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HORIZONTAL INTEROPERABILITY OF SOCIAL NETWORKING SERVICES

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Executive Summary

In its upcoming review of the Digital Markets Act (DMA), the European Commission is considering whether to extend the scope of Article 7 to Social Networking Services (SNS). SNS are even more complex and more differentiated service types than Number-Independent Interpersonal Communications Services (NI-ICS), to which Article 7 currently applies and whose implementation has already proven challenging. At the same time, the expected impact of Article 7 on competitive dynamics and contestability in SNS markets appears limited. For digital services, and particularly for SNS, interoperability can only cover a subset of common features. This leaves substantial network effects and installed-base advantages of dominant platforms largely intact. Importantly, multihoming, i.e., users engaging with two or more SNS in parallel, is often a viable strategy and provides an alternative pathway through which new SNS can build a user base. Mandated interoperability could reduce users' incentives to multihome by making dominant platforms even more central access points, potentially weakening rather than strengthening contestability. Horizontal interoperability would also entail significant implementation costs and ongoing regulatory oversight, while creating unavoidable security and integrity challenges. These burdens must be weighed carefully against the likely benefits. Finally, there is a risk that interoperability could exacerbate known societal harms associated with SNS, including disinformation, hate speech, privacy risks, and addictive usage patterns, by facilitating the cross-platform spread of harmful content. Overall, extending the scope of Article 7 to SNS is unlikely to deliver substantial competitive benefits and may introduce disproportionate technical, security, and societal risks.

Table of Contents

1. Introduction

Among the obligations in the Digital Markets Act (DMA), **Article 7** stands out for its ambition and complexity, which shows as it is the only obligation laid out in a separate Article of the DMA. It mandates that gatekeepers offering **Number-Independent Interpersonal Communications Services (NI-ICS)**, such as messaging services, must ensure interoperability with rival services upon request and free of charge. To date only two services by Meta – Messenger and WhatsApp – are designated under Article 7.

The motivation behind Article 7 is to address the entry barriers constituted by network effects (aka **demand-side scale economies)** that incumbents enjoy due to large installed user bases. In digital communications, network effects can create significant barriers to entry: users are more likely to join platforms where their contacts already reside, reinforcing the dominance of established players. By mandating horizontal interoperability, Article 7 seeks to **level the playing field**, allowing users of smaller or newer services to communicate seamlessly with users on dominant platforms. This, in theory, should reduce switching costs, enhance user choice, and stimulate competition based on service quality rather than network size. This provision is inspired by the principle of **interconnection** in telecommunications regulation, where dominant network operators were required to allow competitors to connect to their networks to facilitate universal communication.

At the time of writing, roughly two years after Meta was first required to comply with Article 7 in March 2024, this provision has so far only shown limited market impact. Only two third-party messaging service providers, BirdyChat and Haiket, have started to implement horizontal interoperability with Meta.[1] However, interoperability through these services is not yet operational, and BEREC (the Body of European Regulators for Electronic Communications) continues to raise concerns regarding some aspects of Meta's reference offers (i.e., the terms and conditions, and technical implementation details of interoperability).[2]

Yet, in its scheduled DMA review, the Commission now considers whether it should extend the scope of Art. 7 to Social Networking Services (SNS).[3] This is due to the legislative history of Art. 7. The Commission's initial proposal of the DMA did not include horizontal interoperability obligations for messaging services. During the legislative process, a key proposal of the Parliament was to amend the DMA to include horizontal interoperability for NI-ICS as well as SNS. Then, in the trilogue, a political agreement was reached whereby only horizontal interoperability of NI-ICS was to be included in the DMA (now Article 7), and horizontal interoperability of SNS was to be reconsidered in the "near future".[4] In particular, Art. 53 of the DMA required the Commission to "evaluate if the scope of Article 7 may be extended to online social networking services."

