

What is the Open Web's Economic Future?

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Introduction

Historically, the web has developed mainly through access to content that is free because it is financed by advertising. From this point of view, it is based on a model that has been very prominent in the media for many decades, whether on free television or in the press. This advertising-financed model has already undergone several substantial changes in the digital space over the last two decades. Initially, a model similar to that used by traditional media was put in place, with so-called display advertising. Then the model evolved, with paid search engine marketing, mainly developed by Google. Later, social networks captured a substantial share of advertising investment, and the targeted advertising model gradually began to generate the bulk of revenues.

However, free access to content on the web thanks to targeted advertising could see its future jeopardised. Coinciding with the implementation of the General Data Protection Regulation (GDPR), major digital platforms such as Apple and Google introduced major

technical changes to the way online targeted advertising works. These changes are already having an impact on the current advertising ecosystem. In 2024, this data will no longer be accessible, following decisions initiated by Google. The funding of the web through advertising could be significantly affected by these changes.

At the same time, emerging players in the digital space, led by e-commerce websites and audio and video streaming companies, are securing a growing share of advertising investment. These market transformations, which are already visible, could have a major impact on the advertising revenues of news publishers and change the range of free digital services available to consumers and citizens, leading to profound changes on the world wide web.

The various digital audience categories

- Open web: the open web refers to all websites and digital services that can be accessed free of charge using a browser, without the need to create an account or subscribe to a service.
- Search engine: a website that indexes open web pages and other resources available online. Baidu, Bing, and Google, for example, are search engines.
- Social network (social media): website and application that enables the creation and publication of user-generated content (UGC) and the development of online communities by connecting user profiles. To use this type of service, you need to create an account.
- Streaming: broadcasting of audio or video content. These services are available either free of charge, with advertising inserts, or for a fee, with or without advertising. Deezer, Disney+, Netflix, Prime Video, and Spotify, for example, are all streaming services.
- E-commerce: online sales website. E-commerce websites have many regular visitors. For several years now, this audience has been sold to advertisers. Amazon, for example, achieved an advertising revenue of 37.7 billion dollars in 2022. These advertising investments are known as "retail media".
- Connected TV (CTV): television set that has direct or indirect access to the Internet.

Transformations in the online advertising industry in the post-RGPD era

Digital advertising is based on a different proposition to traditional advertising. Using the data available in the digital space, it promises better targeting of advertising campaigns, and hence more effective advertising investment. Collecting data on website and mobile application users is therefore a fundamental prerequisite for fulfilling this promise. This is done via the small files that web browsers place when we are browsing, known as cookies. These may be placed by the website visited. This is known as first-party data. The advertiser can also provide data from its own files. This is known as second-party data. Lastly, some players may place cookies when visiting third-party websites, on the basis of commercial agreements, or for traffic analysis purposes. These are known as third-party cookies or third-party data.

What is a third-party cookie?

A third-party cookie is a cookie placed on the Internet user's computer by a domain server other than that of the website visited. For example, a third-party cookie collected by Amazon Advertising or Outbrain on the *Le Monde* newspaper website is not placed by a *Le Monde* server. The most frequently encountered third-party cookies are generally those used by web analysis services, various marketing tools, advertising networks, and different advertising platforms. Third-party cookies enable behavioural tracking across a network of websites. They are used for behavioural targeting, as they make it possible to "recognise" an internet user across a set of different websites and analyse their browsing history for targeting purposes.

In the online advertising industry, third-party cookies are a crucial source of data for advertising campaigns. They allow, through accumulation, the building of consumer profile databases and audience segments that will be used to tailor campaigns. Many players collect this kind of data and sell it to agencies and advertisers. Google and Meta collect large quantities of third-party data through the presence of their trackers on millions of websites. But many other players in the advertising ecosystem also collect data: Adobe, BlueKai, Criteo, First-id, ID5, LiveRamp, Outbrain, Smart AdServer (now Equativ), etc.

The implementation of the GDPR in 2018 has significantly changed the data collection landscape. In order to guarantee full protection of citizens' rights in the European Union

(EU), this regulation has extraterritorial scope¹ and therefore applies to many foreign platforms. The GDPR requires each processing operation to be based on one of the six legal basis it sets out, such as the user's consent, for example. In France, the use of cookies for advertising purposes is governed by article 82 of law no. 78/17 of 6 January 1978 on data processing, data files, and individual freedoms. In addition, online advertising must comply with the specific rules applicable to cookies set out in European Directive 2002/58/EC of 12 July 2002, known as the "e-Privacy Directive". The regulation intended to replace this directive has been under discussion within EU bodies for many years now.

