



**ACCC Digital Platforms Services Inquiry**

**September 2024 report on “revisiting general search services” (DPSI 9)**

**Google’s Response to ACCC Issues Paper**

**3 May 2024**

## 1. INTRODUCTION AND EXECUTIVE SUMMARY

Google welcomes the opportunity to comment on the ACCC's Issues Paper for its Digital Platform Services Inquiry - September 2024 report revisiting general search services.

### 1.1 We operate in a highly dynamic and innovative space – people have more ways to discover information than ever before

The Issues Paper focuses solely on general search services, considering them to be the “gateway to other websites and content on the internet”.<sup>1</sup> We offer some important observations that should inform the ACCC's consideration of competitive dynamics in this space.

First, while Google Search is designed to provide people with the most relevant and helpful information available, people have more ways to discover information than ever before. Increasingly, this is happening through other apps and websites. For example, many online shoppers visit Amazon, The Iconic or eBay directly to search for and purchase goods. For real estate searches, many Australians go directly to Domain or RealEstate.com.au. For job searches, many people go straight to Seek.com.au or LinkedIn. And, many people conduct travel searches by using apps or websites such as Airbnb, TripAdvisor or Skyscanner.

Users make a choice about how to discover information and, if other services can provide faster, more useful or more engaging content than Google, people can – and do – use those services, often bypassing general search engines altogether.

Second, the ways in which users discover information and content continues to evolve rapidly. Today, many people, particularly younger users, turn to services like TikTok, Facebook, Instagram, Reddit and X (formerly Twitter) to search for information and content. These companies have responded by adapting their products to encourage users to discover content via their platforms. A March 2024 survey reported that the preferred way for 18-24 year olds to search for local results was Instagram, followed by TikTok then Google.<sup>2</sup>

Third, many companies around the world – both established and new – are continually investing in innovations, ideas and new ways to discover information. Google has long used AI to improve Search.<sup>3</sup> This includes major breakthroughs in machine learning research long before generative AI (genAI) as we know it today. Established search engines like Bing and DuckDuckGo have and are continuing to increase their product appeal using AI technologies.

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<sup>1</sup> ACCC, [September 2024 report revisiting general search services – Issues Paper](#) (Issues Paper), *ACCC Digital Platform Services Inquiry* (18 March 2024), 5.

<sup>2</sup> John Koetsier, '[GenZ Dumping Google For TikTok, Instagram As Social Search Wins](#)', *Forbes* (Online, 11 March 2024). 67% of those surveyed say they use Instagram to search, 62% use TikTok, and 61% use Google. The survey also found that 45% of Gen Z use Snapchat for local search.

<sup>3</sup> See Sundar Pichai, '[Q1 earnings call: CEO's remarks](#)', *Google's The Keyword* (Blog Post, 25 April 2024): “We've been an AI-first company since 2016, pioneering many of the modern breakthroughs that power AI progress, for us and the industry”.

Recent developments in genAI have not only enabled continued innovation in general search,<sup>4</sup> but have also enabled new ways for people to find useful information. For example, dialogue agents (chatbots) including ChatGPT, YouChat, Andi, Exa and Pinecone, as well as Microsoft Copilot and Meta A.I., are emerging as a way for users to discover information. Section 2 below outlines some of these developments.

## **1.2 Australians use Search because of its high quality, which continues to improve**

This competition and dynamism results in a continual drive for improvements in quality and in product innovation, both by Google and our competitors.

We view search as a never ‘solved’ problem – old challenges evolve and new challenges continue to emerge. We are constantly investing and innovating to ensure Search can remain relevant and useful to users. Section 3 below outlines some of the actions we have taken to improve Search, to address low quality webpages, and to ensure that users can appropriately distinguish between paid and organic content.

## **1.3 Australia has a valuable opportunity to observe and assess the impact of regulatory developments in Europe before implementing changes here**

Experience to date under the European Union’s Digital Markets Act (DMA) supports our view that regulatory approaches overseas should not simply be accepted and imported wholesale as the basis for any approach to *ex ante* regulation in Australia.<sup>5</sup> Rather, the ACCC and lawmakers should carefully consider the evidence that will emerge over the coming months and years following the implementation of the DMA.

Australia has a valuable opportunity to gather concrete data on the DMA’s impact on competition and innovation. It can then consider how to avoid any unintended impacts that chill innovation; hurt consumers, small businesses or other ecosystem players; or undermine privacy or security. Section 4 sets out our observations on the emerging impacts of some of the key DMA search obligations.

# **2 THE COMPETITIVE LANDSCAPE AND THE WAY THAT USERS DISCOVER INFORMATION AND CONTENT CONTINUES TO EVOLVE**

## **2.1 Companies are investing heavily in genAI and it is a highly dynamic space**

GenAI is continuing to drive innovations and unlock growth opportunities. The speed of innovation in genAI is notable with over 330 publicly-known foundation models (FMs) globally.<sup>6</sup> These innovations are being driven forward by a wide range of players, including grassroots developers, open source software (OSS) organisations, academic institutions and a myriad of new start-ups, alongside established industry players. As explained further

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<sup>4</sup> See Sundar Pichai, ‘[Q1 earnings call: CEO’s remarks](#)’, *Google’s The Keyword* (Blog Post, 25 April 2024).

<sup>5</sup> See Oliver Bethell, ‘[Complying with the Digital Markets Act](#)’, *Google’s The Keyword* (Blog Post, 5 March 2024).

<sup>6</sup> Competition & Markets Authority (CMA), [AI Foundation Models Update Paper](#) (11 April 2024), para 11. The CMA’s figure captures FMs that are in the public domain; there may be others that are private.

below, the dynamism and innovation across the AI value chain is already shifting paradigms, including in the way people discover information.

## 2.2 Key inputs to genAI are readily accessible for AI companies globally

The development, training and deployment of genAI models continues to be facilitated by a range of factors, including readily available cloud infrastructure; a pivot towards the quality and efficiency of model training and deployment rather than simply model size; a dynamic financing and incubation infrastructure; and a deep and growing pool of talent for AI companies. This is evidenced by an increasing number of successful companies entering with innovative genAI models, AI-powered apps, and other AI products and solutions, including Mistral,<sup>7</sup> Anthropic,<sup>8</sup> Cohere,<sup>9</sup> Stability AI,<sup>10</sup> AI21 Labs,<sup>11</sup> Databricks,<sup>12</sup> and OpenAI.<sup>13</sup> All of these have achieved unicorn status within only a few years.

Further details on each of these factors is set out below.

**Cloud infrastructure is increasingly competitive.** Access to highly scalable and cost-effective cloud infrastructure for developing and training genAI models – and for deploying products powered by genAI models – is available from a wide range of cloud services providers. These include Google Cloud, Microsoft Azure, Amazon Web Services (AWS), IBM Cloud, Oracle Cloud, OVHCloud and Alibaba. The wide availability of cloud compute offerings provides genAI start-ups with industry-leading efficiency for both training and serving genAI models, further lowering barriers to entry and expansion for new genAI competitors. For example, genAI model builder Midjourney<sup>14</sup> is using Google Cloud’s latest TPU processors<sup>15</sup> to train its eponymous text-to-image models. Stability AI<sup>16</sup> has chosen AWS as its cloud provider for building and training its media-generation models, and Anthropic<sup>17</sup> is using cloud services from both AWS and Google Cloud.

**Pivot towards quality and efficiency.** GenAI models remain early-stage technologies. Through our own research, Google has learned that increasing the amount of computing power and volume of data does not necessarily improve genAI model performance.<sup>18</sup>

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<sup>7</sup> See [Mistral AI](#).

<sup>8</sup> See [Anthropic](#).

<sup>9</sup> See [Cohere](#).

<sup>10</sup> See [Stability.ai](#).

<sup>11</sup> See [AI21 labs](#).

<sup>12</sup> See [Databricks](#).

<sup>13</sup> See [OpenAI](#).

<sup>14</sup> See Google Cloud, [‘Midjourney Selects Google Cloud to Power AI-Generated Creative Platform’](#), Google Cloud (Online, 14 March 2023).

<sup>15</sup> Google Cloud’s Tensor Processing Units (or TPUs) are custom-designed AI accelerators that are optimised for training and inference of AI FMs. See Google Cloud, [‘Cloud Tensor Processing Units \(TPUs\)’](#).

<sup>16</sup> Amazon, [‘Stability AI Selects AWS as Its Preferred Cloud Provider to Build Artificial Intelligence for the Future’](#), Amazon Press Center (Online, 1 December 2022).

<sup>17</sup> See [Anthropic](#).