[1] See https://about.fb.com/news/2025/11/messaging-interoperability-whatsapp-enables-third-party-chats-for-users-in-europe/

[2] See [2] https://www.berec.europa.eu/en/all-documents/berec/opinions/berec-opinion-on-metas-reference-offers-to-facilitate-messenger-and-whatsapp-interoperability-under-article-7-of-the-digital-markets-act

[3] https://digital-markets-act.ec.europa.eu/consultation-first-review-digital-markets-act_en

[4] https://www.europarl.europa.eu/news/en/press-room/20220315IPR25504/deal-on-digital-markets-act-ensuring-fair-competition-and-more-choice-for-users

In this issue paper, we examine the proposal to extend Art. 7 DMA to SNS in more detail, against the backdrop of experiences with implementing NI-ICS interoperability, as well as the extant academic literature. In doing so, we draw on our previous reports on NI-ICS interoperability (Bourreau, Krämer & Buiten, 2022; Bourreau & Krämer 2023) in which we already highlighted the benefits and risks of horizontal interoperability of digital services more generally.

The remainder of this note is organised as follows: In Section 2 we briefly review the state of implementation of Art. 7 with respect to NI-ICS, as this is informative with regard to the experiences and challenges that can also be expected when extending Art. 7 to SNS. In Section 3, we highlight the key findings of extant literature on the benefits and risks of horizontal interoperability for digital services and how these map to the recent experience of implementing Art. 7. Finally, against this backdrop, we comment specifically on extending the scope of Art. 7 to SNS.

2. State of implementation of Art. 7

As noted above, the only number-independent interpersonal communication services (NI-ICS) that are currently designated as a core platform service are WhatsApp and (Facebook) Messenger, both offered by Meta. These services meet the thresholds laid out in Article 3 DMA, specifically exceeding 45 million monthly active end users and 10,000 yearly active business users in the EU. In the legislative process, it was widely believed that iMessage by Apple would also be designated, but after a thorough investigation the Commission accepted Apple's arguments that iMessage was indeed not an "important gateway" for business users to reach end-users. Meta has been required to comply with the interoperability obligation since 7 March 2024 for WhatsApp and since 6 September 2024 for Meta Messenger. With respect to Messenger, the Commission granted extension due to technical and security complexities.[5]

Since then, Meta provided several versions of its reference offers,[6] due to ongoing feedback and negotiations with the Commission and potential access seekers. BEREC has commented on various versions of the reference offers, as foreseen by Recital 64 of the DMA, with its latest opinion published in March 2025.[7] In this opinion, it noted improvements in regard to previous reference offers (such as implementation of typing indicators, read receipts or reaction messages in relation to Facebook Messenger, but not WhatsApp), but also notes that important (basic) features, such as editing or deleting messages, multi-device support for more than four devices, and discoverability of other users are still lacking from the reference offers, undermining the value of interoperability offers for both users and competitors.

Indeed, no major third-party NI-ICS has so far implemented interoperability with any of Meta's designated NI-ICS. Only two small, new players, BirdyChat and Haiket, have announced to be interoperable with Meta.[8] However, interoperability is not yet operational, as users of Meta's messaging services are still unable to opt-in to connect with users of third-party services through interoperability.[9]

BEREC recently expressed the view that the delay in the effective implementation of the interoperability obligation is partly due to poor technical implementation by Meta, but also because the scope of the interoperability provisions outlined in Article 7 is too limited.[10]

However, in our view, it is questionable whether the currently limited experience and impact of the horizontal interoperability provision in Article 7 of the DMA should be used as justification for extending its scope, whether it is by including additional features of NI-ICS or by expanding the provision to cover SNS. As we detail next, the challenges and pitfalls of implementing horizontal

[5] https://ec.europa.eu/competition/digital_markets_act/cases/202426/DMA_100097_133.pdf
[6] https://developers.facebook.com/m/messaging-interoperability/
[7] https://www.berec.europa.eu/en/all-documents/berec/opinions/berec-opinion-on-metas-reference-offers-to-facilitate-messenger-and-whatsapp-interoperability-under-article-7-of-the-digital-markets-act
[8] As of December 2025, BirdyChat and Haiket had not officially launched; they had only opened a waiting list for interested users.
[9] https://about.fb.com/news/2025/11/messaging-interoperability-whatsapp-enables-third-party-chats-for-users-in-europe/
[10] https://www.berec.europa.eu/en/all-documents/berec/opinions/berec-response-to-the-european-commissions-consultation-on-the-first-review-of-the-digital-markets-act

interoperability that come to the forefront now, have already largely been anticipated in previous reports and academic literature.

