ACCC Digital Platforms Services Inquiry

September 2021 Report on market dynamics and consumer choice screens in search services and web browsers

Google’s Response to ACCC Issues Paper

7 May 2021
Introduction and Summary

1. Google welcomes the opportunity to comment on the ACCC’s Issues Paper for its September 2021 report on market dynamics and consumer choice screens in search services and web browsers.¹

2. The Issues Paper expresses a concern that due to perceived “customer inertia,” default and preinstallation arrangements for search services and browsers allegedly determine market shares in general search and prevent users from reaching rivals. This concern is flawed, for several reasons:

(i) **Google’s popularity reflects its quality, not default or preinstallation agreements.** Google’s popularity does not reflect a market failure caused by defaults or preinstallation. On the contrary, it reflects Google’s quality and the fact it is Australians’ preferred search service. In a user survey, 89% of Australians identify Google as their favourite search service. Data from rater tests, natural experiments, academic studies, and statements from the ACCC all corroborate Google’s quality.

(ii) **Defaults and preinstallation do not restrict users from reaching alternative services.** Evidence consistently shows that users can and do override defaults and preinstallations. One example is Google’s share on Microsoft Windows desktops in Australia. Microsoft preinstalls its Edge browser that defaults to Bing on Windows. But Google’s share of search on Windows is 91%, while Bing’s is 7.5%. Australians override Microsoft’s defaults and choose their preferred alternative: Google.

(iii) **Defaults and preinstallation benefit users by creating a seamless experience.** Defaults and preinstallation mean that users can access a given service seamlessly upon initial activation of a device or first use of a platform. OEMs and developers set defaults and preinstall services to create a positive experience for users on their platforms, based on their view of what service will make their platforms more competitive. Accordingly, defaults and preinstallation benefit users by making it easier for them to use services quickly and easily.

(iv) **Defaults and preinstallation benefit OEMs and developers by allowing them to monetise distribution opportunities on devices.** Defaults and preinstallation also benefit OEMs and developers by providing an important source of revenue. Services compete for default and preinstallation opportunities based on their quality and by offering to remunerate OEMs and developers. OEMs and developers, in turn, use these revenues to

reduce the cost of supplying devices and browsers, thereby benefitting consumers in the form of lower prices and higher-quality products.

3. In short, Australians use Google because they choose to, not because they have to. There is therefore no need for intervention in Australia, especially in the absence of any rigorous legal and economic assessment of market failure and consumer harm, or contravention of Australian competition law.

4. In this response, we expand on these points. First, we demonstrate that Google is the preferred search service for Australian users and its position reflects its quality (Section I). Second, we show that defaults and preinstallation do not prevent users from reaching alternatives (Section II). Third, we explain that competition for defaults and preinstallation is a beneficial part of the competitive process, which is good for users, developers, and OEMs (Section III). Fourth, we address the Issues Paper’s discussion of choice screens (Section IV). Finally, we describe the harm that would arise from implementing the measures discussed in the Issues Paper that go beyond choice screens (Section V).

I. Google’s popularity reflects its quality, not default and preinstallation arrangements

5. At the core of the Issues Paper’s concern with default and preinstallation arrangements for search and browsers is that, due to perceived “customer inertia”, these arrangements allegedly determine market shares in general search and stop rivals from expanding. This is best illustrated in the Issues Paper’s Figure 2, which suggests, via arrows, that Google’s share in general search in Australia is determined by search distribution arrangements.

6. But Google’s leading position reflects that it is the highest-quality search service in Australia. Google is, by far, Australian users’ preferred search service. Google’s superior quality reflects the ingenuity of its engineers, its relentless experimentation and innovation, and the excellence of its algorithms. To take just five examples:

(i) **Experimentation & innovation**: Google engages in persistent experimentation and user-focused testing that far-surpasses anything conducted by rivals. In 2020, Google ran over 600,000 experiments that resulted in more than 4,500 improvements to Search.²

² See "Rigorous testing" available here: [https://www.google.com/search/howsearchworks/mission/users/](https://www.google.com/search/howsearchworks/mission/users/).
(ii) **Indexing**: Google has built sophisticated indexing systems (Caffeine)\(^3\) and freshness analysis models\(^4\) that track the “recency” of content, allowing Google to return up-to-date results that are more relevant than its rivals’ results.\(^5\)

(iii) **Machine learning**: Google has developed advanced machine-learning models that help understand the context of words in a search query and how they fit together, rather than looking at words in isolation (BERT).\(^6\) These models also help identify patterns of connections between complex and unique queries (RankBrain).\(^7\) With this better understanding of language, Google can show more relevant results than rivals.

(iv) **Localisation**: Google has detailed knowledge about local entities (like hospitals, hairdressers) that allows Google to show high-quality results when users search for local information in a particular place. And, unlike its rivals, Google localises its results so that they are relevant for users in different locales, in particular Australia.\(^8\)

(v) **Quality**: Google engages in extensive efforts to ensure that it shows the highest quality results responsive to a search query.\(^9\) A taskforce of Search Quality Raters ensures Google’s search results meet high quality standards.

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\(^3\) Google’s indexing systems also ensure a better experience for users to search on mobile. Google primarily uses the mobile version of a site to rank pages from that site, to address the risk that a highly-ranked “mobile page has less content than the desktop page because our algorithms are not evaluating the actual page that is seen by a mobile searcher.” See “Our new search index: Caffeine” available here: [https://googleblog.blogspot.com/2010/06/our-new-search-index-caffeine.html](https://googleblog.blogspot.com/2010/06/our-new-search-index-caffeine.html). See also “Mobile-first indexing” available here: [https://developers.google.com/search/blog/2016/11/mobile-first-indexing](https://developers.google.com/search/blog/2016/11/mobile-first-indexing).


\(^5\) Industry participants widely acclaimed Google’s indexing innovation that promoted freshness: “That is nice information for these of us who’re continually placing up contemporary content material. And it’s priceless for these folks looking for contemporary updated content material.” See Businessnewsdesk, “How Does Google Caffeine Assist or Harm Your MLM Touchdown Web page, weblog or Social Networking?” (July 2010). Available here: [https://businessnewsdesk.com/2010/07/how-does-google-caffeine-assist-or-harm-your-mlm-touchdown-web-page weblog-or-social-networking/](https://businessnewsdesk.com/2010/07/how-does-google-caffeine-assist-or-harm-your-mlm-touchdown-web-page weblog-or-social-networking/).

\(^6\) For example, Google can recognise that the query “2019 brazil traveler to usa need a visa” refers to Brazilian visitors to the US, not the reverse. See “Understanding searches better than ever before” available here: [https://blog.google/products/search/search-language-understanding-bert/](https://blog.google/products/search/search-language-understanding-bert/).


\(^8\) For example, a query for “football scores” in Australia will show results for AFL, but in the UK will show the Premier League.

\(^9\) See “How Search algorithms work” available here: [https://www.google.com/search/howsearchworks/algorithms/](https://www.google.com/search/howsearchworks/algorithms/).
all around the world. Google also employs sophisticated systems to detect and remove spam content from its results. Google’s AI-aided automated systems keep more than 99% of Search visits spam-free.