The complexity of the legal framework governing cookies is leading to disputes. Following the publication by the *Commission nationale de l'informatique et des libertés* (or CNIL, France's data protection authority) of its guidelines and recommendations on cookies, this authority issued 94 formal notices to non-compliant organisations during a series of 125 online checks. Despite these formal notices, the CNIL considered that certain players had not complied, and sanction proceedings were launched. The CNIL sanctioned Amazon (in 2020, with a fine of 35 million euros), Facebook (in 2021, with a fine of 60 million euros) and Google (in 2021, with a fine of 150 million euros), forcing them to ensure compliance within three months. Between 2020 and 2022, the French regulator imposed a total of eight penalties relating to cookies, for offences such as failing to provide information, placing cookies without prior consent, failing to provide an opt-out mechanism, or making it impossible to refuse cookies as easily as to accept them². More recently, in June 2023, the authority fined online advertising company Criteo 40 million euros, primarily for failing to check that people whose data it processes had given their consent³.

In 2020, the French *Conseil d'État* (State Council) invalidated part of the CNIL's guidelines on advertising cookies. This invalidation was related to "cookie walls", a practice that consists of blocking access to a website if cookies are refused. On the other hand, the *Conseil d'État* maintained the legality of the other points challenged, related to the collection of consent from internet users for cookies and other trackers. In addition, the consent gathering standards for third-party cookies drawn up as part of the Transparency & Consent Framework (TCF 2.0) by the Internet Advertising Board (IAB) were declared

¹ It applies more specifically to the processing of personal data carried out in the context of a controller's or processor's activities on EU territory, but also to the processing of personal data by controllers and processors established outside the EU when an offer of goods or services is made to EU citizens, or when their behaviour is monitored.

² CNIL, « Évolution des pratiques du web en matière de cookie: la CNIL évalue l'impact de son plan d'action », 16 May 2023: <https://www.cnil.fr/fr/evolution-des-pratiques-du-web-en-matiere-de-cookies-la-cnil-evalue-limpact-de-son-plan-daction>

³ CNIL, « Publicité personnalisée : CRITEO sanctionné d'une amende de 40 millions d'euros », 22 June 2023: <https://www.cnil.fr/fr/publicite-personnalisee-criteo-sanctionne-dune-amende-de-40-millions-deuros>

illegal by the Belgian personal data protection authority in 2022⁴. An appeal against this decision is still pending.

In this complex legal context, and in order to avoid legal action, the major American digital advertising platforms have insisted on data checks by advertisers and their agencies, and more specifically on proof of compliance with data collection. Unable to provide this proof, many European players found themselves in a tricky situation. Furthermore, the American advertising industry has modified some key technical aspects of its platforms, calling into question the very functioning of this ecosystem which is based on third-party data.

The technical choices made by US platforms and their impact on the advertising ecosystem

In 2017, Apple decided to automatically delete third-party cookies in its Safari browser by using a specific algorithm: Intelligent Tracking Prevention (ITP). The company justifies this decision as a commitment to upholding the privacy of Internet users who use its products. Strategically, Apple has made respect for privacy a central selling point of its offerings. As a result, the algorithm continues to evolve, reducing the amount of data available for targeting with each iteration. Apple extended this approach to the iPhone in 2021, introducing a system of explicit consent known as App Tracking Transparency (ATT) into its iOS operating system. ATT prohibits the automatic gathering of data by a mobile application unless the user provides consent.

Apple is far from being the only platform to restrict data collection by limiting or banning third-party cookies. Mozilla's Firefox browser introduced mechanisms similar to Apple's in 2021, as did Microsoft in Edge, but without enabling them by default, as Apple did.

Google, a major player in online advertising, is following in the footsteps of its competitors by announcing the end of third-party cookies in its Chrome browser by the end of 2024. In order to ensure that Internet users can still be targeted without compromising their privacy, the company has announced a technical mechanism called Privacy Sandbox. This initiative, which has not yet been fully implemented, has sparked a number of concerns among the advertising industry, which is not very pleased with the new approach put forward by Google to replace third-party cookies: cohorts of Internet users with similar profiles or identical interests.

⁴ Autorité de protection des données, « L'APD remet de l'ordre dans l'industrie de la publicité en ligne : IAB Europe est tenue responsable d'un mécanisme qui viole le RGPD », 2 February 2022: <https://www.autoriteprotectiondonnees.be/citoyen/iab-europe-est-tenue-responsable-d-un-mecanisme-qui-viole-le-rgpd>

Privacy Sandbox

Google has decided to stop using third-party cookies in its Chrome browser and on Android. To continue providing opportunities for online targeted advertising and measurement, the company is offering a set of APIs⁵ known as the Privacy Sandbox. These should increase the level of confidentiality for Internet users (who will be able to configure their choices regarding the sharing of their interests detected by Chrome), store the Internet user's three main interests for targeting purposes for a few weeks, and provide performance measurement tools for advertising agencies and advertisers. While some of these technologies have been deployed in Chrome since July 2023, the full roll-out is expected to be completed in the third quarter of 2024.

