Individual responses to invitation to comment on the SMS investigations into Apple's and Google's mobile ecosystems

Respondent A

Dear Sir/Madam

I write in reply to your consultation as an individual, and as an accessibility user.

I noticed that your consultation document does not mention the impact of Apple's practices on accessibility for disabled people. While it's true that Apple does a great deal to make their products accessible, I believe this area deserves attention as part of your investigation and consultation. It's important to ensure no significant concerns are overlooked.

In the field of modern digital technology, the intersection of corporate practices and accessibility for disabled people is complex. As technology continues to evolve, it's important to scrutinise the ways in which these advancements either bridge or widen the gap for disabled people.

Among the giants in the tech industry, Apple has come under scrutiny for its alleged monopoly practices and lack of interoperability. The US Department of Justices (DOJ) antitrust lawsuit didn't mention accessibility, nor did the press reporting the news, but I am concerned about the impact of Apple's "walled garden" approach on accessibility for disabled users.

The monopoly concern: Apple's accessibility dilemma

Apple, known for its innovation and tightly integrated ecosystem, has been accused by the DOJ of restricting key access methods to their devices.

For me, a case in point is the "Messaging with Siri" feature, which is liberating for hands-free voice messaging for people who have mobility impairments. However, it only works with Apple's AirPods and not with other Bluetooth devices such as Ray-Ban Meta smart glasses, and other wireless earbuds.

Sadly, the phone you have largely dictates which Bluetooth earbuds and smartwatches you can buy. I think this situation sucks when it comes to widening accessibility.

Another example is voice dictation and the way third party developers of dictation applications have been forced out of the Apple ecosystem because of restrictions the company places on its APIs.

A final area is smart home control where you can only use Apple's AirPods to control your HomeKit smart home with Siri. You can't use other wireless earbuds or smart glasses to use Siri to control your smart home by voice.

These limitations raise questions about the broader implications for assistive technologies, such as dictation applications and non-Apple earbuds, smart watches, and smart glasses, which could potentially offer significant benefits to disabled users on Apple platforms, including the iPhone.

The ripple effects of product decisions

The discontinuation of Nuance's Dragon Professional for Mac dictation software in 2018 is a poignant example of how seemingly business-driven decisions can have profound impacts on disabled people. For those who relied on this software for communication, its absence left a void that isn't easily filled by existing alternatives, including Apple's own replacement Voice Control. This situation serves as a stark reminder of the essential role that accessibility-focused technologies play in the lives of disabled people.

The quest for alternatives

For Mac users affected by Nuance's decision, finding an equivalent replacement has proven challenging. Apple's own voice dictation software, while an alternative, falls short in comparison to Dragon's capabilities, particularly in learning from user corrections and handling specialised vocabulary. This dilemma highlights a broader issue: the need for comprehensive, user-friendly accessibility tools that can cater to the diverse needs of all users.

A call to action for Apple

Apple's role in this landscape is twofold. On the one hand, the company's stringent control over its ecosystem has contributed to the challenges faced by third-party developers like Nuance, limiting their ability to offer fully featured applications on Apple platforms. On the other hand, Apple is uniquely positioned to lead by example in the development of advanced accessibility tools, which, to its credit, in many ways it does.

The potential for cross-platform messaging

A notable area for improvement is Apple's messaging system and in particular Messaging with Siri. The need for the proprietary H chip in AirPods aside, Apple could have made a better cross-platform messaging experience where other Bluetooth earbuds and smart glasses could use Siri Messaging for seamless hands-free messaging.

If you wear the Ray-Ban Meta smart glasses, for the hands-free accessibility advantages they offer, and connect them to an iPhone, they won't read out iMessages to you, and you can't send iMessages either but you can dictate and send normal SMS messages. In contrast, there are no restrictions with messaging if you use Apple's own AirPods. Also, you also can't control your smart home hands free with Siri with the Ray-Ban Meta smart glasses, or other wireless earbuds. That privilege is reserved for

Apple's AirPods only. This is restricting choice for disabled people who rely heavily on voice accessibility and control.

I understand that Apple's H chip technology enables Messaging with Siri when you wear Apple's AirPods, and it's reasonable for the company to initially keep this feature exclusive. However, considering its immense potential to enhance accessibility, I propose that after an exclusivity period of two to three years, Apple should make Messaging with Siri accessible to non-Apple wireless earbuds and devices. Apple has previously demonstrated a readiness to embrace openness, as seen in their decision to donate the HomeKit architecture to the Matter protocol. This precedent suggests that a similar approach could be beneficial in making Messaging with Siri more widely available, thereby supporting greater inclusivity.

It's not only disabled people who find this lack of interoperability frustrating. Meta, which owns Facebook and Instagram, said in 2024:

"Here's what Apple is actually saying: they don't believe in interoperability In fact, every time Apple is called out for anticompetitive behaviour, they defend themselves on privacy grounds that have no basis in reality."

I agree with Meta. Apple all too often falls back on privacy concerns and this sometimes comes at the expense of accessibility. I would like to see Apple introduce toggles and a warning for some features if turning them on increases accessibility but impacts privacy. Let disabled users make that choice, accessibility vs privacy.

By opening up its platforms to allow for better integration with other Bluetooth devices, including smart glasses, and smart watches, as well as dictation applications, Apple has the opportunity to significantly enhance the messaging, dictating, and voice control experience for disabled people. This move would not only demonstrate Apple's commitment to accessibility but also pave the way for future innovations in assistive technology.

Embracing the future of inclusive technology

Whilst I really appreciate the joined up Apple ecosystem that brings security, privacy, and convenience I do question whether it sometimes comes at the expense of innovations in accessibility for disabled people.

As we navigate the complexities of technology and accessibility, it's clear that the path forward requires a collaborative effort. By opening up and engaging in open dialogue and prioritising inclusivity, companies like Apple can lead the charge in breaking down barriers and fostering a more accessible digital world. Through innovation and empathy, the potential to create technology that empowers everyone, regardless of their abilities, is within our reach.

It's worth stating that Apple is already a leader in accessibility features on its platforms and does more than many tech companies in this area.

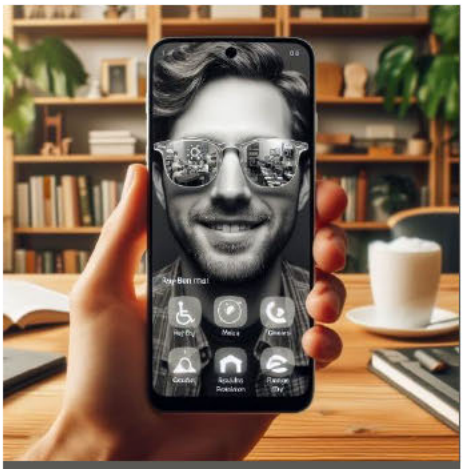
I simply pose the question - Is Apple's 'walled garden' stifling accessibility?