<sup>18</sup> The CMA found that “there are increasing trade-offs between model size and the cost of computational requirements” and, as a result, there is increasing focus on creating smaller and more efficient models. See CMA, [AI Foundation Models: Initial Report](#) (18 September 2023), paras 3.70 et seq; CMA, [AI Foundation Models: Technical Update Report](#) (16 April 2024), paras 2.7-2.10.

Google Search, for example, has for years relied on machine-learning systems that require much less data to be successful. It is not as simple as ‘bigger is better’. Research creativity is critical to building powerful models. As we approach the limits in performance gains from scaling alone, R&D efforts are responding by increasingly shifting away from size and towards other ways to improve performance, such as by improving training efficiency and data quality. For example:

- **Model architecture** – several of Google’s top models (e.g., Gemini or PaLM 2) have focused on developing more efficient model architectures, which has resulted in much smaller models (requiring less compute resources to train and serve) with better overall performance and efficiency than their comparators.<sup>19</sup>
- **Datasets for genAI model pre-training** – model pre-training relies heavily on datasets from public sources.<sup>20</sup> This is particularly the case for general purpose genAI models (e.g., a large language model). Many of these data sets are naturally high-quality, and there are a large and growing number of open source data sets curated and processed specifically for genAI model training. Many notable FMs are trained using entirely public or open source data (e.g., large textual datasets). This includes GPT-3,<sup>21</sup> and the open models LLaMA<sup>22</sup> and Vicuna 13-B.<sup>23</sup>
- **Datasets for genAI model fine-tuning** – high-quality data such as Reinforcement Learning from Human Feedback (RLHF) is an important source for training and fine-tuning AI models. While more costly than other sources (e.g., those produced using public sources) due to its use of human ‘raters’ or ‘participants’,<sup>24</sup> the cost for RLHF is by no means prohibitive for the many VC-backed, well-funded AI start-ups. These costs are also expected to decline further as a result of an emerging industry of outsourced RLHF services, increased automation and innovation in synthetic data curation techniques.

**Dynamic financing and incubation infrastructure.** There is a hugely vibrant financing and incubation infrastructure to fund and support innovation in training new genAI models, in developing new apps and other products and solutions (including features for existing devices and services), and in other new ideas that push the boundaries of AI. In 2023 alone,

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<sup>19</sup> See Sundar Pichai, ‘[Q1 earnings call: CEO’s remarks](#)’, *Google’s The Keyword* (Blog Post, 25 April 2024): “We’ve developed new AI models that are more than one hundred times more efficient than they were 18 months ago”.

<sup>20</sup> The CMA has recently found that “Web-scraped data and open-source data sets continue to be important for FM development. As outlined in our initial report, this type of data forms the bulk of the data used for pre-training FMs, and some FMs only use this type of data at the pre-training stage.” See CMA, [AI Foundation Models: Technical Update Report](#) (16 April 2024), para 3.7.

<sup>21</sup> Tom B Brown et al, [Language Models are Few-Shot Learners](#) (Proceedings of the Conference on Neural Information Processing, 22 July 2020).

<sup>22</sup> Meta, ‘[Introducing Meta Llama 3: The most capable openly available LLM to date](#)’, *Meta Blog* (Blog Post, 18 April 2024).

<sup>23</sup> The Vicuna Team, ‘[Vicuna: An Open-Source Chatbot Impressing GPT-4 with 90%\\* ChatGPT Quality](#)’, *LMSYS Org* (Online, 30 March 2023).

<sup>24</sup> Individuals with the appropriate knowledge and/or skills who are trained by the AI model developer to complete a particular task.

investors directed US\$2.18 billion into genAI, compared to US\$1 billion the year before.<sup>25</sup> This gives both smaller and established AI companies access to significant funding and technical and financing expertise. This is evidenced by the increasing number of successful companies emerging, including Anthropic, Cohere, Mistral, AlephAlpha and Stability AI.

**Growing pool of talent.** There is a deep, highly-mobile and growing pool of talent in the AI sector, and many of the most promising start-ups in AI are founded and staffed by former employees of Google and other more established genAI model developers.

### 2.3 All layers of the AI value chain are characterised by dynamism and innovation

The ready availability of key inputs to enable genAI development and deployment is intensifying competitive pressures in upstream genAI model building. An increasing cast of players are producing innovative and powerful genAI models for an ever-growing variety of use cases. These include established industry players (e.g., Microsoft, Amazon, Meta), as well as agile and well-funded start-ups and unicorns (e.g., Anthropic, Cohere, AI21 Labs, Stability AI) and academic and open source institutions (e.g., Together, Stanford CRFM). Indeed, some of the most innovative genAI models – and the consumer / business apps and services they enable – came from start-ups and unicorns.

In turn, this intensifying upstream competition is escalating entry and expansion of genAI-powered developers downstream:

1. genAI model builders are competing to offer access to a growing variety of base models, pre-tuned models and task-specific APIs with increasing powers and features;
2. the increasingly competitive cloud infrastructure space is making developing and deploying AI-powered services fast, flexible, scalable and affordable for even the smallest developers; and
3. the deep and liquid AI / tech talent pool, and dynamic financing and incubation infrastructure, are also providing enormous support to creative ideas.

As a result, it is easier than ever for developers - even ones without extensive AI / machine learning experience – to start making and offering new AI-powered products (e.g., chatbots). Developers can also transform their existing products with AI-powered features (e.g., Microsoft's 365 Copilot that adds generative features to Microsoft 365 services, like Word and Powerpoint).<sup>26</sup>

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<sup>25</sup> Dylan Thomas, Maira Imtiaz and Annie Sabater, '[Private equity-backed investment surge in generative AI defies 2023 deal slump](#)', *S&P Global* (Online, 1 March 2024).

<sup>26</sup> Jared Spataro, '[Introducing Microsoft 365 Copilot – your copilot for work](#),' *Official Microsoft Blog* (Blog Post, 16 March 2023).

## 2.4 Openness will continue to drive innovation in AI

Throughout the history of AI, the open source community and industry players have built on each other's innovations, which has led to the impressive advancements we have seen today. Openness has been a cornerstone of AI, and will continue to drive innovation across the industry, unlocking innovation, and lowering barriers to entry and expansion, including in search.<sup>27</sup>

At Google, we are key contributors<sup>28</sup> to AI open research and open source projects which are laying the foundation for today's progress.<sup>29</sup> For example:

- Google's revolutionary Transformer architecture underpins most of today's genAI models and systems, including OpenAI's GPT series of FMs and ChatGPT.<sup>30</sup>
- Google originally developed TensorFlow in-house and later released it as an OSS library for building AI.<sup>31</sup>
- Google has also contributed to many open FMs (e.g., Gemma,<sup>32</sup> BERT,<sup>33</sup> T5<sup>34</sup>) which have led to innovations by the AI community which have built upon these open FMs (e.g., RoBERTa<sup>35</sup>). In particular, Gemma can be run on a laptop and hosted by rival cloud platforms, further lowering barriers to entry and spurring innovation.

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<sup>27</sup> The CMA has recognised that "Open-source FMs remain an important force for competition and innovation". See CMA, [AI Foundation Models: Update Paper](#) (11 April 2014), para 13.

<sup>28</sup> Eric Brewer and Abhishek Arya, '[Shared success in building a safer open source community](#)', *Google's The Keyword* (Blog Post, 12 May 2022).

<sup>29</sup> We contribute to open research and open source projects responsibly, as we are aware of the safety challenges that open source presents, particularly with regard to the most advanced ("frontier") AI systems. Google was one of the first to articulate [AI Principles](#) that put beneficial use, users, safety and avoidance of harms above business considerations. We apply these principles to every stage of our work, setting clear boundaries and guardrails around our research and products. We believe that getting AI right requires a collective effort by researchers, developers, deployers, academics, businesses, consumers and governments. It requires all stakeholders to work together to find solutions that strike a careful balance which recognises the great potential of AI to benefit people, society and humanity, encourages innovation and safe and beneficial use of the technology, while avoiding misapplication, misuse and harmful uses. For example, we believe that regulation and policies can support AI innovation and enable responsible deployment - such as by establishing a competition safe harbour for open public-private and cross-industry collaboration on AI safety research. See Google, [A Policy Agenda for Responsible Progress in Artificial Intelligence](#) (20 May 2023), 6. As a founding member of the [Frontier Model Forum](#), Google is committed to advancing AI safety research and developing best practices for the industry.

<sup>30</sup> The 't' from GPT (Chat Generative Pre-Trained Transformer) originates from Google's Transformer architecture. Ashish Vaswani et al., [Attention Is All You Need](#) (Proceedings of the Conference on Neural Information Processing, December 2017).

<sup>31</sup> TensorFlow is an OSS platform for developing machine learning applications and neural networks. See here for further information: '[An End-to-End Platform for Machine Learning](#)', *TensorFlow* (Online).