While the debate focuses on cookies, the main technologies used for targeted advertising, there are other methods such as fingerprinting and pixel tracking. Fingerprinting, or covert tracking, involves compiling data on browser and computer settings in order to establish an identifier that *de facto* functions like a cookie. With iOS 17, Apple is restricting the possibilities for fingerprinting by asking developers to explain why they need the data for fingerprinting⁶. In Privacy Sandbox, Google also restricts the possibility of such profiling using computer and browser settings.

These unilateral technical choices made by advertising platforms have led to a sharp reduction in the amount of third-party data available for targeting campaigns. Several players have been affected by these measures. Sales at Criteo, a major player in “retargeting”, are stalling, and its earnings have decreased tenfold between 2019 and 2022. Snapchat, Twitter, and Meta are also seeing their results affected.

In this new environment, targeting consumers has become a lot more difficult for advertisers. As a result, they are turning to players with a significant user base and data that is specific to them, such as Google or Meta. More generally, advertising campaigns are increasingly based on publishers' proprietary data. This is leading a number of players to make their data available, particularly e-commerce websites, which hold invaluable data on consumer purchases. New alliances are also emerging as a way of offering alternatives to advertisers. A number of strategic moves in this industry are taking shape.

⁵ An API, or application programming interface, is a set of definitions and protocols that helps applications to be created and integrated.

⁶ Apple, “Describing use of required reason API”:

https://developer.apple.com/documentation/bundleresources/privacy_manifest_files/describing_use_of_required_reason_api

The refocus on proprietary data and its strategic implications for publishers

In this new environment, digital service publishers and publishers of websites or applications that have a large number of users are in a strong position to monetise their audiences. Knowing their users through their identification linked to a single sign-on (SSO), these players continue to collect data on their users behind their identification portal. This is known as "walled gardens". This proprietary, first-party data is thus a strategic resource. Google and Meta sell this data at a high price because it is exclusive and available in large quantities. To compete with such highly qualified advertising inventories, publishers of websites with a much smaller number of users have no alternative but to form alliances.

In Europe, several types of alliance have emerged. The first involves bringing together existing audience data and presenting it to advertisers. Several alliances have been set up in France, such as Skyline (*Le Monde*, *Le Figaro*) and the Gravity Alliance (35 press groups, SFR, Fnac-Darty) in 2017. The second type of alliance involves defining and employing a shared connector among website publishers. This is done to build up a global audience and a collection of proprietary data that provides extensive reach for campaigns and numerous targeting criteria for this combined audience. RTL and ProSiebenSat in Germany have formed NetId, which now has 70 partners and an audience of 38 million Germans. A similar alliance has been formed in Portugal (Nonio). Four European telecoms operators (Deutsche Telekom, Orange, Telefónica, and Vodafone) have formed a joint venture, Utiq⁷, to share a unique pseudonymised identifier that offers advertisers a Europe-wide advertising audience on mobiles and internet boxes.

While these alliances represent genuine strategic alternatives for website publishers, they face competition from new players with audiences and data that differ from their own: e-commerce websites. Retailers have different data from publishers. Unlike publishers, who are able to deduce their audiences' interests from their browsing behaviour and the content they consult, retailers know what products their customers are looking for and actually buying. This data is described as deterministic, in the sense that it is the result of the behaviour that leads to the purchase decision.

⁷ To find out more, see: <https://utiq.com>

Probabilistic data, deterministic data

In the field of targeted advertising, third-party cookies are considered to be "probabilistic" data, in the sense that certain characteristics of a person whose identity and characteristics are unknown are inferred from their browsing behaviour. For example, recurrent visits to sports content pages suggest that a person has a high probability of being interested in sport. In contrast, the purchase data held by e-commerce websites is considered to be "deterministic", in the sense that it reflects a person's actual consumption choices and characteristics once they have identified themselves in order to complete their purchase on an e-commerce website.