3. Benefits and risks of horizontal interoperability of digital services

Horizontal interoperability (aka interconnection) regulation is a well-known remedy from telecommunications markets and has generally worked well in this context to allow for **competition in the market** despite the presence of strong network effects. This positive experience has inspired the co-legislators to also impose horizontal interoperability requirements for NI-ICS in the DMA, as NI-ICS are seemingly similar to traditional telecommunications services.

The pro-competitive effects of horizontal interoperability have been highlighted by academic literature and scholars (e.g., Graef 2015, Gans 2018, Crémer et al. 2000, Jullien and Sand-Zantman 2021, Scott-Morton et al. 2021). We summarise these in Bourreau, Krämer & Buiten (2022, Section 3.1.1). Generally, horizontal interoperability is believed to aggregate firm-specific network effects into industry-wide network effects, such that firms can compete in dimensions other than network effects. This also lowers entry barriers constituted by firm-specific network effects and lowers consumers' opportunity costs of switching providers. This should clearly benefit the contestability of the NI-ICS market.

However, the pro-competitive effects of horizontal interoperability also rest on assumptions, which may not be met to the extent assumed, and which may give rise to new (anti-competitive) trade-offs. Moreover, there are likely significant costs and complexities to implement horizontal interoperability of NI-ICS, due to technical challenges and regulatory oversight. We summarise the risks and challenges of horizontal interoperability in Bourreau, Krämer & Buiten (2022, Section 3.1.2), and detail the numerous technical challenges and trade-offs involved in Bourreau and Krämer (2023).

More specifically, in our view, two key features of digital services, such as NI-ICS and social networking services, set them apart from other services, especially telecommunications services, where horizontal interoperability regulation has been successfully applied in the past, and require a re-evaluation of the benefits and risks of mandating horizontal interoperability.

First, **digital services are generally much more complex**, i.e., they have **a higher feature-richness**, than telecommunications services. Second, digital services often **allow for easy and low-cost multihoming** (i.e., using different services in parallel on the same device), which presents an alternative to interoperability. We elaborate on why each difference matters in more detail below.

3.1 Digital services are more complex than telecommunications services and allow only for imperfect interoperability

Even when services appear to meet similar user needs, they differ in functionalities and features (e.g., encryption standards, message formats, emoticons). Interoperability can only ever cover a common set of core features, and each feature innovation by a firm risks requiring renegotiation of the interoperable set of features. Unlike standardised telecommunications services, digital services can therefore at best achieve imperfect interoperability.

This is implicitly already recognised by the DMA, as it requires gatekeepers only to make "basic functions" interoperable, and even this shall only occur in three phases, whereby first only end-to-end text messaging between individual users is subjected to interoperability requirements, and group messaging and video calls being included 2 years and 4 years later, respectively. The current experience from the implementation of the first phase of Art. 7 shows that even for "basic" text communication and roughly two years after the compliance deadline, interoperability of NI-ICS is still patchy, and important "basic" features, such as the deletion or editing of messages, are not interoperable. Also, the lack of discoverability of contacts on other networks, as it the case in the current reference offer, limits the effectiveness of interoperability and has already been anticipated in Bourreau & Krämer (2023).

Imperfect interoperability is not only a result of the limitation of the scope to "basic features", but also due to a lack of incentives of the regulated gatekeeper to offer the best interoperability experience possible (known as incentives to "sabotage" in the academic literature), and due to the actual technical complexities involved. While some scholars have pointed to the fact that readily available interoperable communication protocols exist (e.g., the MATRIX protocol), this misses the point that in the present context, gatekeepers must open up their existing systems, which have not been designed with interoperability in mind. Here, no readily available solutions existed prior to the DMA (cp. Bourreau & Krämer 2023). In a similar vein, one could argue that messaging functionalities could, in principle, be standardised, which would facilitate interoperability. However, the services that need to be made interoperable today are not standardised, making this path, at best, a long-term objective.