7. It is therefore no surprise that the ACCC itself has recognised the “high quality” of Google Search. Other authorities have reached a similar conclusion. Evidence consistently confirms that Google is higher quality than its rivals:

8. First, a survey of more than 400 Australian users finds that Australians identify Google to be their favourite search service. 89% of respondents say that Google is their favourite.

9. Second, Google’s share on Windows provides a natural experiment confirming that Google is preferred by Australian users. Microsoft preinstalls its Edge browser and sets it as default on Windows. Microsoft also sets Bing as the default search service on Edge and Windows. But Google’s share of search queries on Windows desktops in Australia is around 91%, while Bing’s share is just 7.5%. In turn, Chrome’s share of browsers on Windows is around 74% compared with Edge, with only 11%.

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11. See “Why keeping spam out of Search is so important” available here: https://blog.google/products/search/how-we-keep-spam-out-of-search/.


14. For example, the Issues Paper refers to the EU Commission’s Android decision of July 2018 in Case AT.40099 (Issues Paper, p.12 et seq). But the Android decision confirmed in multiple places the superiority of Google Search. It noted that Google would win the vast majority of queries in side-by-side competition (paras. 1261(1) and 1234(1)-(2)). It found that users “may use Google’s general search service because of the perceived relevance of the results that service provides” (paras. 675 and 726). It stressed that users “trust in the relevance of search results provided by Google” (paras. 712, 812, and fn.769). It observed that users “favour Google’s UI over [rivals]” (fn.770). And it found that Google invests substantially more than rivals in improving its service (para. 692 and Table 8).

15. Survey One, Question 3. The methodology and detailed results of the survey are contained in Annex 1.

16. Netmarketshare, data from January 2020 to October 2020 (Netmarketshare’s service was discontinued after that date).

17. Netmarketshare, data from January 2020 to October 2020 (Netmarketshare’s service was discontinued after that date).
Australian users override Microsoft’s defaults and choose their preferred alternative instead: Google. ¹⁸

10. Third, Google Search is by far the most downloaded search app on Apple iOS devices. In particular, 85% of search app downloads on iOS devices in Australia in 2020 were Google Search. DuckDuckGo was a distant second, with only 7% (based on data from App Annie). The search app download data indicate that Australians prefer Google Search over other search apps.

![iOS Search App Download Shares (Australia, 2020)]

11. Fourth, data from rater tests find that Google outperforms Bing. Google tracks search performance by measuring “information satisfaction” (IS) scores on a 100 point scale. IS is measured blind by Search Quality Raters who do not know whether they are testing Google or Bing. Based on IS score data, Google significantly

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¹⁸ Figure 2 of the Issues Paper implies that Bing’s position in Australia is due to it being the default only on Microsoft Edge, but the figure fails to illustrate that Microsoft Edge is the most preinstalled browser on desktop -- where a large proportion of search queries takes place. In addition, Figure 2 needs to be corrected to reflect that it is Microsoft that requires Edge to be preinstalled on its Windows desktops, not Google.
outperforms Bing.\textsuperscript{19} Academic studies reach similar conclusions about the relative quality of Google and Bing.\textsuperscript{20}

12. Fifth, press reports in Australia corroborate the superiority of Google Search to its rivals in Australia. They note rivals’ inability to show good results for simple queries like “best beach Sydney”\textsuperscript{21}; they emphasise Google’s focus on showing authoritative and credible sources, while rivals display low-quality content;\textsuperscript{22} and they stress that Bing “pales in comparison” to Google.\textsuperscript{23}

13. Sixth, in the context of Australia’s proposed media bargaining code, Microsoft President Brad Smith agreed that Microsoft would have to improve to be competitive in Australia.\textsuperscript{24} He stated in an interview that Microsoft “would need to invest” because “we readily recognise” that Microsoft is not as high quality as

\textsuperscript{19} The CMA reviewed IS data and also found that Google significantly outperformed Bing in IS scores, See CMA Online platforms and digital advertising market study, Appendix I: search quality and economies of scale, para. 6 (emphasis added) available here: https://assets.publishing.service.gov.uk/media/5fe4957c8fa8f5ad6a8e7f852c12/Appendix_I_-_search_quality_v.3_WEB.pdf.

\textsuperscript{20} A study by a professor of Yale Law School demonstrates Google’s superiority relative to Bing. See “A Randomized Experiment Assessing The Accuracy Of Microsoft’s “Bing It On” Challenge” available here: https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=5879&context=fss_papers.

Contrary to Microsoft’s claim that “people preferred Bing web search results nearly 2:1 over Google in blind comparison tests,” (See “Take the Bing It On Challenge!” (6 September 2012) available here: https://blogs.bing.com/search/2012/09/06/take-the-bing-it-on-challenge) the study “strongly reject[s] the possibility that internet users would prefer Bing search results to Google search results at anywhere near a 2-to-1 ratio.” It found that “[s]ubjects who used popular search terms or self-selected search terms had a statistically significant preference for Google over Bing.”

\textsuperscript{21} See Bloomberg, “Life Without Google: Australia Is Now Facing the Unthinkable” (11 February 2021) available here: https://www.bloomberg.com/news/articles/2021-02-11/life-without-google-australia-is-now-facing-the-unthinkable?ref=ff216e6h (“Searching for ‘best beach Sydney’ shows the variance in performance among Google’s competitors. DuckDuckGo’s first result was an ad for a hotel more than 1,000 kilometers away in Queensland, with Sydney beach reviews listed below a second ad link. Search Encrypt, which touts its data-protection capability, said: ‘It looks like there aren’t any great matches.’ Bing’s initial suggestion was Bondi Beach Post Office. Only Google returned a real beach, Bondi, first up”).

\textsuperscript{22} See The New Daily, “‘Easier to manipulate’: Bing searches will drive disinformation, experts warn” (5 February 2021) available here: https://thenewdaily.com.au/finance/finance-news/2021/02/05/bing-google-disinformation/ (“Google’s program emphasises credible sources cited by authoritative websites whereas Bing is more likely to deliver results based on quantity of sources, which are often lower quality”).

\textsuperscript{23} See ZDNet, “If Bing is the answer then Australia is asking the wrong question” (7 February 2021) available here: https://www.zdnet.com/article/if-bing-is-the-answer-then-australia-is-asking-the-wrong-question/ (“In my view, Bing lags by quite a distance. For generalist or casual searching, it does the job, but the second you want to dive deep into a subject -- or in my case seek out technical information -- it pales in comparison to Google”).

\textsuperscript{24} See ABC, “Microsoft backs media bargaining code, suggests Bing can fill gap if Google and Facebook depart” (3 February 2021), available here: https://www.abc.net.au/news/2021-02-03/microsoft-supports-media-bargaining-code-google-facebook/13117280.
Mr. Smith also stated that Bing’s share in the US, Canada, and UK, where it has made efforts to localise its service, was 20%-30%, and he attributed Bing’s lower share in Australia to Microsoft’s failure to invest in this country. Mr. Smith’s comments demonstrate that search services’ popularity in Australia turns on their relative quality, not defaults or preinstallation.

In short, Google is the highest-quality search service in Australia. It is therefore unsurprising that Google is the preferred search service for Australians. That does not reflect or result from a market failure, but rather lawful competition on the merits.