<sup>32</sup> Jeanine Banks and Tris Warkentin, '[Gemma: Introducing new state-of-the-art open models](#)', *Google's The Keyword* (Blog Post, 21 February 2024).

<sup>33</sup> In 2019, Google open-sourced BERT which has since led to further innovations from the AI community (e.g. RoBERTa). See Jacob Devlin and Ming-Wei Chang, '[Open Sourcing BERT: State-of-the-Art Pre-training for Natural Language Processing](#)', *Google Research* (Blog Post, 2 November 2018).

<sup>34</sup> Linting Xue et al, '[ByT5: Towards a token-free future with pre-trained byte-to-byte models](#)' (2022) 10 *Transactions of the Association for Computational Linguistics* 291.

<sup>35</sup> Alisha Khan, '[From BERT to RoBERTa: A Guide to the Top Alternatives to GPT](#)', *ZYXWARE* (Online, 30 October 2023).

## 2.5 The dynamism and innovation across the AI value chain is already shifting paradigms, including in the way people discover information

Advancements in genAI model capabilities have enabled new use cases and new classes of products, including generative chatbots/assistants, image/art generators, and virtual mental health support/companions. More established genAI model developers are facing competition from innovative developers who have created many of these genre-defining new products (often using genAI models from third parties), which now populate the top charts across different app stores.<sup>36</sup>

GenAI models have also created new possibilities for existing use cases. Consumers and businesses are expecting new and enriched experiences, as developers race to introduce new genAI-powered features to their existing products, and new players take advantage of the opportunity created by this shifting demand to enter.

Of particular relevance, genAI features have enabled new and innovative ways for consumers to find useful information. As reflected in the ACCC's Issues Paper, some genAI-powered products and services, including chatbots, are emerging as a way for users to discover information. These include ChatGPT,<sup>37</sup> YouChat,<sup>38</sup> Andi,<sup>39</sup> Exa<sup>40</sup> and Pinecone,<sup>41</sup> as well as Microsoft Copilot and Meta A.I.<sup>42</sup>

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<sup>36</sup> For example, regarding generative chatbots / assistants, as of 19 April 2024 in Australia, [ChatGPT](#) by OpenAI is now the 8th most popular iPhone app (across all categories) on the iOS app store in Australia and is ranked #2 in Productivity in the Play Store, alongside other highly popular alternatives preferred by start-ups and independent developers such as [Ask AI by Codeway](#) (#13 in Productivity, Play Store; #61 in Productivity, iOS), [AI Chatbot by ScaleUp](#) (#42 in Productivity, PlayStore; #33 in Productivity, iOS) and [ChatOn by AI BY](#) (#79 in Productivity, Play Store; #20 in Productivity, iOS).

<sup>37</sup> OpenAI launched ChatGPT in November 2022 and, within two months of its launch, ChatGPT reached over 100 million users (see Andrew R Chow, '[How ChatGPT Managed to Grow Faster Than TikTok or Instagram](#)', *TIME* (Online, 8 February 2023)). For context, it took Instagram 2.5 years and TikTok 9 months to get to over 100 million users. In 1.5 years, OpenAI has become the 36th most visited website in Australia (SimilarWeb, '[Top Websites Ranking in Australia in March 2024](#)'), and 21st in the world (SimilarWeb, '[Top Websites Ranking in the World in March 2024](#)'). It has recently been reported that over 100 million people are using Chat GPT on a weekly basis (see Jon Porter, '[ChatGPT continues to be one of the fastest-growing services ever](#)', *The Verge* (Online, 7 November 2023)). In addition, since 2020, Microsoft has reportedly invested over US\$13 billion in OpenAI (see Jason Karaian, '[Microsoft's Stock Hits Record High After Hiring OpenAI Outcasts](#)', *The New York Times* (Online, 20 November 2023)). And, in May 2023, Microsoft announced a range of initiatives between Bing and OpenAI, including setting Bing as the default search engine for ChatGPT (see '[Bing at Microsoft Build 2023: Continuing the Transformation of Search](#)', *Microsoft Bing Blogs* (Blog Post, 23 May 2023)).

<sup>38</sup> You.com was launched in November 2021 by former Salesforce employees (Sam Costello, '[What is YouChat?](#)', *Lifewire* (Online, 23 March 2023)). By mid-December 2022, You.com had surpassed one million active users, and the number of searches grew by over 400% in six months (Gil Press, '[Want to Experience the Future of Search? Go to You.com](#)', *Forbes* (Online, 15 December 2022)). You.com was named one of Time's "The Best Inventions of 2022" (*TIME*, '[The Best Inventions of 2022](#)').

<sup>39</sup> Founded in 2022, Andi search is a free service that is currently in its early testing stage. It raised US\$2.5 million in 2022. See Kyle Wiggers, '[Y Combinator-backed Andi taps AI to build a better search engine](#)', *TechCrunch* (Online, 13 September 2022).

<sup>40</sup> Exa is a search engine, founded in 2021 (see Pitchbook, '[Exa AI](#)'), that currently allows up to 1,000 requests per month for free (see Deepgram, '[Exa](#)' (Online, 9 April 2024)).

<sup>41</sup> Pinecone is a vector database company, founded in 2019, that has raised US\$138 million in funding to date. See Janakiran MSV, '[Pinecone Brings Serverless to Vector Databases](#)', *Forbes* (Online, 16 Jan 2024). It is used for machine learning applications used for AI search. See Jeffrey Richman, '[What is Pinecone AI? A Guide to the Craze behind Vector Databases](#)', *Estuary* (Online, 18 June 2023).

<sup>42</sup> See Mike Isaac and Cade Metz, '[Meta, in Its Biggest A.I. Push, Places Smart Assistants Across Its Apps](#)', *The New York Times* (Online, 18 April 2024). This New York Times article states that, in April 2024, "Meta will begin



Google has long used AI and machine learning to improve its search service. For example:

- Since 2015, Google has been relying on RankBrain, a machine learning system that Google learns to interpret queries and identify relevant results for those queries.<sup>43</sup>
- In 2018, Google launched an AI-based spam-prevention system called SpamBrain. This was in large part responsible for catching 200 times more spam sites in 2021 compared to when we first started nearly two decades ago.<sup>44</sup>
- In 2018, Google created the neural matching system BERT (Bidirectional Encoder Representations from Transformers). Google’s neural matching works like a “super-synonym system” which primarily helps Google better understand how words in search queries might be related to concepts.<sup>45</sup>

Google Search is not alone: search engines like Bing and DuckDuckGo have and are continuing to increase their product appeal using AI technologies. For example, Microsoft has launched the ‘New Bing’,<sup>46</sup> with generative features powered by GPT-4. The Bing mobile app is now one of the most popular apps on the Play Store (#6 in the tools category).<sup>47</sup> And DuckDuckGo has launched DuckAssist,<sup>48</sup> with generative features powered by Anthropic’s Claude.<sup>49</sup>

Google is responding to this increasing competitive pressure from other search providers, and to changing user needs, by updating and enriching our own search capabilities.<sup>50</sup> This includes “AI Overviews” (which is being tested in the US and UK) and experiments in Search Labs that enable AI experiences, such as Search Generative Experience (SGE), which has been rolled out on an experimental basis in certain countries.

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incorporating new versions of its A.I.-powered smart assistant software across its apps, which include Instagram, WhatsApp, Messenger and Facebook. The latest technology will be rolled out in more than a dozen countries, including Australia, Canada, Singapore and the United States. The A.I. software will become practically omnipresent — inside the news feed, in search bars and in chats with friends. People will be able to ask the assistant, Meta A.I., for help in completing tasks and getting information, such as what concerts might be occurring in San Francisco on a Saturday night or the best options for vegan enchiladas in New York. Meta A.I. is powered by LLaMA 3, the company’s newest and most powerful large language model, an A.I. technology that can generate prose, conduct conversations and create images.”

<sup>43</sup> Steven Levy, ‘[How Google is Remaking Itself as a “Machine Learning First” Company](#)’, *Wired* (Online, 22 June 2016).

<sup>44</sup> Google for Developers, ‘[How we Fought Search Spam on Google in 2021](#)’, *Google Search Central* (Blog Post, 21 April 2022).

<sup>45</sup> See Pandu Nayak, ‘[Understanding searches better than ever before](#)’, *Google’s The Keyword* (Blog Post, 25 October 2019).

<sup>46</sup> Yusuf Mehdi, ‘[Confirmed: the new Bing runs on OpenAI’s GPT-4](#)’, *Microsoft Bing Blogs* (Blog Post, 14 March 2023).

<sup>47</sup> Ranking as of 7 June 2023 in Australia.

<sup>48</sup> Zachary McAuliffe, ‘[Try DuckDuckGo’s New AI Feature, DuckAssist, Now for Free](#)’, *CNET* (Online, 15 March 2023).

