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Digital platform regulation: opportunities for information systems research

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Abstract

Purpose – Information Systems (IS) research has built up a considerable understanding of digital platform ecosystems, while policymakers worldwide are aiming to introduce platform regulations that seek to erode fundamental mechanisms of digital platforms. This viewpoint article provides an introduction to how platform regulation affects our current understanding of digital platform ecosystems and suggests opportunities for future research.

Design/methodology/approach – A detailed analysis of the effects of the European Union (EU) Digital Markets Act (DMA) on current findings of organizational, technical and economic IS platform research.

Findings – Government regulations of digital platforms such as the DMA likely affect the central mode of operation of platforms in the scope of the regulation. The authors preconceive a major impact on platform openness, governance, steering the platform supply-side, modularity, nestedness, network effects, pricing and single-/multi-homing. In addition, the authors present opportunities for future research in each of these IS platform research streams.

Originality/value – Landmark regulations implemented in the past, such as the General Data Protection Regulation (GDPR), caused paradigm changes that fertilized research opportunities in IS and beyond. This viewpoint article aims to nudge studies that examine the changed mode of operation of platforms following platform regulation.

Keywords Digital platform ecosystems, Public policy, Legislation, Digital markets act, European Union

Paper type Viewpoint

1. Motivation

Digital platforms are of considerable interest among Information Systems (IS) researchers who study platforms from various angles: IS research taking an organizational perspective examines the openness, governance and structure of platforms (Benlian *et al.*, 2015; Huber *et al.*, 2017; Wang, 2021). IS economics research considers topics such as network effects, pricing and competition (Dou and Wu, 2021; Barua and Mukherjee, 2021). And the technical perspective discusses platform architecture designs, interfaces and standards (Cennamo *et al.*, 2018; Tiwana *et al.*, 2010).

A phenomenon that drives research interest in digital platforms and their relevance in the economy is that platforms' mechanisms facilitate that they dominate their competitors and that platform owners dominate platform participants (Eaton *et al.*, 2015; Hurni *et al.*, 2021; Thomas *et al.*, 2014; Nambisan and Baron, 2021). On this basis, research has characterized some platforms as too powerful in the market or toward platform participants (Clemons and Madhani, 2010; Cutolo and Kenney, 2021; Khan, 2019) and governments and competition authorities are advancing initiatives to limit powerful platforms, such as the "10th Amendment to the German Competition Act", "Open Apps Markets Act" or "Digital India Act" (Tombal, 2022; Bhardwaj, 2022).

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Since such platform regulations seek to erode fundamental mechanisms of platforms, they have a profound effect on IS digital platform research. Regulations on IS-related phenomena have generated much research interest – for instance on the implications of regulation – and caused significant changes in recognized theories. Examples include the EU's General Data Protection Regulation (GDPR) that introduced substantial changes to data protection for the digital age, which many governments followed by adopting similar rules. Also, the United States vs Microsoft Internet Explorer antitrust case provoked much research aiming to understand the effects of vertical integration on platforms and the predatory strategies of platform owners (Wu and Pang, 2021; Kircher and Foerderer, 2021; Dewan and Freimer, 2003; Clemons and Madhani, 2010).

In this paper, we examine the implications of digital platform regulation for the organizational, technical and economic perspective of IS platform research using the European Union (EU) Digital Markets Act (DMA) as an example.

2. Regulations of digital platforms

Around the globe, governments and competition authorities have started regulating digital platforms. Figure 1 provides an overview of the evolution of 13 different regulatory efforts concerning fairness and competition between and on digital platforms. Along a 2016–2022 timeline, the figure illustrates each effort's starting point and optionally its point of adoption. The 13 regulatory efforts differ by country or region (5 from Europe, 4 from Asia and 1 from Africa, Oceania, North America and South America, respectively) and by scope (e.g., e-commerce, transparency, or broad).

Figure 1 pictures that although focused regulations have already been adopted, broad regulations with far-reaching implications are just developing. Early initiatives, such as the Indian Foreign Direct Investment Policy, target platforms in specific sectors, such as e-commerce, or only demand more transparency, such as the EU's Platform-to-Business (P2B) Regulation. Recently, regulations with a broad scope, which aim to cover various kinds of issues and platforms, have moved further toward adoption. Examples include the 10th Amendment to the German Competition Act (GWB) or the EU's DMA.

