


Competition and Markets Authority

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For the attention of:

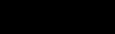
browsersandcloud@cma.gov.uk

By email only


23rd July 2024

Dear Sirs,

Re: Mobile browsers and cloud gaming – Working Paper 3 - Comment

1. As you know, we represent Movement for an Open Web (“MOW”). We are writing further to our submissions made on 16th July and 18th July regarding our comments on Working Papers 1 and 2 respectively. We reference the points made with relation to WP1 and WP2 in this letter. We make five key points in relation to WP3.
 - (a) Firstly, Android and iOS browsers are part of platforms of their ecosystems and should be analysed in such context.
 - (b) Secondly, Apple and Google are pursuing a revenue sharing joint venture, which operates to capture data from Android and iOS users, and block software products such as browsers from competing to their mutual benefit. This is because browser histories may provide data to competitors about Android and iOS user interests in competition for online advertising.
 - (c) Thirdly, we provide our view, which is supported by findings from the US Antitrust subcommittee¹, that Google is unilaterally setting browser standards for its own benefit.
 - (d) Fourthly, we note the discussion concerning browser extensions. We consider that this is an area where caution is needed. Any browser extension may be presented to an end user as part of the browser at the point of entry to a web journey – thus lowering friction and increasing ease of use for end users. However, the web may offer the same or similar functions as a competing offering via many different websites. We consider that browsers should be the user’s agent and used for browsing and rendering web pages as originally intended by the W3C². They should not be misused to preclude competition in other locations over the web. There is thus a need to “Quarantine the Browser” if online competition is to be safeguarded. We provide in Annex 1 an example where this has taken place in relation to online wallets.
 - (e) Finally, the CMA states that it has not received evidence of privacy features that Chrome has access to, but that third-party browser vendors do not have such access. 

¹ https://democrats-judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf

² https://www.w3.org/WAI/UA/work/wiki/Definition_of_User_Agent



Android and Apple’s browsers are part of platforms of their ecosystems and should be analysed in that context

2. As referenced in our response to WP1, we consider it important that the CMA takes the evidence and information that it has gathered in WP3 and evolves its analysis of the market set out in WP1 to not only consider the features and functions of a browser on a standalone basis, but also as part of the market for the platforms of their owners: Google and Apple.
3. According to a traditional analysis of features and functions of the product in question, they should be analysed in terms of the choices facing end users. Technical features may be more or less attractive to different groups of users and the features being offered may attract more or less users, where those features and functions are the factors affecting consumer choice.
4. So, for example in para 2.4 of WP3 the following points are laid out and subsequently assessed in 2.5 and in the following paper:

“Browsers rely on APIs in order to access certain features and functionalities. For example, APIs allow access to device hardware such as the microphone, or can be used to request data on the user’s default browser, allowing the browser to prompt the user to change their default.⁶ Access to APIs is also important to enable browser vendors to implement features and improvements in their browsers, and is therefore important to innovation and product development.”

5. We do not disagree that the features and functions of browsers are important to the assessment of browsers as standalone products. If there were a competitive market, these features and functions would be the factors that affect consumers’ choices among and between different browsers. However, the following sections provide detailed evidence of lists of activities that severely restrict and impede users’ ability to make choices about browsers to such an extent that the current state of the browser market is difficult to assess or even describe as a separate market for browsers independently of the platforms or ecosystems of which they form an integrated part.

Apple and Google are pursuing a revenue sharing joint venture which operates to capture data from Android and iOS users, and block software products such as browser from competing to their mutual benefit.

6. The 36% revenue sharing agreement between Apple and Google is a significant driver of profit (\$20 bn per annum). This profit is generated through Google having exclusive access to iOS users’ data.
7. Competitors could use data from cookies and browser histories to understand users’ needs. The range of restrictions adopted by Google and Apple that limit the ability of competing browsers being installed and used on iOS and Android devices also seeks to protect their use of that iOS data.