II. Defaults and preinstallation do not restrict users from reaching alternative services

The Issues Paper suggests that defaults and preinstallation may cause harm because users may not access rivals due to imperfect information or switching costs (Issues Paper, p. 17). Under this theory, the harm arises because the user is stuck with an inferior option, when better alternatives exist. By contrast, when users know they have a choice, understand their options, and can switch to alternatives, defaults and preinstallation cannot result in harm under the Issue Paper’s theory, even if users choose not to switch.

The analysis of the impact of defaults and preinstallation should therefore not be based on presumptions. Rather, the analysis should take into account the quality of the services at issue, the ease of changing the default, and users’ ability to reach alternatives to preinstalled services. Google’s default and preinstallation agreements do not undermine effective user choice. Users can override defaults and preinstallations, and they especially do so when high-quality alternatives exist.

A. Defaults do not undermine effective user choice

Setting a default means that a given service automatically activates when a user triggers relevant functionality, without the user needing to select that service. For search, a default access point is the URL bar or search box of a browser, which allows users to enter queries and receive responses from the default search service. This reduces friction for users and creates a more seamless experience.

It is inherent in the concept of a default that only one service can be the default. OEMs and developers therefore have to decide which service provider to set as the

25 ABC, “‘We believe’: Microsoft President tells ‘PM’ company backs news payment plan, but can it replace Google for search?” (3 February 2021), available here: https://www.abc.net.au/radio/programs/pm/microsoft-president-tells-pm-company-backs-news-payment-plan/13117952.

26 ABC, “‘We believe’: Microsoft President tells ‘PM’ company backs news payment plan, but can it replace Google for search?” (3 February 2021), available here: https://www.abc.net.au/radio/programs/pm/microsoft-president-tells-pm-company-backs-news-payment-plan/13117952.
default. It is natural and legitimate that OEMs and developers should choose the best service to be their default, thereby improving the quality of their own offering. But if a particular service is set as default, that does not prevent users from reaching alternatives.

19. First, users can easily change the default. Changing defaults is straightforward:

(i) The settings option in the Chrome app allows users to switch the default from Google to alternative providers. The general settings menu is shown in the left column. The first option in Settings allows the user to change the search default. When the user selects ‘Search Engine’, the column on the right side appears, presenting the user with a list of search provider options.

(ii) Users can adjust the default search service in the Safari mobile app in a few clicks (selecting ‘Safari’ from the ‘Settings’ menu, then tapping on ‘Search Engine’; and selecting from the pre-populated list), as shown below. The option to change default search engine is the very first option in the list.
20. Second, users can access alternative search services through access points that are not subject to the default. Users can access alternative search services by typing their addresses in the URL bar and searching on those services. They can download an alternative browser with a different search engine set as default. They can download rival search services’ apps. They can install ‘bookmarks’ for rival services in the browser. Or they can set rival services as their browser homepage.

21. There is no indication that default settings in search could lock in users and stop them from reaching high-quality alternatives. To the contrary, empirical evidence demonstrates the opposite: users do not blindly stick to search defaults; they can and do override defaults in favour of their preferred service.

(i) As shown in Section I, Microsoft preinstalls Edge and Bing as the defaults on Windows. But Google’s share of general search queries on Windows is 91%, while Bing’s share is just 7.5%. Users override Microsoft’s search defaults and choose Google instead.\(^\text{27}\)

(ii) Mozilla entered into a deal in 2014 to set Yahoo! as the default on its browser. But a large share of users switched back to Google and Mozilla terminated the deal in 2017, two years early. Mozilla explained that it was motivated in part by “our effort to provide quality web search, and the broader content experience for our users.”\(^\text{28}\) It stated in the ensuing lawsuit that “Yahoo! Search consistently failed to retain users and search volume over time.

\(^\text{27}\) Users reach Google, even though Edge allows users to change the default only through a multi-step and counterintuitive process that requires changing the “privacy and services” settings. See “Get the Power of Google” available here: https://www.google.com/homepage/search/sp-edge-p.html.

reducing the potential revenue [for Mozilla] under the Strategic Agreement.”

(iii) A survey of more than 350 Australian users finds that Australian Android users are far more likely to change unsatisfactory search and browser defaults than to continue using the disfavoured service. Only 12% said they would stick with the default search service and just 11% would keep using the browser default (as shown in the charts below). This is consistent with a survey undertaken by the EU Commission, which found that “nearly eight in ten internet users would probably change search engine if the search results provided were not useful.”

(iv) The Canadian Competition Bureau, investigating search services, concluded in 2016 that “consumers can and do change the default search engine on their desktop and mobile devices if they prefer a different one to the pre-loaded default.” Likewise, the Competition Commission of India rejected complaints against Google’s default agreements in 2018 because such agreements are not exclusive and do not “hamper a user’s ability to access any other search service.”

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30 Survey One, Question 6, and Survey Two, Question 6. The methodology and detailed results of the surveys are contained in Annex 1.


33 See Competition Commission of India Case Nos. 07 and 20 of 2012 available here: https://www.cci.gov.in/sites/default/files/07%20%26%20%20%2030%20of%202012.pdf.
A survey conducted by an independent academic of 11,000 consumers across multiple countries, including Australia, found that large proportions of users had changed default search services and browsers. In Australia, 71% of users had changed the default search service and 73% of users had changed the default browser.\(^{34}\)

**B. Preinstallations do not undermine effective user choice**

22. Preinstallation means that an app or service already comes installed on the device when the user first activates the device. This creates a consistent out-of-the-box user experience that means a given device will already include a set of high-quality apps when a user first activates it. For example, Apple’s iPhones come with Apple’s suite of apps preinstalled and Windows desktops include Microsoft’s products.

23. The ACCC has noted that consumers prefer to buy devices with “apps providing core functionality already loaded”.\(^{35}\) The ACCC has explained that preinstalling apps can “benefit consumers by reducing the time and effort needed to find the apps they need or want”.\(^{36}\) In user surveys, Australian users state that they like having a suite of Google services preinstalled,\(^{37}\) and that they like being able to use their favourite search engine and browser immediately out of the box.\(^{38}\)

24. While preinstallations create important benefits, they do not harm competition. On Android, OEMs retain broad flexibility in how to design their devices, despite preinstallations. Users, for their part, have near-instantaneous access to alternatives via downloads.

25. **OEMs have broad flexibility in how they design Android devices.** On Android, preinstallation does not prevent rival services from being installed alongside the preinstalled services. Android OEMs have broad flexibility in how they design their devices:

   (i) OEMs can take the open-source Android OS without having to preinstall any Google app.

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\(^{34}\) P. Akman, A Web of Paradoxes: Empirical Evidence on Online Platform Users and Implications for Competition & Regulation in Digital Markets, Figure 7.

\(^{35}\) ACCC, Digital platform services inquiry, Interim Report 2, March 2021, para. 5.4.1 (citing a survey finding that 70% of users stated that “they preferred to buy devices with apps that provide core functionality already loaded”).

\(^{36}\) Ibid., para. 5.4.2.

\(^{37}\) Survey Three, Question Four in Annex 1 (75.1% of users stating that they like having Google’s suite of apps preinstalled (compared to 15% that dislike it)).

\(^{38}\) Surveys One and Two, Question Five in Annex 1 (87% and 89% of users like being able to use their favourite search engine and favourite browser immediately out of the box).
(ii) If they choose to preinstall Google apps, OEMs can preinstall as many rival search or browser providers as they want (i.e., side-by-side preinstallation). Most Android devices, for example, come with two browsers preinstalled.