Albeit interoperability of basic text communication is still unsatisfactory one year and a half after the compliance deadline, in one year and a half group chats are supposed to become interoperable, for which there are numerous additional complexities in the implementation (cp. Bourreau & Krämer, 2023, Section 3). It is foreseeable that interoperability will become even less functional in this case. Generally, the degree and usefulness of interoperability is likely to become the lower, the more complex and feature-rich the services are.

In addition, for digital services, innovation is rapid, and numerous new features have been added into WhatsApp and Messenger, as well as other messaging apps, since political agreement on the DMA was reached. Some (but not all) of these features may also be significant for the experience when communicating with users on other networks (such as being able to retract or edit a message). The way in which newly integrated AI features will change how we use messaging apps and how this affects interoperability is yet to be determined. Currently, integrated AI seems more to play the role of a chat function, which does not decisively impact communication off-net. However, this may change with future implementations. In any case, defining the set of interoperable features will remain cat-and-mouse game, on which regulators will always lag behind.

The inherent imperfectness of interoperability for digital services (contrary to standardised telecommunications services) has several important implications for the applicability and effectiveness of mandated horizontal interoperability in practice. Most importantly, **if interoperability remains imperfect, installed-base advantages persist.** Users may still favour the dominant provider to access the full set of functionalities, even if entrants offer superior quality or features, since these advantages apply only to a limited user base. Interactions with the incumbent's larger base remain

constrained and thus undermine the effectiveness of interoperability regulation for fostering contestability and competition in practice.

Further, due to the technical complexities involved, rapid addition of features and functionalities for digital services, and gatekeepers' lack of incentives to provide the best degree of interoperability feasible at any point in time, interoperability is not only likely to provide a persistently poor user experience, it also comes with **significant costs of implementation and enforcement,** as the proportionate and effective degree of interoperability will have to be constantly reviewed (by the Commission and entities such as BEREC) and re-negotiated with the gatekeeper. Even when services are standardised, experience from telecoms regulation shows that incumbents regularly engage in subtle "sabotage" of interoperability. In addition to not implementing features that are relevant for the user experience pointed to above, there are also other, more subtle ways in which the gatekeeper may interfere with interoperability, ranging from small technical „difficulties" that break interoperability every so often, to dark patterns (e.g., in collecting consumer consent or making it cumbersome for consumers to detect others on rival networks). Enforcement is therefore resource-intensive and costly—justifiable only if benefits are substantial, which, as argued above, remains doubtful.

Finally, the technical complexities and trade-offs involved also bear additional risks for consumers, as interoperability comes with **unavoidable compromises in security and privacy** (cp. Bourreau & Krämer 2023). Article 7(3), which requires that security levels "shall not be reduced," is unrealistic in practice. Interoperability expands attack vectors and thus reduces overall security. While specific protections, such as end-to-end encryption, may be preserved in principle, this depends on robust key management and trusted endpoints, which become increasingly difficult with more actors involved. This is one of the main reasons why privacy-focused messenger apps like Signal and Threema have announced, even before the DMA came into force, that they would not seek interoperability with NI-ICS services of gatekeepers.

Interoperability also comes with unavoidable compromises in privacy, as user data and meta data is handled by more entities. For example, WhatsApp collects third-party registration information such as username, messages and media within messages, connection data such as blocked users and groups created, device information such as IP-address and location.[11] User consent to such data sharing is mandatory for interoperability to work.

3.2 For many digital services, multihoming presents a viable alternative to interoperability

Unlike telecom services, users of digital services often "multihome," i.e., use multiple digital services concurrently, because doing so requires little effort or cost. For example, a representative survey by the German Federal Network Agency (2021) shows that 73% of users of messaging services multihome, interacting across different networks without the need for interoperability. Multihoming

[11] https://www.whatsapp.com/legal/dma-notice-non-users?lang=en

is further facilitated by business models where services are typically offered free of charge, with monetisation instead based on advertising or data collection.

Relative to interoperability, multihoming requires users to maintain multiple accounts and manage different updates. However, it also presents several advantages over interoperability, both for users and for third-party providers that are intended to benefit from interoperability regulation.