[redacted]

[redacted]

[redacted]

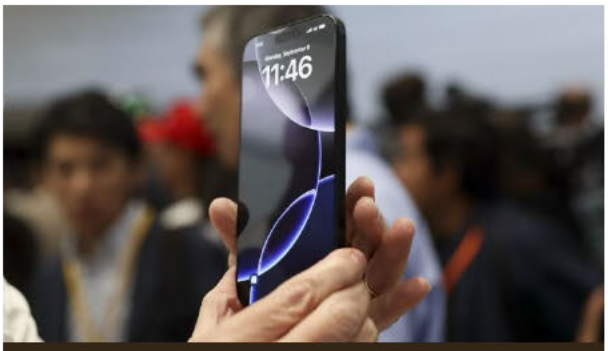
Background links:



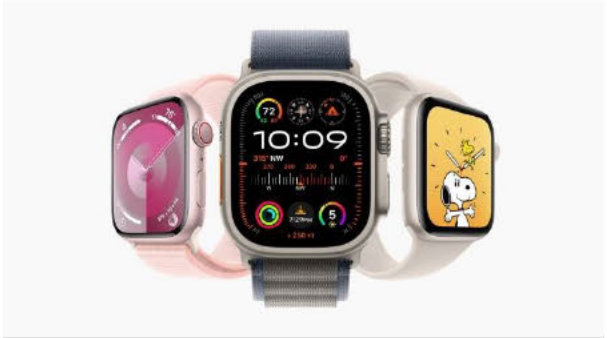
Ray-Ban Meta smart glasses: hands-free heaven for accessibility
aestumanda.com

https://www.aestumanda.com/opinion/2024/03/apple-doj-lawsuit-is-apples-ecosystem-hindering-accessibility/

Mac users burned after Nuance drops Dragon speech to text software
theregister.com



Apple complains Meta requests risk privacy in spat over EU efforts to widen access to iPhone tech
apnews.com



The push for a more accessible Apple Watch
theregister.com

Apple Accessibility and HomeKit
youtu.be

[redacted]

[redacted]

[redacted]

Respondent B

Competition and Markets Authority

[redacted]

23 January 2024

Subject: Anti-Competitive Hurdles in the App Economy

[redacted]

As for 1), Apple and Google currently operate **app ecosystems that are incompatible with each other**. Developers must usually develop two independent sets of apps, in two different programming languages and app development environments. This creates immense costs for app developers who usually operate separate teams for iOS and Android each. In response, Apple

[1] https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4780718

and Google should develop means through which the operating systems are more compatible with each other. For example, it should be considered to make the source code for iOS available, so that **compatibility layers between Android and iOS** can be built. This would immediately make iOS apps executable on Android, and vice versa. It also is relatively easy to accomplish since Android and iOS are both UNIX-compatible and therefore share a significant part of their underlying philosophies in the operating systems.

More generally, Apple and Google often get to decide on winners and losers in the app economy. Artificial intelligence is currently particularly important, with Apple deploying its Apple Intelligence and Google deploying its Gemini model by default on their respective app operating systems. This puts other competitors in AI at a significant disadvantage, and risks tipping markets soon in AI. **Apple and Google should not be allowed to deploy their own AI models, without putting competitors on an equal footing and ensuring interoperability**.

As for 2), much has been written about how Apple and Google charge developers significant fees and often make unpredictable content moderation decisions (see, for example, the 2018 paper by Greene and Shilton[22]). Particularly concerning is that **app purchases cannot be transferred between Android and iOS, thereby imposing significant switching costs on UK citizens**. Additionally, Apple iCloud, including its app backups, is incompatible with Android, making it impossible to transfer popular apps like WhatsApp and Signal between iOS and Android without losing data and incurring high switching costs. Also Android backups are not opened up to iOS developers. **Purchases and app backups should be made interoperable**.

As for 3), **it is well-known that privacy problems in mobile apps have long been rampant**. And yet, Apple and Google have long implemented mechanisms that undermined data protection and privacy, such as by putting a cross-app advertising identifier on all smartphones. [redacted] apps widely do not comply with relevant privacy and data protection laws. This is arguably incompatible with Apple's marketing claim that "Privacyss. That's iPhone." For researchers, it is difficult to study privacy issues because of Apple and Google's design decisions. For example, Apple applies encryption to all iOS apps, and doesn't allow independent researchers to scrutinise those apps' (data) practices ([redacted]). This makes it difficult for consumers to make informed purchase

[2] https://journals.sagepub.com/doi/10.1177/1461444817702397
[3] https://petsymposium.org/popets/2022/popets-2022-0033.pdf
[4] https://techreg.org/article/view/13254

decisions on iOS. Additionally, Google recently rolled out privacy labels but allows a variety of exemptions, thereby misleading consumers. **Apple and Google need to take a more active role in ensuring privacy and the rule of law on the app store, and allow independent researchers to obtain relevant data about compliance in apps**.

As for 4), it has been reported that apps play an important role in the declining mental health of young users (see Jonathan Haidt's 2024 book "Anxious Generation"). Yet, neither Apple nor Google currently has any rules in their app review policies regarding addictive design patterns in apps. In fact, they intentionally provide app developers with means to implement such additive design patterns, such as infinite scroll and pull to refresh. **Apple and Google should take action against such additive design and implement rules to protect UK citizens**.

Additionally, the extent to which users can customise their apps and mount defenses against such exploitative designs are limited. Interestingly, this is not the case for Safari on iOS. Here, Apple allows users to remove certain user elements and install content blockers against dangerous content. [redacted] that there are many users that wish to have more control over their app use. In my small-scale survey, 85% of respondents said that they'd wish for functionality similar to that within Safari for all apps. Therefore, **Apple and Google should implement content removal functionality for all apps, not just Safari**.

As for 5), the same technology that has been used for smartphones is now also used widely in the Internet of Things (IoT). This puts Apple and Google at a significant advantage. An important example of this are electric (self-driving) cars, which are essentially smartphones on wheels. They run similar software (sometimes Android-based) but have a larger battery and wheels. Other examples are tablets and smartwatches, which are already dominated by Apple. **This space needs to be monitored carefully, posing risks for further tipping and lack of consumer choice**.