(iii) Browser rivals can achieve greater prominence than Chrome on Android devices. Under Google’s distribution agreement (MADA), Chrome is placed in a folder with other apps. But OEMs can and do preinstall other browsers on the default home screen, where they have greater prominence than Chrome (as illustrated below).

Samsung’s browser placed more prominently than Chrome

26. As a result, an OEM could preinstall a non-Google browser, set it as the default, and place it in a prominent position on the device (such as the default home screen or app dock). Alternatively, an OEM could preinstall multiple browser apps and set none of them as the default. In that case, Android will prompt the user to select the default browser.

27. Users can reach alternatives to preinstalled services near-instantaneously. Users, moreover, have near-instantaneous and free access to rival services via downloads. Any Australian that has used a smartphone over the last decade will know how easy it is to download apps -- and that’s why Australians in 2020 downloaded apps over 336 million times from Play. It takes seconds to download a rival search service from Play, as shown in the diagram below:
28. This is confirmed by a survey of more than 350 Australian users: almost 95% of Australian Android users state that downloading is not difficult, with over 73% of users saying that it was “easy” or “very easy.”

29. Whether users actually download rival services reflects users’ preference for different search apps and browsers. Evidence shows that users can and do ignore preinstalled apps and download rival services if rivals are attractive. In other words, preinstallation does not prevent users from reaching attractive rivals:

(i) **High-quality rivals to Google’s preinstalled apps are downloaded in large numbers.** Several preinstalled Google apps are less successful than high-quality rival apps that are downloaded. Based on App Annie data, Spotify accounted for 56% of the total time Australian Android users spent using music apps, while the preinstalled Play Music accounted for just 8%. Similarly, messaging apps WhatsApp, Facebook Messenger, and WeChat were used much more frequently by Australian Android users than Google’s preinstalled messaging apps (Hangouts and Duo).

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39 Survey Three, Question 5. The methodology and detailed results of the survey are contained in Annex 1.
(ii) In countries where high-quality search rivals exist, they are frequently used despite preinstallation of Google Search. In relation to search, the successful examples of Naver, Seznam, and Yandex show that users can easily access rival search services that they find attractive. For example, in South Korea, search app Naver is used much more than Google Search, despite Google Search being preinstalled on Android devices. Based on App Annie data, the figure below shows that about half (46%) of Korean Android users accessed Naver on an average day while only 21% of users accessed Google Search.

Android Search App Average Daily Usage Share (South Korea, 2020)

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Android Search App Average Daily Usage Share (South Korea, 2020)

(iii) Chrome has a higher share on desktop (where it is not preinstalled) than it does on mobile (where it is). Usage of Chrome is driven by consumer
preferences, not preinstallation or defaults. Chrome’s adoption rate on desktop computers has outpaced its adoption rate on mobile devices, despite Microsoft and Apple preinstalling their own browsers on desktop. Desktop PCs running Windows (comprising around 64% of desktops) come with Microsoft’s Internet Explorer or Edge browser preinstalled and set as the default browser. On Apple’s Mac computers (which comprise about 32% of desktops in Australia), Safari is preinstalled and set as the default browser. But Chrome has achieved a higher share on desktop than it has on mobile, as shown in the graph below (based on Statcounter data).

![Chrome mobile and desktop shares (Australia)](image)

30. In short, default and preinstallation arrangements do not foreclose rival services. Users can and do reach alternatives in a number of ways, including direct access, changing defaults, and downloads (which takes a matter of seconds). A large body of empirical evidence confirms that users can and do access alternatives to default and preinstalled services.

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III. Competition for defaults and preinstallation is a beneficial part of the competitive process

31. The Issues Paper focuses on the impact of defaults and preinstallation on rivals that are not selected to be default or preinstalled (Issues Paper, p. 17). But the Issues Paper’s narrow focus on rivals ignores the important benefits that defaults and preinstallation create for users, developers, and OEMs. It also ignores the role of preinstallation in Google being able to maintain the Android platform as a free, competitive alternative to Apple iOS.

32. OEMs and developers set defaults and preinstall services to create a positive experience for users on their platforms, based on their view of what service will make their platforms the most competitive. Defaults and preinstallation benefit users by making it easier for them to use services quickly and easily.

33. Consumers are free to add or remove apps, move apps off the home screen, and change their default settings. Based on App Annie data, Australian users add 100 apps to their devices -- more than any other country in the world.

34. Defaults and preinstallation also benefit OEMs and developers by providing an important source of revenue. Apps and services may compete for their services to be default or preinstalled based on the quality of their service and by offering remuneration to developers and OEMs. Revenues that OEMs and developers earn from these deals subsidise the cost of supplying devices and browsers, and at least part of that is likely to be passed on to users in the form of lower prices or higher quality.

35. Default and preinstallation arrangements are analogous to other forms of distribution arrangements that are ubiquitous in many industries, such as arrangements for placement in prominent retail and supermarket shelf space. Distribution arrangements can take various forms, including retail shelf space and distributor promotional activity. Such arrangements are not a market failure that requires market intervention. On the contrary, they are a beneficial part of the competitive process that enables lower prices and improved services that consumers value.

36. Distribution arrangements for search and browsers are fundamentally no different than arrangements in brick-and-mortar industries. If anything, they are even more critical when involving search and browsers because independent web browsers, such as Mozilla, rely heavily on their ability to commercialise default slots. Mozilla’s
2019 financial statements (pp.4 and 13) show that 92% and 95% of its 2019 and 2018 revenues came from search engine royalties.

37. The possibility to monetise a distribution opportunity that has promotional value does not result in “customer inertia” (Issues Paper, pp. 5, 11, 23), under which consumers are ready to accept a default even if it is inferior or not their preferred option. The fact that consumers may try a product that is available via “top shelf” promotion does not mean that they are locked into such a product. If they are dissatisfied, or prefer an alternative brand, they will switch to their preferred option.

38. The circumstance that distribution opportunities on mobile or desktop devices are valuable does not mean that defaults and preinstallation create a market failure or harm competition and consumers. To the contrary, the evidence discussed in Section II above shows that defaults and preinstallation do not restrict users from reaching and switching to alternatives.

B. Preinstalling Chrome and Search on Android has enabled Google to offer the Android platform for free, enhancing competition against iOS

39. The leading mobile platform in Australia is Apple iOS, with a share of 54% (Issues Paper, Figure 2). Apple pursues a different model to Android. Apple operates a closed vertically-integrated system: it does not grant licenses to OEMs and uses iOS exclusively on its iPhones and iPads. For many years now, Apple has only preinstalled Apple apps on iOS devices. The Apple App Store has always been the exclusive app store on iOS devices.

40. By contrast, Google chose to develop a free, open source mobile platform. Google opted not to follow Apple’s tightly-integrated model, under which Apple exercises complete control over iOS devices. Instead, Google adopted a model that gives OEMs all the software they need to develop a smart mobile device for free, as well as wide latitude to customise Android devices.

41. Google’s development of Android was costly, risky, and time-consuming. Google has made a multibillion investment in developing the Android platform: a free mobile OS, a high-quality app store, and a set of mobile apps and services. Google provides the Android OS for free to OEMs; it also provides Play and other Google apps and services to OEMs for free.

