



Digital platform services Inquiry – March 2021 report on app marketplaces

Issues Paper

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Glossary of terms used

Term	Description
App (Application)	<p>A software program that allows the user to perform a specific task either online or on a designated device.</p> <p>Web apps are run on a server and are accessed through a browser with an active internet connection rather than being stored locally on a device's operating system.</p> <p>Mobile apps are software programs designed specifically for use on mobile devices such as smartphones, tablets or watches. They are typically stored local on a device's operating system.</p> <p>Native apps are software programs developed for use on a particular platform or device.</p>
Application Programming Interface (API)	<p>A computing interface which defines interactions between multiple software intermediaries for the purpose of simplifying programming. This is achieved by only exposing required objects or actions to the developer.</p>
App developer	<p>An individual or group responsible for creating, testing and programming apps for particular devices and operating systems.</p> <p>An app developer can be the same business as the app provider, or be a third party business commissioned by the app provider to develop the app.</p>
App provider	<p>A company that is offering content or a service via an app under its own brand in an app marketplace</p>
App Marketplace	<p>Companies that supply an app marketplace platform (a digital distribution platform or storefront for apps, intended to allow search and review of software titles offered for sale electronically) and provide associated services to app providers, developers, and consumers</p>
Consumer	<p>The individual who uses the product after it has been fully developed and marketed.</p>
Digital Device Manufacturer	<p>A company that manufactures and supplies an electronic product that integrates and uses applications (including for example, but not limited to Apple, Samsung, Sony, Huawei and Xiaomi).</p>
Freemium	<p>A model where both free and paid content is provided by a supplier. In the case of news publishers, news publishers provide a certain number of news articles for free before requiring consumers to pay for additional content beyond the provided number of news articles.</p>
Platform ecosystem	<p>A collection of complementary assets with one platform as central controller of the underlying architecture that functions as a hub.</p>

Term	Description
Search Engine	A software program that searches for and identifies items in a database corresponding to inputs specified by a user.
Search Engine Provider	A company or organisation that collects and organises content to be searched by users.
Sherlocking	The process describing the occurrence of a platform operator imitating or acquiring a competing app. The marketplace operator might take concepts from a particularly popular app and integrate them into their corresponding operating system or as a separate application. This, in turn, renders the original app provider redundant.
Sideload	The installation of an application on a mobile device without using the device's official application-distribution method (i.e.: the app marketplace).
Third Party App	A software application created by someone other than the manufacturer of a mobile device or its operating system.

1. Overview

The Australian Competition and Consumer Commission (**ACCC**) seeks your views on the operation of app marketplaces in Australia.

Apps play a fundamental role in the operation of many businesses and in the lives of consumers. There are millions of apps available for download by consumers,¹ and they provide a wide variety of services including games, entertainment, health and fitness, and facilitating the procurement of physical services, like food delivery and rideshare. It is estimated that consumers globally spend billions of dollars every week on (or through) apps.²

Google and Apple play a significant role in the supply of apps, with the Apple App Store and the Google Play Store being by far the most widely used app marketplaces.³

The ACCC is examining potential competition and consumer issues in this area. In particular, the ACCC is seeking views on:

- 1) The ability and incentive for Apple and Google to link or bundle their other goods and services with their app marketplaces, and any effect this has on consumers and businesses.
- 2) How Apple and Google's various roles as the key suppliers of app marketplaces, but also as app developers, operators of the mobile licensing operating system and device manufacturers affect the ability of third party app providers to compete, including the impact of app marketplace fee structures on rivals' costs.
- 3) Terms, conditions and fees (including in-app purchases) imposed on businesses to place apps on app marketplaces.
- 4) The effect of app marketplace fee structures on innovation.
- 5) How app marketplaces determine whether an app is allowed on their marketplace, and the effect of this on app providers, developers and consumers;
- 6) How where an app is ranked in an app marketplace is determined.
- 7) The collection and use of consumer data by app marketplaces, and whether consumers are sufficiently informed about and have control over the extent of data that is collected.
- 8) Whether processes put in place by app marketplaces to protect consumers from harmful apps are working.

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

The purpose of this Issues Paper is to help inform the second report in the ACCC's inquiry into digital platform services (the **Inquiry**). This report, which will be given to the Treasurer by 31 March 2021, will focus on the competitiveness, efficiency, transparency and effectiveness of markets for the supply of app marketplaces (the **Report**).

The ACCC is releasing this Issues Paper to invite industry participants and other interested parties to provide views and information on the operation of app marketplaces.

