relationships between the suppliers and users of operating systems, browsers and search services. **Figure 2** below shows the key suppliers of each service and the estimated market shares (as of January 2021).

Figure 1: Relationships between suppliers and users in device ecosystems



Source: Based on ACCC information.

Figure 2: Key suppliers of operating systems, web browsers and search services in Australia



Sources: Based on ACCC information and Statcounter (Mobile Operating System Market Share Australia, Desktop Operating System Market Share Australia, Mobile & Tablet Browser Market Share Australia, Desktop Browser Market Share Australia, Search Engine Market Share Australia), accessed 5 February 2021.

Market power in online search services

Online search services, or search engines, are software designed to search for information on the World Wide Web, generally returning a curated, ranked set of links to content websites. Search services are commonly accessed through browsers on mobile or desktop devices. On a mobile device, search services may also be accessed through other ways, including:

- **Apps** – software applications that are downloaded onto, and run on, a mobile operating system on a device such as a smartphone, tablet, smartwatch or smart car, or
- **Widgets** – a component of a mobile device's home screen or user interface that displays information or provides a specific way for a user to interact with the operating system or an app. An example of a widget is a search bar shown on the home screen of a mobile device.

The ACCC has previously analysed the supply of general search services in Australia, in the Digital Platforms Inquiry final report (July 2019) and the first interim report of the Digital Platform Services Inquiry (September 2020) (**September 2020 interim report**). The ACCC found that Google has substantial market power in the supply of general search services in Australia, with its share of the market for general search remaining between 93-95 per cent since 2009.[5] Bing is the only other general search engine in Australia with an estimated market share of more than one percent, although there has been growth in usage of other search engines (such as DuckDuckGo) in recent years.

In addition, the ACCC considered that Google's position is insulated from dynamic competition to a considerable degree, due, in part, to high barriers to entry and expansion.[6] This includes network effects and the effect of customer inertia as well as default settings.

In particular, the ACCC found that setting a product as a default option substantially increases the likelihood that a consumer will choose it. The value of being a default search service is evidenced by the large payments made by Google to Apple to enable Google Search to be the default search engine on Apple Safari (estimated to be US$12 billion in 2019).[7]

The ACCC has also analysed the supply of syndicated search services by suppliers of upstream search services (who crawl, index and rank information on the Internet) to suppliers of downstream search services (who syndicate this information and supply it to end users, in the form of search results). The ACCC found that there are only two upstream search services that supply syndicated search results in the English language to downstream search services – Google and Bing – and Google and Bing have a strong bargaining position relative to suppliers of downstream search services. [8]

Accessing search services on web browsers

A consumer can access search services on a browser through the following ways:

- By typing the Uniform Resource Locator (URL) of a search engine's into the address bar of the browser, or
- Searching for specific content into the address bar of a browser or, if available, into a specific search box. The browser then searches for the content through an embedded

5 ACCC, Digital Platforms Inquiry Final Report, June 2019, p. 58; ACCC, Digital Platform Services Inquiry Interim Report, September 2020, Appendix B, p. B1.
6 ACCC, Digital Platforms Inquiry Final Report, June 2019, pp. 66-73.
7 ACCC, Digital Platforms Inquiry Final Report, June 2019, p. 69.
8 ACCC, Digital Platform Services Inquiry Interim Report, September 2020, Appendix B, p. B4.

general search service and displays the search results to the user.

In January 2021 in Australia, estimates indicate that Safari was the most used browser on mobile devices (smartphones and tablets), accounting for around 51 per cent of use, followed by Chrome (39%), Samsung Internet (7%) and Mozilla Firefox (less than 1%).[9] On desktops, estimates indicate Chrome was the most used browser at 62 per cent, followed by Safari (18%), Edge (9%) and Mozilla Firefox (6%).[10]

In Australia, the ACCC understands that Google Search is the default search engine on Chrome, Mozilla Firefox, Apple Safari and Samsung Internet, and Bing is the default search engine on Edge.

Using web browsers (and search apps and widgets) on devices

All devices are pre-loaded with an operating system, which is software that acts as an interface between the user and the desktop or mobile device hardware, and manages all of the other software and programs that run on the device. In this way, operating systems allow a user to use all the programs and functionalities available on a device. Users can also download software onto an operating system, either through a website on a browser or, in the case of mobile devices, through an app marketplace.