<sup>49</sup> Anthropic is using Google Cloud to train and deploy Claude, which is also available to other developers on AWS.

<sup>50</sup> See Elizabeth Reid, ‘[Supercharging Search with generative AI](#)’, *Google’s The Keyword* (Blog Post, 10 May 2023). See also Sundar Pichai, ‘[Q1 earnings call: CEO’s remarks - Research leadership](#)’, *Google’s The Keyword* (Blog Post, 25 April 2024).

## 2.6 The past few years have seen significant changes in the way that users interact with a range of platforms to discover information

In parallel with these technological changes, there continue to be changes in the ways that users discover information and content. The Issues Paper focuses on general search services. But people have more ways to discover information than ever before, and increasingly this is happening outside general search engines. Users make a choice about how to discover information, and if one of the many other services or apps available to users can provide faster, more useful or more engaging content than Google, users can - and do - use those other services.

An emerging trend is the increasing use of social media to discover information, particularly by younger users. For example:

- A February 2024 report by the Software & Information Industry Association (SIIA) found that there has been:

“a transformational shift in the way people search for information, with rising popularity for sites with social media-style and topic-specific content. The survey shows the younger generation favors platforms that feature such content over traditional search engines, even while they use both and while the features of each, including search and advertising capabilities, grow less distinguishable. And though there is yet low awareness of GenAI, the survey reveals that most people have adopted GenAI tools for information discovery rather than creative purposes, further evolving online information search”.<sup>51</sup>

- A March 2024 survey reported that Google fell behind both Instagram and TikTok as the preferred way for 18-24 year olds to search for local results: 67% said they use Instagram to search, 62% used TikTok, with Google third at 61%.<sup>52</sup>

Social media platforms have responded to the changing nature of how users are searching for information and content, adapting their products to encourage users to discover content via their platforms. For instance:

- TikTok has developed a range of new products, including the launch of an AI-powered tool to help TikTok users with information discovery,<sup>53</sup> as well as launching ads alongside organic results.<sup>54</sup>

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<sup>51</sup> See Software and Information Industry Association, '[SIIA Survey Shows User Habits are Expanding the Field of Finding Information Online](#)', SIIA (Online, 6 February 2024).

<sup>52</sup> John Koetsier, '[GenZ Dumping Google For TikTok, Instagram As Social Search Wins](#)', *Forbes* (Online, 11 March 2024).

<sup>53</sup> Danny Goodwin, '[TikTok tests AI chatbot for search and discovery](#)', *Search Engine Land* (Online, 20 May 2023).

<sup>54</sup> Nicola Agius, '[TikTok search ads are here](#)', *Search Engine Land* (Online, 22 August 2023).

- Reddit has recently unveiled a range of different features that are “aimed at making searching on Reddit...more engaging and more accurate”, including a new media search tab, simpler results, adding accessibility features and easier and faster search on mobile web.<sup>55</sup>
- Meta has commenced incorporating new versions of its AI-powered smart assistant software across its apps, including Instagram, WhatsApp, Messenger and Facebook. “People will be able to ask the assistant, Meta A.I. for help in completing tasks and getting information, such as what concerts might be occurring in San Francisco on a Saturday night or the best options for vegan enchiladas in New York.”<sup>56</sup>
- Instagram has also made changes to its features over time, like enabling users to discover content based on keywords.<sup>57</sup>

## **2.7 Competition from these dynamic changes means that we must continue to innovate and improve**

These changes – together with the significant level of entry and transformational levels of investment in product innovation – mean that we operate in a highly competitive and rapidly evolving global environment. These factors result in a continual drive for improvements in quality and in product innovation – both by us and our competitors. We expand on this in the section below.

## **3 AUSTRALIANS USE SEARCH BECAUSE OF ITS HIGH QUALITY**

People come to Search to find information, learn about topics of interest, and make important decisions. Given the competition and dynamism in this space, Search must continue to deliver the most relevant and reliable information – quickly and easily, and in an engaging and appealing way – to meet users’ evolving requirements. We believe that Search’s ongoing popularity reflects that users consider it to be the highest-quality search service in Australia. This is attributable to a range of factors, including:

- Google’s algorithms that allow us to sift through the world’s information and find the most relevant results within a fraction of a second;<sup>58</sup>

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<sup>55</sup> Mediaweek, [‘Reddit unveils new and improved search capabilities’](#), *Mediaweek* (Online, 6 October 2023).

<sup>56</sup> See Mike Isaac and Cade Metz, [‘Meta, in Its Biggest A.I. Push, Places Smart Assistants Across Its Apps’](#), *The New York Times* (Online, 18 April 2024).

<sup>57</sup> Ashley Carman, [‘Keyword search is coming to Instagram’](#), *The Verge* (Online, 18 November 2020).

<sup>58</sup> See Search Engine Journal, [‘History of Google Algorithm updates’](#), *Search Engine Journal* (Web Page, March 2024).

- The useful search result formats that Google continues to improve and experiment with<sup>59</sup> to understand how users can find relevant results more easily;<sup>60</sup>
- Language models that have helped Google take huge leaps forward in understanding queries and displaying relevant results;<sup>61</sup>
- Google’s strict quality thresholds that ensure Search displays the highest quality results responsive to a search query.<sup>62</sup> We do hundreds of thousands of quality evaluations every year to make sure we are meeting our high bar for quality.<sup>63</sup> We regularly make broad updates to our systems<sup>64</sup>, called “core updates”, as well as more specialised updates, like our “helpful content update”<sup>65</sup>, to continue to deliver useful results;
- Google’s sophisticated spam systems to detect and remove spam content from its results;<sup>66</sup>
- Google’s investment in a broad, high-quality index that covers hundreds of billions of web pages and which is continuously being updated;<sup>67</sup>

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<sup>59</sup> See Section 3.1 below. Google conducts live traffic experiments to see how real people interact with a feature, before launching it to everyone. In 2022, Google ran over 800,000 experiments that resulted in more than 4,000 improvements to Search (see Google Search, [‘Rigorous Testing’](#)).

<sup>60</sup> For example, Google has implemented new search result formats including the [Sports OneBox](#), which shows users different media assets for the sports event they are searching for; [What to Watch](#), a function on Google which helps users decide what to watch when they search for TV shows and movies; [SOS Alerts](#), where Google shows emergency information to users when there is a crisis in their area; and [Public Alerts](#), which is Google’s platform for disseminating emergency messages for bushfires.

<sup>61</sup> See Elizabeth Reid, [‘Then and now: 5 ways we’re continuing to improve Search’](#), *Google’s The Keyword* (Blog Post, 6 September 2023). 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). See Pandu Nayak, [‘Understanding searches better than ever before’](#), *Google’s The Keyword* (Blog Post, 25 October 2019). These models also help identify patterns of connections between complex and unique queries (RankBrain). With this better understanding of language, Google can show more relevant results than rivals. See Brian Dean, [‘Google RankBrain: The Definitive Guide’](#), *Backlinko* (Online, 16 February 2024); Danny Sullivan, [‘FAQ: All about the Google RankBrain algorithm’](#), *Search Engine Land* (Online, 23 June 2016).

<sup>62</sup> Google for Developers, [‘In-depth guide to how Google Search works’](#), *Google Search Central* (Web Page, 18 March 2024).

<sup>63</sup> Elizabeth Reid, [‘Then and now: 5 ways we’re continuing to improve Search’](#), *Google’s The Keyword* (Blog Post, 6 September 2023).

<sup>64</sup> Danny Sullivan, [‘How we update Search to improve your results’](#), *Google’s The Keyword* (Blog Post, 2 June 2021).

<sup>65</sup> Danny Sullivan, [‘More content by people, for people in Search’](#), *Google’s The Keyword* (Blog Post, 18 August 2022).

<sup>66</sup> For example, Google’s AI-aided automated systems keep more than 99% of Search visits spam-free. Analysts’ manual review deals with the remaining fraction. See Google, [‘How we fought Search spam on Google in 2020’](#), *Google Search Central* (Blog Post, 29 April 2021). Google last updated its spam policies in March 2024. See Elizabeth Tucker, [‘New ways we’re tackling spammy, low-quality content on Search’](#), *Google’s The Keyword* (Blog Post, 5 March 2024).

<sup>67</sup> Google has built sophisticated indexing systems (Caffeine) and freshness analysis models that track the “recency” of content, allowing Google to return up-to-date results that are more relevant than its rivals’ results (see Google, [‘Our new search index: Caffeine’](#) (9 June 2010); Lee Wilson, [‘Google Freshness Algorithm: Everything You Need to Know’](#), *Search Engine Journal* (22 November 2017)).