[5] https://ora.ox.ac.uk/objects/uuid:a8953331-00d0-4a60-9fb1-4130265695e6

Respondent C

I am concerned about interoperability between Apple and Google SMS implementations. Google provides RCS for encryption, but vendors implement it differently and in incompatible ways. Apple uses iMessage with its own protocol.

As a user, I want to be able to send a receive secure SMS communications, for example to share information with friends and family, receive appointment data from a doctor or one time passwords from a service. This is currently not possible as Google and Apple do not publish or use standards that can be implemented independently and that interoperate with each other when it comes to secure (encrypted) SMS.

Respondent D

Apple favours its own iTunes Music Store. For example, the iTunes Store app is preinstalled on iPhone and iPad. Furthermore, music bought from the iTunes Store is automatically added to the preinstalled Music app on iPhone and iPad. However, music bought from third parties (such as 7digital, a UK digital music store) cannot be added to the Music app on iPhone nor iPad.

Respondent E

I'm responding as an individual.

As for Apple, I want to suggest the following scopes of the investigation:

1. On iOS and iPadOS, consumers can only install apps from App Store. Consumers cannot install apps from third party sources. CMA should make Apple to allow consumers to install apps from third party appstore or websites.
2. On iOS and iPadOS, consumers can only share files wirelessly using AirDrop. Consumers cannot share files using Bluetooth or share files with Android devices wirelessly. CMA should make Apple to allow users to share files with Android devices through Bluetooth.
3. On iOS, iPadOS and macOS and visionOS, consumers cannot uninstall preinstalled apps including Apple Music. CMA should make Apple to allow users to uninstall preinstalled apps.
4. On iOS, iPadOS, macOS and visionOS, iCloud is preinstalled and automatically enabled when consumers log in to their Apple account. CMA should make Apple to allow users to uninstall iCloud and ask explicitly for user consent when enabling iCloud.

As for Google, I want to suggest the following scopes of the investigation:

1. Google aggressively urges developers to use Play Integrity which is a mechanism that only give certification to Google certified Android OS in their apps. This move makes these apps to stop working on non-certified Android OS. CMA should make Google to publish a clear method for third party Android OS to pass Play Integrity.

Respondent F

Dear CMA,

[redacted]

Related to Q1 and Q2, I wanted to note a potential aspect of entrenchment of market power that I did not spot in the invitation to comment is via children's devices / accounts.

I have used Android devices for several years. One of my children has an Android device and I am easily able to manage all the parental controls via Google's "Family link" app. My other child has an iPhone and I have not found any ways to manage the parental controls other than by buying a second iPhone for myself.

So I have observed that Apple's ecosystem provides a degree of family lock-in: if at least one child has an Apple device and the parent wants to maintain parental controls, it seems compulsory for the adult to retain an iPhone. With children often getting parents' hand-me-down devices, this probably creates lock-in to the Apple ecosystem: a parent who wants to pass their old iPhone to a child but wishes to get an Android (or other) device for themself, might find they need to still have an iPhone.

A response to a query about this kind of access to parental controls on the Apple Support website seemed to confirm this lock-in, saying "Family Sharing would have to be set up from an iPhone, iPad, iPod touch, or Mac." https://discussions.apple.com/thread/252959490?answerId=252959490021&sortBy=rank#252959490021

My perception is this is less of an issue in the opposite direction. Google seems to provide a web interface for managing family controls via familylink.google.com. It appears to replicate all the functions of the Family link app. This means a parent without an Android device should still be able to manage the parental controls of their child's Android device, or a parent handing an old Android device down to a child is not obliged to retain an Android device for themself.

With respect to the questions around Box 6 related to potential interventions, I would suggest consideration of intervention in the lock-in to the ecosystem created by management of devices seeming to need a device of the same type. Both providers could be obliged to provide web-based control panels for parental controls that maintain feature parity with their app-based ones, and that do not require the use of a parental device of that type to access (e.g., the Apple one shouldn't require you to have an iPhone to be able to login to the parental control site). Any such web control panel should not require payment of any fees. As above, my perception is that Google currently seems to be in compliance with this and Apple does not.

[redacted]

[redacted]

Respondent G

This is a response to your invitation to comment on your investigation into Apple's mobile ecosystem.

A key point of concern is how Apple supports Rich Communication Services (RCS), a messaging standard created by the GSMA to improve communication across different mobile platforms. It is the successor to SMS and MMS.

Apple has added some features of RCS to its operating systems, but it has not included important parts that could help users communicate better across different ecosystems. Specifically, Apple does not support IP Voice Call, IP Video Call, and RCS Business Messaging. This lack of full support affects competition and user choice.

- **Voice and Video Calls:** Apple does not support RCS standards for IP Voice Calls (IR.92 and IR.58) and IP Video Calls (IR.94). Instead, Apple promotes its own services, FaceTime Audio and FaceTime Video, which are built directly into iOS. This means that iOS users can only make native video calls using FaceTime, which is exclusive to Apple devices. As a result, users on iOS cannot easily connect with friends or family on other platforms without using third-party apps like WhatsApp. This situation discourages users from switching to Android devices, as they would lose the seamless calling experience that FaceTime offers. By favouring its own services, Apple limits competition and innovation in mobile communication.
- **RCS Business Messaging:** RCS Business Messaging allows businesses to send rich, interactive messages to customers. By not supporting this feature, Apple limits how businesses can connect with users on iOS devices. Instead, Apple promotes its own service, Messages for Business, which reduces competition and gives Apple more control over business communications.

Apple's choice to limit RCS support affects competition and what options are available to consumers. By not fully adopting RCS, Apple makes it harder for users to communicate with friends or family who use different devices. This leads to a situation where users must rely on third-party apps to connect with others.

Additionally, users may feel pressured to stay within the Apple ecosystem. If they decide to switch to an Android device, their Apple contacts would need to download a third-party app to video call them. This creates a barrier that discourages users from leaving the Apple ecosystem. This situation not only restricts consumer choice but also strengthens Apple's position in the market. For example, the phenomenon of "green bubble shaming" highlights how users may feel judged for using non-Apple messaging services.

Notably, Apple only began to implement basic RCS text support after the Chinese government mandated that all phones sold in China include this functionality. This raises concerns about Apple's willingness to adopt industry standards when not compelled by regulatory requirements, further highlighting the need for intervention by the CMA to ensure fair competition.

To promote a more competitive environment and enhance consumer choice, I propose that the CMA require Apple to fully adopt the RCS standard. This intervention would not only improve interoperability between different devices but also empower consumers to communicate freely without being locked into a single ecosystem.

Thank you for considering this submission.