To enable users to access the Internet, all operating systems and devices come pre-installed with a browser. Safari and Edge are respectively pre-installed on all Apple and Microsoft operating systems, and are the default browsers on those systems. Chrome is the pre-installed default browser on many devices that run the Google Android operating system. As noted above, each of these browsers has a default search engine that allows users to easily access search services.

Mobile devices, in addition to pre-installed browsers, may also have search bars or widgets featured on the home screen of the device, or on another part of the user interface. This provides another point, outside of browsers, for consumers to access search services.

For desktop devices, estimates indicate the most popular operating systems are Microsoft Windows (with 65 per cent of the supply of desktop operating systems in January 2021 in Australia) and Apple Mac OS (31 per cent).[11] For mobile devices, the most popular operating systems are Apple iOS (54 per cent of the supply of mobile operating systems in January 2021 in Australia) and Google Android (45 per cent).[12]

The EC Android decision and other proceedings

The supply of search services, browsers and operating systems are currently, and have been, the subject of consideration by overseas competition authorities, by way of enforcement investigations and action, or market studies and inquiries.

European Commission Android decision (2018)

In July 2018, the European Commission (**EC**) found that Google imposed illegal restrictions on Android device manufacturers and mobile network operators between 2011 and 2014 to cement its dominant position in general internet search. The EC fined Google EU€4.34 billion for breaching EU antitrust rules in respect of abuse of a dominant position.[13]

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9 Statcounter, Mobile & Tablet Browser Market Share Australia, accessed 5 February 2021.
10 Statcounter, Desktop Browser Market Share Australia, accessed 5 February 2021.
11 Statcounter, Desktop Operating System Market Share Australia, accessed 5 February 2021.
12 Statcounter, Mobile Operating System Market Share Australia, accessed 5 February 2021.
13 European Commission, Antitrust: Commission fines Google €4.34 billion for illegal practices regarding Android mobile devices to strengthen dominance of Google's search engine, 18 July 2018, accessed 9 February 2021.

The EC's decision concerned three specific types of contractual restrictions that it found Google had imposed on device manufacturers and mobile network operators between 2011 and 2014, being:

- requiring Android device manufacturers to pre-install the Google Search app and Google Chrome mobile browser, as a condition for licensing the Google Play Store
- making payments to certain large manufacturers and mobile network operators on condition that they exclusively pre-installed Google Search on their devices
- preventing manufacturers wishing to pre-install Google apps from selling smart mobile devices running on alternative versions of Android that were not approved by Google.

The EC concluded that these practices had denied rival search engines the possibility to compete on the merits and also harmed competition and further innovation in the wider mobile space, beyond just internet search, because they prevented other mobile browsers from competing effectively with the pre-installed Google Chrome browser.

Google filed its appeal against the decision of the EC to the General Court of the European Union in October 2018.[14] At the same time, Google also committed to various changes for new devices in Europe in order to comply with the EC's decision while the appeal was pending, including:

- updating compatibility agreements with mobile device makers so that Android partners wishing to distribute Google apps may also build non-compatible smartphones and tablets for Europe
- allowing device manufacturers to license the Google mobile application suite separately from the Google Search App or the Chrome browser
- offering separate licenses to the Google Search app and to Chrome
- offering new commercial agreements to partners for the non-exclusive pre-installation and placement of Google Search and Chrome.[15]

In addition, shortly after these changes Kent Walker, SVP of Global Affairs for Google, in a blog post announcing the roll out of a choice screen for existing and new Android devices stated:

> 'Now we'll also do more to ensure that Android phone owners know about the wide choice of browsers and search engines available to download to their phones. This will involve asking users of existing and new Android devices in Europe which browser and search apps they would like to use.' [16]

Google provided further detail about this choice screen in a blog post published on 18 April 2019, stating that choice of internet browser and search engine would be provided by way of a new screen. The new screen would be displayed the first time a user opens Google Play after receiving an update, with each screen containing a total of five apps, including any that are already installed on the device.[17] See **Appendix A** for examples of choice screens.

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14 H Lockheimer, Complying with the EC's Android decision, The Keyword (Google Blog), 16 October 2018, accessed 9 February 2021.
15 H Lockheimer, Complying with the EC's Android decision, The Keyword (Google Blog), 16 October 2018, accessed 9 February 2021.
16 K Walker, Google, Supporting choice and competition in Europe, 19 March 2019, accessed 28 January 2021.
17 P Gennai, Google, Presenting search app and browser options to Android users in Europe, 18 April 2019, accessed 11 February 2021.