¹ As of the first quarter of 2019, there were reportedly 2.6 million Android, and 2.2 million iOS apps, available for download: <https://www.businessofapps.com/data/app-statistics/>

² It is estimated that, in 2019, consumers spent \$54 billion USD (or around \$1 billion a week) on the App Store, while consumers spent around \$29 billion USD during the year on the Play Store: <https://sensortower.com/blog/app-revenue-and-downloads-2019>, accessed 31 July 2020

³ The ACCC notes that, in order to avoid confusion over whether the paper is referring to the Apple marketplace specifically or to app marketplaces generally, we have elected to make reference to the 'Apple App Store'.

In addition to seeking the views of suppliers of app marketplaces, businesses that have apps, and other businesses that interact with apps, the ACCC seeks feedback from businesses that develop apps and from consumers who use apps and app marketplaces. To assist with your responses, short fact sheets containing key issues and questions for app marketplaces are found on the [ACCC app marketplaces page](#).

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

Key dates

This ACCC invites submissions on the matters outlined in this Issues Paper by **2 October 2020**.

The ACCC will provide the Report to the Treasurer by 31 March 2021. The Report will be publicly released.

Responding to the Issues Paper

The ACCC invites your views by way of written feedback in response to this Issues Paper. The ACCC has also set up a consultation hub on its website to provide an easily accessible method for consumers and app developers to answer questions that specifically relate to each of these groups.

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

Invitation for written submissions

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

Written submissions to this Issues Paper should be emailed to digitalmonitoring@acc.gov.au by **2 October 2020**.

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

Invitation for feedback on consultation hub

Consumers and app developers may also wish to provide their feedback to the ACCC via the ACCC's Consultation Hub.

The ACCC notes that this consultation is intended to be part of the public consultation process and therefore responses on the consultation hub will generally be treated as public (see section below on **Treatment of confidential information**).

Responses via the Consultation Hub should be completed by **2 October 2020**.

The ACCC consultation hub has a list of questions that are particularly relevant. These questions are reflected in the fact sheets found on the [ACCC's app marketplaces page](#). However, the ACCC notes that consumers and developers are not restricted to only answering the particular questions in the fact sheets, but are encouraged to respond to any issues on which they have views.

Treatment of confidential information

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

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

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

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

Making a claim of confidentiality

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

About this Issues Paper

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

- **Section 2** provides further detail about the scope of the Inquiry
- **Section 3** provides high level background information about app marketplace services in Australia.
- **Section 4** contains further detail on the key issues for the Report, along with specific questions for interested parties.

Fact sheets containing key issues and questions for app marketplaces are found on the ACCC app marketplaces page.

2. Scope of the Inquiry and focus of the Report

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

A wide range of goods and services will be considered over the duration of the Inquiry, including digital services not considered in the ACCC's Digital Platforms Inquiry. The goods and services included in the Treasurer's Direction for the Inquiry are:

- (a) digital platform services
- (b) digital advertising services supplied by digital platform service providers
- (c) data collection, storage, supply, processing and analysis services supplied by:
 - (i) digital platform service providers; or
 - (ii) data brokers.

Services included under the Inquiry definition of digital platform services are

- (a) internet search engine services (including general search services and specialised search services)
- (b) social media services
- (c) online private messaging services (including text messaging; audio messaging and visual messaging)
- (d) digital content aggregation platform services
- (e) media referral services provided in the course of providing one or more of the services mentioned in paragraphs (a) to (d)
- (f) electronic marketplace services.

The first six monthly report will be given to the Treasurer by 30 September 2020. It will consider potential competition and consumer issues in relation to online private messaging, and provide updates regarding online search and social media services. It also considers some broader platform-wide issues.

As noted above, the second report, which will follow this Issues Paper, will be given to the Treasurer by 31 March 2021 and will focus on app marketplaces, a form of electronic marketplaces.

Other types of electronic marketplaces, such as the general merchandise services provided by Amazon, eBay and others, and specialised services such as travel and booking services by platforms like Expedia and booking.com, will be considered by the ACCC in future reports.

Potential outcomes

The Inquiry may lead to a range of outcomes, including but not limited to:

- findings regarding structural, competitive or behavioural issues affecting the supply of apps
- increased information about competition, pricing and other practices in the supply of apps and on app marketplaces
- ACCC action to address any conduct that raises concerns under the *Competition and Consumer Act 2010*, and
- recommendations to the Government for legislative reform to address systemic issues.