42. In exchange, OEMs provide Google apps with a limited amount of non-exclusive “shelf space” on their Android devices. In particular, OEMs preinstall on the home

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42. 2019 calculation based on total revenues excluding $338 million of litigation settlement, which relates to Mozilla’s 2014 contract to replace Google by Yahoo! as Firefox’s default search engine on some of its products, which did not live up to Mozilla’s expectations.

screen the Play icon, the Google Search widget, and a folder containing Google apps (including Google Search and Chrome).44

43. This arrangement constitutes a barter: Google compensates OEMs for the promotion of apps that contribute revenue (including Google Search and Chrome) through the royalty-free licensing of Play and other apps. Conversely, OEMs compensate Google for Play and Google’s other apps by promoting Google’s revenue-generating apps.

44. This barter enables Google to license Play and the other apps for free to OEMs, while supporting its ongoing investments in the Android platform, by ensuring the promotional opportunity afforded by preinstallation of Google’s ad-funded services. The barter reduces upfront costs and risks for OEMs by enabling the free licensing of Play. It reflects an economic exchange that avoids imposing on OEMs the upfront costs of licensing Play.

45. The barter is economically efficient and output enhancing. It has enabled the provision of an enormous variety of Android devices with a wide range of prices, including many low-priced devices.45 The arrangements have benefited OEMs and consumers, enhancing mobile platform competition by increasing the competitive constraint that Android imposes on iOS, the leading mobile platform in Australia.

C. Google’s default agreement with Apple leads to higher-quality devices at lower prices

46. The Issues Paper refers to Google’s agreement with Apple to be the default (not exclusive) search service on Safari (Issues Paper, p. 11). Google maintains a default agreement with Apple to secure a promotional opportunity on the closed Apple ecosystem. The agreement also enables Google to benefit from an association with Apple’s brand (said to be the world’s most valuable brand).46

47. From Apple’s perspective, Apple chooses Google because it is the best search service on the merits. When asked why Google is the default search service on iPhones, Apple’s CEO, Tim Cook, said “I think their search engine is the best.”47 Google’s revenue share payments, in turn, allow Apple to invest in innovation and maintain lower device prices.

44 OEM can pre-install other app stores, too: most Android devices ship with at least two app stores preinstalled. Consumers can install more.

45 Android has been critical to offering users such wide choice. By 2015, there were already more than 24,000 unique types of Android devices available, from over 1,300 brands. That was six times the number of device types that were available in 2012. By contrast, iOS has one brand of device – Apple.


Those that object to Google’s default arrangement with Apple offer no “but-for” world that would have been better for competition. If Google had been blocked from competing to be default on Safari, users would receive a lower-quality default service on Safari, and Apple’s device prices would likely be higher. It is difficult to see how that would be a positive outcome for competition or consumers.

* * *

In short, Google’s default and preinstallation arrangements create important benefits for users, developers, and OEMs. This is not a market failure that requires correction. In the “but for” world where Google did not compete for defaults or preinstallation, users would receive a lower quality service out-of-the-box; OEMs and developers would be less able to monetise distribution opportunities on the devices (leading, in turn, to higher device prices for users); and Android would be less competitive against the leading mobile platform in Australia, iOS.

IV. There is no basis for transposing the European choice screen to Australia

The Issues Paper asks whether a choice screen would be desirable in Australia to address perceived customer inertia from preinstallation or defaults (Issues Paper, Q. 23). Before considering theoretical solutions, however, it is necessary to establish whether there is a competitive harm in Australia in the first place.

In our view, there is no such harm because defaults and preinstallation create benefits for multiple stakeholders, without restricting users from reaching rivals. Rather than discussing possible harm in Australia, the Issues Paper cites the EU Commission’s Android decision (Issues Paper, pp. 12-13). The Android decision cannot be relied on to support the need for a choice screen in Australia.

First, that decision followed a five-year investigation focused on competitive conditions in mobile OSs, app stores, and search in European national markets. A necessary element of the Android decision was the finding that Android and iOS do not compete with each other and that, even if they did, Android would have an 80% share in Europe, with iOS just 18%.48

By contrast, the ACCC has previously found that Android and Apple compete: “Apple faces competition from a range of other handset manufacturers and from Google’s Android operating system to offer mobile hardware and software with

48 Case COMPAT.40099 Android, paras. 218-267, 479-559, and fn. 438.
competitive functionalities." Apple iOS leads Android in Australia, with a 54% share (Issues Paper, Figure 2). The findings on which the EU Commission based its Android decision are therefore not present in Australia.

54. Second, the EU Commission’s Android decision is presently under appeal to the EU Courts, which is the first time the decision will be subject to judicial review. Likewise, the Issues Paper refers to the Department of Justice’s filing of October 2020 (Issues Paper, p. 14), but that is only a set of unproven allegations.

55. Third, Google is not aware of evidence that Australian users would be better off with, or have a preference for, a European-style choice screen. To the contrary, a survey of almost 900 Australian Android users finds that 70% of Australian users that expressed a preference said that they did not want a setup choice screen for search services and browsers. And as seen in Section I, most Australians indicate that Google is their preferred choice as a search service, and so they benefit when Google is preinstalled or set as default without the additional friction of having to select Google again.

56. Accordingly, the ACCC should not point to the EU Commission’s Android decision or DoJ filing to take shortcuts to mandate a choice screen without first establishing evidence of a need for intervention in Australia. That should include, at least, a finding of anticompetitive conduct, a restriction of competition, a violation of Australian competition law, and a thorough cost/benefit analysis proving that intervening would be more beneficial than harmful, taking into account the interests of all stakeholders (users, OEMs, app developers, platform operators, browsers, and search services).

57. Accordingly, there is no need for a choice screen in Australia. Australians already have ample choice in the search and browser providers that they can use.

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49 In the Draft Determination, the ACCC observed “Apple’s iOS platform is a differentiated offering that competes globally against other mobile operating systems, such as Android, in the services and features each operating system provider offers to consumers”; and “Both Apple’s iOS operating system and Google’s Android operating system are driven by the goal of attracting more users, developers and (for Android) handset manufacturers”. See ACCC’s Draft Determination dated 29 November 2016 available here: https://www.accc.gov.au/system/files/public-registers/documents/D16%2B159995.pdf.

50 Survey Four, Question 3. The methodology and detailed results of the survey are contained in Annex 1.
V. The Issues Paper’s alternative measures are unnecessary, disproportionate, and would cause serious harm

58. The Issues Paper identifies three possible interventions beyond choice screens, namely: (i) a restriction on search engines from acquiring defaults, or on OEMs and developers from monetising distribution opportunities on their devices; (ii) mandating Google to provide its click and query data to rivals; and (iii) requiring Google to syndicate its search results on FRAND terms (Issues Paper, p. 22). These interventions would be unnecessary, disproportionate, and harmful.

A. A restriction on search engines acquiring defaults or OEMs and developers from monetising their products would be harmful

59. The Issues Paper refers to a potential intervention whereby search engines would be restricted from acquiring defaults or OEMs and developers would be banned from monetising their products (Issues Paper, p. 22).