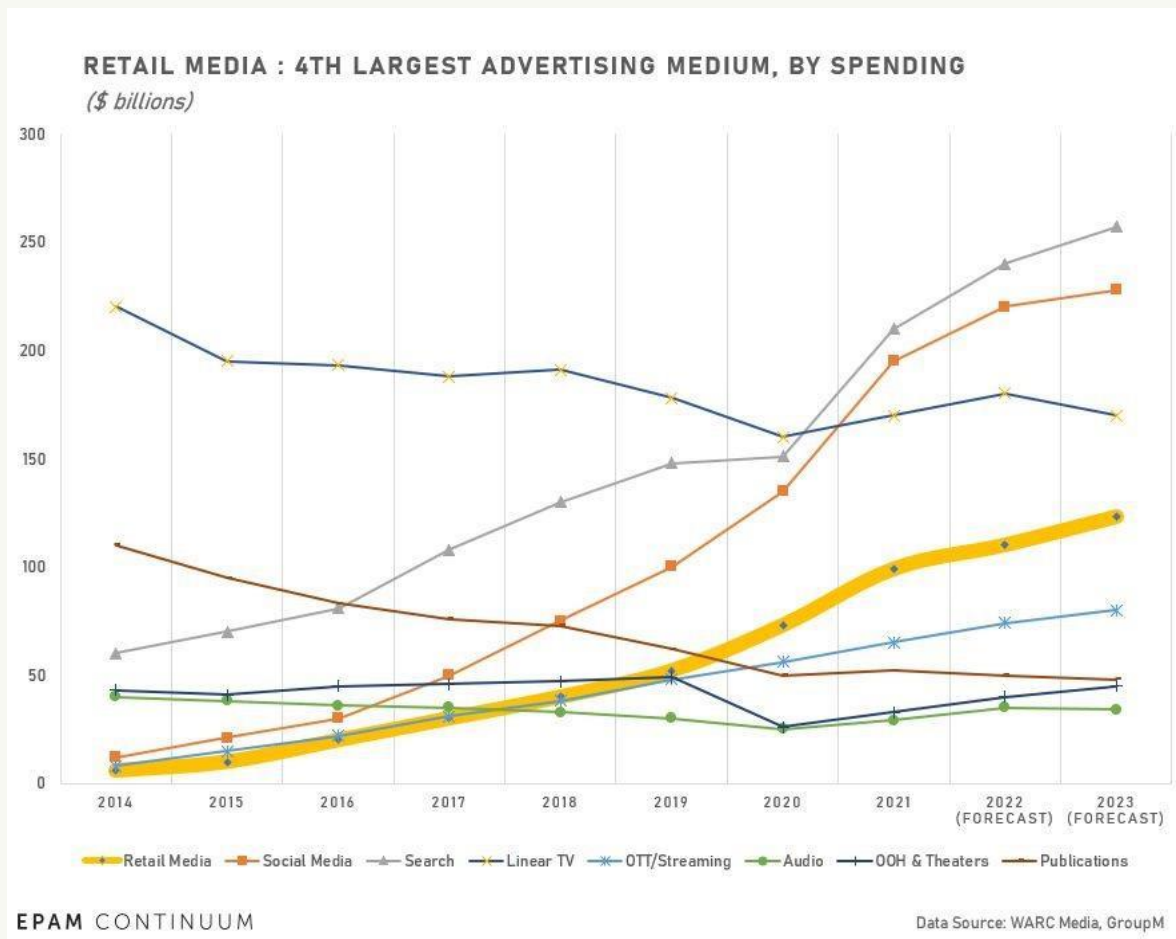
E-commerce websites are positioning themselves in the online advertising market. Monetising their retail data and website audiences is becoming an increasingly popular alternative for advertisers. Carrefour is now marketing its advertising inventory as part of a joint venture with Publicis, the world's second largest advertising agency. Casino has grouped together the audiences of the group's various brands in a subsidiary, RelevanC, which also includes Intermarché and the Brazilian group VTEX. Walmart generates sales of 2.7 billion dollars from its advertising business. The Canadian platform Shopify, which hosts thousands of e-commerce websites around the world and is expected to generate sales of 197 billion dollars by 2022, also markets the audiences of all the websites it hosts.

But the retailer that leads the way in retail media is Amazon, which is deploying a specific model. It offers the possibility of advertising upstream of the buying funnel in its media environment: via Twitch, Freevee (its free online television channel), FireTV and now Prime Video, which recently opened up to advertising. In 2022, Amazon generated 37.7 billion dollars in advertising sales. Advertisers are always looking to assess the profitability of their advertising investments using an indicator such as ROAS (return on ad spend). Amazon provides them with a complete framework, since it includes both media on which to advertise and commercial spaces on which to extend these campaigns and directly assess the results in terms of sales.

Thanks to their first-party data, retailers are able to offer advertisers an advertising environment that is as close as possible to the customer's purchasing decisions. This new advertising environment could pose a serious threat to publishers of free websites and applications, whose revenue model is based on advertising.