- Google’s state-of-art technology that constantly searches for new pages and updates to existing web pages;<sup>68</sup>
- The many engineers, data scientists, and researchers at Google that develop and maintain Search’s technology;<sup>69</sup> and
- The thousands of human raters that ensure the quality of Search’s results and detect fraud and scams in results.<sup>70</sup>

A number of third-party studies have also concluded that Google delivers demonstrably higher quality results – with less misinformation – than competing search engines. For example:

- A study about the availability of pages promoting conspiracy theories in the top results of various search engines (Google, Bing, DuckDuckGo, Yahoo, and Yandex) found that “all search engines except Google consistently displayed conspiracy-promoting results and returned links to conspiracy-dedicated websites in their top results.”<sup>71</sup>
- A study from Stanford University analysed the prominence of misinformation in various search engines, finding Google to be significantly better.<sup>72</sup>
- A study published in *Frontiers in Medicine* highlights the quality of vaccine information on Google compared to Bing and other search engines. “The results show that not only “alternative” search engines (Duckduckgo, Ecosia, Qwant, Swisscows, and Mojeek) but also other commercial engines (Bing, Yahoo) often return more anti-vaccine pages (10–53%) than Google.com (0%).”<sup>73</sup>

Microsoft President Brad Smith has even acknowledged that Bing is not popular in Australia because it has failed to invest here.<sup>74</sup>

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<sup>68</sup> For example, in April 2023 Google launched a new crawler, Google Other. See Barry Schwartz, ‘[Google launches a new crawler named GoogleOther](#)’, *Search Engine Land* (Online, 20 April 2023).

<sup>69</sup> For example, in 2022, Google engineers, data scientists and researchers worked on 4,725 launches, 13,280 live traffic experiments, 894,660 search quality tests, and 148,038 side-by-side experiments (see Google Search, ‘[Rigorous Testing](#)’).

<sup>70</sup> Google’s Search Quality Rater Guidelines emphasise the expertise, authoritativeness and trustworthiness of a webpage. See Google, [Search Quality Rater Guidelines](#) (5 March 2024). According to internal data, Google has around 16,000 external Search Quality Raters.

<sup>71</sup> See Alexandra Urman et al., ‘[Where the Earth is flat and 9/11 is an inside job: A comparative algorithm audit of conspiratorial information in web search results](#)’ (2022) *Telematics and Informatics* 72.

<sup>72</sup> See Daniel Bush and Alex Zaheer, ‘[Bing’s Top Search Results Contain an Alarming Amount of Disinformation](#)’, *Stanford Cyber Policy Centre – Internet Observatory* (Blog Post, 17 December 2019).

<sup>73</sup> See Pietro Ghezzi et al., ‘[Online Information of Vaccines: Information Quality, Not Only Privacy, Is an Ethical Responsibility of Search Engines](#)’ (2020) *Frontiers in Medicine* 7 (Online, 11 August 2020).

<sup>74</sup> In the context of Australia’s then proposed media bargaining code, Microsoft President Brad Smith agreed that Microsoft would have to improve to be competitive in Australia. He stated in an interview that “we readily recognise that we’re going to have to invest more in Australia to deliver what the country needs”. See Miranda Ward, ‘[Microsoft boss ready to fill Google void](#)’, *Australian Financial Review* (Online, 3 February 2021); Jade Macmillan, ‘[Microsoft backs media bargaining code, suggests Bing can fill gap if Google and Facebook depart](#)’, *ABC News* (Online, 3 February 2021). 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

### 3.1 We continue to significantly innovate to build and improve Search

We view search as a never ‘solved’ problem – old challenges evolve and new challenges are constantly emerging. Technological advances provide potential opportunities to further improve search quality. Against this background, we are constantly investing and innovating to attract consumers for all types of search queries. For example:

- We have adapted our techniques for ranking information as the web has evolved, and as technology has improved. For example, with the rise in concerns about misinformation, we’ve developed ways to understand if topics might be more susceptible to unreliable content, like conspiracy theories or medical misinformation, and orient our ranking more towards authoritativeness in those moments.<sup>75</sup>
- We’ve come up with ways to show notices when topics are rapidly evolving<sup>76</sup> or when we don’t have high confidence<sup>77</sup> in the quality of results, cautioning that people should approach these results with greater scrutiny. We’ve also invested in other information literacy tools<sup>78</sup> that help people check sources and get context, to evaluate what they’re finding.
- We’ve made a number of significant product innovations that have evolved the way people can search for information beyond typing words into a search box.<sup>79</sup> For example, in 2008, we applied developments in natural language processing to launch an ability for users to search with their voice. In 2015, through advances in computer vision, we were able to turn mobile phone cameras into a way to search via Google Lens,<sup>80</sup> and, today, people do more than 12 billion visual searches every month with Lens. In 2020, we launched Hum to Search, enabling users to find songs by simply humming, whistling or singing a melody into Search.<sup>81</sup> In 2022, we launched multisearch which allows users to add text to visual searches.<sup>82</sup> And, more

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Microsoft’s failure to invest in this country. See Linda Mottram, [“We believe”: Microsoft President tells “PM” company backs news payment plan, but can it replace Google for search](#), ABC, (Radio Program Recording, 3 February 2021).

<sup>75</sup> Ben Gomes, [‘Our latest quality improvements for Search’](#), Google’s *The Keyword* (Blog Post, 25 April 2017).

<sup>76</sup> Danny Sullivan, [‘A new notice in Search for rapidly evolving results’](#), Google’s *The Keyword* (Blog Post, 25 June 2021).

<sup>77</sup> Pandu Nayak, [‘New ways we’re helping you find high-quality information’](#), Google’s *The Keyword* (Blog Post, 11 August 2022). For example, Google’s [About this Result feature](#) helps users see more context about any Search result before they ever visit a web page, including how widely a source is circulated, online reviews about a source or company, whether a company is owned by another entity, or even when Google’s systems can’t find much info about a source. Google’s [About this Page feature](#) provides information about the source of a particular web page. In 2023, Google also launched the [About this Image feature](#), a visual literacy tool which provides information on when an image and similar images were first indexed by Google, where it may have first appeared, and where else it’s been seen online (like on news, social, or fact checking sites).

<sup>78</sup> Itamar Snir and Nidhi Hebbar, [‘Five new ways to verify info with Google Search’](#), Google’s *The Keyword* (Blog Post, 28 March 2023).

<sup>79</sup> Elizabeth Reid, [‘New ways to search in 2024’](#), Google’s *The Keyword* (Blog Post, 17 January 2024).

<sup>80</sup> See [Google Lens](#).

<sup>81</sup> Krishna Kumar, [‘Hum to search’](#), Google’s *The Keyword* (Blog Post, 15 October 2020).

<sup>82</sup> Belinda Zeng, [‘Go beyond the search box: introducing multisearch’](#), Google’s *The Keyword* (Blog Post, 7 April 2022).

recently, we've launched Circle to Search,<sup>83</sup> a new gestural input allowing people to circle (or scribble or highlight) anything on their screen, and get instant insights (currently available on the Samsung Galaxy S24 range, Pixel 8 and Pixel 8 Pro).

- On 25 April 2024, Google's CEO, Sundar Pichai, also highlighted a range of new investments and innovations in Search and other products.<sup>84</sup>

### 3.2 We are continuing to make improvements to address low quality webpages

The Issues Paper cites certain sources which suggest that search quality may have decreased,<sup>85</sup> including through an increase in the number of lower quality webpages whose content is optimised to seek higher ranking in search results.<sup>86</sup>

We recognise that addressing emerging tactics from spammers and other sites that look to game results with low-quality content is an ongoing challenge. Ensuring Search continues to provide users with high quality, relevant information is vitally important to ensuring that consumers continue to trust and value Search over our competitors. We have long had policies and automated systems to fight against spammers and we are regularly updating those policies and systems to tackle these trends. For example:

- Between 2021 and 2023, we launched improvements to reduce unwanted explicit content<sup>87</sup> from ranking highly in Search and updates to blur explicit imagery<sup>88</sup> by default. We also launched ranking improvements to limit the reach of sites that use exploitative practices.<sup>89</sup>
- In March 2022, we improved the product reviews we display in Search to ensure reviews come from people who demonstrate expert knowledge and first-hand research about products; include in-depth helpful details; include unique information beyond what the manufacturer provides; and cover comparable products.<sup>90</sup>
- In August 2022, we launched a "helpful content update" to tackle content that appeared to be primarily created for ranking well in search engines rather than to help or inform people.<sup>91</sup>

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<sup>83</sup> See Cathy Edwards, '[Circle \(or highlight or scribble\) to Search](#)', *Google's The Keyword* (Blog Post, 17 January 2024).