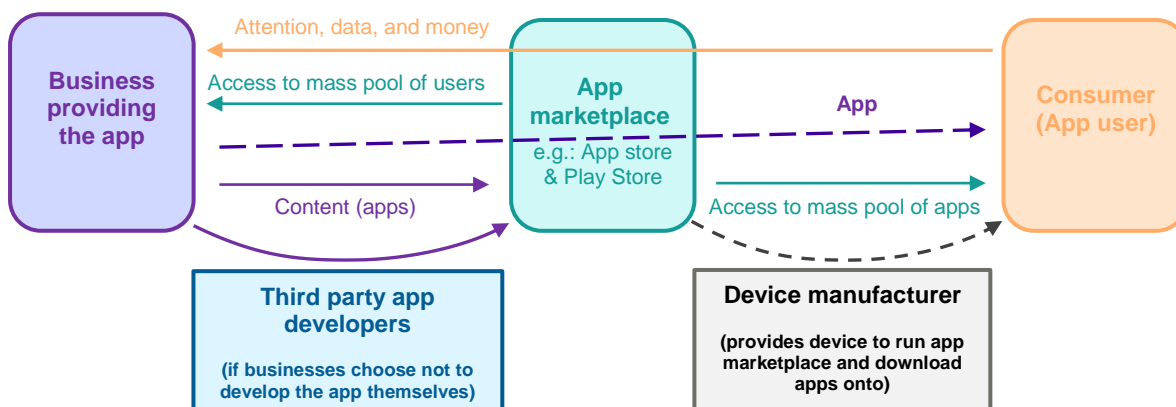
Ministerial Direction

The full Ministerial Direction can be found on the [ACCC website](#).

3. Industry Overview

A high level overview of the operation of app marketplaces in Australia is provided below.

Figure 1: The app supply chain



What do we mean when we say ‘app’?

This report will focus on mobile apps; software applications that are downloaded onto, and run on, a mobile operating system on a device such as a smartphone, tablet, smartwatch or smart car. Apps may allow users to access content through the internet, or may provide offline functionality.

Apps serve a range of purposes. They can be the vehicle for providing content to users, such as games, news aggregation and streaming services, or they can provide convenient and efficient ways for businesses to interact with their customers, as with banking apps and apps used by service providers such as utility businesses.

The ACCC understands there are four pricing methods generally used by businesses who use apps to provide goods or services (**app providers**):

- Free apps – apps that users do not have to pay for. While some free apps do not generate revenue, others generate revenue from the collection and use of user data, and/or by serving advertisements.
- Free apps with in-app purchases – sometimes referred to as ‘freemium apps’, these apps are free to download and use, but offer ‘in-app purchases’ to access additional features.
- Paid apps – apps that require a one-off payment in order to access or use the app in full.
- Subscription apps – apps that require recurring payments to access or use the app. Subscription payments are typically made within the app, however for some apps subscription payments may be made on alternative avenues.⁴

⁴ Some mobile apps, which are called “Reader apps” allow users to access previously purchased content or content subscriptions which may have been paid for on another platform or on the web. Examples of these apps include books, music, or TV apps.

The role of app marketplaces

App marketplaces are platforms which allow consumers to discover, install, update, and remove applications from their devices and for app providers to reach consumers with their content or services.

App marketplaces offer software-development tools to assist developers in the creation, testing and publishing of apps that will function on the relevant operating systems. They also provide analytics tools and technical support to developers; and, in the case of paid or freemium apps, cover credit card fees and manage taxation and the billing process.

There are a variety of app marketplaces, with different sizes and reach, which distribute apps on a variety of devices. App marketplaces can either be a general marketplace, which caters to a wide category of apps,⁵ or cater to specific subsets of apps (for example for gaming or ecommerce).⁶

The two major app marketplaces are the Apple App Store (for iOS) and the Google Play Store (for Android devices). It is estimated that 1.79 million apps are currently available for download on the Apple App Store and an average of 770 new apps are published daily.⁷ For the Google Play Store, an estimated 3.39 million apps are available for download and an average of 3,515 new apps are added to the store every day.⁸

During 2019, 30.6 billion apps were downloaded on the Apple App Store, while approximately 84.3 billion apps were downloaded on the Google Play Store.⁹ It is estimated that in 2019, consumers spent \$54 billion USD (or around \$1 billion a week) on the Apple App Store; while consumers spent around \$29 billion USD during the year on the Google Play Store.¹⁰

It has been reported that over 99 per cent of smartphones worldwide use either the Apple iOS or Google Android operating systems.¹¹ Apple iOS is proprietary and is both the only operating system available for Apple devices and not available for installation on devices other than Apple. In contrast, Google's operating system, Android, is used on Google devices and is available under licence to other device manufacturers.