Department of Justice filing against Google (October 2020)

On 20 October 2020, the United States Department of Justice and eleven state Attorneys-General filed a civil antitrust lawsuit against Google for allegedly unlawfully maintaining monopolies through anticompetitive and exclusionary practices in the search and search advertising markets. These practices include:

- entering into exclusivity agreements that forbid pre-installation of any competing search service
- entering into tying and other arrangements that force pre-installation of its search applications in prime locations on mobile devices and make them undeletable, regardless of consumer preference
- entering into long-term agreements with Apple that require Google to be the default – and de facto exclusive – general search engine on Apple's popular Safari browser and other Apple search tools
- generally using monopoly profits to buy preferential treatment for its search engine on devices, browsers, and other search access points, creating a continuous and self-reinforcing cycle of monopolisation.[18]

Google's roll out of choice screens on Android devices in Europe

Following the announcements set out above, on 2 August 2019, Google announced that it would:

> 'implement a choice screen for general search providers on **all new Android phones and tablets** shipped into the European Economic Area (**EEA**) where the Google Search app is pre-installed…The choice screen will begin appearing on **new devices** distributed in the EEA on or after March 1, 2020.'[19] [emphasis added]

Accordingly, choice screens would only apply to search services and not browsers, as previously announced. In addition, the number of search engines would be reduced from five to four, one of which would be Google. Search service providers would be required to bid for a place on the choice screen every quarter in each country of Europe, with quarterly results announced on the Android choice screen auction options website.

In each country auction, search providers would be required to state the price that they are willing to pay to Google each time a user selects them from the choice screen in the given country. Further, the three highest bidders would appear in the choice screen for that country and the provider that is selected by the user would be required to pay Google the amount of the fourth-highest bid.[20]

Further information about the Android choice screen is available on the Android choice screen website. This includes information on what the choice screen looks like, the effect of selecting an option on the screen and how search service providers can appear on the choice screen.

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[18] Department of Justice, Justice Department Sues Monopolist Google For Violating Antitrust Laws: Department Files Complaint Against Google to Restore Competition in Search and Search Advertising Markets, 20 October 2020, accessed 9 February 2020.
[19] Android choice screen, About the choice screen, updated 8 February 2021, accessed 9 February 2021.
[20] Android choice screen, About the choice screen, updated 8 February 2021, accessed 9 February 2021.

Case study: Android choice screens in Europe 2020-2021

In 2020, the following search engines appeared as options on the Android choice screen in Europe, having won the auction for the relevant country (alongside Google, which is offered as an option in all countries):

Quarter	Search engines
1 March 2020 to 30 June 2020[21]	DuckDuckGo, GMX, Info.com, Qwant, PrivacyWall, Yandex, Seznam,
1 July 2020 to 30 September 2020[22]	DuckDuckGo, GMX, Info.com, Qwant, PrivacyWall, Yandex, Seznam,
1 October 2020 to 31 December 2020[23]	DuckDuckGo, GMX, Info.com, Qwant, PrivacyWall, Yandex, Seznam, Bing.
1 January 2021 to 31 March 2021[24]	DuckDuckGo, GMX, Info.com, Qwant, PrivacyWall, Yandex, Seznam, Bing, Ecosia.

In aggregate across Europe, Google's market share in the supply of search services has not changed significantly since the introduction of choice screens, In January 2020, Google's share was estimated to be at 93.88 per cent and by January 2021 it was at 93.11 per cent.[25]

Given that the search engine choices varied across each country and are selected on a per-country basis, the ACCC selected two countries and the search options provided on screens to examine any shifts or changes in market shares: France and the Czech Republic.

The below table sets out the following search engines that were offered as options on the choice screen for new Android devices during the relevant time periods:

Quarter	France	Czech Republic
1 March 2020 to 30 June 2020	DuckDuckGo, Info.com and Qwant	DuckDuckGo, Info.com, Seznam
1 July 2020 to 30 September 2020	DuckDuckGo, Info.com and PrivacyWall	DuckDuckGo, Info.com, Seznam
1 October 2020 to 31 December 2020	Bing, Info.com and PrivacyWall	Info.com, PrivacyWall, Seznam
1 January 2021 to 31 March 2021	Bing, Info.com and PrivacyWall	Info.com, PrivacyWall, Seznam

DuckDuckGo stated that it was not featured on the choice screen in the third round of auctions for any country in Europe because it was 'priced out of this auction'.[26]

As shown in the charts below, Google's share of search services in each of these countries has not changed significantly following the roll out of the Android choice screen.