8. Apple’s restriction on the use of browser engines such that the true features and functionality of the different browsers is not available to end users.
- Google’s cross promotion of its Chrome browsers on the basis it works better than others, which is highly misleading when it is considered that Chromium powers many user experiences, whether on Microsoft Edge or other offerings.
 - Apple and Google’s masking of the browser through presenting the User Interface as a search bar, reducing the significance and experience of different browsers by the end user.
 - The CMA notes³ internal linkages between the browser and other software such as operating systems owned by Apple and Google, which distort the ability of browsers to operate independently, so that competition on the merits of browsers can be judged by end users on an objective basis. For browsers to function independently, access to other software including the iOS and Android operating systems needs to be on an objective and non-discriminatory basis. Otherwise, it is the integrated offering that is being assessed rather than the independent features and functions of each the browser.
 - As noted in the US Sub Committee on Antitrust⁴, “*Google used its search dominance to promote the use of its Chrome browser on laptops, personal computers, and workstations, which sets Google Search as its default. For mobile devices, Google imposed a set of restrictive contractual terms effectively requiring manufacturers of devices that used its Android operating system to pre-install both Chrome and Google Search.*” The bundling of products into the home screen on handsets and leveraging of Google Search to impose Chrome on users were also found to be an abuse in the EU Commission Android⁵ decision. Where that has occurred, and the market thereby distorted, it seems questionable to consider the Chrome browser as anything other than a bundled product or one that has benefitted from anti-competitive bundling for many years such that the market is distorted and the outcome of assessment will bear witness to abuse not competition on the merits of the browser as a product in a separate product market.
 - Default settings and Google and Apple’s highly significant revenue sharing agreements distort the market even further. Please see our response to WP1 on this issue. Also, as stated by the US Subcommittee: “*In general, users tend to stick with the default presented.1063 Moreover, Google takes steps to hamper and dissuade even those users that do attempt to switch search engines on Chrome.1064 With these factors combined, Google’s conduct significantly impedes other search providers from reaching users at scale—and further expands and entrenches Google’s dominance.*”⁶
 - The critical issue for those participating in online markets is access to data about end users needs, wants and desires. Here, Google can mine its ecosystem – including Search on iOS, Chrome, Android, and Maps as well as obtain browser history data from all Android devices – to combine a unique set of user data points and build troves of online behavioural data that drive its ad business.⁷
 - Prior to Chrome’s launch in 2008, Internet Explorer, Firefox, and Safari were the most popular browsers. Chrome initially set itself apart by offering an address bar that also

³ See WP para 2.8 “the functionalities that browser vendors require access to so they can improve their browsers are likely to change over time as the capabilities of operating systems and device hardware evolve, and new browser features or innovations are developed. Enabling access to these functionalities in a timely manner may therefore be important to enable browser vendors to innovate.”

⁴ https://democrats-judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf, page 177

⁵ See the European Commission’s CASE AT.40099 Decision on Google Android at https://ec.europa.eu/competition/antitrust/cases/dec_docs/40099/40099_9993_3.pdf (specifically section 11.2 and 11 3)

⁶ https://democrats-judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf, page 178

⁷ https://democrats-judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf, page 177 and 205

functioned as a Google search bar, and by enabling users to sign in to the browser, offering a faster browsing experience compared to other browsers.⁸

- Chrome was also integrated with other Google products. By signing in to the browser, Chrome automatically signed users into Gmail, YouTube, and additional Google services when users visited those sites, while also allowing users to sync their bookmarks, passwords, and other browser settings.⁹ Automatic sign-in helped Google build more detailed user profiles by connecting activity data to the user's Google Account.¹⁰
- Google does not see Chrome as a standalone product. In a 2019 presentation to the Justice Department's Antitrust Division, Google explained that it had launched Chrome as a defensive move to protect users' access to Google's products.¹¹
- Google sees Chrome as a gateway product and one that helps it control the ecosystem : Eric Schmidt gave a company-wide speech stating that the rise of cloud computing meant that the browser – the primary way users access cloud – would be increasingly critical to Google's success.¹²
- Chrome is likely to remain dominant because it benefits from network effects. Web developers design and build for the Chrome browser because it has the most users, and users, in turn, are drawn to Chrome because webpages work well on it. And third, Chrome is likely to maintain its lead because Google can leverage the popularity of its apps to favour Chrome. Specifically, Google's documents show that the company has focused on designing Chrome features to provide a better experience of apps like YouTube and Search, advantages that other browsers lack.
- Apple's Safari makes use of several features and functionalities on iOS that third-party browsers do not have the same access to, and which Apple has acknowledged. These features and functionalities include user-facing features such as universal links (see paragraphs 3.19 to 3.20), the ability to download and upload data in the background (see paragraph 3.29), PWA installation (see paragraphs 3.17 to 3.18), and browser extensions (see paragraphs 3.15 to 3.16). Some of these features are likely to be particularly important to users

Emerging thinking iOS

9. We endorse and support the emerging thinking of the CMA that any limitation on the ability of rival browsers to add features relative to Safari, whether through a complete lack of access, poor visibility and documentation, time delay or additional costs, may adversely impact third-party browsers' ability to attract users. The cumulative impact of missing several of these features may be significant for rival browsers. This will be particularly important for smaller browsers who need to provide users with strong reasons to switch away from more established browsers like Safari.