The Google Play Store is the primary app marketplace installed on Android devices; however, licensees of the Android OS can also develop and pre-install their own apps, including their own app marketplace, on their devices,¹² as Amazon, Samsung, or LG have done. The Apple App Store is the only app marketplace available on iOS devices.

Though the ACCC's focus in this report will primarily be on Apple and Google's app marketplaces, the ACCC welcomes views on all app marketplaces.

⁵ Google Play Store, Apple App Store, Samsung Galaxy Apps, Amazon App Store

⁶ For example: Valve Steam Marketplace, Epic Store, PlayStation Store, Xbox Store, and Nintendo E-Shop for games; Shopify, Square, Bigcommerce for ecommerce.

⁷ <https://42matters.com/ios-apple-app-store-statistics-and-trends>, accessed 31 July 2020.

⁸ <https://42matters.com/google-play-statistics-and-trends>, accessed 31 July 2020.

⁹ <https://sensortower.com/blog/app-revenue-and-downloads-2019>, accessed 31 July 2020.

¹⁰ <https://sensortower.com/blog/app-revenue-and-downloads-2019>, accessed 31 July 2020.

¹¹ See, for example: <https://www.gartner.com/en/newsroom/press-releases/2016-08-19-gartner-says-five-of-top-10-worldwide-mobile-phone-vendors-increased-sales-in-second-quarter-of-2016>; <https://www.statista.com/statistics/272698/global-market-share-held-by-mobile-operating-systems-since-2009/>; <https://www.idc.com/promo/smartphone-market-share/os>, accessed 28 July 2020.

¹² See <https://developer.android.com/distribute/marketing-tools/alternative-distribution>, accessed 28 July 2020.

4. Key issues for the Report

The ACCC has set out below some key issues relevant to this report, along with questions on which the ACCC is seeking submissions.

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

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

(a) Intensity of competition in the relevant markets

Google and Apple provide the two dominant operating systems on mobile devices, with a reported 99 per cent of devices using either iOS or Android globally.¹³ The penetration of these two operating systems affects the popularity of app marketplaces; with Google Play Store the primary app marketplace for Android, and the Apple App Store the only marketplace for iOS.

The ACCC seeks views on the market structure for the supply of apps in Australia; particularly the significance of Apple and Google's app marketplaces in Australia.

Market structure

Questions for market participants

- 1) Other than Google and Apple, are there other significant suppliers of app marketplaces in Australia?
- 2) What are the barriers to entry and expansion in app marketplaces?

(i) Degree of substitutability

As noted above, the Google Play Store and the Apple App Store are the most dominant app marketplaces by a large margin.

There are ways to bypass app marketplaces to load apps onto devices (referred to as sideloading). For example: Epic (the creator of the game Fortnite) initially bypassed the Google Play Store on Android devices, with users downloading the app directly from the official website.¹⁴

The ACCC seeks views on the extent to which app providers and developers substitute between app marketplaces,¹⁵ particularly between the Google Play Store and the Apple App Store; as well as the extent to which they can bypass the Google Play Store and/or the Apple App Store to reach consumers (for example: through the use of other app marketplaces or through sideloading).

¹³ See, for example: <https://www.gartner.com/en/newsroom/press-releases/2016-08-19-gartner-says-five-of-top-10-worldwide-mobile-phone-vendors-increased-sales-in-second-quarter-of-2016>; <https://www.statista.com/statistics/272698/global-market-share-held-by-mobile-operating-systems-since-2009/>; <https://www.idc.com/promo/smartphone-market-share/os>; accessed 28 July 2020.

¹⁴ T. Biggs, [Fortnite coming to Android, but sidestepping Google Play Store](#), Sydney Morning Herald, 3 August 2018

¹⁵ The ACCC notes that it has primarily used the term 'app provider' in its questions, denoting the business that is offering the service within the app (as distinct from the business that developed the app). To the extent that app developers have responses to these questions in their role as developers, they are encouraged to provide that perspective.

The ACCC also seeks views on the degree to which consumers are able to (or wish to) swap between app marketplaces, or use more than one (for example: one app marketplace on their phone, and a different one on another device). The ACCC also seeks views on the ability of consumers to bypass the app marketplaces, particularly where web-versions of the app is made available.