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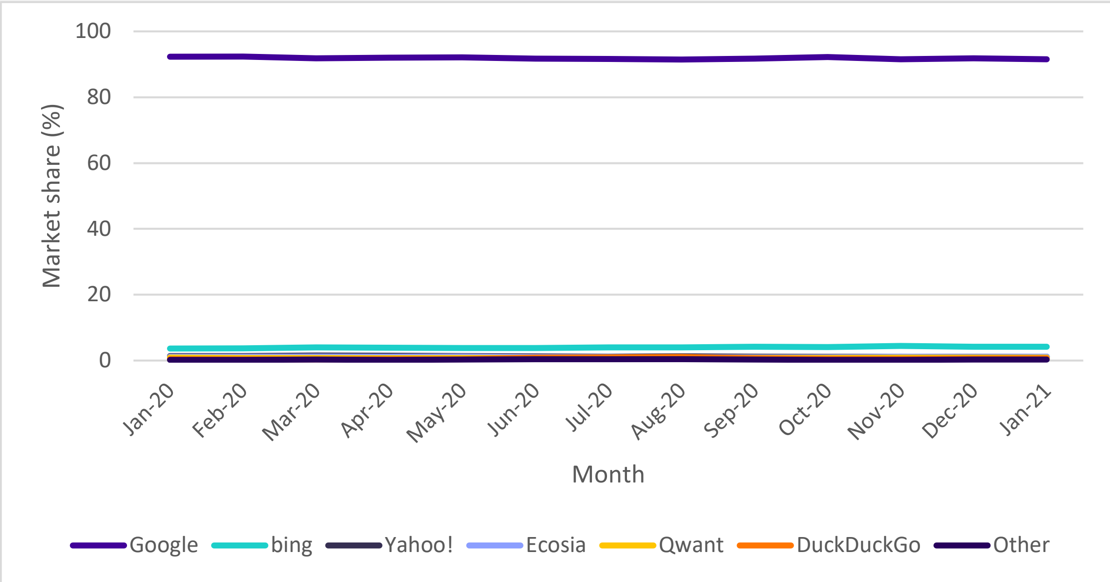
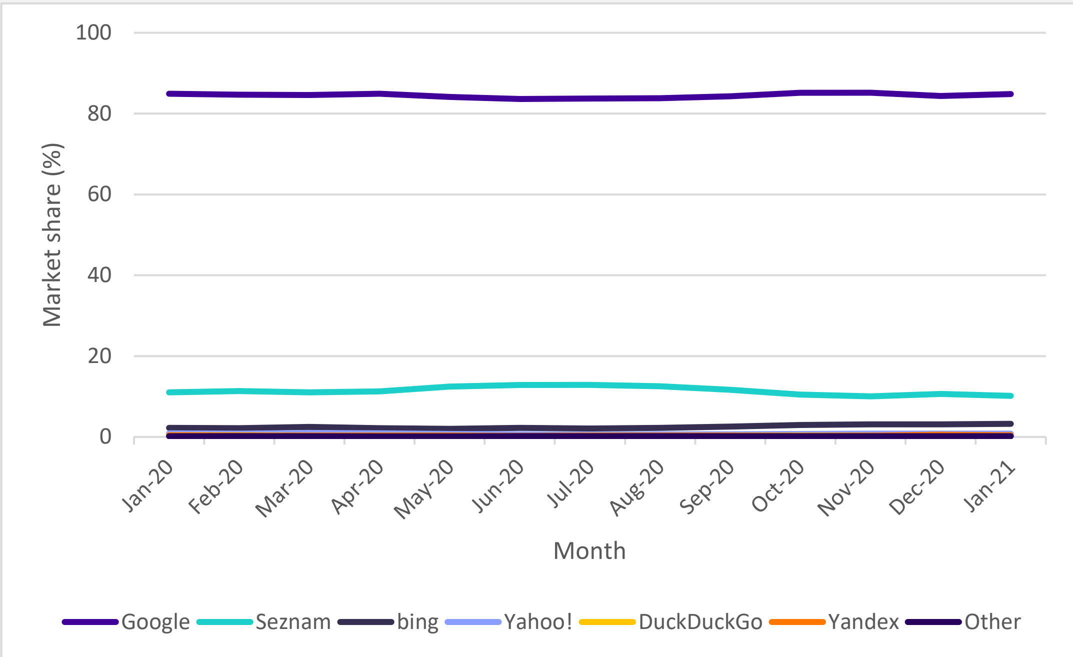
21 Android, Choice Screen Auction Options, 28 February 2020, accessed 2 March 2021.
22 Android, Choice Screen Auction Options, 1 June 2020, accessed 2 March 2021.
23 Android, Choice Screen Auction Options, 28 September 2020, accessed 2 March 2021.
24 Android, Choice Screen Auction Options, 3 December 2020, accessed 22 February 2021.
25 Statcounter, Search Engine Market Share Europe: January 2020 – January 2021, accessed 22 February 2021.
26 DuckDuckGo, As Predicted, Google's Search Preference Menu Eliminates DuckDuckGo, 28 September 2020, accessed 18 February 2021.