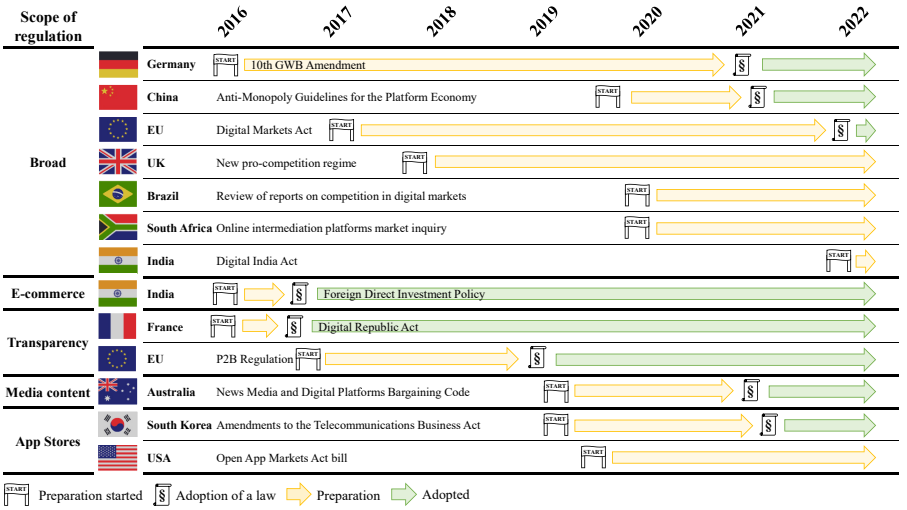

Figure 1. Evolution of regulatory efforts concerning fairness on and competition between digital platforms (ordered by progress)

The EU's Digital Market Act (DMA) is a particularly relevant regulation because it introduces far-reaching rules for numerous platforms in an influential economic area and is likely to become a global role model in the same way as the EU's GDPR (Smithurst, 2021; Bradford, 2020; Schechner, 2020). We thus use the DMA to illustrate the implications of regulation of digital platforms for IS research.

The DMA aims to ensure "contestable and fair markets in the digital sector across the [European] Union where gatekeepers are present" (Regulation (EU) 2022/1925, Article 1). Like the GDPR, the DMA aims to provide predefined (*ex ante*), clear and uniform rules. These apply only to "gatekeepers", which are undertakings that achieve an annual turnover above 7.5 billion Euro in the EU and offer at least one "core platform service" (inter alia operating system, social network) used by more than 45 million end-users monthly and more than 10,000 complementors yearly in the EU (Regulation (EU) 2022/1925). Overall, the rules impact how "gatekeepers" handle and process data, define conditions of use and make their platform and services accessible (Regulation (EU) 2022/1925). Table 1 summarizes the major rules we refer to later.

Topic	Summary of major rules for gatekeepers and their core platform(s)	DMA articles
Data siloing	Must store data in silo unless they obtain explicit permission. In competition with complementors, they must not use non-public data generated through complementors' activities	5(2), 6(2)
Data portability	Must enable participants to port the data provided or generated	6(9), 6(10)
Data sharing	Search engines must share ranking, query, click and view data with competitors under fair, reasonable, and non-discriminatory terms	6(11)
Pricing and disintermediation	Must not prohibit complementors to multihome or to disintermediate (directly communicate with, conclude contracts with, and receive payments from customers acquired via the platform). Both may happen at different prices or conditions than on the platform	5(4), 5(3)
Interoperability	Must give complementors free access to, and interoperability with, the same hardware and software features accessed or controlled via an operating system or a virtual assistant and available to the gatekeepers' services or hardware. Dominant interpersonal communication platforms must offer interoperability with other platforms	6(7), 7
Ranking and conditions of access	Make ranking transparent, fair, and non-discriminatory. Require fair, reasonable, and non-discriminatory conditions of access for comple-mentors on app store, search engine, and social network platforms	6(5), 6(12)
Embedding comple-mentor offerings and sideloading	Must allow access to and use of the content, subscriptions, or features complementors offer even if they were not acquired on the platform. Operating systems must allow installing third-party apps and app stores	5(5), 6(4)

Table 1.
Major rules in the digital markets act

(*continued*)