Questions for market participants

Questions regarding app providers

- 3) To what extent are app providers able to publish and distribute an app without using the Apple App Store and the Google Play Store? Explain any factors limiting or preventing app providers bypassing the major marketplaces.
- 4) What development tools and support are offered to developers by app marketplaces and are these offered on equal terms to all developers?
- 5) To what extent do app providers place an app on one of the major app marketplaces and not the other? What factors influence whether an app provider places their app on one, or multiple, app marketplaces?

Questions regarding consumers

- 6) To what extent do consumers use more than one app marketplace? What are the barriers associated with using or changing app marketplaces?
- 7) Are there ways for consumers to source apps without using the two major app marketplaces? To what extent can consumers successfully download apps outside of app marketplaces?
- 8) To what extent are web-versions of mobile apps substitutes to the mobile-version?

(b) App marketplace conduct

The ACCC seeks views on the conduct of app marketplaces in their roles as platforms between app providers and consumers.

(i) Related products and services

In addition to the Google Play Store and the Apple App Store, Google and Apple offer a range of other services and goods, such as

- their own apps, such as the Gmail app on the Google Play Store,
- consumer devices like smartphones, tablets, smart watches and laptops,¹⁶
- software, such as operating systems and related tools to build apps for those operating systems,¹⁷ and
- services for app providers seeking to monetise the apps via advertising.¹⁸

The ACCC refers to these related goods and services as within the 'platform ecosystems' in the questions below. The ACCC seeks views on whether the related nature of services also offered by app marketplaces affects their conduct, or the conduct of app providers that wish to have apps placed on those marketplaces. The ACCC seeks views on whether the related

¹⁶ For example: iPhone, iPad and Apple watch for Apple; the Pixel smartphone and Google Home smart assistant for Google

¹⁷ For example: Google and Apple both provide software development tools so that app developers can develop apps that operate on the respective operating systems: Apple, [Tools & Resources](#), accessed 30 July 2020; Google, Android Developers, [Android Studio](#), accessed 30 July 2020.

¹⁸ Google states that 81% of the 'Android top 1000' use AdMob to place ads: <https://admob.google.com/home/>.

nature of services provided by the app marketplace affects consumers; particularly, whether they are more likely to buy/use goods and services that come from the same business.

Questions for market participants

- 9) What goods and services do app developers use that are also offered by app marketplaces (e.g. AdMob)? What benefits and detriments are there from using the services as offered by app marketplaces compared to alternative services?
- 10) Are app developers required to use related products and services of particular app marketplaces in order to operate effectively?
- 11) Do app marketplaces bundle services to encourage app providers/app developers to acquire services from their broader platform ecosystems?
- 12) What strategies (if any) are used by app marketplaces to entrench consumers in their broader platform ecosystems?

(ii) Competition in the provision of apps

Major app marketplaces provide or sell their own first party apps,¹⁹ meaning that third party app providers sometimes compete with the app marketplace.

This situation may create the ability and/or incentive for app marketplaces to gain advantages over competitors. For example, some app providers have complained that Apple uses its role as app marketplace to preference its own apps;²⁰ and other jurisdictions are investigating whether Apple is using its position as 'gatekeeper' to affect competition between its own apps and apps from competing providers.²¹

The ACCC seeks views on app providers' experiences competing with apps developed by an app marketplace; as well as the extent to which app marketplaces are able to preference their own products, apps and services via their app marketplace,²² how this is achieved; and the effect of this on competition for the supply of apps.

Questions for market participants

- 13) Do app marketplaces have the ability to self-preference their own apps over those of third party app providers? How?
- 14) For app providers: what has been your experience of competing with app marketplaces in their capacity as app providers?
- 15) What is the effect of Google and Apple pre-installing selected apps on products they own?

(iii) The role and use of data

App marketplaces appear to be able to access user and usage data as part of services to app developers. For example, the Google development agreement states that:

'Google may collect certain usage statistics from Google Play and Devices including, but not limited to, information on how the Product, Google Play and Devices are being used... The data

¹⁹ For example: Apple Music, Safari, and Apple Podcasts for Apple; Google Maps, Chrome, and Gmail for Google.

²⁰ For example: [Spotify: Apple's App Store abuses its power to 'stifle' rivals](#), Cnet, 14 March 2019, accessed 21 July 2020;

²¹ See, for example: European Commission, Media release, [Commission opens investigation into Apple's App store rules](#), 16 June 2020, accessed 30 July 2020; ACM, [ACM launches investigation into abuse of dominance by Apple in its App Store](#), accessed 30 July 2020.

