

Executive summary

Fiona Scott Morton (fiona.scottmorton@bruegel.org) is a Senior Fellow at Bruegel

The European Union's Digital Markets Act (DMA) includes interoperability requirements for messaging services but not for personal social networking platforms. These gatekeeper platforms have seen little increase in competition under the DMA. Interoperability



In 2020, when the European Commission drafted the proposal for the European Union's

traction and therefore the competition that would be beneficial for users and advertisers is limited. An interoperability rule for personal social networks could improve outcomes in this respect.

In contrast to personal social networking, multihoming in the area in which there is already an interoperability rule in the DMA – messaging⁵ – is less costly for consumers because their communications are targeted at one or a small group of people. A user can have several messaging apps installed and can respond to an alert on any of them. That response goes directly to the person sending the message and is not intended for any other friends. Therefore, other friends can use rival messaging apps with no consequence for the cost and benefit of the first communication. Multihoming takes the form of installing multiple apps⁶ on a handset and opening the relevant one when the user wishes to communicate with a specific individual or small group.

The power of network effects makes the dominance of certain personal social networking platforms notably resilient. Users cannot reach their friends on other platforms that have broadly the same functionality, even if they actively dislike their experience on the entrenched platform (Bursztyn *et al*, 2023). The DMA provides users with other rights, such as data portability (Article 6, DMA) but this does not help competition among social networks. Data portability is not much use if users cannot coordinate their entire networks of friends to follow them in moving to a different platform.

Meanwhile, platforms have in some instances tried to erode the network effects of other platforms, but they succeed only rarely. Google+ failed to overtake Facebook, while Facebook purchased Instagram rather than risk being overthrown by it. TikTok has provided the best example of successful entry, but its success was helped by being different from the incumbent video platform, YouTube. Since then, Meta (Facebook’s owner) has launched the ‘Reels’ short video feature on Instagram as an unsuccessful direct response to competitive pressure from TikTok⁷. Despite Elon Musk using Twitter/X as a campaign vehicle and ending content moderation, it has only been since the discrete shock of the US election that competitors to X have gained traction⁸.

Because there has been little change over time in the amount of competition for a particular functionality, network effects continue to create and preserve market power across several types of social media identified under the DMA. Instagram, Facebook, LinkedIn and TikTok have been designated as CPS under the DMA⁹. All of these platforms are candidates for mandatory interoperability. The fact that WhatsApp has added audiovisual capabilities means that it could be described as either social media or messaging – adding to the justifications for broadening the interoperability mandate. To simplify the exposition, this Policy Brief explores the potential implementation of Article 7 interoperability for Facebook – though the same could be done for any other social networking CPS¹⁰.

5 Or number-independent interpersonal communication services (NI-ICS) in DMA jargon (DMA Article 7).

6 For example, WhatsApp, Facebook Messenger, Snapchat, Telegram, Discord, Signal, Viber and WeChat.

7 Sarah Frier and Brad Stone, ‘Mark Zuckerberg is blowing up Instagram to try and catch TikTok’, *Bloomberg*, 25 May 2022, <https://www.bloomberg.com/news/features/2022-05-25/facebook-copies-tiktok-app-to-make-instagram-cool-to-teens>.

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As a result of network effects, the main channels via which many people in the EU collectively share experiences are social networks that belong to a publicly traded for-profit corporation controlled by one man. Instagram and Facebook – owned by Meta – hold a near-monopoly in personal social networking. Meta is subject to limited economic regulation (and what it is subject to has done little to disrupt its exercise of monopoly power over personal social networks) and has been made subject only recently to safety regulation (the EU Digital Services Act, Regulation (EU) 2022/2065).

This situation contrasts starkly with the history of modern communications. For decades, the ownership of the main channel for distant social communication was the state-operated postal service. Any user or business could access the postal service for the same published rates. Beginning around 100 years ago, the telephone network became an important means of personal communication. The telephone networks in most European countries and the United States were heavily regulated or state owned, and again had a public tariff accessible to any user.

In the 1990s, email began to replace the postal and telephone services, while enabling easy simultaneous communication to groups of people. The governance of the internet is carried out through standard-setting organisations and decentralised providers. Internet service providers (ISPs) can enter freely, choose any business model they prefer (eg subscription, ad-supported or part of a bundle) and deploy spam-filtering technology on behalf of their users. Any ISP that follows the open standard has access to the entire network of ISPs attached to the internet.