Respondent H

Hello,

Here is my response to the CMA's mobile ecosystem SMS consultation. [redacted]

[redacted]

Developers of websites ([redacted], if rather atypical ones) generally aim for wide browser compatibility. This is good business since consumers may not have our preferred browsers installed. However, web games are different because they tend to be at the leading edge of what the web can support.

As an example, [redacted]

[redacted]

(I should explain that the version of Chrome offered on iOS and iPadOS outside the EU behaves identically to Safari. This is to be expected because the browser engine is in fact Safari, even though the user interface looks similar to Chrome on other platforms.)

It is worth noting that Chrome on MacOS is fully featured and uses the Chrome browser engine, not Safari. I believe this shows that the situation on i(Pad)OS is a business decision and not a technical one.

This is just one example, but I believe it highlights the way Apple's control of the browser reduces consumer choice. I would urge you to impose a requirement whereby Apple must make fully-featured rival browsers available in the App Store.

Publishing games to the App Store and the Play Store is much more difficult than the web. I believe the poor experience for developers follows from their monopoly situation—there is little incentive for either company to innovate or improve.

The first thing a new developer will notice is that they have to pay Apple $100 p.a. and they get essentially nothing back. In my opinion this is a clear example of a monopoly rent.

Surprisingly, though, from a developer's point of view, the situation is probably worse with the Play Store. Google has recently introduced a requirement for micro-businesses where applications must be tested by a large number of people before they can go live. This requirement is impossible to meet for many companies who have otherwise viable applications. It should be noted that there is no similar requirement for other distribution channels, such as the web, or indeed, the Apple store. This means it is clearly not an essential part of distributing applications.

I would argue that there are a number of problems here. First of all, unlike with desktop computers, we can't just offer a downloadable version of our games on our own website. Installing such a download would be impossible on Apple devices, and unreasonably difficult on Android ones. This functionality ("side-loading") would help to guard against abuse of market power by Apple and Google, and I would urge the CMA to mandate it.

Another problem is that it is impossible to establish a rival app store on Apple devices, and unreasonably difficult on Android ones (since the new store must be side-loaded). This reduces competition and so allows for poor service and monopoly rents. I would urge the CMA to: (i) require Apple to allow third-party app stores, and (ii) require Apple and Google to list third-party app stores in their own default app stores.

There is also an issue with payments on both platforms. Payments must be routed through the platform's payment service, where the fees are much larger than those charged by normal credit card processors. It is interesting to note that even a company the size of Amazon has been unable to negotiate an exception to this rule. The Kindle application on the App Store and the Play Store doesn't allow in-app purchases of books, because Amazon would have to hand over an unreasonable revenue share. This shows the monopoly power of Apple and Google in graphic terms, and shows that regulatory intervention is necessary to restore competition. I would urge you to do this by prohibiting the stores from requiring the use of their in-house payment processor.

You will probably have noticed that I am urging you to adopt measures which are very similar to the EU's Digital Markets Act. I think the DMA has done a good job, and it would be excellent if the UK adopted a similar regime. There is one issue, though, which the CMA will be able to address by drawing on the experience of the EU. This is the fact that Apple are charging fees for apps which are installed through third-party app stores.

Third-party app stores are nothing to do with Apple, and so if Apple are able to charge fees, it demonstrates that Apple retains a monopoly power. This monopoly power is over the mechanisms within i(Pad)OS which allow for third-party app stores in the first place. I suspect that the people drafting the DMA didn't anticipate this issue, and so failed to include clear language prohibiting it. The CMA, coming at the same problem around a year later, has an opportunity to avoid falling into the same trap.

I would observe that desktop computers (even Macs) don't suffer from this issue. People who offer downloadable applications for Windows just charge an appropriate price to their customers, without having to make any kind of payment to Microsoft. People selling downloadable Mac applications (not through the Mac App Store) are similarly not required to make payments to Apple. These payments are thus solely a feature of the mobile ecosystem's unique architecture, and I believe a regulatory intervention is again required to prevent the charging of a monopoly rent.

I hope this is helpful, and if you have any questions please let me know.

[redacted]

Respondent I

The iOS/Android 'duopoly' has effectively nullified any possibility of true competition in the mobile device and operating system spaces.

That enormous impediment has been 'by design' and has been exacerbated by external geopolitical pressures.

For a perfect example of this, look no further than the case of Huawei.

Huawei held a Google Android licence until the US government forced Google to revoke it.

As a result, Huawei phones were at an immediate competitive disadvantage worldwide (except China) in the marketplace and forced to create its own platform consisting of the open source version of Google Android (AOSP) but without any of the services that make Android useful on mobile devices: Google Mobile Services (GMS). Instead, it was necessary for Huawei to provide its own App Store 'AppGallery' and mobile services, Huawei Mobile Services (HMS). All at enormous cost.

However, it is not Android per se that matters but Android running the all emcompassing Google Mobile Services. The Google tentacles.

As a Huawei user myself, I have spent the last five years dealing with the current situation and all of its associated problems. The upshot is when it came to upgrading my phone, I had no realistic option but to choose between Android + GMS or Apple iOS.

As a way of contrast, my tablet runs Huawei's HarmonyOS with AOSP underpinnings and no Google Mobile Services. It is the perfect example to serve as a basis for comparison which I will then extend to iOS.

I will provide examples of where the duopoly limits user choice.

In terms of Google related apps there are no options for anything but Android/GMS or Android.

These include Gmail, Google Drive, YouTube, Google Meets, Google Maps etc.

In some cases, web access is technically possible but the experience is seriously downgraded and even then requires Google's web browser to operate without even more limitations.

In the case of my Huawei tablet (which cannot even run Google Chrome due to licencing restrictions) even when I try to access something like Gmail via a different browser, I still get a banner injection on the page nagging me to install Google Chrome and the Gmail app. Of course, if I click on the link to download Google Chrome from the

Google Play Store, it fails. My only real option is to choose the web option and use the 'downgraded' experience.

The same kind of downgraded experience applies to the entire Google suite of apps.

Outside the Google suite of apps the limitations persist as many apps on the Google Play Store will not even run unless they have access to GMS. Sometimes the limitations are not visible at first glance. Netflix, for example will probably install and run but without playing back UHD content at full resolution.

Apple and iOS have an equally limiting (and damaging) range of impediments to increase what it has euphamistically called 'stickiness' to its platform. My view is that 'stickiness' equates to 'user lock-in'. Mechanisms which dissuade users from changing platforms by making switching tremendously inconvenient.

For years Apple has offered its 'iCloud' cloud services. Every user has access to 5GB of free cloud storage which amounts to just a tiny fraction of device capacity which itself has typically been small when compared to non-iPhone options.