Topic	Summary of major rules for gatekeepers and their core platform(s)	DMA articles
Users' choice to selectively desert	Must allow users of operating systems to easily uninstall any app. Enable users to easily change default settings on an operating system, virtual assistant, and web browser that steers users to gatekeeper offerings. Allow to switch between and subscribe to different apps and services	6(3), 6(6)
Platform participants' choice to selectively desert gatekeeper ecosystem	Must not force platform participants to use, offer, or interoperate with an identification service, web browser engine, or payment service in the context of platform complements. Must not require platform participants to subscribe to or register with any further core platform services	5(7), 5(8)
Participants' freedom to raise issues	Must refrain from preventing or restricting platform participants from raising any issue with any relevant public authority	5(6)

Source(s): Regulation (EU) 2022/1925

Table 1.

3. Implications of regulation like the DMA for information systems

IS research streams that examine digital platform ecosystems can be clustered in three main perspectives: organizational, technical and economic (Eisenmann *et al.*, 2009; McIntyre and Srinivasan, 2017; Tiwana *et al.*, 2010; Constantinides *et al.*, 2018) [1]. IS research taking an organizational perspective investigates managing platforms, determines platform participation and examines mutual dependencies in platform ecosystems (e.g., Eisenmann *et al.*, 2009). The technical perspective of IS platform research studies design decisions on architectural questions such as composition and modulatory (e.g., Tiwana *et al.*, 2010). From an economic perspective, IS platform research studies the challenges of multi-sided markets in the context of platforms in three research streams: network effects, pricing and single- and multi-homing (e.g., McIntyre and Srinivasan, 2017).

Figure 2 illustrates the three perspectives, eight research streams to be explored in detail and interrelations. The different IS platform research streams and the perspectives into which they can be clustered are interrelated. Thus, some organizational phenomena relate to

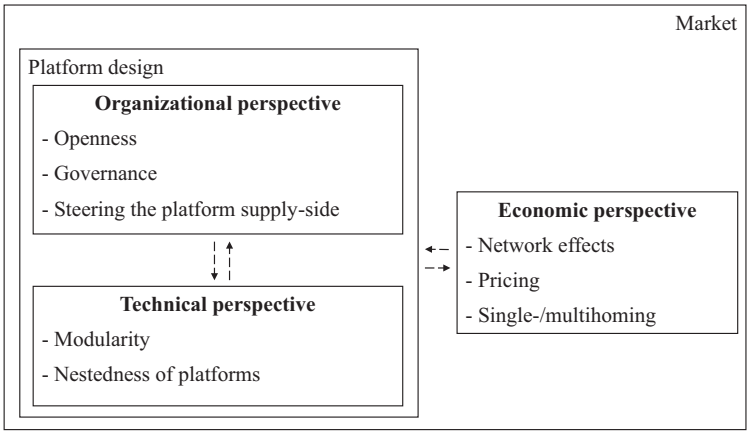

Figure 2.
IS platform research streams clustered in three perspectives (following Tiwana *et al.*, 2010)

technological prerequisites. For example, the decentralized organization of a platform may require appropriate technology or economic factors such as the alternatives for platform supply- and demand-side may determine the platform design.

In the following, we will outline the implications of government platform regulations like the DMA for IS research.

3.1 Implications of regulation for organizational IS digital platform research

Organizational IS platform research examines how the boundaries of openness and closeness are shifting on platforms (openness), how platforms are setting new rules for generativity (governance) and how rivalry within platforms unfolds (steering the platform supply-side). In the following, we examine the three research streams *openness*, *governance* and *steering the platform supply-side* by summarizing the central conceptual assumptions of literature, illustrating how regulatory changes will challenge these assumptions and outlining future areas of research. Table 2 summarizes the central implications of platform regulation for organizational IS digital platform research.

Table 2.
Summary of the central implications of regulations for IS platform research streams