The present dominance of social media services, while enabling easy communication to the internet.

and therefore an algorithm promotes content to the top of the feed and sends other content to the bottom. In addition, some content may not be shown at all if it violates the rules of the platform. The algorithm can be designed in many ways and users will gain by being able to choose among options. Users may also prefer to choose among business models, such as advertising-supported versus subscription. Business users will also benefit from the additional competition. Advertisers will be able to choose among social networks based on price, quality and innovation, if there are alternative social networks on which to advertise.



Because the direct network effects that characterise social networks are so strong, it is likely that only one policy choice will permit competition: interoperability. However, there are two ways in which interoperability can be achieved, and this is where the interesting policy choice lies. The options are:

1. Require vertical interoperability. This would be done by assigning the CPS the task of running the infrastructure of social media and allowing third-party curators to compete for users and connect 'on top' of that underlying network. The underlying network would then deliver content among curators, both third-party and the vertically-integrated curator. Other examples of vertical interoperability include operating systems that allow software applications to compete for users while each can connect to the same underlying platform, and long-distance phone providers that competed for customers, with connection to local networks for the last mile into the home.
2. Require horizontal interoperability. The CPS would be required to use open application programming interfaces (APIs) that permit competitors to connect to the CPS. APIs enable different applications to communicate. Each competitor would build its own network and, if that competitor chooses to participate in interoperability, would use the open APIs so that its users could reach users on, for example Facebook, and vice versa. Such connections require the use of existing APIs or creation of new ones to permit standardised content to flow between networks. The interoperability must be optional for any network that does not belong to a gatekeeper, so that entry of a competitor that decides to launch an independent social network remains possible. In order to create complete connectivity among those choosing interoperability, any participating network that connects with the regulated CPS must also connect with all other participating networks (which all use the same open APIs). A familiar example is an internet service provider that, by using open standards, connects its users to other users on the internet regardless of the other ISP each user uses. Similarly, the standards for mobile telephony services allow users to connect their phones to individual phone users on other mobile networks. An entering carrier's phones can be used to place a call to any existing carrier's phones on all their networks.

Under both schemes, all users would benefit from access to a complete network. At the same time, all users could choose between services that offer different user interfaces, business models, curation goals and feed designs. The difference would be that in vertical interoperability, all services rely on the incumbent to run the underlying plumbing as a kind of utility (see below for discussion of how the cost of this might be borne). With horizontal interoperability, all services run both their own curation and their own infrastructures. A key principle would be that no curator would be permitted to monetise users who are not their own.

Either type of interoperability would open the network to the possibility of entry of (more) dangerous networks or curators. For this reason, the authority should restrict access to the APIs, using a licensing scheme under which networks that want to use the open APIs

would be required to demonstrate their safety. The DMA text can be amended to outline the requirements that must be met, and the European Commission can determine the process for third parties to become authorised to review and license competitors. The goal of the license regime would be not to restrict entry, but to keep users safe on the network.



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Several issues should also be addressed in a revised Article 7. Interoperability requires a key – like phone numbers and email addresses – that enables users to find each other in the network and establish a link. A standard-setting body established by the regulator should determine a method for ‘finding friends’ that is effective and secure. Leaving the means of personal identification for most of the population solely in the hands of a private monopolist could create problems. Other existing choices include the identification services of gatekeepers such as Apple and Google. However, users might prefer a method of identification that does not belong to a private entity that may gain financially from expropriating them at a future time.

The EU could suggest (or require) that each member state establish the ability to verify personal identity and issue an e-credential. This government credential could then be an option used by any citizen instead of the privately provided credential – as desired by the citizen. The law would require that social networks accept government credentials if citizens prefer them (and should offer the identical functionality that is available to users of the platform’s credential)^{11,12}.

Given the crucial role pseudonymity plays in preserving freedom of speech online, it is important that the government credential method of verification should remain optional. However, this must be weighed against the interest a platform could have in wanting to run a business with a value proposition that consists of interactions between real people. A broad system of federated identity providers in which state verification agencies can participate might be one way forward. Again, a balance is needed. Users want to be able to explore the internet as different personas, but do not want monopoly platforms to hold their identity hostage, to charge high prices for it or to

hate-filled¹³. End users who are attracted by that service could choose it, while others could stick with the Facebook algorithm and yet others might select a different entrant's algorithm.

emphasises activities and friends from each user's time in the group¹⁴. Causes and groups for people interested in the environment, politics or athletics could be the basis for a social network to promote their content and activities and to encourage users to make friends within the network – all while permitting access to the broader social network as well.