⁸ Trefis Team, Great Speculations, Rising Chrome Use Means Search Advertising Growth for Google, FORBES (Aug. 23, 2012) <https://www.forbes.com/sites/greatspeculations/2012/08/23/rising-chrome-use-means-search-advertising-growth-forgoogle/#579c604f2d66>; MG Siegler, Here It Is: Google's Kick-Ass Chrome Speed Test Video, TECHCRUNCH (May 5, 2010) <https://techcrunch.com/2010/05/05/google-chrome-video-test/>

⁹ Turn sync on and off in Chrome, GOOGLE CHROME HELP, <https://support.google.com/chrome/answer/185277?co=GENIE.Platform%3DDesktop&hl=en>

¹⁰ <https://support.google.com/chrome/answer/185277?co=GENIE.Platform%3DDesktop&hl=en>

¹¹ Production of Google, to H. Comm. on the Judiciary, GOOG-HJC-04214204 (Sept. 17, 2019) (on file with Comm.) (“Alternatives to IE (Firefox, Opera, Safari) proved unattractive: Google initially partnered with Mozilla, but Firefox had technical limitations and faced uncertain prospects, Apple launched Safari for Windows in 2007. If Firefox was displaced by Safari, Apple could further constrain user access to Google.”)

¹² See fn above.

10. However, it would improve the analysis of why Apple seeks to impose restrictions on competition if the CMA were to take into account the economic incentives that derive from its 36% revenue sharing deal with Google, as we have set out in our responses to WP1 and WP2.

Emerging thinking Android

11. We do not disagree with the findings about restrictions currently operating over competing browsers are impeding effective competition. We suggest that the market dynamic over time and findings of US and EU authorities are relevant here and could usefully be referenced as part of the context and factual background against which continuing market distortions have arisen. We nevertheless agree that any diminished ability to add features relative to Chrome, whether through a complete lack of access, or time delay or additional costs, may therefore adversely impact the ability of third-party browsers to attract users. This will be particularly important for smaller browsers who need to provide users with strong reasons to switch away from more established browsers like Chrome.

Unilaterally Setting Standards

12. Google can effectively set standards for the industry in two ways. First, changes to Chromium's functionality create de facto standards because it is so widely used. Market participants must adhere to these standards or risk their technology no longer being compatible with most websites. The CMA noted in its mobile ecosystems market study that Google will often build features quickly without using the standard-setting process or giving smaller browsers time to implement new features. Once web developers start building to these specifications, however, smaller browsers are under pressure to quickly implement these changes, often with little notice.¹³ If smaller browsers cannot keep up, users are flooded with "[b]rowser not supported" messages on webpages that have already been built to Chrome's specifications.¹⁴
13. Second, Google has an outsized role in the formal stakeholder standards-making processes. As explained earlier in this Report, the World Wide Web Consortium (W3C) is one of the leading standards organizations in the browser market. Google is significantly overrepresented in the W3C web platform incubator community group (WICG). They note that Google's employees comprise 106 members, more than eight times the number of employees from Microsoft, the next largest stakeholder represented. Most companies, meanwhile, have only one representative. One market participant said: "*Though standards bodies like the W3C give the impression of being a place where browser vendors collaborate to improve the web platform; in reality Google's monopoly position and aggressive rate of shipping non-standard features frequently reduce standards bodies to codifying web features and decisions Google has already made.*"¹⁵

Browser extensions are a form of bundling

14. Browser extensions may in effect be bundling of functionality into the browser that can be found elsewhere. For example, see MOW's submission to the CMA Mobile Browsers team

¹³ Submission from Source 269, to H. Comm. on the Judiciary (Jan. 2020) (on file with Comm.).

¹⁴ Martin Brinkmann, The new Skype for Web does not work in Firefox or Opera, GHACKS NET (Mar. 8, 2019), <https://www.ghacks.net/2019/03/08/the-new-skype-for-web-does-not-work-in-firefox-or-opera/>.

¹⁵ https://democrats-judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf, page 229

dated 20 January 2023 (or annex of MOW’s submission to the CMA Mobile Browsers team dated 23 February 2024) regarding Sign In and the expansion of the definition of the browser to include authentication, password management, digital wallets, payment functions, etc. Functionality that does not relate to rendering of web pages and input data used by the Browser User Interface or browser engine which can, and should, be available for use by business solutions to web properties (i.e., third parties) can inadvertently or deliberately be bundled into the browser by browser owners. The Web Payments API standard allows them to embed digital wallets into the browser, centralising those functions for their own competitive benefit.