Globally, advertising investment in retail media now represents advertisers' fourth-largest spend, behind search, social networks, and television (see graph 1).

Graph 1: Worldwide advertising investment by medium



The "e-advertising observatory" annual survey by the *Syndicat des régies internet* (Association of internet agencies), estimated the retail media market in France at 887 million euros in 2022, or 10.5% of the total digital advertising market, up 30% on 2021. This volume can be broken down into display advertising (328 million euros) and retail search⁸ (558 million euros). Between 2019 and 2022, the share of retail media rose from 6.8% to 10.5% of total digital advertising spend⁹. Over the same period, the share of "display publishing and information", which can be interpreted as an approximation of the open web, fell from 8.2% to 6.9% of total digital advertising spend (see table 1).

⁸ Retail search refers to income from sponsored links in e-commerce website search engines.

⁹ *Syndicat des régies internet* (Association of internet agencies, SRI), « Observatoire de l'e-pub »: <https://www.sri-france.org/observatoire-epub/>

Table 1: Digital advertising expenditure in France (in billions of euros)

	2019	2020	2021	2022
Total digital advertising market	6	6.1	7.7	8.5
Search	2.479	2.546	3.26	3.698
<i>Of which retail search</i>	<i>0.192</i>	<i>0.254</i>	<i>0.401</i>	<i>0.559</i>
Social	1.452	1.671	2.034	2.228
Display (Total)	1.281	1.102	1.518	1.662
<i>Of which publishing & info</i>	<i>0.491</i>	<i>0.46</i>	<i>0.592</i>	<i>0.584</i>
<i>Of which video & audio streaming</i>	<i>0.304</i>	<i>0.284</i>	<i>0.45</i>	<i>0.489</i>
<i>Of which retail media</i>	<i>0.217</i>	<i>0.232</i>	<i>0.245</i>	<i>0.328</i>
<i>Of which TV & radio</i>	<i>0.153</i>	<i>0.164</i>	<i>0.213</i>	<i>0.26</i>
Other (e-mail, affiliation, comparison tools)	0.772	0.825	0.89	0.905

Source : "e-advertising observatory", Syndicat des régies internet (SRI)

The open web model is therefore being called into question. This threat could be real if advertisers were to shift the budgets allocated to these websites to retail media instead. Some analysts argue that these are not the same types of budgets, and that advertising expenditure on editorial websites helps to build the brand and brand awareness (branding) rather than directly developing sales, as is the case with retail media. If this analysis is confirmed, then the sales of open web editorial websites will depend on the growth in advertising budgets for brand awareness and development, and on the proportion of marketing budgets allocated to this spend. But this growth could be snapped up by new players who have made changes in their business model: video streaming platforms such as Netflix or Disney+, and more recently Prime Video. Faced with stagnating subscriptions, these players have developed more accessible pricing packages that include advertising. Numerous new players are emerging in this arena, including advertising-funded free TV channels such as PlutoTV (Paramount Global) and Freevee (Amazon).

Other players are also expanding into the online advertising market: manufacturers of connected TV sets, mainly Samsung and LG. In addition to the streaming services mentioned above, these connected TV sets provide free channels that are financed by advertising. Then there are the traditional TV channels, which are already present in digital

formats with replay and their websites, and which are gradually opening up their advertising inventory to targeted advertising. This is "segmented television".

Conclusion: What is the open web's economic future?

As advertising budgets are not extensible and represent a relatively stable share of GDP, the question of the future of editorial websites, blogs, and free applications is being raised, since the number of players capturing advertisers' budgets is growing.

Advertising revenues, already partly captured by social networking platforms, are now being jeopardised by a host of new players in the digital space. This new advertising environment could significantly reshape the original open web. The alliances formed between website publishers are not yet able to compete with what the new players have to offer, which is often a more attractive value proposition for advertisers. Without this advertising revenue, the future of a major part of the open web is at stake. The alternative to advertising, i.e. the switch to paid-for services, cannot on its own provide a solution for all the websites concerned. Internet users, whose willingness to pay for content remains limited after years of widespread free access, are directing their spending primarily towards audio and video streaming offers. This is particularly true of young people, who get most of their information from social networks. We are therefore witnessing a profound change to the original web, with a gradual re-direction of advertising investment. Will the implementation of the new European regulations on gatekeepers (Digital Markets Act) and content regulation (Digital Services Act), which affect several of the players in the digital advertising market (Google, Meta, Amazon, Microsoft), rebalance the market towards the open web? At this stage, it's hard to say, given how rapidly the number of players is multiplying and the fact that they are not affected by these regulations.

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