4.1 Vertical interoperability

Under vertical interoperability, a host platform, such as Facebook, would continue to bear the cost of the basic network and connectivity while maintaining its own operation as a curation service. Licensing of competitors would be carried out by the designated third party, with the European Commission in the background. The platform provider – Facebook – would be required to provide access to licensed entrants by sharing APIs that allow such entrants to connect to the underlying network.

Entrants would have users who need to identify their friends – some of whom will use the host platform as their curator, some not – and would then be able to send messages back and forth to all their friends, no matter where they are located. Organisations wanting to enter as curators would determine a strategy, choose an algorithm (eg prosocial, no political content, etc) and apply for a license to gain access to the APIs so they could connect to the underlying network.

Once connected, curators would attract their own users and monetise them in whatever

host platform, rival curators who will be connecting to the provider's network, civil-society representatives, experts in algorithms and the regulator. This standard-setting committee must also handle any API modification requests.

The gatekeeper should be able to request changes to APIs in response to issues including technological progress, consumer preference and security threats. However, there is a risk that changes desired by Meta or any other social network CPS would be self-serving or strategic. Rivals must be able to comment, and the committee must put the new standards through a thorough review process to ensure they do not weaken competition or create new barriers for entrants. Public transparency around modification requests would be essential to prevent the dominant firm from gaining hidden advantages. When approved by the standard-setting committee, an implementation date can be chosen for API update that gives all parties time to adjust.

The price of access to the network will be a significant regulatory issue. If this is left

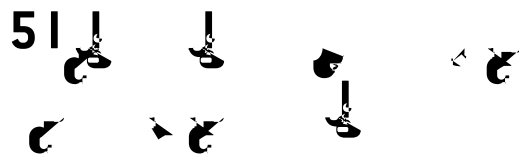
4.3 API ↓

For both vertical and horizontal interoperability, common APIs are needed. The design of these APIs must be stable enough for connectivity, but flexible enough to update as technology changes. In addition, APIs do not need to cover every feature, as keeping them fairly basic will permit differentiation and innovation by individual networks.

There are many examples of standards that require continuous updating because of rapid technological change. Communication protocols such as Wi-Fi and Bluetooth demonstrate that these can be commercial successes¹⁶. Some critics worry that APIs permitting interconnection will render all personal networking services identical but this is unlikely for several reasons. First, curation algorithms and business models will differ across networks regardless of APIs. Second, the APIs needed to share content do not need to cover every element of the service, and indeed should not. Differentiation and innovation are important elements of competition.

Procompetitive APIs therefore require certain elements of content to adhere to the common standard while allowing other features to be network-specific. A user could, for example, send the text 'Happy Birthday' to a friend. If the friend was a member of the same social network, special effects might be enabled such as confetti and balloons when the recipient opens the message. But if the API covered text and not special effects, a recipient on a rival network would see only the text 'Happy Birthday'. It seems reasonable to set up APIs for text, images, calendar and video and perhaps more, but likely not for a special effect such as digital confetti. Designing special effects or cool features within a network would be a way for a network to attract users¹⁷. Incentives for innovation could therefore be preserved, and users who value those special features highly will be incentivised to join the network with other like-minded users. This would create competition between networks.

Over time the technical committee would update the APIs to ensure they include what has become basic functionality that is likely to be needed by all parties. For example, if such APIs had been in existence over the last twenty years, they would likely have begun with text only. When images became common in social media, the APIs would expand to 'text and images', and later to 'text, images and calendar'. Today, we would want APIs to include video, while that would not have been critical in 2008. A feature such as a thumbs-up reaction could be added to the API if the standard-setting committee thought it was important in order to preserve global network effects. In this way APIs improve over time as individual networks continue to innovate.



It should be noted that including personal social networking in the DMA's interoperability requirements would be a natural progression. In the case of popular messaging applications such as Meta-owned WhatsApp, which are covered by the DMA's Article 7 interoperability requirement, there has been increasing integration of social-media features. For example, WhatsApp has moved beyond text to allow short video clips. The service has introduced

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features including channels that allow users to follow people and organisations for regular broadcast updates and content. If a messaging app differentiates itself with features like this, it becomes more like a social network.,