²² For example, app marketplaces may provide preferential treatment to their own apps by displaying them more prominently in search results and app category lists.

collected is used in the aggregate to improve Google Play, related products and services, and the user and Developer experience across Google products and services'²³

Some market participants have reportedly raised concerns that app marketplaces may be able to use this data to:²⁴

- identify which product development ideas are successful and emulate these ideas in their own apps; and
- identify and respond to emerging competitors to their own apps.

The ACCC seeks views on the data sharing arrangements between apps and app marketplaces, and any views on the potential for app marketplaces to use data to identify, and respond to, potential competitors to the marketplace's own apps.²⁵

Questions for market participants

16) What types of data are collected by app marketplaces on consumers' use of apps that are made available on their marketplace? Why is this data collected and what is it used for?

17) What types of data are collected by app marketplaces specifically through the use of development tools they provide to app developers? Why is this data collected and what is it used for?

18) Is this data available to other market participants, at the same level of quality and granularity, through alternative sources?

19) To what extent can this data be used to identify successful apps, or apps that are more likely to be successful in the future? To what extent could app marketplaces use this data to identify emerging competitors to their own apps?

(c) Relationships between app marketplaces and app developers and providers

The popularity of the Apple App Store and the Google Play Store means that the two app marketplaces serve as a gateway to Australian consumers for app developers and providers.

App marketplaces use a range of processes to ensure that app marketplaces offer a high quality product and are attractive to consumers. However, a number of these processes can affect app providers' ability to reach consumers with their apps.

(i) Review processes and getting apps onto an app marketplace

A number of app marketplaces, including the Google Play Store and the Apple App Store, have processes to assess and screen apps before they are placed on the marketplace.²⁶

The ACCC understands this is aimed at ensuring low quality apps, scams and other items that may result in consumer harm are not allowed on to the marketplace.

The ACCC seeks views on the review and approval processes for app marketplaces, and recourses available for app providers if they are unhappy with a decision to deny them access to the marketplace.

²³ [Google Play Developer Distribution Agreement](#), 15 April 2019, accessed 20 July 2020.

²⁴ <https://www.washingtonpost.com/technology/2019/09/05/how-apple-uses-its-app-store-copy-best-ideas/>

²⁵ Further questions regarding competition between app marketplaces and app providers in the supply of apps are outlined in section (iii) below

²⁶ Apple, [App review](#), accessed 29 July 2020; Google, [Publish an app](#), accessed 29 July 2020.

Questions for market participants

- 20) What is the process for getting an app approved for distribution on the various app marketplaces? How has this process changed over time?
- 21) How effective is the key marketplaces' current review process? Do they successfully ensure that low quality and malicious apps are filtered?
- 22) To what extent do app developers/providers have concerns with app marketplace review processes? Please provide detail relating to each marketplace used.

(ii) Display of apps

The key app marketplaces offer millions of apps for consumers to choose from. How these apps are displayed on a marketplace can therefore have a significant impact on an app's overall success.

App marketplaces typically enable a 'search' function to help consumers find an app that meets their needs. This function lets consumers enter a search term and the search algorithm sorts through the multitude of apps available and returns a list of apps that are most relevant to the search term.

App marketplaces also sort apps based on their 'category' or 'genre'; categories such as entertainment, productivity, shopping, or social networking. App marketplaces may also 'feature' or 'push' particular apps from time to time by displaying certain apps in a highly prominent manner.

Various factors can determine where and how an app is displayed. These include the use of key words, number of downloads, ratings and reviews; as well as paid mechanisms to feature apps.²⁷

The ACCC invites views on the ranking and display of apps.

Questions for market participants

Search display

- 23) How important is ranking highly on app marketplaces' 'search' function to an app's discoverability?
- 24) How transparent is the operation of search ranking? What information are app providers/developers provided with on the operation of ranking systems?
- 25) To what extent can app providers/developers increase the ranking of an app?

Getting featured

- 26) How important is getting an app featured to the success of an app?
- 27) How does an app become featured in an app marketplace? How transparent is this process?

(iii) App rating systems

Most app marketplaces allow consumers to rate and review apps, for example through a star rating system or through written reviews.

These assist other users in assessing whether to download an app. However, in some app marketplaces, user ratings and reviews also impact the app's discoverability through search.

²⁷ See for example: <https://searchads.apple.com/au/>.

The ACCC invites views on the operation of app rating systems.

Questions for market participants

- 28) Are there processes in place to respond to user feedback, and for the removal of outdated or misleading reviews? If so, are these processes to be effective?
- 29) Are app providers or app marketplaces able to 'hide' or otherwise suppress negative reviews from display?