Perspectives and IS research streams		Implications for IS research	Central literature stream
Organizational	Openness	- Facets of openness change or lose relevance - Explanatory models on openness change - Openness of nested ecosystems as a new research topic	Benlian *et al.* (2015), Boudreau (2010), Pagani (2013), Wang (2021)
	Governance	- New governance focus - Shift of platform power relations	Eaton *et al.* (2015), Huber *et al.* (2017), Hurni *et al.* (2021)
	Steering the platform supply-side	- New understanding of competition within a platform and the platform owner to complementor relationship - Change of platform owners' vertical integration strategy	Foerderer *et al.* (2018), Schreieck *et al.* (2021), Wen and Zhu (2019)
Technical	Modularity	- A higher level of platform modularity - New understanding of platforms' standards, interfaces, and boundary resources	Eaton *et al.* (2015), Karhu *et al.* (2018), Schilling (2000), Tan *et al.* (2020), Tiwana (2015)
	Nestedness of platforms	- Nested ecosystem organization, value creation, and value capture changes	Márton (2021), Tiwana *et al.* (2010), Wang (2021)
Economic	Network effects	- New market network effects - Change of the factors and dynamics of platform growth - Change of entrenched principles about data dominance	Gregory *et al.* (2021), Hinz *et al.* (2020), Kitchens *et al.* (2018), Rochet and Tirole (2003)
	Pricing	- Departure from subsidizing strategies - New challenges in monetizing platforms	Rochet and Tirole (2003), Zhou *et al.* (2021)
	Single-/ multihoming	- Easier and more diffused multihoming change platform owner value capturing and competition - New understanding of singlehoming in networks of platforms that introduce interoperability	Barua and Mukherjee (2021), ; Cennamo *et al.* (2018), Dou and Wu (2021), Hesse *et al.* (2022), Li and Zhu (2021)

The *openness* of platforms is the first IS research stream that falls under the organizational perspective (Li and Kettinger, 2021). Platform openness allows sellers or innovators to join a platform and offer a wide range of complementary products and services to consumers in transactions through the platform (Boudreau, 2010). Platform owners need to select the right level of openness as it entails trade-offs between platform adaption and control and value appropriation (Boudreau, 2010; Eisenmann *et al.*, 2009; Parker and van Alstyne, 2018). Furthermore, platforms must decide whether to selectively reduce openness through vertical integration (Corts and Lederman, 2009; Farrell and Weiser, 2003). In this context, vertically integrated offerings compete with those of complementors (possibly under disputed terms) as on Apple's App Store or effectively replace complementors' offerings as in the case of Google Search results that feature Google Maps, Hotels, or Flights offerings (Khan, 2019).

Regulations such as the DMA will require revisiting central assumptions on platform openness. The legislation requires fair, reasonable and non-discriminatory conditions of access for complementors on app stores, search engines and social network platforms (Regulation (EU) 2022/1925). First, this impacts facets of how complementors perceive platform openness, as Table 2 summarizes. For dominant platforms, some key facets of openness lose their relevance as they will be taken for granted. Hence, gradations of the facets "transparency of market (i.e., search, filter and ranking)" and "communication with end-users" as defined by Benlian *et al.* (2015) lose their relevance as the regulation requires openness here, while the facet "availability of development tools" does not. Second, regulations that reduce platforms' lock-in advantage and the incentive to vertical integration change current explanatory models on openness (see Table 2); for example, the double helix model of Pagani (2013), which describes a periodic transition from greater openness to vertical integration. While the model recognizes regulatory triggers as a pressure toward openness, the overall validity of the model could also be affected as regulations limit the forces that push toward vertical integration as they reduce platforms' lock-in advantage and the incentive to integrate. Third, regulations, such as the DMA, also increase the openness of nested ecosystems that consist of several digital platform ecosystems, services, or devices, as Table 2 summarizes. For example, smartphone operating systems are an element of a nested ecosystem that also includes an app store, apps and functionalities such as voice or payment services (Wang, 2021). In such a setting, regulation, such as the DMA, increases openness by allowing third-party offerings in all layers (Regulation (EU) 2022/1925). The consequence is a new dimension of openness, which IS researchers need to understand in more detail.

Platform owner's *governance* is a major research stream in IS and critical to achieving the goals of the ecosystem (Schreieck *et al.*, 2016). Platform owners execute governance by implementing and enforcing different control mechanisms (Tiwana *et al.*, 2010; Ghazawneh and Henfridsson, 2013; Shafiei Gol *et al.*, 2019). A major challenge for platform owners that govern their platforms is to navigate the tension between co-created value and governance costs (Huber *et al.*, 2017). Research finds that platform owners initially govern with uniform rules and may later go beyond fixed and uniform rules in certain areas depending on specific conditions to increase value co-creation (Huber *et al.*, 2017; Sarker *et al.*, 2012). Thus, platform governance decisions influence the individual value co-creation of complementors (Hein *et al.*, 2019).