Figure 3: Market shares – search services in France (January 2020 to January 2021)



Source: Statcounter[27]

Figure 4: Market shares – search services in Czech Republic (January 2020 to January 2021)



Source: Statcounter[28]

[27] Statcounter, Search engine market share - France - January 2020 to January 2021, accessed 19 February 2021.
[28] Statcounter, Search engine market share - Czech Republic - January 2020 to January 2021, accessed 19 February 2021

4. Key issues for the Report

The ACCC has set out below some key issues relevant to this Report, along with questions on which the ACCC is seeking submissions. This section is structured as follows:

- the impact of pre-installation and default settings on consumer choice and competition, particularly in relation to online search and browsers
- supplier behaviour and trends in search services, browsers and operating systems, and device ecosystems, that may impact the supply of search and browsers to Australian consumers
- the extent to which existing consumer harm can arise from the design of defaults and other arrangements
- the effectiveness of Google's Android choice screen roll out in Europe and whether it is fit for purpose within Australia
- whether there are any proposals, other than choice screens, that may facilitate competition and improve consumer choice in the supply of general search services and browsers in Australia

The ACCC does not expect or require submissions to respond to every question included in this Issues Paper. We encourage interested parties to provide information in response to the issues that are most relevant to them. If a market participant wishes to raise points not covered by these questions, they are welcome to do so.

Please include in your submission a description of your role(s) as a market participant. Also, wherever possible, please provide reasons for your views and any evidence available to support your views.

(a) The impact of pre-installation and default settings

Pre-installed services and services set as a default can function as barriers to entry and expansion, for the following reasons:

- In general, setting a product as the default option substantially increases the likelihood that a consumer will choose it.
- Consumers may stick with a default option on account of imperfect information. For example, consumers may remain with an incumbent search service rather than switch to a new entrant if they do not know whether the incumbent provides a higher quality search service than the new entrant, and substantial information costs would have to be incurred to compare the quality of the two search services.
- For consumers with relatively low level information-technology skills, there may be costs to switching from the default option search service (for example, the time needed to learn how to do so).[29]

The ACCC seeks views on the impact of pre-installation and default settings in the supply of general search services and browsers. To the extent relevant, the ACCC is also interested in the extent to which pre-installation and default settings in operating systems affects competition and consumer choice in the supply of general search services and browsers.

[29] ACCC, Digital Platforms Inquiry Final Report, June 2019, p. 58.

Questions for market participants

1) What value do:

    a) browsers derive from being pre-installed on an operating system or device?

    b) search services derive from being the default service of a browser?

    If possible, please provide quantitative estimates of this value, such as how usage is affected by pre-installation or being made the default.

2) Do suppliers of browsers and operating systems enter into arrangements where a browser is featured prominently or favourably on an operating system? If so, what are the nature of such arrangements and what is their value to a browser?

3) Do suppliers of search services and browsers enter into arrangements where a search service is featured prominently or favourably on an operating system? If so, what are the nature of such arrangements and what is their value to a search service?

4) What factors does a browser take into account when deciding which search service to set as the default? Are there certain types of search services that face obstacles when seeking to be made the default search service on a browser?

(b) Supplier behaviour and trends in web browsers, search services and operating systems, and device ecosystems

The ACCC seeks information on the supply of browsers in Australia, including how browsers are monetised and supplied in Australia, and the relationships between browsers, search services and operating systems within the broader device ecosystem. The ACCC also seeks views on supplier behaviour in search services, browsers and operating systems and any trends in the supply of these services.

(i) The supply of web browsers in Australia

Browsers are a key channel through which consumer's access information on the Internet and conduct search services. Search services are often embedded within a browser, and all operating systems and devices (whether desktop or mobile) provide a browser to provide users with the ability to undertake these functions.