<sup>84</sup> Sundar Pichai, '[Q1 earnings call: CEO's remarks - Momentum and strategy](#)', *Google's The Keyword* (Blog Post, 25 April 2024).

<sup>85</sup> See Issues Paper, 15.

<sup>86</sup> See Issues Paper, 14.

<sup>87</sup> Pandu Nayak, '[Using AI to keep Google Search safe](#)', *Google's The Keyword* (Blog Post, 30 March 2022).

<sup>88</sup> Jen Fitzpatrick, '[Creating a safer internet for everyone](#)', *Google's The Keyword* (Blog Post, 7 February 2023).

<sup>89</sup> Pandu Nayak, '[Improving Search to better protect people from harassment](#)', *Google's The Keyword* (Blog Post, 10 June 2021).

<sup>90</sup> Perry Liu, '[More helpful product reviews on Search](#)', *Google's The Keyword* (Blog Post, 23 March 2022).

<sup>91</sup> Danny Sullivan, '[More content by people, for people in Search](#)', *Google's The Keyword* (Blog Post, 18 August 2022).

- In March 2024, we announced key changes to improve the quality of our search services to directly tackle spammy, unoriginal and low-quality content on Search.<sup>92</sup> This involved us making algorithmic enhancements to our core ranking systems to better understand if webpages are unhelpful, provide a poor user experience, or feel like they were created for search engines instead of people. We anticipate that the combination of these updates and our previous efforts will collectively reduce low-quality, unoriginal content in search results by 40%.
- In March 2024, we made several updates to our spam policies to address new and evolving abusive practices that lead to unoriginal, low-quality content showing up on Search<sup>93</sup>. This includes policies aimed at addressing instances of content being generated at scale to boost search ranking. This will allow us to take action on more types of content with little to no value created at scale.

We are also using our AI safety research and the power of AI itself to mitigate risks associated with genAI, beyond just addressing low-quality content. For example, we launched SpamBrain, an AI-based spam-prevention system in 2018. We launched ‘About this image’<sup>94</sup> in May 2023, and later added functionality to help users identify images that are labelled as AI-generated. And, we’ve also contributed to industry developments on this issue. In 2023, our researchers published a paper about a new framework they have developed (called ExHalder) that can accurately detect hallucinations in news headlines generated by FMs, and give reasons why the headline is not supported by the underlying news story.<sup>95</sup>

### 3.3 Google’s approach to ads is about quality, not quantity

The Issues Paper refers to two media articles which suggest that search quality is declining because ads are becoming increasingly similar to the appearance of organic search results and asks several questions about the relationship between paid and organic results.

Our goal in Search is to provide users with relevant information to help them find what they are searching for. This applies equally to search ads as it does to the organic results:

- If there are no useful ads to show for a particular search query, users won’t see any – which is actually the case for a large majority of searches. Today in Australia about 80% of searches on Google don’t show any ads at the top of search results, and less than 5% of searches currently have four top text ads.
- Even for the small fraction of search queries where we do show ads, we don’t make any money unless users find it relevant enough to click on the ad. As a result, we

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<sup>92</sup> Elizabeth Tucker, ‘[New ways we’re tackling spammy, low-quality content on Search](#)’, *Google’s The Keyword* (Blog Post, 5 March 2024).

<sup>93</sup> Elizabeth Tucker, ‘[New ways we’re tackling spammy, low-quality content on Search](#)’, *Google’s The Keyword* (Blog Post, 5 March 2024).

<sup>94</sup> Corey Dunton, ‘[Get helpful context with About this image](#)’, *Google’s The Keyword* (Blog Post, 10 May 2023).

<sup>95</sup> Jiaming Shen et al., ‘[“Why is this misleading?”: Detecting News Headline Hallucinations with Explanations](#)’, (Proceedings of the ACM Web Conference 2023, May 2023).



invest significantly in our ads quality systems to continuously improve on our ability to show ads that are highly relevant to people, and helpful to what they're searching for.<sup>96</sup>

- We also monitor and update our ads systems to protect users from harmful ads. In 2019, for example, when some advertisers sought to take advantage of the COVID-19 pandemic, Google blocked and removed 2.7 billion “bad ads” – more than 5,000 ads every minute. Through investment to track the patterns and signals of “trick-to-click” type ads, Google was able to identify and remove those types of ads faster, resulting in a nearly 50% decrease in bad ads, with 35 million phishing ads and 19 million trick-to-click ads blocked in 2019.<sup>97</sup>

We've also long been industry-leading in providing prominent ad labelling. Google indicates the paid nature of text ads in several ways:

- **Positioned in ad space.** Google displays text ads in ads space above or below Search results whenever ads are relevant and of sufficient quality to show in response to a query.<sup>98</sup> This is consistent with the norms and conventions of the Internet since its beginning, and consistent with user expectations when visiting search engines and other websites that combine paid and organic content.
- **Labelled as ads.** While our approach to ad labelling has evolved over time, we have always indicated that text ads are ads via a label that states “Ad” or “Sponsored”.
- **Pop-ups and windows.** Google displays additional pop-ups and windows to make it clear when content is an ad and why the user is seeing that ad.<sup>99</sup>

Our approach to ad labelling is consistent with, or goes beyond, official guidance from regulators including the US Federal Trade Commission,<sup>100</sup> the UK Competition and Markets Authority (CMA),<sup>101</sup> the French advertising association,<sup>102</sup> and the German Telemedia Act. Google goes beyond the guidance from those agencies by *both* labelling ads as ads and separating them from free results, and by providing additional pop-ups and windows, and

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<sup>96</sup> Darshan Kantak, '[How Google Search ads work](#)', *Google's The Keyword* (Blog Post, 4 December 2020). An example of this investment is Google Ads' experiment with interest-based audience solutions for digital advertising in combination with privacy-preserving signals. See Dan Taylor, '[Results from Google Ads' interest-based advertising testing](#)', *Google's Ads & Commerce Blog* (Blog Post, 18 April 2023). Google Ads is also investing in Gemini to enhance its ads solutions and to build higher quality Search campaigns by generating relevant ad content, including creatives and keywords. See Shashi Thakur, '[Put Google AI to work with Search ads](#)', *Google's Ads and Commerce Blog* (Blog Post, 23 January 2024).

<sup>97</sup> Scott Spencer, '[Stopping bad ads to protect users](#)', *Google Ads & Commerce Blog* (Blog Post, 30 April 2020).

<sup>98</sup> Google may also show text ads at the bottom of the general results page.

<sup>99</sup> For example, 'why this ad' is a feature that helps users understand why they are seeing any given ad (see Google Safety Centre, '[Learn more about the ads you see](#)'). Google also provides an Ads Transparency Center, a searchable hub that provides visibility about ads and advertisers on Google (see [Google Ads Transparency Center](#)).

<sup>100</sup> Federal Trade Commission, '[Letter to search engines on ad labelling](#)' (24 June 2013).

<sup>101</sup> CMA, '[Open letter to marketing departments](#)' (11 August 2016).

<sup>102</sup> Autorité de Régulation Professionnelle de la Publicité, '[Guidance from French Advertising Association](#)' (October 2015).

ads transparency reports that give users additional information on the ads they see, and why they see those ads.<sup>103</sup> We also rely on extensive user testing to ensure ad labels meet our high standards – and exceed those of our competitors – for being prominent and distinguishable from unpaid results.

#### **4 AUSTRALIA HAS A VALUABLE OPPORTUNITY TO OBSERVE AND ASSESS THE IMPACT OF REGULATORY DEVELOPMENTS IN EUROPE BEFORE IMPLEMENTING CHANGES**

The European Union’s DMA came into force for designated companies on 6 March 2024. A number of the DMA rules involve difficult trade-offs that will impact the people and businesses who use our products.

We have approached compliance with our obligations under the DMA with transparency and meaningful product changes, even where we have concerns that some rules risk harm to businesses and reducing choice for users in Europe.

Early results following changes made to comply with the DMA are already showing adverse impacts on a range of European consumers and businesses. Given these impacts, it is important that the new rules under the DMA are not simply copied wholesale as the basis for any approach to *ex ante* regulation in Australia. Rather, the ACCC and lawmakers should consider carefully the evidence that is emerging following the implementation of the DMA.

The sections below set out further information on the key DMA search requirements.

##### **4.1 DMA self-preferencing conduct obligations**

The ACCC has proposed a ban on self-preferencing in ranking, indexing and crawling, referring in particular to search services,<sup>104</sup> and has stated that this rule is “largely consistent with the provisions in the EU’s DMA”. Google has made various product changes to Google Search to comply with the DMA’s rule. But Google has serious concerns about rolling out such DMA changes to Australia.

**Outright bans on self-preferencing risk outlawing indisputably beneficial designs for users and suppliers.** Bans on self-preferencing that do not consider benefits to consumers and whether there is competitive harm – like the DMA’s rule – could deprive Australians of useful innovation and high quality search services.