15. In addition, via its Privacy Sandbox technologies, Google is introducing Protected Audiences API¹⁶ (“PAAPI”) that enables “on-device auctions by the browser”. Google Chrome will be the software that holds users’ behavioural data to record an interest group and advertisers can use this data to deliver their targeted ad to the particular interest group. This further entrenches Google’s dominant position in the digital advertising marketplace, which in turn funds Google Chrome.

Privacy

16. At paragraph 4.16 of WP3, the CMA states that “*We have not received any evidence from Google or third parties on privacy features that Chrome has access to, but that third-party browser vendors do not.*” We commend to the CMA Browsers and Cloud team the work done by their colleagues in the Privacy Sandbox case where Google is seeking to block the use of cookies by third parties while maintaining their use for itself. We can provide the CMA with extensive submissions and evidence on this issue over the past 3 years subject to understanding that it will similarly be protected as to confidentiality both of the identity of the supplier and the content.

17. 

18. We hope the above is helpful to the CMA and remain available should the CMA have any questions.

Yours faithfully,



Preiskel & Co LLP

¹⁶ <https://developers.google.com/privacy-sandbox/relevance/protected-audience>

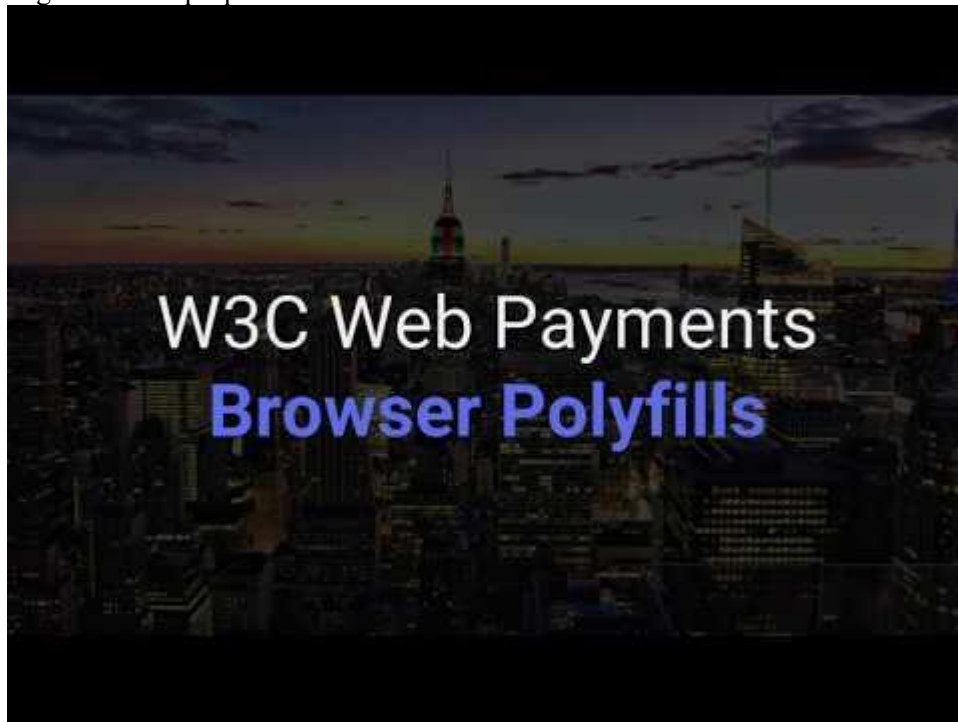
Annex 1: Chronology regarding the Payments API



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- 2010 – W3C created the [Web Payments Community Group](#).
- 2014 – W3C created the [Web Payments Interest Group](#)
- 2015 – W3C created the [Web Payments Working Group](#)
- 2016 – W3C was criticized for elevating the user agent (browser) to have primacy over user or merchant interests.
 - 2016 February – The months old Microsoft/Google specification is picked as the winner over the years old work that went into the Web Payments Community Group specification ([Approaching First Public Working Draft of Web Payments API | Web Payments Working Group \(w3.org\)](#)) – see, specifically, the first paragraph). Zero features from the Web Payments Community Group specification are merged with a suggestion to perform pull requests if the Web Payments Community Group would like modifications made to the Microsoft/Google specification.
 - Amongst the rejected proposals was a standard developed by an impartial and independent group of engineers including Manu Sporny (more below). Manu’s proposal was for a digital wallet that was browser agnostic, i.e., would work regardless of the version or type of browser used, and would give equal placement to all card offerings. See below for a video of the capability being demonstrated the full end user choice being enabled by the 2017 Digital Bazaar proposal.³⁵



- The delegates of Microsoft, Google and Apple, who were all at the time browser owners, did not consider it, preferring a proposal that embedded functionality in the browser.³⁷ In a [blog](#) posted in February 2017, Manu Sporny stated, “it became clear that the browser manufacturers wanted to execute upon a fairly monolithic design” in relation to web payments. This trend among browser manufacturers to degrade general purpose features of the web and advance monolithic designs for their benefit continues into advertising and identification, among others.