As discussed above, Apple Safari, Google Chrome and Samsung Internet are the most used browsers on mobile devices in Australia, and Google Chrome, Apple Safari, Microsoft Edge and Mozilla Firefox are the most popular browsers on desktop devices. Outside of these browsers, there are also a number of other web browsers available to consumers in Australia, including Opera, Brave and Vivaldi. These browsers are available for download and may be used across a number of different operating systems.

The ACCC seeks views on the supply of browsers in Australia, including consumer use of browsers and the relationships between suppliers of search services, browsers, operating systems and devices.

Questions for market participants

5) What is the business model of a browser? In particular:

    a) How are browsers monetised?

    b) Are browsers significantly differentiated products? If so, in what respects?

c) Is competition segmented for different types of users (for example, consumers or businesses)?

d) Are there differences in the business model and competition between desktop and mobile?

e) What factors does a supplier of browsers consider in selecting a search service to be the default? In particular, how important is

i) the popularity of a search service, and

ii) a search service supplier's willingness to pay?

6) What are the barriers to entry and expansion in the supply of browsers? In particular, to what extent do the following affect barriers to entry and expansion:

a) the ability of a device manufacturer and/or operating system to pre-install a web browser

b) the impact of default settings, and

c) switching costs and customer usage (for example, customer preference to use one, or multiple, web browsers)?

7) To what extent is it important for a browser to be able to offer a range of extensions and software for consumers?

a) Do developers typically develop extensions and/or software for more than one browser? What influences a developer's choice of browser?

b) Is it difficult for developers to switch between developing extensions and/or software between multiple browsers?

In your response, please specify whether you are referring to mobile or desktop devices.

8) Other than Google and Apple for browsers and mobile operating systems, and Apple and Microsoft for desktop operating systems, are there any other significant suppliers of:

a) browsers in Australia?

b) operating systems in Australia?

Further, have there been any recent new entrants in the supply of browsers and/or operating systems in Australia?

(ii) Device ecosystems

Browsers exist within a broader ecosystem of services that connect and relate to one another – namely, search services, operating systems and devices (**device ecosystem**). These services are often pre-installed and provide a default choice for users, upon installation or use of the service or purchase of the device.

The ACCC is interested in information about the position of browsers within this ecosystem and the value of providing a number of interlinked services on a desktop or mobile device for suppliers and consumers (for example, a search service, browser and operating system). The ACCC also seeks views on whether the related nature of browsers, search services, operating systems and devices affects their conduct, and if so, the impact this has on competition within the individual markets for the supply of search services and browsers.

Questions for market participants

9) Are there any firms in Australia that supply a system of interlinked search, browser and/or operating system services on a mobile or desktop device? On what device(s) do these ecosystems exists, and to what extent do device ecosystems compete with each other?

10) How important is it for a new supplier of devices (desktop or mobile), search services, browsers and/or operating systems to be vertically integrated in a device ecosystem?

11) What is the value to consumers of a single supplier providing more than one product in the ecosystem comprising devices, operating systems, browsers and search services?

12) Do device ecosystems result in any lock-in effects for consumers, or affect consumer switching or barriers to entry in the supply of browsers or search services?

13) What restrictions, if any, are imposed by operating systems on device manufacturers (mobile and desktop) and how do these restrictions impact competition and consumer choice? For example, are device manufacturers required to install, or make available, a suite or bundle of services provided by the supplier of an operating system? To what extent are these services interoperable with third party goods or services?

14) Are there any issues regarding interoperability or connectivity between a search service and a browser, where that browser is part of an ecosystem involving another search service?

(iii) Trends in the supply of search services, web browsers and operating systems

The ACCC invites views on technological change or innovation that may affect the supply of browsers and/or search services in Australia in the future. To the extent that operating systems are relevant to this discussion, the ACCC also welcomes views on technological change or innovation that may affect the supply of operating systems.

Questions for market participants

15) Are there technological changes that will affect the supply of browsers, search services and/or the device ecosystem in:

    a) Australia?

    b) markets outside of Australia?

    If so, describe what they are.

16) Are there any trends in consumer behaviour or preferences, such as the expansion of smart devices and wearables, that have or will affect the supply of browsers and/or search services in Australia? If so, describe what they are.

17) Has competition, or potential competition, in the supply of browsers and/or search services been affected by:

    a) acquisitions of start-up companies

    b) acquisitions of new technology

    c) mergers or acquisitions between companies at different points within the mobile and / or desktop device ecosystem?