Regulations such as the DMA impose dominant platforms to apply transparent, fair and non-discriminatory ranking of complementors' offerings and require more open access to specific types of platforms (Regulation (EU) 2022/1925). This will affect how platform owners navigate the tension between co-created value and governance costs. As the rules may reduce how much to deviate from a uniform arm's length governance (Huber *et al.*, 2017), dominant platforms likely reconsider the areas and practices in which their governance practices go beyond fixed and uniform rules and explore other means to increase value co-creation (see

Table 2). Regulations such as the DMA also aim to prohibit dominant platforms' best-price clauses and anti-steering policies and assure that all platform participants can raise issues with public authorities (Regulation (EU) 2022/1925). This will change the relationship between a platform owner and complementors, as Table 2 summarizes. Current findings on the role of complementors in the relationship, the finding that power asymmetry is at the heart of this relationship, and how conflicting and stressful it is for entrepreneurs to simultaneously fill the roles of ecosystem member and venture leader likely need to be revised in the new setting (Cutolo and Kenney, 2021; Nambisan and Baron, 2021; Hurni *et al.*, 2021; Eaton *et al.*, 2015).

Steering the platform supply-side is the third IS platform research stream that can be assigned to the organizational perspective. Such studies examine platform owners' efforts to increase the platform's attractiveness and capture more value. A popular strategy is selective vertical integration to push complementors to shift generativity toward new areas (Foerderer *et al.*, 2018; Wen and Zhu, 2019). This strategy is framed as expropriation or absorption and observed as an element of platform owners' value capture strategy (Schreieck *et al.*, 2021). Also, the resulting situation of complementors as pawns of a platform shapes the current understanding of platform complementor entrepreneurship (Nambisan and Baron, 2021; Cutolo and Kenney, 2021).

Regulations such as the DMA will hinder vertical integration of dominant platforms: Self-preferencing of vertically integrated services in competition with complementors' offerings is prohibited. Information asymmetries are removed by requiring platform owners to refrain from using, in competition with complementors, any data not publicly available, which is generated through or in the context of the complementors' activities on the platform (Regulation (EU) 2022/1925). Firstly, as Table 2 summarizes, the changes challenge the current understanding of entrepreneurship of complementors on platforms and platform value capture (Nambisan *et al.*, 2018). We expect that complementors' business models will stabilize because competition with platforms declines. At the same time, we expect new tools, methods and expressions of platform owner influence on complementors and value capture. Therefore, IS researchers should investigate how competition within a platform and the relationship with the platform owner change (Heimburg and Wiesche, 2022). Secondly, the changes might influence platform owners' overall strategy toward complementors (see Table 2). We suggest observing and studying whether, and if so, where and how the lost capacity to steer the supply-side leads platform owners to completely exclude complementors in specific areas (Wareham *et al.*, 2014).

3.2 Implications of regulation for technical IS digital platform research

Technical IS platform research examines how platforms' architecture provides the foundation for platforms' unique capabilities, such as scalability and generativity. In the following, we examine the two research streams platform *modularity* and *nestedness of platforms* by summarizing the central conceptual assumptions of literature, illustrating regulatory changes and outlining future research areas. Table 2 summarizes the central implications of platform regulation for technical IS digital platform research. *Modularity* of digital platforms is the first IS research stream that falls under the technical perspective. Modularity is an integral logic of platform offerings and achieves differentiation (Baldwin and Woodard, 2009; Thomas *et al.*, 2014). According to modular systems theory, firms can decide on the scope and degree of their offerings' modularity (Schilling, 2000). Platform owners may selectively increase the exclusivity of their own offerings and limit the accessibility of third-party offerings to increase architectural control and protect market power (Schilling, 2000; Cusumano and Gawer, 2002; Easley *et al.*, 2018). IS research on modularity emphasizes standards, interfaces and boundary resources (Baldwin and

Woodard, 2009; Ghazawneh and Henfridsson, 2013). For example, scholars study the relationship between standardization and complementor platform desertion, trade-offs of interfaces and the dynamic process of distributed tuning of boundary resources (Tiwana, 2015; Tan *et al.*, 2020; Eaton *et al.*, 2015).