The small 'free' storage space leads users to fill it quickly. It is easy to ugrade to paid tiers and enable synchronisation of devices on the same AppleID, which in turn requires more storage space. Although it is possible to live without iCloud storage, it is difficult to turn off and forget because some Apple functionality requires iCloud to be activated. This way, even when turned off, the user is nagged to turn it on.

In 2025, there is no good reason that users should be limited to the device makers own cloud infrastructure for backend OS operations and/or synchromisation. Interoperability, with appropiate warnings on risk should be possible and in the hands of users. In fact, it is highly likely that users' iCloud data is already being stored on Google, Amazon or Micosoft cloud services which Apple contracts out.

Once again, and just like in the case of Google, Apple has a history of limiting cloud services to its own offerings. For example, for years, the only way for iPhone users to backup WhatsApp chats via cloud services was to Apple's iCloud. Going back further, iPhone users were not allowed to save email attachments to their devices. They had to go through iCloud. Both restrictions have been lifted now (following regulatory pressures) but the damage was already done.

In terms of search and 'default' search options, famously Apple and Google have an agreement whereby Google pays Apple huge sums of money to be the default search engine on iOS devices. It has been known for this sum to be as high as 20 billion US dollars for a single year and this raises serious competition concerns. Apple claims it allows and accepts this agreement because Google is better and Apple cannot provide a better service. On the other hand, some people may also believe that this agreement

is simply collusion. Apple gets billions for free and Google strengthens its already iron grip on search.

Where Apple does offer a service, for example Apple Music, it can abuse mechanisms to gain competitive advantage. The famous App Store anti-steering policies spring to mind and Spotify was forced to file a complaint with the EU watchdog.

The App Store itself is a prime example of consumer harm. No Apple iOS device purchaser is ever informed prior to purchase of any of the commercial and competition limitations that will be imposed on the user.

Some examples:

For contactless payments using a phone or a watch, only Apple Wallet is permitted. You are welcome to put whatever card you want into that wallet but it must be Apple Wallet and Apple takes a comission on all transactions carried out through the wallet. Alternative wallets are not permitted. Once again, and following complaints, this situation has changed in the EU.

For NFC access only Apple can give permission. This means that if you have a public transport system that uses NFC and Apple doesn't give you permission, iOS users cannot use their phones to travel and instead require physical cards. The Barcelona public transport system found itself in exactly that situation and had to ask the EU to force Apple to give permission.

For web access you can choose your browser but your browser is limited to Apple's WebKit rendering engine. Other engines are not allowed. You can only see the web as Apple wants you to see it.

For apps, only the App Store is allowed and only Apple holds the moral yardstick. What kinds of apps are available depends on what Apple decides its users can see. Users have no say.

From every app store purchase or in app purchase, once again, only Apple takes a commision because competition is not allowed.

None of these restrictions on user choice and competition are presented to potential purchasers of Apple iOS devices prior to purchase. In fact, such is the nature and depth of these restrictions that many users are actually completely unaware of them. In my opinion Apple does not reveal these restrictions to purchasers simply because, if it did, many potential customers would say 'no' and walk away.

The use of 'hooks' within ecosystems is widespread between the two platform 'gatekeepers'. That is any mechanism which makes it difficult to switch to the other platform. This amounts to 'lock-in'.

Users should be able to switch seamlessly. Nothing should be tying them to a platdorm.

The Huawei situation should be a wake-up call to legislators on the realities of the digital era and also the power and influence of gatekeepers. The Huawei case also highlights the problem of digital sovereingty. Of how a geopolitical decision far from the UK can have an enormous impact on UK users.

The solution requires legislation to level the playing field and prevent outside nonsovereign influence. Interoperability is a must. No one app or service should tie users to platforms. Therefore, instant messaging apps should not require users to have the same app installed. The necessary tools and underlying software should be available on other platforms if they are required for the correct functioning of apps. This means Google Maps should function as expected on non-Google platforms even if external geopolitical tensions try to get in the way. The user should be able to decide. Cloud services should be transferable through interoperability infrastructure without necessarily having to download files to local storage. All while offering standardised security and privacy protections.

Huge change is needed to pull the tentacles of Big Tech out of users' digital lives.

In this particular case of Apple, it is clear to my mind that it has abused it dominant position and continues to do so today.

However, Apple is just one element of the duopoly of Android/iOS. For others to emerge (including possible homegrown or EU candidates) major change is needed.

Huawei is the perfect case study to be able to understand the reach of Apple and Google (Alphabet). Simply pickup an Huawei tablet and try to use it naturally (without third party hacks like GDrive to trick Google into thinking the device is Google certified).

Every single hoop that users have to jump through on that tablet is an example of where change needs to be made.

Respondent J

Response to the CMA's SMS investigations into Apple and Google

[redacted]

Introduction

1. This is a response to the UK Competition and Markets Authority (CMA) 'Invitation to comment: SMS investigations into Apple and Google's mobile ecosystems' ('Invitation').

2. [redacted]

3. [redacted] my comment focuses on the consumer protection issues related to video games that are made available to the public through Apple and Google.

4. This is a broad response to Q1, Q2, Q4, and Q6. (I believe Q3 does not exist.) I shall answer each question after my general comments.

5. At Paragraph 25 of the Invitation, the CMA stated:

> It is also important to recognise the valuable roles that Apple and Google play as stewards of their ecosystems, ***helping to protect users'*** privacy, security and ***safety online***. (emphasis added)

6. It is unclear on what basis the CMA has drawn that blanket conclusion that Apple and Google help to protect users' safety online without any reservations as to the effectiveness of that help. The immediately succeeding paragraphs do not deal with that point. Paragraph 76 later briefly mentions potential consumer harms but does not deal with them in detail (nor do other paragraphs after that).

7. One might suggest that Apple and Google have put in some efforts (likely because of public pressure, rather than altruism), but they certainly fall short ofeven basic consumer law requirements (as our research has repeatedly proven,[6] as detailed below), let alone social responsibility standards that go

[6] Leon Y Xiao, 'Beneath the Label: Unsatisfactory Compliance with ESRB, PEGI, and IARC Industry Self-Regulation Requiring Loot Box Presence Warning Labels by Video Game Companies' (2023) 10 Royal Society Open Science Article 230270; Leon Y Xiao and Mie Lund, 'Assessing Compliance with UK Loot Box Industry Self-Regulation on the Apple App Store: A Longitudinal Study on the Implementation Process' (OSF, 9 January 2025) <https://osf.io/xmwgy_v1> accessed 11 February

above and beyond basic legal rules to properly protect users, particularly young people, online.