If so, please describe how. To the extent that competition or potential competition in the supply of operating systems is relevant, please include this in your response.

(c) Consumer harms from the design of defaults and other arrangements

There are various ways that design of user interfaces and settings can influence or 'nudge' consumers to make particular choices. Elements of the device ecosystem may be able to design user interfaces and present options to consumers in ways that influence consumers to use particular services or discourage consumers from switching between services.

The ACCC invites views on the design of user interfaces in the device ecosystem, particularly user interfaces that allow for the designation of default services.

Questions for market participants

Questions regarding browsers

18) Do suppliers of browsers have any influence on how their browser is featured or shown on an operating system or device? In your response, please specify whether you are referring to a mobile or desktop device, or both.
19) What difficulties do users encounter in changing the browser designated as the default on a device? In your response, please specify whether you are referring to mobile or desktop devices, or both, and describe the steps a consumer would need to undertake.
20) For mobile devices, do widgets or other features of an operating system influence the use of a browser?

Questions regarding search services

21) What difficulties do users encounter in changing the search service set as the default on a browser or device? In your response, please specify whether you are referring to mobile or desktop devices.
22) For mobile devices, do widgets or other features of an operating system influence the use of a search service?

(d) Google's Android choice screen roll out in Europe

The Android choice screen in Europe offered consumers, upon purchase of a new Android device, the option to choose a search service from a selection of four providers, with one of the providers being Google Search. Search engines seeking to be featured on the choice screen are required to bid for placement through an auction process run and determined by Google. The choice screen has been in effect since 1 March 2020, with search engines chosen on a country-by-country basis.

As discussed in section 3, the choice screen differs significantly from the original proposal announced by Google in April 2019. In particular, the choice screen is limited to new Android devices shipped in Europe and to search services (and not browsers) the search engine options were reduced from 5 to 4, and there is an auction process that requires search engines to pay to be featured on the choice screen.

The ACCC seeks views on the rollout of the Android choice screen in Europe, including its effectiveness in improving competition in the supply of search services and any insights on Google's auction and selection process. The ACCC is also interested in any submissions regarding the design of the Android choice screen and the extent to which it can be improved, if at all.

More broadly, the ACCC also welcomes views on the extent to which choice screens can facilitate competition and improve consumer choice. In particular, the ACCC is interested in the design of choice screens and how choice screens can best be utilised to achieve their purpose. Relevantly, in its report into online platforms and digital advertising, the UK Competition and Markets Authority (**CMA**) concluded that:

> 'Choice screens can help improve consumers' access to alternative search engines…It is clear to us that design considerations can have a material impact on how users engage with choice screens'.[30]

Questions for market participants

23) Would choice screens facilitate greater competition and/or improved consumer choice in Australia? If so:
    a) How should the choice screen be designed to best achieve this objective?
    b) What suppliers should the choice screen apply to?
24) Please provide feedback on the roll out of the Android choice screen in Europe. In particular:
    a) What impact has the Android choice screen had on competition in search services and/or consumer choice? If you are referring to the impact of competition in a particular country, please specify that country. To the extent possible, please provide quantitative data.
    b) To what extent, if any, could the Android choice screen be improved?
    c) Are the auction arrangements determined by Google appropriate? Are the auction arrangements less favourable to some types of search services than others? If there were more options on a choice screen, and so the auction were not a fourth-price auction, how might that affect the price paid to Google by the winning bidders?
    d) How have consumers, suppliers of search services, device manufacturers and other market participants reacted to the Android choice screen in Europe?

(e) Other proposals to facilitate competition and improve consumer choice in general search and web browsers in Australia

(i) Proposals relating to general search and web browsers

The ACCC is interested in any other proposals that may facilitate competition and improve consumer choice in the supply of general search services and browsers in Australia.

For example, in its report on online platforms and digital advertising, the UK Competition and Markets Authority (**CMA**) proposed a number of 'demand-side' and 'supply-side' interventions to improve competition in the supply of search services. These included:

- restrictions on search engines from acquiring default positions
- restrictions on device manufacturers and browsers from monetising their products through default payments
- requiring Google to provide third party search service providers with access to their click and query data

[30] CMA, Appendix V: assessment of pro-competition interventions in general search, 1 July 2020, p. V12.