First, unlike interoperability, **multihoming allows users to access the full feature set of each service**, including the new features when they become available. Innovation and competition can therefore unfold more freely and is not mediated through interoperability. Gatekeepers have no control over the user experience at the rival service, as they would have in the case where they control the interface through which interoperability is realised. Issues of sabotage and poor implementation do not arise. Thus, through multihoming digital services can compete directly for consumers on the basis of quality, which also explains why several alternative messaging apps, such as Signal, Threema and Telegram, have successfully managed to attract a significant user base – despite the presence of network effects.

Unfortunately, as demonstrated in Bourreau and Krämer (2025), **interoperability can have a negative impact on market contestability driven by multihoming. This is because interoperability is likely to reduce users' incentives to multihome.** Some consumers (with low valuation for enhanced features) that would have multihomed in the absence of interoperability, may now choose to singlehome on the incumbent network if they can still reach contacts through multihoming (albeit with a limited set of features). This reduces the overall number of users on the rival network, and through network effects, also the value of the network for all other users that remain on the rival network. Through this negative feedback loop, mandatory interoperability can backfire by reducing contestability rather than enhancing it for services that already have a sizeable user base. This presents a second, more strategic reason, why the most promising rival firms providing messaging apps, are not interested in requesting interoperability under Art. 7 DMA, and which has been explicitly voiced by Threema CEO Martin Blatter already in 2022.

A second, important reason why multihoming has benefits over interoperability is that users prefer to keep different digital (communications) services separate, as they are using them for different purposes and to interact with a different group of people. Many users therefore do not see much value in interoperability or are even against it (Tas et al 2024). This offers a third explanation, why third-party NI-ICS providers may be reluctant to undergo the efforts of requesting and implementing interoperability. Although users can always opt-out of interoperability (as demanded by Art. 7), implementing interoperability only is worthwhile if it is actually demanded by the vast majority of users.

4. Extension of Art. 7 to Social Networking Services SNS

Against this backdrop, we now consider a possible extension of Art. 7 to SNS more specifically. The analogy of SNS to NI-ICS is evident. SNS are also a type of "communications service" that is characterised by strong network effects and large installed bases of the incumbent services, in particular those already designated as SNS core platform services under the DMA: Facebook, Instagram, TikTok and LinkedIn.

Accordingly, SNS are also subject to market tipping effects, and network effects can present entry barriers, driving the notion that interoperability may help in rendering these markets more competitive. However, the already highlighted risks and challenges associated with interoperability also apply in the context of SNS and are likely to be exacerbated compared to NI-ICS. This is due to a number of reasons.

First, SNS are much more complex and feature-richer services than NI-ICS, such that interoperability is even more fragmented and it is even more difficult to implement and maintain interoperability than for NI-ICS. For example, while NI-ICS are relatively homogenous in the way that they present content (message by message in chronological order), the display of content varies greatly between the designated SNS. While in Facebook and LinkedIn the content format is mixed (text, image and video), Instagram pursues a "visual-first" approach (image and video), while TikTok's content is "video-only". Despite some similarities (e.g., content can be liked, commented on and shared on the network), the form in which this can be done also varies considerably, and is subject to rapid change and evolution.

Second, unlike NI-ICS, which typically show every message sent by a user to all users for which the message was intended, and in chronological order, **SNS employ content curation** (i.e., not every post sent is seen by all users following that user in the social graph) and **personalised recommendations** (i.e., even content by users not in the user's social graph may be seen). **This complicates the very notion of interoperability even further**, and those features of SNS would provide designated gatekeepers with even more sophisticated and subtle ways to „sabotage" interoperability, e.g., by shadow banning content from interoperable networks.

Third, different SNS tend to be even more heterogeneous in which user groups they appeal to than NI-ICS. Empirical evidence suggests that **users value the distinctiveness of SNS**, using different platforms to connect with different groups and for different purposes (see, e.g., Kroon & Arnold, 2018). TikTok's user base tends to be very young, compared to that of Facebook, with Instagram being in the middle. LinkedIn caters to job seekers and professionals, while the others are more catering to private users. This segmentation of the market and differentiation of services is not surprising in the presence of strong network effects, as otherwise users would have gravitated to only one SNS if they were similar. This also means that basic interoperability with a minimum, common subset of features is likely to be even less valuable in the context of SNS than it is in the context of NI-ICS, and what features are important are likely to be valued differently by the different heterogeneous user groups.