(iv) Collection and use of consumer data by app marketplaces and app developers

Apps have differing business models, which can include paid and freemium models; as well as leveraging user attention and data to provide targeted advertising. The app marketplace and the relevant app provider²⁸ are able to collect data when a consumer downloads and uses an app.

The ACCC seeks stakeholder views on the role and use of data in in-app services, including access to data and the degree of transparency about how app marketplaces and app providers deal with data.

Questions regarding app developers and consumer data collection

- 30) What range of consumer data can be collected from the use of an app?
 - a) To what extent is this data accessible to the app providers?
 - b) To what extent is this data accessible to the app marketplace or other third party?
 - c) For what purposes is this data collected?
- 31) What terms and conditions are in place between app marketplaces and app providers for the access of data by app marketplaces?
- 32) To what extent are app developers able to limit the amount/types of consumer data is shared back with the app marketplace?

(v) In-app purchases

In-app purchases is another issue raised by app providers. Both Apple and Google require app providers wishing to offer paid additional functionality in an app to use 'in-app purchases'.²⁹ Apple and Google both collect 30 per cent of these payments, or in the case of subscription services, 15 per cent commission from the second year onwards.

App providers have complained about the fees associated with in-app purchases. For example; Spotify and an audiobook distributor have made a complaint to European regulators regarding Apple's in-app purchase requirements and fees,³⁰ claiming that Apple uses its role as app marketplace to deliberately disadvantage other app developers.³¹ These

²⁸ As noted above, app marketplaces offer software-development tools to assist developers in the creation of apps. These tools include APIs, which allow for apps to interact with the device (and operating system) to which it is downloaded, and accessing functions and data.

²⁹ See Apple, [App Store Review Guidelines](#), accessed 21 July 2020; Google, Google support, [Payment](#), accessed 21 July 2020.

³⁰ European Commission, Media release, '[Commission opens investigations into Apple's App Store rules](#)', accessed 29 July 2020.

³¹ Spotify, [Consumers and Innovators Win on a Level Playing Field](#), 13 March 2019, accessed 30 July 2020.

complaints are the subject of ongoing investigations by the European Commission.³² Epic Games, the creator of Fortnite, has recently filed complaints against both Google and Apple in relation to their practices relating to the distribution of apps on their marketplaces and processing of consumer payments.³³

The ACCC seeks views on the terms relating to app purchases, and the operation of in-app purchases.

Questions for market participants

- 33) What terms in the Google Play Store and the Apple App Store, related to payments in the app, are app providers required to comply with?
- 34) Which types of apps are required to pay the service fee for in-app purchases? How transparent is the process for determining when this fee is required to be paid?
- 35) To what extent does the imposition of this fee affect an app's commercial viability?

(vi) App provider satisfaction

The ACCC is seeking general information and views on the experiences of app developers and app providers when dealing with app marketplaces.

Questions for market participants

- 36) How satisfied are app developers and app providers with their relationships with the key app marketplaces? For example, in relation to costs and fees, interoperability of apps with app marketplace services, tech support, rankings, display and presentation of apps etc.
- 37) Do app developers receive sufficient and clear information from app marketplaces in relation to software development and technical support?

(d) Relationships between app marketplaces and consumers

Apps have become essential tools for many Australian consumers. There are millions of apps available for download by consumers,³⁴ and they provide a wide variety of services to consumers including games, entertainment, health and fitness, and facilitating the procurement of physical services, like food delivery and rideshare. During the COVID19 pandemic and resulting lockdowns, apps have become increasingly important in facilitating video communication, work, and education.

The ACCC seeks views on the relationships between app marketplaces and consumers, as well as app providers and consumers, including the extent to which consumers are fully

³² European Commission, Media release, '[Commission opens investigations into Apple's App Store rules](#)', accessed 29 July 2020; [Spotify: Apple's App Store abuses its power to 'stifle' rivals](#), cnet, 14 March 2019, accessed 21 July 2020.

³³ A copy of Epic's filed application for injunctive relief against Apple can be found here: <https://cdn2.unrealengine.com/apple-complaint-734589783.pdf>; against Google: https://cdn.vox-cdn.com/uploads/chorus_asset/file/21759099/file0.243586135368002.pdf.

³⁴ As of the first quarter of 2019, there were reportedly 2.6 million Android, and 2.2 million iOS apps, available for download: <https://www.businessofapps.com/data/app-statistics/>

informed and understand the terms and conditions applicable to their use of the app; as well as views on the digital distribution of scam/harmful apps.