Regulations such as the DMA require dominant platforms to offer more modularity. For example, complementors must not be required to use any further core platform service and users of gatekeeping operating systems may install third-party app stores, may uninstall any app and may not be restricted to switching between apps and subscribing to different services (Regulation (EU) 2022/1925). Such an obligation to a high level of modularity challenges the logic of modular systems theory, according to which platform owners can increase architectural control and market power by deciding the scope and degree of modularity, as Table 2 summarizes (Schilling, 2000). We suggest integrating novel regulatory limitations into the theory and exploring alternatives that platform owners draw upon to push a market to the desired equilibrium. Furthermore, with higher modularity, the role and employment of platforms' standards, interfaces and boundary resources are likely to change (see Table 2). We suggest studying whether interfaces remain a tool to curb the exploitation of platform resources, how trade-offs behind investment in interfaces change and how the obligation to higher modularity impacts our understanding of how distributed tuning shapes boundary resources (Karhu *et al.*, 2018; Tan *et al.*, 2020; Eaton *et al.*, 2015).

The IS research stream *nestedness of platforms* is also included in the technical perspective. Platform nestedness refers to platform ecosystems that are, in turn, a part of a nested ecosystem of several platform ecosystems, similar to holarchies in ecology (Wang, 2021; Tilson *et al.*, 2010). A holarchy of platforms may exhibit interdependences between platforms (e.g., one platform is a module of another platform) (Márton, 2021; Tiwana *et al.*, 2010; Tilson *et al.*, 2010). Interdependent platforms can be upstream, downstream, or on the same level in the holarchy (Wang, 2021; Mantena and Saha, 2012). Some organizations design interfaces and functions of a platform for the benefit of a particular subsidiary platform. This may make certain areas of a holarchy of platforms particularly nested (Suarez and Kirtley, 2012). Comparable to the software concept "stacks," higher complementarity positively influences organizations' value creation (Gao and Iyer, 2006). For example, the Apple iOS platform closely integrates Apple's downstream platforms for music and applications (Suarez and Kirtley, 2012).

Regulations such as the DMA limit platform owners' ability to control or to have an influence on the offerings on and connections between, layers of nested ecosystems. Gatekeeper platforms must not force participants to use, offer, or interoperate with an identification service, web browser engine, or payment service in the context of platform complements and must allow users of operating systems to install third-party app stores (Regulation (EU) 2022/1925). As Table 2 summarizes, this has implications for our current understanding of nested ecosystems of several platform ecosystems (Wang, 2021). A limit to dominant platforms' ability to make certain areas of their holarchy of platforms particularly nested likely overturns platform owners' control over offerings in the holarchy, value creation and value capture. Therefore, we suggest IS researchers explore how platform owners organize, create value and capture value in nested ecosystems in the future.

3.3 Implications of regulation for economic IS digital platform research

Economic IS platform research examines how network effects shape the dynamics of digital platforms, how platforms are monetized and what makes competition among platforms unique (McIntyre and Srinivasan, 2017; Cennamo *et al.*, 2018; Rochet and Tirole, 2003). In the following, we examine the three research streams *network effects*, *pricing* and *single- and multi-homing* by summarizing the central conceptual assumptions of literature, illustrating

regulatory changes and outlining future areas of research. Table 2 summarizes the central implications of platform regulation for economic IS digital platform research.

The first IS platform research stream of the economic perspective is *network effects*. It is a central theoretical concept in IS platform research, which posits that a growing network of interconnected users gives rise to network externalities, where the utility of a platform to each user is a function of the total number of users (Katz and Shapiro, 1985; Rochet and Tirole, 2003). Positive network effects are a central growth mechanism of digital platforms and explain some platforms' market power (Hinz *et al.*, 2020; Rochet and Tirole, 2003). A specific form of network effects is data network effects (Gregory *et al.*, 2021). Here, data serves as the source of self-reinforcing network externalities. With more data from and on participants, the platform's value for each participant increases, which then attracts more participants (Hagiu and Wright, 2021; Kitchens *et al.*, 2018).

Regulations such as the DMA require dominant interpersonal communication platforms to offer interoperability toward alternative platforms (Regulation (EU) 2022/1925). Such horizontal interoperability allows platform participants to interact with the other market side outside the dominant platform (Eisenmann *et al.*, 2009). This has the consequence that the other market side does not need to use the same platform (Bourreau and Kraemer, 2022). We suggest to understand better how network effects would no longer be limited to a single platform, but to a market of competing platforms. Conceptualizing network effects could be extended from "platform network effects" to "market network effects" (see Table 2). The utility of a platform to each user might become a function of the total number of users in the market. Furthermore, the factors and dynamics of platform growth likely change, as Table 2 summarizes. If growth becomes less coupled to network effects, the relative relevance of other factors, such as quality of service, innovations, or costs could rise.