**Early testing shows the DMA rule may be rolling back useful advances on Search.** As set out above, we are continually investing in product developments and innovations to improve Search, and to respond to changes in technology and user preferences. Our competitors are doing the same. However, our early testing shows that the DMA changes

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<sup>103</sup> ‘Why this ad’ is a feature that helps users understand why they are seeing any given ad (see Google Safety Centre, ‘[Learn more about the ads you see](#)’.) Google also provides an Ads Transparency Center, a searchable hub that provides visibility about ads and advertisers on Google (see [Google Ads Transparency Center](#)).

<sup>104</sup> See Issues Paper, 10.

are potentially rolling back advances in Search that users and businesses have found useful. This is clearly not a desirable outcome. For example:

- Changes to our Search results have seen increased traffic to a small number of large intermediaries and aggregators, and significantly less valuable traffic to direct suppliers like hotels, airlines, merchants, restaurants and other local businesses. This is creating friction for European consumers and raising costs for many European companies across several industries.
- The DMA changes give intermediaries disproportionately large exposure relative to users' interest. There is a serious mismatch in the increase in views and clicks for vertical search services (VSSs): the increase in views is much greater than the increase in clicks. This mismatch indicates that VSSs are receiving significantly greater exposure in search results relative to users' interest in VSSs. This aligns with feedback from direct suppliers: that the DMA changes are making it more difficult for users to connect directly with local businesses.

For example, according to the hotel association Mirai's data, booking clicks for direct suppliers are down as much as 30% since our DMA compliance changes were implemented.<sup>105</sup> Mirai has also explained in a public post that the DMA risks "penalizing" hotels who are losing traffic to major intermediaries (and the need to remunerate those intermediaries for bookings made via the intermediary's platform).<sup>106</sup> Similarly, the hotel association HOTREC noted in a blog post that it is "very concerned" with changes that risk "reduc[ing] the visibility of direct hotel websites at the expense of powerful online platforms that will be more prominently visible on the new search page."<sup>107</sup>

- Following the DMA changes, users are having more difficulty finding what they are looking for on the Search page. In particular, manual refinements (i.e., a user iteratively changing or adapting a search query to discover desired information) have increased, and "good interactions" have decreased across all verticals. The good interaction metric is a compound metric that measures user satisfaction. Together, these metrics provide a strong indicator that changes required to comply with the DMA are having an adverse impact on user experience.
- Users have publicly complained that we have removed useful links to Google services, like to Google Maps, and asked us to bring it back, given how helpful they find this feature.<sup>108</sup>

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<sup>105</sup> See Adam Cohen, '[New competition rules come with trade-offs](#)', *Google's The Keyword* (Blog Post, 5 April 2024). See also Vladimir Vano, '[Under the Digital Shadow: How the DMA Could Darken the Future for Hotels and SMEs](#)', *Medium* (1 May 2024).

<sup>106</sup> See [Mirai LinkedIn post](#) (early 2024).

<sup>107</sup> See HOTREC, '[How will the Digital Markets Act impact your holiday search experience?](#)', *Hotrec* (Online, 24 January 2024).

<sup>108</sup> See, e.g., user comments on [message boards](#) and in our [help forum](#). Someone has even created a [browser extension](#) to make Maps more accessible. See also Adam Cohen, '[New competition rules come with trade-offs](#)', *Google's The Keyword* (Blog Post, 5 April 2024).

**The DMA experience shows the difficulty in changing search services in a way that balances the interests of all stakeholders.** The DMA experience shows that developing new search result designs that balance the interests of different stakeholders – including users, direct suppliers, and intermediaries – is difficult. The interests of direct suppliers and intermediaries are often in conflict. Giving prominence to some results means giving less prominence to others.

As set out above, to comply with the DMA, Google has given intermediaries more opportunities on the search page. We created, for example, a new free dedicated unit for VSSs to appear and show their results and a refinement chip that allows users to focus on results from intermediaries. But direct suppliers have criticised these changes for coming at their expense.

Based on this experience, rolling out a DMA-type self-preferencing rule in Australia risks harming Australian consumers and a wide range of suppliers. New rules governing search results should be based on clear evidence of harm and clarity about whether the benefits would outweigh the potential downsides. We suggest that Australia takes the opportunity to assess the impacts of regulation like the DMA before introducing new rules that could potentially cause more harm than good to Australian consumers and businesses.

#### **4.2 DMA obligations in relation to mandatory sharing of data**

In its fifth interim report, the ACCC stated that any mandatory code for search services could require designated search platforms to share certain click-and-query data from the activities of Australian users with rival search engines.<sup>109</sup> The ACCC has acknowledged that the “sharing of click-and-query data between search engines must not come at the expense of user’s privacy,”<sup>110</sup> and has also stated that any obligations to share search data “should not be considered for inclusion in any code of conduct until after the introduction of any privacy law reforms that result from the review of the Privacy Act”.<sup>111</sup>

The DMA experience supports the clear importance of these privacy considerations. The DMA rule demonstrates the need to properly anonymise search data, as well as the difficulty in creating a mandatory data sharing rule that protects user privacy while being useful to search engines.

**The DMA rule stresses the need to properly anonymise search data before disclosing it.** Blanket disclosure of search data comes with serious privacy risks. Australians’ clicks and queries contain some of their most sensitive private information, including, for example, extracts of medical reports or tax returns, sexual preferences, passwords, bank account numbers, and tax file numbers. A forced disclosure obligation could lead to Australians’ private search behaviour being handed to search engines controlled by bad actors

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<sup>109</sup> ACCC, [Interim report No. 5 – Regulatory reform](#), *ACCC Digital Platform Services Inquiry* (September 2022), 165.

<sup>110</sup> ACCC, [Interim report No. 5 – Regulatory reform](#), *ACCC Digital Platform Services Inquiry* (September 2022), 128.

<sup>111</sup> ACCC, [Interim report No. 5 – Regulatory reform](#), *ACCC Digital Platform Services Inquiry* (September 2022), 13.

including autocratic foreign states, companies that cannot guarantee protection of that data, or entities with an interest in spreading disinformation.

The DMA rule has two prongs: first, it requires Google to share ranking, query, click, and view data with rival search engines, and second, Google has an express and positive obligation to anonymise the data before sharing it.<sup>112</sup> Data must be anonymised in such a way that it is “irreversibly altered” so that “information does not relate to an identified or identifiable natural person”.<sup>113</sup>

**The DMA experience shows the difficulty in creating a mandatory data sharing rule that protects user privacy while being useful to search engines to innovate.** To comply with the obligation to anonymise search data under the DMA, Google conducted extensive research and testing to determine the most robust anonymisation techniques. There is no filtering approach available that can comprehensively filter queries containing personal data. Accordingly, the best way to anonymise search data is by applying frequency thresholds (i.e., queries must be entered a certain number of times before being disclosed).<sup>114</sup> However, this approach inevitably results in a limitation on the data that can be disclosed. For example, queries that are infrequently entered (so-called “tail queries”) cannot be disclosed because they will not pass the frequency thresholds.

**Other solutions, like data portability, put users in control of their data and are more likely to help search engines innovate.** Rather than a mandatory data sharing obligation, Google supports data portability as a potential solution to address the ACCC’s concerns. Under a data portability solution - such as Google Takeout (and the Data Transfer Project more broadly) - users would be put in control of their data and would be able to port their data easily to rival services, if they wished. A data portability solution of this type, by its nature, avoids risks to user privacy because it puts users in control. It also does not require us to apply anonymisation thresholds, and therefore allows rival search engines to receive full datasets, with no useful data removed. With data portability, users can choose to fully port their data to third parties they trust.

#### **4.3 DMA obligations in relation to browser and search choice screens**

We have previously provided detailed information to the ACCC in relation to our views on choice architecture and the role of choice screens.<sup>115</sup> However, if following a careful

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<sup>112</sup> DMA, Art. 6(11).

<sup>113</sup> DMA, Recital 61.

<sup>114</sup> This is in line with the state of the art for anonymising search data. See Aleksandra Korolova et al., [Releasing Search Queries and Clicks Privately](#) (Proceedings of the 18th International World Wide Web Conference, April 2009). The leading literature on anonymisation has established that infrequent queries contain user-identifying information, finding that “The results presented here illustrate how by simply removing infrequent queries, identifying queries are also removed.” See Eytan Adar, [User 4XXXXX9: Anonymizing Query Logs](#) (Proceedings of the 16th International World Wide Web Conference, 2007).