(i) Collection and use of consumer data by app marketplaces and app developers

Data, including user data, is available to app providers and app marketplaces via apps. This data can be collected for a wide variety of purposes, including to monitor the app's performance, for research and development, or to tailor an app experience for a consumer. This data can also be used for serving targeted advertising, or shared with third parties.³⁵

Consumers are not always sufficiently informed about the amount and kinds of data collected (including from apps), and are not always given control over data collection, studies show.³⁶ These studies have also found that the risks of data collection include manipulation, discrimination and exclusion, loss of security, and consumer distrust of businesses.³⁷

The ACCC seeks views on the amount of information consumers receive about the data that is collected when they download or use an app, and the amount of control they have over this.

These questions are in addition to the questions found in the section relating to consumer data at section (c) (iv) above.

Questions for market participants

- 38) Are consumers presented with the terms relating to data collection (including amount and types of data collected) before deciding to download an app?
- 39) To what extent are consumers able to limit the amount and/or types of consumer data that is shared with:
 - a) the app provider
 - b) the app marketplace?
- 40) What terms and conditions are in place between app marketplaces and app providers regarding disclosure of this data collection to consumers? Who is required to provide these disclosures to consumers?

(ii) Information regarding quality and costs of an app

Consumers need to be informed about the quality and ongoing costs of the app they are downloading, including clear information about in-app purchases, and when these purchases will occur.

The ACCC seeks views on the availability of information to consumers regarding quality and costs associated with apps.

³⁵ See, for example, Privacy International's report on menstrual tracking apps: <https://privacyinternational.org/long-read/3196/no-bodys-business-mine-how-menstruations-apps-are-sharing-your-data>.

³⁶ See, for example: CPRC, A Day in the Life, 2019, accessed 30 July 2020; ACCC, Digital Platforms Inquiry Final Report, July 2019. Norwegian consumer council, [App Fail: Threats to Consumers in Mobile Apps](#)"

³⁷ CPRC, A Day in the Life, ; ACCC, Digital Platforms Inquiry Final Report, July 2019;

Questions for market participants

- 41) What information do consumers receive regarding the cost of apps (including in-app purchases) prior to download? Is this information provided by the app provider or the app marketplace?
- 42) Do consumers receive sufficient and clear information from app marketplaces regarding the quality of apps they are looking to download?
- 43) How influential are app rankings/featured app status to be on a consumer's decision?

(iii) Scams and review of complaints

Apps are increasingly used by scammers,³⁸ which result in significant losses for some consumers. App marketplaces play an important role in acting as 'gatekeepers', limiting the numbers of scam/harmful apps available to consumers.

Downloading apps outside of large app marketplaces (including sideloading apps onto a device) may increase the risk that consumers download malicious apps.³⁹

The ACCC seeks views on the prevalence of apps which may be harmful to consumers, processes in place to exclude or remove harmful apps, and mechanism in place for reporting these apps to app marketplaces.

Questions for market participants

- 44) What risks are there to consumers when downloading apps in the Google Play Store or Apple App Store? What measures are in place to protect consumers from the risks of scams, or false and misleading apps, on app marketplaces?
- 45) What risks are there to consumers when downloading apps *outside* of the Google Play Store and Apple App Store (including through other app marketplaces or via direct download online)? What is the likelihood of harm compared to downloading apps via the Google Play Store and the Apple App Store?
- 46) What complaints mechanisms are in place for consumers to report scam apps, or false and misleading apps to app marketplaces and what redress, if any, is available?

³⁸ <https://www.scamwatch.gov.au/news-alerts/scams-cost-australians-over-630-million>

³⁹ See for example: <https://us.norton.com/internetsecurity-mobile-the-risks-of-third-party-app-stores.html>; <https://www.scmp.com/tech/apps-social/article/3052092/google-warns-security-risks-sideloading-its-apps-huaweis>

(e) Trends in apps and app marketplaces

The ACCC invites views on technological change or innovation that may affect the supply of apps in Australia in the future.

Questions for market participants

- 47) Are there are technological changes that will affect the supply of apps in Australia?
If so, describe what they are.
- 48) Have there been technological change/innovation in the supply of apps in markets other than Australia?
- 49) Has competition, or potential competition, in the supply of apps been affected by:
- a) acquisitions of start-up companies
 - b) acquisitions of new technology
 - c) mergers or acquisitions between companies at different levels of the app ecosystem chain?
- If so, please describe how.