8. For context, Apple and Google host many video games. Most of the highest-grossing UK mobile games contain gambling-like loot boxes, which are in-game purchases that can be bought with real-world money in exchange for random rewards.[7] These products have been a cause of concern due to their availability to children and links with gambling.[8]

Loot box presence disclosures

9. The product listing pages of video games with loot boxes are required to disclose the presence of loot boxes,[9] as the European Commission[10] and the Dutch consumer regulator have said,[11] the Italian consumer regulator has ruled,[12] the

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2025; Leon Y Xiao, 'Failing to Protect the Online Consumer: Poor Compliance with Dutch Loot Box and Video Game Consumer Protection Guidelines' (OSF, 7 May 2024) <https://osf.io/tmg34> accessed 13 May 2024.

[7] Leon Y Xiao, Laura L Henderson and Philip Newall, 'What Are the Odds? Lower Compliance with Western Loot Box Probability Disclosure Industry Self-Regulation than Chinese Legal Regulation' (2023) 18 PLOS ONE Article e0286681; David Zendle and others, 'The Prevalence of Loot Boxes in Mobile and Desktop Games' (2020) 115 Addiction 1768.

[8] Department for Digital, Culture, Media & Sport (UK), 'Government Response to the Call for Evidence on Loot Boxes in Video Games' (*GOV.UK*, 17 July 2022) <https://www.gov.uk/government/consultations/loot-boxes-in-video-games-call-forevidence/outcome/government-response-to-the-call-for-evidence-on-loot-boxes-in-video-games> accessed 11 December 2024.

[9] Leon Y Xiao, 'Illegal Loot Box Advertising on Social Media? An Empirical Study Using the Meta and TikTok Ad Transparency Repositories' (2025) 56 Computer Law & Security Review <https://doi.org/10.1016/j.clsr.2024.106069> accessed 9 November 2024.

[10] European Commission, 'Commission Notice – Guidance on the Interpretation and Application of Directive 2005/29/EC of the European Parliament and of the Council Concerning Unfair Business-to-Consumer Commercial Practices in the Internal Market (C/2021/9320) [2021] OJ C526/1' (29 December 2021) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021XC1229(05)> accessed 11 December 2024; European Commission to Interactive Software Federation of Europe (ISFE) and European Games Developer Federation (EGDF), 'Loot Boxes in Video Games' (29 September 2022) <https://commission.europa.eu/document/download/2cd696bd-6a6c-4012-8257-e72b423346be_en?filename=Commission%20letter%20to%20ISFE%20EGDF%20on%20loot%20boxes%
20from%20September%202022.pdf> accessed 4 October 2024.

[11] Autoriteit Consument & Markt [Authority for Consumers & Markets] (The Netherlands), 'Leidraad bescherming online consument [Guidelines on the protection of the online consumer] (updated 15 March 2023)' (15 March 2023) <https://web.archive.org/web/20230708170835/https://www.acm.nl/nl/publicaties/voorlichtingaan-bedrijven/acm-leidraad/leidraad-bescherming-online-consument> accessed 10 July 2023.

[12] Autorità Garante della Concorrenza e del Mercato (AGCM) [Italian Competition Authority], 'PS11595 - Activision Blizzard - Acquisti Nei Videogiochi, Provvedimento n. 28452 [PS11594 - Activision Blizzard - Purchases in Videogames, Provision n. 28452]' (17 November 2020) <https://www.agcm.it/dettaglio?tc/2025/12/&db=C12560D000291394&uid=B9FA711B7757E0B2C1258637005FA58A> accessed 8 July 2023; Autorità Garante della Concorrenza e del Mercato (AGCM) [Italian Competition Authority], 'PS11594 - Electronic Arts - Acquisti Nei Videogiochi,

Advertising Standards Authority (ASA) has said[13] and ruled,[14]and as, I understand from previous discussions, the CMA agrees.

10. This is because failing to provide this material information (the presence of loot boxes) would be a 'misleading omission' within the meaning of Regulation 6 of the Consumer Protection from Unfair Trading Regulations 2008 (CPUTR) and Section 227 of the Digital Markets, Competition and Consumers Act 2024 (DMCCA), which will eventually replace the former. For the record, these laws were retained EU law and remain substantively identical for present purposes.

11. However, many games did not disclose the presence of loot boxes on their Apple App Store and Google Play Store product listing pages,[15] [redacted] intervened by pressuring video game companies through age rating and advertising regulators, *i.e.*, PEGI and the ASA.[16]

12. Many other games remain non-compliant today,[17] despite the ASA rulings[18] and the Ukie loot box industry self-regulation,[19] which is supported by the Government,[20] specifically requiring this. The newest data suggest that only 23.5% of top-grossing games with loot boxes on the Apple App Store are complying, and many only as a result of previous direct intervention, hence suggesting a much lower compliance rate amongst less popular games.[21]

Provvedimento n. 28368 [PS11594 - Electronic Arts - Purchases in Videogames, Provision n. 28368]' (30 September 2020) <https://www.agcm.it/dettaglio?tc/2025/10/&db=C12560D000291394&uid=B20A07DF6BC2F369C1258606004E6A61> accessed 8 July 2023.

[13] Committee of Advertising Practice and Broadcast Committee of Advertising Practice, 'Guidance on Advertising In-Game Purchases' (20 September 2021) <https://www.asa.org.uk/resource/guidanceon-advertising-in-game-purchases.html> accessed 11 December 2024.

[14] Advertising Standards Authority, 'ASA Ruling on Hutch Games Ltd [Concerning F1 Clash on the Apple App Store] A23-1196857' (4 October 2023) <https://www.asa.org.uk/rulings/hutch-gamesltd-a23-1196857-hutch-games-ltd.html> accessed 4 October 2023; Advertising Standards Authority, 'ASA Ruling on Hutch Games Ltd [Concerning Rebel Racing on the Google Play Store] A23-1196862' (4 October 2023) <https://www.asa.org.uk/rulings/hutch-games-ltd-a23-1196862-hutch-gamesltd.html> accessed 4 October 2023.

[15] Xiao, 'Beneath the Label' (n 1).

[16] Leon Y Xiao, 'Opening the Compliance and Enforcement Loot Box: A Retrospective on Some Practice and Policy Impacts Achieved through Academic Research' (2023) 1 Societal Impacts Article 100018.

[17] Xiao and Lund (n 1).

[18] Advertising Standards Authority, 'ASA Ruling on Hutch Games Ltd [Concerning F1 Clash on the Apple App Store] A23-1196857' (n 9); Advertising Standards Authority, 'ASA Ruling on Hutch Games Ltd [Concerning Rebel Racing on the Google Play Store] A23-1196862' (n 9).

