

In response to the Competition and Markets Authority's Mobile Ecosystems Market Study.

I am a resident of the UK and have 11 years experience working as a full stack developer. This has involved many thousands of hours building web apps for both desktop and mobile. As a full stack developer I also work on the backend of these apps. Configuring and writing code for servers. In addition to this, I also have experience writing apps for the Mac App Store, which while outside of scope for this study, is similar to the iOS app store.

Having read the final report, I want to voice my concerns about a number sections that I think have missed the broader context of the current market.

## **PWAs**

Since their introduction in 2017 by Google, it's been clear to me and many of my colleagues that Google was attempting to make web apps more competitive with their native alternatives. At this time many people in the IT industry, and especially in Silicon Valley, viewed "native only" apps as essential to success. Examples, at the time, of these apps were Uber, Door Dash, Snapchat, and Angry Birds. In my view was a laudable objective, and remains so.

However there is one aspect of PWAs that Google has been campaigning for which I think is wrong. That is the "Add to Homescreen" feature. This would allow web apps to appear beside native apps on the Homescreen (known as Springboard on iOS). The problem with this is that many bad actors in the web community will try to trick consumers into installing PWAs onto their home screens.

This might not be a problem for more experienced tech savvy users, but is a concern for more venerable users. It's especially concerning considering the trust that public has developed in Apple's app store over the years. It's analogous to forcing Sainsbury's to sell expired milk: some shoppers who know about the change in policy and know where to look will be able to avoid the expired milk, however others, who are less interested, will mistakingly buy it.

## **NFC and Bluetooth access by third party browsers**

I don't have many nice things to say about this. As far as I'm concerned, you might as well force consumers to tattoo their phone's password onto their foreheads.

If this becomes the policy adopted by regulators, I think they will be rightly blamed for the security complications it'll cause.

## **Forcing Apple, Google, or Samsung to allow alternative app stores**

I think removing the ability for manufactures to be able to choose what apps are allowed on their devices is a mistake. There are good arguments for an alternative app stores, the most compelling for me is that in the short term it gives consumers more choice. However on balance, I believe that this will be harmful to consumers in the long run.

I will illustrate this with the case of Epic Games wanting to develop their own app store. This makes sense on the surface, but let's say Epic deploys their very popular game, Fortnite, only on their store. This will mean many people will install Epic's app store on their phones. So far so good, no issues yet. But now Epic basically have a backdoor into those phones. They can sell apps to that consumer at a lower price, regardless if the user pays upfront, or pays with their personal data. Epic aren't incentivised to be concerned about the reputation or security of the iPhone. So they can reduce the cost of their app store by ignoring these concerns and allowing substandard apps onto their store. They do of course have an incentive to maintain the reputation of their own store, but this is like saying Parcelforce has an incentive to deliver parcels on time and intact.

The same logic that applies to Apple and Epic, also applies to Google and Samsung. None of this is a good idea. We already have a place where consumers can run code in an unrestricted and free for all manner, it's called the internet. We don't need two internets.

## **Safari is a bad browser**

I generally agree that Safari is slower than other browsers to implement features, although there are many exceptions to this, a point I feel is often forgotten by people campaigning against Safari. It also has its quirks, which can be frustrating for a web developers, however I believe these are greatly overstated. For consumers, I would say it's probably the best browser on the market today. It's by far the fastest browser both on mobile and desktop, and its privacy policies are way ahead of the other well used browsers. There are of course other Chromium based browsers who also have a privacy focus, most notably Brave Browser, but that isn't nearly as popular. I support the policy Apple has regarding Webkit and third party browsers. The result of this policy is that sites I'm forced to use (whether that be a government site or some other institution I'm forced to interact with on the web), can't demand that I download an alternative browser. Which will almost certainly happen if Apple are regulated to allow any old wild west browser engine to run on iOS. This means that I can choose to protect my privacy with the browser I trust to do that. I have nothing really against Chrome or its business model. If people choose to use it I respect that. I just don't want a lazy web developer forcing me to do so.

Regards,  
Thomas Horrobin