<sup>115</sup> See Google, [Submission to the ACCC Digital Platforms Inquiry](#), ACCC Digital Platforms Inquiry (20 April 2018); Google, [September 2021 Report on market dynamics and consumer choice screens in search services and web browsers – Google’s Response to ACCC Issues Paper](#), ACCC Digital Platform Services Inquiry (7 May 2021); Google, [September 2022 Report on updating competition and consumer law for digital platform services – Google’s Response to the ACCC’s Discussion Paper](#), ACCC Digital Platform Services Inquiry (8 April 2022);

assessment it is decided that a choice screen requirement will be adopted in ex ante regulation in Australia, it is important that the following pro-consumer principles are given primacy.

### **First, too many choices can have downsides for users**

Promoting active choice entails certain costs. These costs can result in a less seamless user experience, and actually reduce users' ability to make active choices, as is well established in academic literature. In particular:

- **Choice tools can add friction to the user experience.** Surfacing choices when the user is in the middle of a task interrupts their journey through a platform's user interface. For example, the ACCC has previously recognised that "consumers can benefit from having browsers pre-installed and search engines pre-set as defaults on their mobile devices."<sup>116</sup> These benefits would be lost if each and every instance of preinstallation or defaults required users to go through a choice screen solution. In addition, pre-selected choices can enhance consumer utility by picking the best option for the majority of users in circumstances where they may not be able to (or do not want to go to the effort of) selecting the best option for themselves.
- **Forcing users to make too many choices can result in 'decision fatigue'.** Over time, this encourages users to simply dismiss choices and prompts instead of meaningfully engaging with them.
- **Choice overload can undermine user decisions.** Too many options in a given choice can lead to choice overload. Users become less engaged and frustrated, and ultimately carry out less activity.<sup>117</sup>

Choice regulation therefore requires careful balancing. It should seek to recognise and preserve the benefits of pre-installation and defaults, facilitate active user decisions when they are ready to make a decision, and avoid undermining user choice by inadvertently creating decision fatigue or choice overload.

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Google, [September 2022 Report on updating competition and consumer law for digital platform services – Google's supplementary submission to the ACCC](#), ACCC Digital Platform Services Inquiry (3 August 2022).

<sup>116</sup> ACCC, [Discussion Paper for Interim Report No. 5: Updating competition and consumer law for digital platform services](#), Digital Platform Services Inquiry (28 February 2022), 46.

<sup>117</sup> See generally Antti Oulasvirta, Janne P. Hukkinen and Barry Schwartz, [When more is less: the paradox of choice in search engine use](#) (Proceedings of the 32nd international ACM SIGIR conference on Research and development in information retrieval, Association for Computing Machinery, July 2009); Stefan Korff and Rainer Böhme, [Too Much Choice: End-User Privacy Decisions in the Context of Choice Proliferation](#) (Symposium On Usable Privacy and Security, USENIX, July 2014); Sheena Iyengar and Mark Lepper, ['When Choice is Demotivating: Can One Desire Too Much of a Good Thing?'](#) (2000) 79(6) *Journal of Personality and Social Psychology* 995.

## **Second, effectiveness of choice – the ability for users to make active and informed choices – does not turn on outcomes**

Assessing the success of a choice measure should not turn on the result (i.e., what users ultimately choose), but whether the choice being presented to users effectively supports their ability to make informed choices. The ultimate goal of a choice tool should be to provide users with the ability to make choices, not to skew users' choices towards less popular options or to pick winners. This has two implications. First, any choice tool should not steer users towards options they would not otherwise select. And, second, the success of a choice tool – if properly designed and implemented – should not be judged by users' selection of a particular option. An apparently low proportion of users selecting alternatives does not mean that the choice tool itself is deficient. Rather, it may reflect the popularity of the product.

## **Third, choice interventions should not be applied discriminatorily**

If, following a careful assessment, it is decided that a measure to increase choice would be beneficial to users, there is no reason why such a measure should not apply to all platforms. Any proposals to impose choice screens should take into account the following:

- First, to the extent that regulatory interventions to increase choice are adopted to address potential default biases and customer inertia, there is no reason they should apply only to Android devices. Although we do not agree that interfering with the market to mandate choice screens is warranted, any mandating of choice screens should apply universally across Android, Apple, and Windows devices. This would increase user awareness and understanding of choice tools and facilitate experimentation and switching across platforms.
- Second, it would distort competition to implement regulation that burdens some platforms, but not others. Questions about choice architecture and design apply to all platforms in equal measure. Requiring certain platforms to implement choice screens and not others will not enhance competition amongst those platforms based on merits.
- Third, measures with the stated purpose of increasing user choice should not be discriminatorily applied to platforms that already provide more choice to users than other platforms. The ACCC has previously contrasted the 'open source and licensable' Android operating system with the 'closed source and non-licensable' Apple iOS,<sup>118</sup> over which Apple 'maintains complete control', while also finding that Apple devices comprise over 50% of the mobile devices supplied in Australia.<sup>119</sup>

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<sup>118</sup> ACCC, [Interim report No. 3 – Search defaults and choice screens](#), ACCC Digital Platform Services Inquiry (20 September 2021), 20.

<sup>119</sup> ACCC, [Interim report No. 3 – Search defaults and choice screens](#), ACCC Digital Platform Services Inquiry (20 September 2021), 109.

#### 4.4 Potential obligations in relation to pre-installation and default agreements

The Issues Paper seeks feedback on how “the impact of exclusive pre-installation and default agreements on competition in general search services [has] changed over time”. It also asks “[h]ow effective would obligations on search engines prohibiting their exclusive pre-installation and default agreements be at addressing any competition issues in search?”<sup>120</sup>

As set out in our submission to the ACCC dated 7 May 2021,<sup>121</sup> the concerns underpinning any proposal to prohibit these arrangements are flawed, for several reasons:

- **Google’s popularity reflects its quality, not default or pre-installation agreements.** Google’s popularity does not reflect a market failure caused by defaults or pre-installation. To the contrary, as outlined in section 3 above, it reflects Google’s quality and the fact it is Australians’ preferred search service.
- **Defaults and pre-installation do not restrict users from reaching alternative services.** Evidence consistently shows that users can and do override defaults and pre-installations. One example is Google’s share on Microsoft Windows desktops in Australia. Microsoft pre-installs its Edge browser that defaults to Bing on Windows. But Google’s share of general search engine queries on desktop is around 86%, while Bing’s is 10%.<sup>122</sup> Australians override Microsoft’s defaults and choose their preferred alternative: Google. In addition, in 2021, the most popular query on Bing was “Google”, showing that users have a preference for Google and not that they are unaware of alternatives or are unable to access them.<sup>123</sup>
- **Defaults and pre-installation benefit users by creating a seamless experience.** Defaults and pre-installation mean that users can access a given service seamlessly upon initial activation of a device or first use of a platform. Original equipment manufacturers (OEMs) and developers set defaults and pre-install 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 pre-installation benefit users by making it easier for them to use services quickly and easily.
- **Defaults and pre-installation benefit OEMs and developers by allowing them to monetise distribution opportunities on devices.** Defaults and pre-installation also benefit OEMs and developers by providing an important source of revenue. Services compete for default and pre-installation opportunities based on their quality and by offering to remunerate OEMs and developers. OEMs and developers,

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<sup>120</sup> See Issues Paper, 9.

<sup>121</sup> Google, [September 2021 Report on market dynamics and consumer choice screens in search services and web browsers – Google’s Response to ACCC Issues Paper](#), ACCC Digital Platform Services Inquiry (7 May 2021)

<sup>122</sup> WMCloud, [‘Search Engine Referrals - 1 Apr- 30 Apr 2024 - Australia - Windows - Search Engine’](#) (1 May 2024). See also Cloudflare Radar, [‘Search Engine Referral Report for 2023 Q4’](#) (15 February 2024).

<sup>123</sup> BBC, [‘Google’ is most searched word on Bing, Google says](#) (30 September 2021).



in turn, use these revenues to reduce the cost of supplying devices and browsers, thereby benefiting consumers in the form of lower prices and higher-quality products.

In fact, as set out in our previous submission, any restriction on default and exclusive pre-installation arrangements would be harmful. It would eliminate competition to be the default which, as set out above, brings important benefits for OEMs, developers and users.

If the ACCC's Issues Paper 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:

- **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.
- **Prohibiting Google from bidding for defaults would harm users.** Google is the highest quality and preferred search service in Australia. Precluding Google from bidding for default status would therefore mean that another, lower-quality search service would be selected as the default.

In short, Australians use Google because they choose to, not because they have to. There is therefore no need – or, indeed, any case – for *ex ante* intervention of the type suggested in the ACCC's Issues Paper.

## 5 CONCLUSION

Google appreciates the opportunity to share our data and insights to inform the ACCC's Inquiry into general search services. We would be pleased to discuss any of these points further, if this would assist the ACCC.