³⁵ <https://lists.w3.org/Archives/Public/public-payments-wg/2017Sep/0021.html>

³⁶ <https://www.youtube.com/embed/Yb-gWT1tRg?rel=0>

³⁷ With Microsoft being a browser engine owner and manufacturer at the time but which has since switched to using Google’s Chrome engine. The specifications of the W3C Payments API justifies Google and Apple granting their own payment solutions first place in the queue of payment cards that are put into every mobile phone browser. The lead editors were Google, Apple and Microsoft. See at <https://www.w3.org/TR/payment-request/>

- The sole purpose behind the design for a Payments API that was decided upon in 2017 and, eventually, approved in 2022, was to enable browsers to intermeditate in payments, allowing them to preference specific providers or, indeed, their own offerings. The lead editors were Google and Microsoft.³⁸
- **Complaints.** 2021. On the 31st of January, two complaints were made, one from 51Degrees, and another from Criteo. These were based on the observation that the current standards would disintermediate users from merchants and elevate the browser from a user agent to an active participant that can intervene in communication. Criteo and 51Degrees, moreover, complained that the specification would allow Google and Apple to self-preference their own payment solutions in the wallet that is pre-installed in all Android and Apple devices.
 - The formal objections identified a clear breach of the W3C Antitrust and Competition Guidance, which specifies that the “W3C does not play any role in the competitive decisions of W3C participants nor in any way restrict competition.”³⁹ The Payment Request API, many specifications of which only relate and confer advantage to two browser and OS owners, not only contradicts the W3C’s Antitrust Guidance but the consortium’s Priority of Constituencies too, according to which specifications should place the interests of authors and site owners ahead of user agents’ interests.⁴⁰
- Following a [call for consensus](#) on 2021-12-09, the Chairs announced a [Working Group decision to make changes](#) for three of the four elements of Criteo’s Formal Objection. These changes were non-substantive: they were either editorial in nature or had no impact on deployed solutions.
- Criteo restated its complaint on January 11th, 2022. [Re: Call for Consensus to Publish Payment Request API and Payment Method Identifiers as Recommendations - reply requested before 11 January 2022 from Lionel Basdevant on 2022-01-14 \(public-payments-wg@w3.org from January 2022\)](#)
- Formal Objections (FOs) are typically handled by the Director, Tim Berners-Lee, whose independence from commercial influence makes him an ideal mediator.⁴¹ This was not the case for Criteo’s FO on Payments. The complaint rather went to an employee of the W3C, who formed a Council to deal with the complaint.⁴² This was done on April 21st, 2022.⁴³ On September 6th the Advisory Council overruled Criteo’s objection (11 votes to overrule, 5 abstained, 4 not present).⁴⁴ It should be noted that the Council was not made up entirely of those with no interest in the outcome of the vote. The membership of the Council is only published for W3C members, but we can confirm contained delegates from Google and Apple.

On 8th September 2022 the Advisory Council, delegate, TAG and Advisory Board approved a new standard that enables browsers to become digital wallets. This standard is now being widely implemented.⁴⁵

It is typical in standards setting to define the problem that is being solved before working on a standard. W3C have now allowed a proposal whose sole justification is to enable the web browser owner to intermeditate in payments, rather than one that would have enabled end user choice and competition.

³⁸ See first paragraph of [Advisory Committee Review of Payment Request API and Payment Method Identifiers \(w3.org\)](#)

³⁹ [Antitrust and Competition Guidance \(w3.org\)](#)

⁴⁰ [Advisory Committee Review of Payment Request API and Payment Method Identifiers \(w3.org\)](#)

⁴¹ See paragraph 2.2 and 5.6 of the W3C’s process document: [W3C Process Document](#)

⁴² [Council decision on formal objection to Payment Request API by Criteo \(w3.org\)](#) and section 7 of the Advisory Committee Review of Payment request API - [Advisory Committee Review of Payment Request API and Payment Method Identifiers \(w3.org\)](#).

⁴³ [Convening a W3C Council on the Criteo Formal Objection to the Payment Request API Proposed Recommendation from Ralph Swick on 2022-04-21 \(w3c-ac-members@w3.org from April to June 2022\)](#)

⁴⁴ Ibid.

⁴⁵ [Payment Request API \(w3.org\)](#)