- mandating Google and Bing to provide syndicated search results on fair, reasonable and non-discriminatory terms when syndicating to smaller search engines.[31]

In the advice of the Digital Markets Taskforce to the UK government on the potential design and implementation of pro-competitive measures in digital markets, the CMA also noted that:

> 'consumer choice and default remedies aim to support customers in making effective choices and seek to overcome customer inertia. Examples include restrictions on default agreements…[and] choice screens.'[32]

The ACCC is also interested in what, if any, recommendations should be made to improve competition in the supply of syndicated search services and the position of downstream search services, relative to Google and Bing, when negotiating for the supply of these services.

Accordingly, the ACCC seeks views on the above proposals and the extent to which such proposals should be applied in Australia. The ACCC is also interested in any interventions or proposals that may facilitate competition and/or improve consumer choice in the supply of search services.

Questions for market participants

25) Should the proposed interventions in other jurisdictions relating to choice in search services extend to Australia? If so, should any changes be made to ensure that they are fit for purpose for Australia?

26) What other mechanisms could facilitate greater competition in the supply of search services to consumers?

(ii) Proposals relating to syndicated search services

In the September 2020 interim report, the ACCC concluded that Google and Bing, as the only two English language suppliers of syndicated search services in Australia, have strong bargaining power relative to downstream search services. The unequal bargaining power between suppliers of upstream and downstream search services can affect competition in the market for general search services and the extent to which downstream search services are a viable alternative choice for consumers.

The ACCC seeks views on downstream search services' experiences negotiating and purchasing syndicated search results from upstream search services and the effect this has on competition in the supply of search services and consumer choice.

Questions for market participants

27) What factors affect the ability of downstream search services to negotiate terms of supply with upstream search services? For search services in Australia, what bargaining power do upstream search services have vis-à-vis downstream services?

28) What mechanisms could facilitate greater competition in the supply of syndicated search services?

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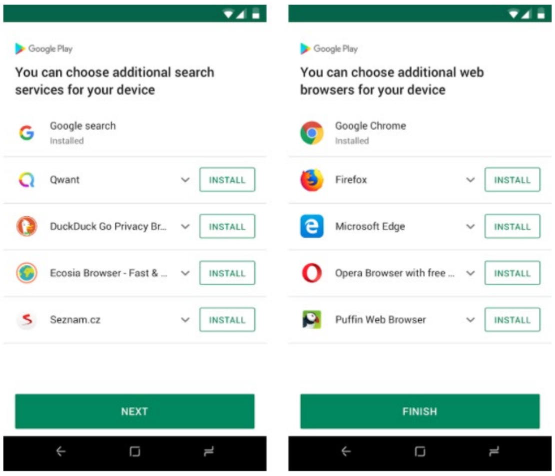
[31] See CMA, Appendix V: assessment of pro-competition interventions in general search, 1 July 2020; CMA, Online platforms and digital advertising market study – final report, 1 July 2020, pp. 360-369.

[32] CMA, Advice of the Digital Markets Taskforce, Appendix D: The SMS Regime: pro-competitive interventions, pp. D13-D14.

Appendix A – Examples of choice screens

On 18 April 2019, Google announced that a choice of internet browser and search engine would be provided by way of a new screen, displayed the first time a user opens Google Play after receiving an update. Each screen would contain five apps, including any already installed on the device.[33]

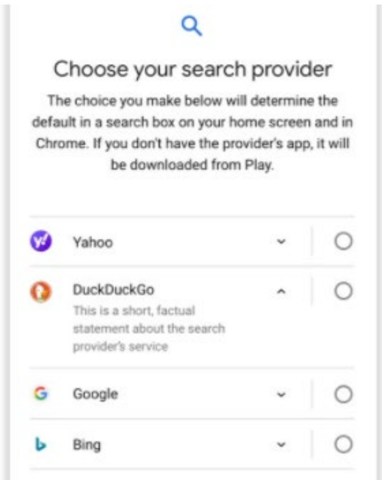
Figure A.1: Examples of Android choice screens for search services and browsers



Source: P Gennai, '[Presenting search app and browser options to Android users in Europe](), Google, 18 April 2018, accessed 18 February 2021.

On 2 August 2019, Google provided an update on the choice screen, which would only apply to search services on new Android smartphones and tablets in Europe and provide four options, rather than five.[34]

Figure A.2: Updated Android choice screen for search services



Source: Android, 'About the choice screen', updated 8 February 2021, accessed 18 February 2021.

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[33] P Gennai, 'Presenting search app and browser options to Android users in Europe', Google, 18 April 2019, accessed 18 February 2021.

[34] P Gennai, 'An update on Android for search providers in Europe', Google, 2 August 2019, accessed 18 February 2021.