Defining and negotiating the set of features that are subject to interoperability across different (and deliberately differentiated) existing core platform SNS is therefore likely elusive in the context of SNS and would in any event need to be done on a case-by-case basis.

One might argue that instead interoperability should be defined on a SNS-by-SNS basis in order to stimulate competition and contestability *within* a SNS-type that caters to a similar user group. While this seems more practical (but yet more complex than in the case of NI-ICS), it is also important to note that to begin with, the set of potential rival SNS to one of the gatekeepers' seems much smaller and less developed than in the case of NI-ICS, where sizeable competitors already exist, like Signal and Threema. Hence, in this case, interoperability regulation would firmly bet on the hope that interoperability would stimulate entirely new entry of SNS that are similar to those to which they seek interoperability with. But such entry seems very unlikely, as it is highly risky to enter with a little differentiated service that would strongly depend on patchy and fragile regulated interoperability. Also here, we deem it more likely that **competition for the market** takes place (via multihoming, rather than interoperability), with a service that is sufficiently different to an existing core platform SNS – as was in recent history the case with TikTok, who pioneered the "video-first" approach, catering specifically to a young user audience.

The experience of telecommunications access regulation offers valuable insights here. Access regulation has proven most effective in developing competition when access seekers were both able and incentivised to differentiate themselves by investing in their own network infrastructure (facility-based competition). In contrast, service-based competition, where access seekers have limited opportunities for differentiation, has generally been less successful.

In addition, given the experience from NI-ICS, where the Commission only had to deal with one gatekeeper, offering two NI-ICS, each with a lower complexity and feature-richness than that of any of the designated SNS, does not make it likely that a meaningful reference offer can be developed in a reasonable amount of time. In summary, **the technical challenges, implementation costs, and enforcement burdens would be even greater for SNS than for NI-ICS.**

Finally, interoperability of SNS may also present new risks for users, above and beyond the security and privacy risks already mentioned in the context of NI-ICS. A further concern is that **SNS interoperability could aggravate known societal harms on SNS such as disinformation, hate speech, privacy risks, and addictive usage patterns**. By blurring accountability for content moderation, and requiring to host content that originated on another platform, interoperability could reduce each platform's responsibility for the content it hosts. At the same time, SNS have stronger incentives to prevent leakage of content and consumers from one SNS to another, designing their systems even more addictive, so content and consumers stay „on net" rather than to consume content „off net".

Meta's announcement in March 2024 that Threads had "entered the fediverse" highlights the practical challenges of interoperability among social networking services. Interoperability with Mastodon is still one-sided: content from Mastodon does not appear on Threads, and only instances that have chosen not to defederate display Threads content. This situation also raises important concerns regarding content moderation. Mastodon instances, in particular, face a large influx of content from Threads that they must moderate according to their own policies, which could overwhelm the capacity of their volunteer moderators. While research on this type of issue is yet scant, these problems are likely to

arise, with potentially important consequences. In any case, they render the potential benefits of SNS interoperability even more doubtful.

5. Conclusions and recommendations

Taken together, we believe the arguments presented offer the firm conclusion that the expected benefits of extending Art. 7 DMA to social networking services are rather low, while the expected costs and risks are substantial. The difficult experience from implementing and enforcing Art. 7 in relation to NI-ICS, which are compared to SNS less complex and share more common features among rival services, shows that these concerns are real and material. Roughly two years after the compliance deadline, only two small third-party NI-ICS provider have taken up interoperability, and still it is not yet operational. We do not think that this is due to a lack of scope of the interoperability mandate, but rather to structural issues and differences between telecommunications services (for which the experience with interoperability or interconnection regulation is overall positive) and digital services. Therefore, we do not recommend broadening the scope of Art. 7 to SNS.

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