60. This proposal would eliminate competition to be default, which brings important benefits for OEMs, developers, and users. It is difficult to see how a restriction on OEMs and developers monetising their products could have any conceivable benefit, especially given that some developers depend on selling distribution opportunities for most of their revenues.51

61. If the ACCC is referring to an asymmetric measure that would restrict only Google from acquiring defaults, that would also be discriminatory and harmful. There would be no procompetitive or consumer welfare-based reason to permit, for example, Microsoft to set its lower-quality search service as default on Windows, while prohibiting Google from bidding to be default. An asymmetric measure would harm OEMs and developers, as well as users:

(i) **Removing Google as a bidder for defaults would reduce OEM and browser revenues.** Selling defaults represents an important source of income for OEMs and developers. But if Google were restricted from bidding to be default, this would, by implication, reduce competition to be default and thereby reduce bidding pressure for the default. This, in turn, would reduce OEM and browser revenues, part of which would likely be passed on to users in terms of higher prices, less investment, and less innovation, and part of which would reduce the profitability of OEMs and browser developers.

(ii) **Prohibiting Google from bidding for defaults would harm users.** Google is the highest quality and preferred search service in Australia (Section I). According to the theory presented in the Issues Paper, precluding Google

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from bidding for default status would therefore mean that another, lower-quality search service would be selected as the default. Users who, under the Issues Paper theory, are considered inert (because they are unable or unwilling to switch defaults) would then be worse-off: they would be stuck with an inferior, non-preferred search service. For those users who can and do switch, the new default setting would be an unnecessary annoyance.

**B. Mandatory disclosure of click and query data is unnecessary and would cause serious harm**

62. Access to Google’s click and query data should not be mandated because rival services do not need such access to develop a high-quality search service. It would also be harmful for competition and innovation.

63. **Access to Google’s click and query data is not necessary for rivals to develop high-quality search services.** Access to Google’s click and query data is unnecessary for rivals to compete, for several reasons:

64. First, the primary factor in returning high-quality search results is the quality of the search service’s technology, not the volume of click and query data. Google’s main innovations in Search over the last decade -- like its indexing system,\(^{52}\) its interpretation technology, its freshness analysis,\(^{53}\) its mobile-focused indexing,\(^{54}\) and natural language processing,\(^{55}\) (see Section I above) -- do not turn on click and query data, but rather the ingenuity of its engineers. It is those advances in technology that drive high-quality search results, rather than access to more data.

65. Empirical evidence confirms that when search engines acquire more click and query data, that does not necessarily lead them to improve the relevance of their results. By way of example, the Microsoft/Yahoo! deal doubled Bing’s query volume overnight but failed to improve the relevance or monetisation of Bing’s search queries.\(^{56}\) In fact, it was publicly reported that “Yahoo’s revenue per search has

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\(^{54}\) See “Rolling out mobile-first indexing” available here: https://developers.google.com/search/blog/2018/03/rolling-out-mobile-first-indexing.

\(^{55}\) See “Understanding searches better than ever before” available here: https://blog.google/products/search/search-language-understanding-bert/.

been worse under the Microsoft deal than when it operated its own Web-search technology and advertising system.”

66. Second, most search queries that Google receives are “head” or “torso” queries. These are queries entered frequently by users, such as queries about popular products, personalities, and notable events. For such queries, there are diminishing returns to having access to greater click and query data. This is because the additional gain from increasing the data sample size declines as the sample size increases: the first data point is more valuable than the 10,000th data point. Accordingly, search engines derive little marginal benefit from collecting additional click and query data about head or torso queries.

67. Third, the ability to respond effectively to uncommon “tail” queries depends on engineering and technological capabilities such as indexing and query analysis, not click and query data. For example, Google’s Caffeine indexing technology enables Google to update its web index quickly and on a continuous basis. Similarly, Google’s freshness analysis system looks at ‘spikes’ in the dates when pages are first indexed by Google to identify ‘fresh’ results. These changes, in turn, produce improved speed, accuracy, and comprehensiveness, particularly when it comes to uncommon tail queries or fresh queries.

68. In fact, around 15% of queries that Google receives each day are queries that Google itself has never seen before. This proportion has stayed relatively constant for many years now (since at least around 2006). Accordingly, for a significant proportion of queries, Google has no click or query data on which to base its results, and it must instead rely on the sophistication of its analysis of other signals. If it were the case that it is necessary to have seen a query before to provide high-quality search results, this would imply that Google is still unable today to serve high quality search results for essentially the same proportion of its daily total query volume than in 2006, in contradiction with the continuous progress and high-quality experience that Google offers.

69. Fourth, nothing prevents rival search services from attracting users and winning more search queries and clicks to their service. Entering a search query on Google does not prevent the same user or other users from entering the same query on other search services. The click and the query is not “used up” like oil. Therefore, multiple search services have the ability to collect click and query data.

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58 In mathematical terms, this is because standard errors reduce as the square root of the sample size increases.

59 Consider carrying out a poll to determine the result of the next election. A random sample of 1,000 respondents will mean that the projections are subject to a standard confidence interval of + / - 3%; by contrast, a random sample of 10,000 respondents will have a confidence interval of + / - 1%. In other words, a tenfold increase in the data available only divides the margin of error by 3.
Mandatory disclosure of click and query data would expropriate Google’s technology, stifle innovation, and risk violating users’ privacy. While access to click and query data is not necessary for rivals to generate high-quality search results, forced disclosure would be harmful for several reasons.

First, if access to click and query data were mandated, this would effectively expropriate Google’s technology. Rivals would be able to identify the results that Google displays for a given query because the disclosure of queries and clicks would identify the result on which a user clicked for a particular query. Rivals would then be able to determine the ranking of the results because they could deduce the likely rank from the clicks that a result receives. This means that, with a feed of click and query data from Google, rivals could reverse-engineer and copy Google’s results at scale, either indirectly or directly by using Google’s results as training input into a machine-learning model.

Google conducts hundreds of thousands of experiments every year to find better ways to identify and rank search results. But under a mandatory data sharing obligation, any improvement to Google’s search results could be instantaneously copied by rivals. An obligation to share click and query data would therefore undermine the core service that Google provides, its central value proposition, and the fruits of its investments and innovations.

Second, disclosing click and query data would destroy incentives to innovate and compete, for both rivals and Google. Rivals would no longer need to build and develop their own indexing technologies and ranking algorithms, because they could simply copy and paste Google’s results. Rather than independent competitors, there would simply be a series of Google clones — leading to less diversity and diminished choice for users.

For example, rivals would not have to develop efficient technology to identify new or rarely visited content. Instead, they could simply identify and copy these results from data that Google would provide. Nor would rivals have to concern themselves with ranking results because they could replicate Google’s ranking. Armed with Google’s data on queries and clicks, rivals could turn into machines for mimicking Google’s search results.

This is not a hypothetical concern. Bing has already engaged in this kind of behaviour. Utilising query information that it was able to observe from users of

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60 The Issues Paper refers to the CMA’s Digital Markets Study and its discussion of a possible click and query disclosure obligation. But respondents to the study pointed out this concern. As Mojeek Limited explained, mandatory disclosure of click and query data would “actually just result in multiple search engines all offering the same service but under different banners.” See Mojeek Interim Report Comments (12 February 2020) available here: https://assets.publishing.service.gov.uk/media/5e8c8808e90e0707799498da/200212_Mojeek_Interim_Report_Response.pdf.