[19] Ukie (UK Interactive Entertainment), 'New Principles and Guidance on Paid Loot Boxes' (18 July 2023) <https://ukie.org.uk/loot-boxes> accessed 11 December 2024.

[20] Department for Culture, Media & Sport (UK), 'Loot Boxes in Video Games: Update on Improvements to Industry-Led Protections' (*GOV.UK*, 18 July 2023) <https://www.gov.uk/guidance/loot-boxes-in-video-games-update-on-improvements-to-industryled-protections> accessed 18 July 2023.

[21] Xiao and Lund (n 1).

13. The games that did disclose may also have failed to disclose in a sufficiently visually prominent manner as to actually fulfil the disclosure obligation.[22]

14. There is no effective channel through which interested parties with expertise, let alone regular consumers, can complain to Apple and Google directly about basic breaches of consumer law, rather than through other regulators, like the ASA, whose investigation processes are protracted.

15. In Belgium, pending a Court of Justice of the European Union (CJEU) decision on a referral,[23] Apple has been sued for and may be held liable for hosting illegal loot boxes in many popular games available on its platform and failing to conduct appropriate content moderation nor provide an adequate complaint channel (*i.e.*, wilful ignorance as to the hosting of illegal content resulting in any potential immunity as an unknowing intermediary no longer applying).[24]

16. In Belgium, the loot boxes are illegal for breaching gambling law. That is not arguable in the UK for most loot boxes due to differences in national gambling laws.[25] However, many store listings and loot boxes are illegal for breach consumer law in the UK, so Apple is still hosting illegal content even though gambling law is not necessarily breached.

17. Apple has implemented, in response to changes in Australian law (the Guidelines for the Classification of Computer Games 2023), the ability to show a dedicated regional age rating on the basis of the presence of loot boxes.[26] This means that the binary 'variable' of the presence or absence of loot boxes has been collected and is readily available to Apple, but it has not used that information to ensure game companies follow UK consumer law.

Loot box probability disclosures

18. Similarly, companies selling loot boxes are required to disclose the likelihood of

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[22] Advertising Standards Authority, 'ASA Ruling on Electronic Arts Ltd A24-1239057' (10 July 2024) <https://www.asa.org.uk/rulings/electronic-arts-ltd-a24-1239057-electronic-arts-ltd.html> accessed 11 December 2024.
[23] Ondernemingsrechtbank Antwerpen [Enterprise Court of Antwerp], 'LS v Apple (ECLI:BE:ORANT:2025:JUG.20250116.1)' (2025) <https://juportal.just.fgov.be/JUPORTAwork/ECLI:BE:ORANT:2025:JUG.20250116.1_NL.pdf> accessed 5 February 2025.
[24] Leon Y Xiao, 'Breaking Ban: Belgium's Ineffective Gambling Law Regulation of Video Game Loot Boxes' (2023) 9 Collabra: Psychology Article 57641.
[25] Leon Y Xiao and others, 'Regulating Gambling-like Video Game Loot Boxes: A Public Health Framework Comparing Industry Self-Regulation, Existing National Legal Approaches, and Other Potential Approaches' (2022) 9 Current Addiction Reports 163.
[26] Apple, 'Upcoming Regional Age Ratings in Australia and South Korea' (*Apple Developer*, 18 June 2024) <https://developer.apple.com/news/?id=7byvco78> accessed 6 September 2024.

getting different potential rewards from loot boxes (so-called 'probability disclosures'). Failing to do so in a misleading omission within the meaning of UK consumer law. The European Commission has so opined,[27] although it is noted that the Advertising Standards Authority refused to enforce this point.[28] It is understood that the CMA agrees that this is required under UK consumer law.

19. Apple and Google both require probability disclosures to be provided as part of their platform rules for games that are submitted for listing on their app stores.[29] However, they do not appear to enforce that requirement in practice.

20. Many games are known to fail to disclose loot box probabilities.[30] The newest data suggest that only 8.6% of top-grossing games with loot boxes on the Apple App Store are consistently disclosing probabilities for all in-game purchases involving randomisation.[31]

21. Many disclosures were also difficult to access, which might mean that the company remains non-compliant for failing to provide the material information reasonably prominently.[32]

22. This example shows how both are in a position to help to more efficiently enforce consumer law but does not in fact do so. A pretence of doing so is arguably even more harmful because it presents consumers, parents, regulators, and policymakers with a false sense of security. The CMA's Paragraph 25 of the Invitation possibly exemplifies this. The incorrect impression is given that Apple and Google have done something to benefit consumers' online safety, whilst they have not in fact done it properly.

Other consumer law issues

23. Besides the two specific points related to loot boxes, consumer law more broadly undoubtedly also applies to video games. My assessment of the highest-grossing Dutch iPhone games revealed many other contraventions of consumer law, which for historical reasons also apply in more or less the same form in the UK.[33]

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[27] European Commission (n 5); European Commission to Interactive Software Federation of Europe (ISFE) and European Games Developer Federation (EGDF) (n 5).
[28] Committee of Advertising Practice and Broadcast Committee of Advertising Practice (n 8).
[29] Ben Kuchera, 'Apple Adds New Rules for Loot Boxes, Requires Disclosure of Probabilities' (*Polygon*, 21 December 2017) <https://www.polygon.com/2017/12/21/16805392/loot-box-odds-rules-appleapp-store> accessed 18 July 2023; Ethan Gach, 'Google Now Requires App Makers to Disclose Loot Box Odds' (*Kotaku*, 30 May 2019) <https://kotaku.com/google-now-requires-app-makers-to-discloseloot-box-odd-1835134642> accessed 18 July 2023.
[30] Xiao, Henderson and Newall (n 2); Xiao and Lund (n 1).
[31] Xiao and Lund (n 1).
[32] ibid.
[33] Xiao, 'Failing to Protect the Online Consumer' (n 1).

24. *Inter alia*, only one of the top 50 games (2%) priced all in-game purchases in euros, rather than some virtual currency with a possibly convoluted exchange rate that may confuse consumers. All games with in-game purchases being falsely advertised as 'free' on the desktop webpage version of the Apple App Store. Up to 90% of games directly exhorted children to make purchases.

Q1: Do you have any views on the scope of our investigations and descriptions of Apple's and Google's mobile ecosystem digital activities?