Furthermore, regulations such as the DMA require data siloing (reducing data network effects), data portability and search engine data sharing under fair, reasonable and non-discriminatory terms (Regulation (EU) 2022/1925). This change challenges previously entrenched principles about dominance through data and ensuring the long-term success of a platform (Gregory *et al.*, 2021; Nambisan *et al.*, 2019).

Asymmetric *pricing* is another IS platform research stream that falls under the economic perspective. Platform owners respond to increasing the network's benefit to one market side by reducing prices on the other side to attract a user group particularly valuable to start or maintain network effects (Parker and van Alstyne, 2005; Rochet and Tirole, 2003). Designing and maintaining effective subsidizing strategies is challenging because the non-subsidized market side will try to draw the subsidized side away from the platform (Zhou *et al.*, 2021). Thus, platform owners try to hinder this disintermediation by monitoring communication between participants or by implementing best-price clauses that force complementors to charge lower prices nowhere else (Gu and Zhu, 2021; Mantovani *et al.*, 2019).

Regulations, such as the DMA, allow complementors to disintermediate a dominant platform and directly communicate with, conclude contracts with and receive payments from customers acquired via dominant platforms. This may happen at prices or conditions that are different from those offered through the platform (Regulation (EU) 2022/1925). Since such regulations challenge asymmetric pricing, our understanding of platform pricing as a tool to optimize cross-side network effects will change (see Table 2). More research is needed to understand how dominant platforms will replace current subsidizing strategies and how growing platforms shift from the subsidizing strategy once they fall under the regulation by becoming classified as dominant. Furthermore, we expect a need to better understand how this intensifies the already existing challenge of monetizing digital platforms, as Table 2 summarizes.

Finally, the economic perspective includes the *single- and multi-homing* IS research stream. Multihoming refers to participants' decision to be present on multiple platforms,

while singlehoming refers to being present on only one platform (Koh and Fichman, 2014). Participants' advantages of multihoming are to reach more participants on another market side and to be less dependent on a single platform (Kang *et al.*, 2019). Platform owners' advantages of singlehoming participants are their higher contribution to network effects and differentiation from rivals (Barua and Mukherjee, 2021). Also, the common strategy of monetizing exclusive access to singlehoming participants while subsidizing them relies on singlehoming of participants (Dou and Wu, 2021). Platform owners that prevent multihoming may capture more value or put competing platforms at a disadvantage (Corts and Lederman, 2009; Li and Zhu, 2021). Concrete measures that prevent multihoming are prohibiting complementors to multihome, limiting data portability, or reducing compatibility between platforms (Hesse *et al.*, 2022; Cennamo *et al.*, 2018; Kang *et al.*, 2019).

Regulations such as DMA grant platform complementors the right to multihome, require platforms to offer data portability and require certain platforms to offer interoperability with other platforms (Regulation (EU) 2022/1925). As a consequence, multihoming will become easier and more diffused, which will make value capture and competition more difficult for platform owners, as Table 2 summarizes (Schreieck *et al.*, 2021). Therefore, IS researchers may study how dominant platforms adapt their value capture strategy or develop new methods to put competitors at a disadvantage. Also, the understanding of singlehoming in IS research needs to be revised as currently believed advantages of singlehoming and some common strategies (e.g., subsidizing) lose relevance in networks of platforms that introduce interoperability (see Table 2). This is because horizontal interoperability results in a form of singlehoming that has similar effects as multihoming, which follows a similar logic as today's telephone communication network. As it is possible to call customers of your own provider and of third-party providers, it is not rational to multihome with multiple providers (Jullien and Sand-Zantman, 2021).

4. Conclusion

Our current understanding of the mechanisms in digital platform ecosystems depends on some underlying assumptions. This viewpoint paper illustrates that upcoming government regulation on dominant digital platforms has wide-ranging implications for organizational, technical and economic IS platform research. Regulations such as the DMA challenge existing assumptions and point to future research.

Note

1. Some interdisciplinary studies target multiple perspectives. For clarity, we clustered such studies in the dominant perspective.

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