61 See “Microsoft’s Bing uses Google search results—and denies it” available here: https://googleblog.blogspot.com/2011/02/microsofts-bing-uses-google-search.html.
Microsoft browsers who had issued queries to Google, Bing extracted information about Google’s ranking and imported it into its search results. A mandatory obligation to share click and query data would facilitate such cloning of Google’s results and enable this practice more systematically and at a much larger scale.

Accordingly, mandatory data sharing would not increase -- it would diminish -- innovation. Google would no longer have a rational basis for investing in innovation and improvement of search results if rivals could instantaneously copy these improvements. Rivals, in turn, would have no incentive to develop search technologies of their own because they could free ride on Google and imitate its results.

Third, mandatory disclosure of click and query data risks violating users’ privacy. Users have a legitimate expectation that Google will not share their data with third parties, including data about users’ queries and clicks, absent a legal process based on specific suspicion of illegality. A core element of Google’s relationship with its users is Google’s commitment that “we keep your personal information protected and private” and “we do not sell your personal information to anyone”. An obligation to share users’ click and query data would force Google to break that commitment, thereby undermining Google’s relationship with users. Users would no longer control who has access to their data and they would lose trust in Google as a result.

Users would also be exposed to serious privacy breaches. Search queries can contain personal data, including data of a highly-sensitive nature (e.g., searches of medical conditions, home addresses, and political or religious organisations). Google goes to great lengths to protect this data. But Google has no reliable way to identify and anonymise all personal data in large-scale datasets of individual search queries.

In particular, anonymisation cannot guarantee protection of the data at issue. A comprehensive analysis of hundreds of datasets shows that anonymising data may be insufficient to prevent re-identification of data subjects. Indeed, the ability to identify data subjects from anonymised search data has been well-known since New York Times journalists were able to re-identify ‘Searcher No. 4417749’ from

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63 Jean Tirole, Economics for the Common Good (Princeton University Press 2017), p.402 (“The social acceptability of digitization depends on us believing that our data will not be used against us, that the online platforms we use will respect the terms of our contract with them, and that their recommendations will be reliable. In short, it is based on trust”).

64 Luc Rocher, Julien M. Hendrickx, Yves-Alexandre de Montjoye, Estimating the success of re-identifications in incomplete datasets using generative models, Nature (2019) available here: https://www.nature.com/articles/s41467-019-10933-3.pdf (the authors conclude that: “even heavily sampled anonymized datasets are unlikely to satisfy the modern standards for anonymization”).
anonymised AOL search logs.\textsuperscript{65} Accordingly, a joint paper by the EU and Spanish data protection agencies stresses that it is a “misunderstanding” that anonymisation will provide permanent and reliable protection of personal data.\textsuperscript{66}

80. Google, moreover, cannot guarantee the security requirements of third parties that might receive the data. Nor can it guarantee that recipients will use the data only for the purpose of improving their search tools. Users might be particularly concerned about their search queries being used to help search engines that are owned, controlled, or influenced by foreign states.\textsuperscript{67} Under a mandatory data sharing regime, therefore, consumers would lose control of who has their data and what they use it for.

81. The ACCC has previously recognised consumer concerns about personal information being shared with third parties.\textsuperscript{68} It recommended a range of amendments to Australian privacy legislation to increase the level of control that consumers have over their data.\textsuperscript{69} The proposal to force search services to share click and query data that users enter on Google with third parties would undermine those efforts.

C. Google already syndicates its search results on fair and reasonable terms

82. The Issues Paper also asks whether Google should be required to syndicate its search results to websites on fair and reasonable terms (Issues Paper, p. 23). But Google already syndicates its search results on such terms.


This is not limited to search: for example, researchers were able to identify individual data subjects from aggregated and anonymized location data collected through cellular networks.Y. Li et al, Trajectory Recovery From Ash: User Privacy Is NOT Preserved in Aggregated Mobility Data, April 2017 available here: https://dl.acm.org/doi/abs/10.1145/3038912.3052620.


\textsuperscript{68} ACCC Digital Platforms Inquiry Final Report (June 2019), p. 392. (“Consumers have expressed concerns about their personal information being shared with third parties. The ACCC consumer survey found that 86 per cent of digital platform users considered it a misuse of their personal information if it was shared with an unknown third party...”).

\textsuperscript{69} ACCC Digital Platforms Inquiry Final Report (June 2019), p. 457. (“The ACCC recommends a range of amendments to Australian privacy legislation to increase the level of transparency and control that consumers have over the data practices of all entities regulated under the Privacy Act.”).
83. Google provides search syndication solutions under the label Programmable Search Engine. Websites that syndicate Google’s search results embed a Google search box on their pages. When a user enters a query in the search box, the query from the user’s browser gets redirected to Google’s servers. Google’s servers then return search results for the query directly to the user’s browser, which renders the results page. The third-party website therefore does not generate search results or act as a search service under these arrangements. The website merely mediates the connection between a user and Google.

84. Google’s Programmable Search Engine syndication solution is available on standard, click-to-accept terms. Websites that are interested in this solution can choose between different commercial terms:

   (i) The website can opt for a free, ad-supported variant where Google displays ads alongside the search results, and the website and Google then share the revenue from these ads (with the partner receiving the majority of the revenue).

   (ii) Alternatively, the website can opt for an ad-free option and pay a fee of USD $5 per thousand queries.

   (iii) Google also offers a free option for not-for-profit websites.

85. Website partners can limit the display of results to information from their site (which is equivalent to entering a “site:” search on Google) or they can opt to have Google display results from the whole web. Partner sites can also influence the look and feel of the search results.

86. Accordingly, Google already syndicates its search results to websites on fair and reasonable terms. It provides its results for free (if the partner chooses to take ads and to benefit from the revenues of those ads) and it provides partners with flexibility in how they choose to utilise the technology. This is eminently fair and reasonable.

87. To the extent that the ACCC is suggesting that Google should be forced to syndicate its results to websites for free (without accompanying ads), that would not be justified:

   (i) It would expropriate Google’s proprietary technology without sound basis. Google’s search technology is the product of substantial investments and creativity. Syndicating that technology together with ads serves as the

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70 See “Programmable Search Engine” available here: https://programmablesearchengine.google.com/about/.

71 Further information about Programmable Search Engine is available at: https://programmablesearchengine.google.com/about/.

compensation in kind for providing partners with this sophisticated technology (and partners, in any event, receive most of the revenue from the ads).

(ii) A duty to license Google's search technology would not lead to enhanced competition. It would not create new rivals to Google in search that compete with their own web crawling, indexing, query interpretation, and ranking technologies. Rather, it would just create more customers for Google's technology and more websites that simply mediate a connection between a user and Google.

**Conclusion**

88. In conclusion, Google’s default and preinstallation arrangements benefit users, developers, and OEMs, without restricting users from reaching rivals. Google’s position in general search is a function of its quality: Australians use Google because they choose to, not because they have to. There is therefore no need for intervention in Australia.
ANNEX 1

Survey Methodology and Results

In September 2019, AMC Economics and Compass Lexecon conducted four surveys of Android users in Australia (the Surveys). Their purpose was to understand Android user behaviour and preferences on different topics. The questions asked were consistent with this objective, and straightforward and easy to understand for users. The Surveys also included an initial question asking respondents whether they have an Android smartphone or tablet. Only those who responded in the affirmative proceeded to the remaining survey questions.