25. Given the above, as to scope, the CMA is urged to consider wider consumer protection issues that it is also in charge of enforcing, besides competition law, under the DMCCA. Those issues should also be within scope. It remains untested whether the conduct requirements can be used to enforce consumer law, but there is no reason as to why not based on a plain interpretation of the DMCCA, and the CMA's previous publication stating that the regime ensures 'people can be protected from exploitation and unfair or misleading practices'[34] suggests a willingness to explore this potential regulatory avenue.

26. It should be acknowledged that breaches of consumer law may also constitute breaches of competition law. Specifically, a company that engages in breaches of consumer law competes at an unfair advantage over a company that acts lawfully, as a Commissioner of the US Federal Trade Commission (FTC) recently recognised in a recent case concerning the problematic implementation of loot boxes and virtual currencies in *Genshin Impact*, including their sale to children.[35]

27. For example, the ASA says that it is only empowered to act against non-paid advertising (which app store product listings are) by UK-based companies and can merely refer non-UK-based companies to other advertising regulators in their home country. This has resulted in lower consumer protection standards being applied against, for example, a Singaporean company even in relation to its commercial activities that target only the UK. Other advertising regulators simply did not reply to the ASA and do anything.

28. UK-based companies that are subject to more stringent rules and more effective enforcement are therefore held to a higher standard than non-UK-based companies, thus creating a competition law problem. For the record, the problem can and should be resolved by holding non-UK-companies also to the same

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[34] Competition and Markets Authority, 'How the UK's Digital Markets Competition Regime Works' (*GOV.UK*, 23 January 2025) <https://www.gov.uk/guidance/how-the-uks-digital-marketscompetition-regime-works> accessed 11 February 2025.

[35] Rebecca Kelly Slaughter, 'Concurring Statement of Commissioner Rebecca Kelly Slaughter Regarding United States v. Cognosphere, LLC' (*Federal Trade Commission*, 17 January 2025) <https://www.ftc.gov/legal-library/browse/cases-proceedings/public-statements/concurringstatement-commissioner-rebecca-kelly-slaughter-regarding-united-states-v-cognosphere-llc> accessed 12 February 2025.

standard that is the general expectation across all UK industries targeting consumers. However, in practice, that is not happening. Companies that do comply with consumer law are unfairly disadvantaged due to non-compliance of consumer law by other companies and non-enforcement of consumer law by regulators.

29. As to the CMA's description, I disagree with the CMA's unbalanced characterisation of Apple and Google as 'stewards' that help to protect users' safety online. This view should be tempered and revised. It certainly should not be the starting point. A conclusion should be drawn only after the investigation process. Apple and Google are capable of that task, and they should be held responsible for that task. However, in practice at present, they are failing in this task. The CMA should take note of those failures and what could potentially be achieved through proper conduct requirements.

Q2: Do you have any submissions or evidence related to the avenues of investigation set out in paragraph 70-72? Are there other issues we should take into account, and if so why?

30. The consumer protection issues relating to video games detailed above should be taken into account. Given practical constraints on the ASA's, Trading Standards' and the CMA's funding and other resources, Apple and Google must be relied upon to, at least partially, enforce consumer law and held responsible for any failings through wilful ignorance or otherwise.

Q4: Which potential interventions should the CMA focus on in mobile ecosystems? Please identify any concerns relating to Apple's or Google's mobile ecosystems, together with evidence of the scale and/or likelihood of the harms to your business; or to consumers.

31. One focus should be the enforcement of consumer law, whose many aspects are breached by content on the two app stores. My concerns relating to in-game purchases and loot boxes have been detailed above.

32. I leave to the CMA and other stakeholders to evidence the size of the mobile game market, which is very large and affects many people in the UK.

33. The evidence of harm I can provide is that, even amongst the most scrutinised and highest-grossing games, only 23.5% comply with the presence disclosure requirement and a mere 8.6% comply with the probability disclosure requirement. This means that nearly all consumers would regularly encounter products that breach consumer law through the Apple App Store and presumably the Google Play Store, where identical versions of the games will have been available.

34. The practical harm to consumers caused by misleading omissions and other crimes is obvious. In addition, there is also reputational harm to the CMA, the Government, and the rule of law in the sense that the public sees the CMA failing to enforce basic consumer law even against the most popular products.

35. Apple and Google could be required through DMCCA conduct requirements to help to better enforce consumer law:

    a. removing products and product listings that breach consumer law through active self-monitoring and by responding to complaints (permitted under Section 20(2)(a) of the DMCCA as 'fair and reasonable terms' should naturally include that all products being offered to consumers through the app stores are lawful);

    b. providing a public complaint channel that will be acted upon to delist games that breach consumer law (permitted under Section 20(2)(b) of the DMCCA);

    c. providing a dedicated and prioritised complaint channel to interested parties with proven expertise (similar to 'trusted flaggers' under the EU Digital Services Act) that is acted upon even more urgently (permitted under Section 20(2)(b) of the DMCCA); implementing measures that could help companies comply with consumer law more easily and, in any case, disclosing legally required information (*e.g.*, ensure loot box presence is disclosed as part of the content moderation process) (permitted under Sections 20(2)(a) and (c) of the DMCCA); and

    d. enforcing platforms rules that supposedly apply and, in any case, disclosing legally required information (*e.g.*, loot box probability disclosure requirements) (permitted under Sections 20(2)(a) and (c) of the DMCCA).

Q6: What key lessons should the CMA draw from interventions being considered, imposed and/or implemented in relation to mobile ecosystems in other jurisdictions?

36. The following should be closely monitored by the CMA:
    a. The CJEU referral in the aforementioned *LS v Apple* case;[36]
    b. The EU's Digital Fairness Fitness Check[37] and Digital Fairness Act;
    c. The FTC's intervention against, *inter alia*, loot boxes in *US v*

[36] Ondernemingsrechtbank Antwerpen [Enterprise Court of Antwerp] (n 18).
[37] European Commission, 'Fitness Check of EU Consumer Law on Digital Fairness' (3 October 2024) <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13413-Digital-fairnessfitness-check-on-EU-consumer-law_en> accessed 11 February 2025.

Cognosphere.[38]

The CMA should not follow (and, as I understand, does not in fact follow) the ASA's idiosyncratic position that only in-game purchases priced in pound sterling are subject to consumer law.[39] All in-game purchases that are capable of being (partially) purchased with real-world money are subject to consumer law as EU consumer protection regulators have opined.[40]

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[38] Slaughter (n 30).
[39] Committee of Advertising Practice and Broadcast Committee of Advertising Practice (n 8).
[40] Autorità Garante della Concorrenza e del Mercato (AGCM) [Italian Competition Authority] (n 7); Autoriteit Consument & Markt [Authority for Consumers & Markets] (The Netherlands) (n 6).