The Surveys were conducted using Google Surveys. This online tool has been widely used to study consumer perceptions, including by academic institutions, such as Wharton business school, and corporations such as Orbitz. Evidence from Google Surveys has also been used in litigation and expert testimony. A 2015 opinion of the U.S. Federal Trade Commission provides a detailed discussion and endorsement of Google Surveys’ methodology. Google Surveys is also a member of the American Association of Public Opinion Research’s Transparency Initiative. By joining this initiative, Google Surveys pledges to uphold its rigorous disclosure standards when publishing results.

The Surveys sampled internet users who visited a publisher network of online news, reference, entertainment, and consumer sites. Respondents answer survey questions in exchange for access to content. Publishers of that content use Google Surveys as an alternative monetization method to charging an access fee.

Because Google Surveys recruits participants via online services, it is particularly well-suited to reach Internet users and evaluate their perceptions. The Surveys were conducted using representative sampling. This means that Google Surveys evaluated the representativeness of each survey by balancing its sample demographics (age, gender and geography) to match the specified population. This involves a two step process.

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73 See “How Google Surveys Works” available here: https://services.google.com/fh/files/misc/white_paper_how_google_surveys_works.pdf


75 See “Google Surveys 360 helps Orbitz understand the “why” behind customer decisions” available here: https://marketingplatform.google.com/about/resources/google-surveys-360-helps-orbitz-understand-customer-decisions/


77 Further information about the American Association of Public Opinion Research’s Transparency Initiative is available at: https://www.aapor.org/Standards-Ethics/Transparency-Initiative/FAQs.aspx

78 Respondents are not explicitly asked for details of their demographics to minimise the number of questions surveyed. Demographics are inferred from the web publisher network, user browsing behaviour and IP addresses.
1. Stratified sampling to engage respondents to match the demographics of the target Internet population.
2. Post-stratification weighting to more closely match the same demographics of the target Internet population.

The data collected by the Surveys are set out in the tables below.
Survey One: Search engine preference

1. Do you have an Android smartphone or tablet? 1,834 respondents
   - Yes: 24.1%
   - No: 50.5%
   - I don't know: 25.4%

2. Which of the following search engines are you aware of? 935 answers 421 respondents
   - Google: 95.1%
   - Yahoo: 54.5%
   - Bing: 49.8%
   - DuckDuckGo: 16.2%
   - Ecosia: 4.6%
   - Firefox: 0.2%
   - Baidu: 0.3%
   - Instagram: 0.3%
   - (Other responses): 0.2%
3. What is your favourite search engine on your Android device?

4. Why is your favourite search engine?

5. Do you like being able to use your favourite search engine immediately out of the box after you purchase a new Android device?

6. If your Android device came with a default search engine that you didn’t like, what are you most likely to do?
7. How do you most often perform internet searches on your Android device?

- Browser search bar: 35.3%
- Home screen search box: 26.4%
- Opening a search app: 21.6%
- Navigating to a search engine website: 15.8%
- "I use my iPad more": 0.3%
- "Google (+)": 0.3%
- "Other responses": 0.0%
Survey Two: Browser preference

ACCC DPI consultation - Survey Two

Hefer & Lerner

Sampling:

Audience:
Users on websites in the Google Surved Publisher Network

Sampling Method:
Representative

Age:
All Ages

Gender:
All Genders

Location:
Australia

Language:
English

Respondents
500 collected / 500 targeted

Start date:
Sep 4, 2019

End date:
Sep 14, 2019

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1. Do you have an Android smartphone or tablet?
1,565 respondents

<table>
<thead>
<tr>
<th>Answer</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>25.6%</td>
</tr>
<tr>
<td>No</td>
<td>49.2%</td>
</tr>
<tr>
<td>I don't know</td>
<td>25.3%</td>
</tr>
</tbody>
</table>

Target answer: "Yes"

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2. Which of the following internet browsers are you aware of?
1,120 answers / 466 respondents

<table>
<thead>
<tr>
<th>Browser</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrome</td>
<td>86.3%</td>
</tr>
<tr>
<td>Firefox</td>
<td>53.9%</td>
</tr>
<tr>
<td>Edge or Internet</td>
<td>43.4%</td>
</tr>
<tr>
<td>Explorer</td>
<td>42.0%</td>
</tr>
<tr>
<td>Samsung Internet</td>
<td>29.6%</td>
</tr>
<tr>
<td>Opera</td>
<td>20.6%</td>
</tr>
<tr>
<td>UC Browser</td>
<td>3.2%</td>
</tr>
<tr>
<td>(Other responses)</td>
<td>0.6%</td>
</tr>
</tbody>
</table>
Survey Three: Ability to download apps

1. Do you have an Android smartphone or tablet?
   1,124 respondents
   - Yes: 23.4%
   - No: 56.0%
   - I don’t know: 20.6%
   Target answer: “Yes”

2. When purchasing an Android phone or tablet, how important is it for you to be able to use your phone or tablet out of the box with minimal setup?
   417 respondents
   - Very important: 40.5%
   - Important: 25.1%
   - Not very important: 17.9%
   - Very unimportant: 14.3%

3. Do you believe that a smartphone or tablet should come with commonly used services (e.g., search, email, browser) preloaded on the device?
   413 respondents
   - Yes: 81.8%
   - No: 11.0%
   - I don’t know: 7.2%

4. Do you like having a suite of Google services (e.g., Search, Chrome, Drive) preloaded on your Android device?
   388 respondents
   - Yes: 75.1%
   - No: 15.9%
   - I don’t know: 9.0%
5. How difficult is it to download an Android app?
- Very easy: 40.8%
- Easy: 22.6%
- Neither easy nor difficult: 20.3%
- Difficult: 3.7%
- Very difficult: 2.6%

6. How long does it take to download an Android app?
- Less than one minute: 37.6%
- A few minutes: 36.9%
- More than a few minutes: 6.5%
- I don't know: 19.0%

7. Have you ever downloaded or installed an app that provided similar functionality as an app that was preloaded on your Android device?
- Yes: 45.7%
- No: 23.7%
- I don't know: 30.5%
Survey Four: Changing defaults

ACCC DPI consultation - Survey Four

Status: Complete

Sampling Audience:
Users on websites in the Google Surveys Publisher Network

Sampling Method: Representative

Age:
All ages

Gender:
All genders

Location:
Australia

Language:
English

Respondents:
378 collected / 500 targeted

Start date:
Sep 4, 2019

Find date:
Mar 29, 2021

1. Do you have an Android smartphone or tablet?
   4,023 respondents:
   - Yes: 24.1%
   - No: 49.0%
   - I don't know: 26.4%

2. Has an app ever prompted you to change a default on your Android device?
   913 respondents:
   - Yes: 27.4%
   - No: 59.4%
   - I don't know: 22.1%

3. Would you like to have a series of screens that require you during device setup to make a decision on which search and browser apps are set as default on a new Android device?
   879 respondents:
   - Yes: 21.0%
   - No: 50.0%
   - I don't know: 28.9%

4. Have you ever changed a default setting on your Android device?
   823 respondents:
   - Yes: 32.3%
   - No: 42.7%
   - I don't know: 25.1%

Target answers: "Yes"