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Data Portability and Online Platforms ***The Effects on Competition [Extended Abstract]***

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Abstract

This paper examines the potential effects of data portability among online platforms on competition, providing policy recommendations for the preservation of innovative, undistorted competitive markets. Based on a platform-data model, it is illustrated how users, data and the products and services of a platform are related. Platform markets which entail an especially high risk of market power abuse are determined. It is concluded that the right to data portability as in the EU's General Data Protection Regulation has to be interpreted in a nuanced fashion in order to avoid adverse effects on competition and innovation.

Keywords: Data Portability, Online Platforms, Regulation

1 Introduction

The EU's General Data Protection Regulation (GDPR), which will become effective in 2018, contains the user's right to data portability between online platforms. The main goal of this regulation is to give data subjects more control over their personal data by reducing switching costs and the probability of lock-in. However, data portability presumably also affects the level of competition in a market.

This extended abstract examines the effects of the right to data portability on competition, providing policy recommendations for the preservation of innovative, undistorted competitive digital markets. The original paper is forthcoming in the journal Internet Policy Review. In order to assess data portability from a competition-policy perspective, this paper examines how data, users, and platform services are related and how these relations change under data portability. Different platform-data model specifications are distinguished depending on whether the platforms in question offer substitute or complementary products. In a second step, this paper discusses in which platform markets the risk of an abuse of market dominance is particularly high. Based on this assessment, platform markets are determined where the right to data portability is indeed likely to foster competition and innovation. As a consequence, a nuanced interpretation of the GDPR's right to data portability is suggested.

2 The concept of data portability

Data portability is the possibility for users to transfer their personal data to different online platforms. The easier it is for the user to transfer his data, the lower are his costs

to switch to another platform and the lower is the probability of customer retention (Shapiro & Varian, 1999). Platform operators need to use at least interoperable data formats and templates to provide data portability. Without data portability, contacts cannot be transferred to another platform and information that has once been shared, i.e. data that the user has directly or indirectly invested such as messages, photos, reputation and search histories, remain with the original platform. The user is therefore more likely to stay with the platform that he initially provided his data to, although rival platforms might otherwise be more attractive to him. This might harm competition since competitors might not have an incentive to innovate and offer better services, knowing that users will nevertheless remain with the incumbent platform. The GDPR contains a general right to data portability¹ independent of a platform's size and market.

3 Platform-data model

Two specifications of a platform-data model are developed that illustrate the relationships between platforms, users and products. The first one includes the case of two platforms that offer essentially the same products (substitutes). The second one illustrates the case of two platforms that offer complementary products (e.g. a trading and a payment platform). Generally, the number of users is positively correlated with the volume and quality of data. Volume and quality of data are positively correlated with the variety and quality of the offered products or services, since companies can offer better products by analysing "more" consumer behaviour. Similarly, the variety and quality of products is related to the number of users: The more users, the more and better services are offered. More and better services again attract more users.

3.1 Platforms offering substitutes

The platform market is determined by two platforms A and B that offer substitutive products (see figure 1). A is the incumbent and B tries to enter the market or otherwise gain market share by offering a better product than A. Data portability is given.

If B enters the market and offers a better product than A, the number of users of B will increase, while the number of users of A will decrease: because of data portability, users can easily switch to B. The volume and quality of personal data that is extracted from the users will increase for B and decrease for A. Product quality will increase for B and decrease for A (indicated in figure 1 by the height of triangle). B will be able to offer more services than before (higher variety indicated by broader triangle), since more users imply more heterogeneity in preferences and a higher demand for services. The variety of products and services will not decrease for A unless it experiences a major consumer loss which revokes the efficiency of certain products. All in all, when, under data portability, platform A is deprived of a given customer because a competitor offers

¹ The legal text as contained in article 20 of the GDPR is as follows: "1. The data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided, where: (a) the processing is based on consent pursuant to point (a) of Article 6(1) or point (a) of Article 9(2) or on a contract pursuant to point (b) of Article 6(1); and (b) the processing is carried out by automated means. [...]" (European Parliament and Council, 2016)

a better product and the customer switches to this competitor, A will not only lose the revenue from that customer but will also suffer a loss in the overall value of the platform.

If data portability is not guaranteed, A can potentially preclude B from entering the market or from gaining a higher market share since users can only switch platforms at high costs if they cannot transfer their data. Without data portability, all effects depicted in figure 1 would be significantly smaller, if they existed at all.

Therefore, data portability is desirable in the substitute case if market dominance is abused. If there is no abusive anticompetitive conduct, data portability might harm competition. Platform A then runs the risk of losing customers whenever a competitor with a marginally better product emerges. This might reduce the incentive to innovate due to smaller returns on investment. Also, B might not enter the market under data portability because of prohibitively high investments required for data to be portable.

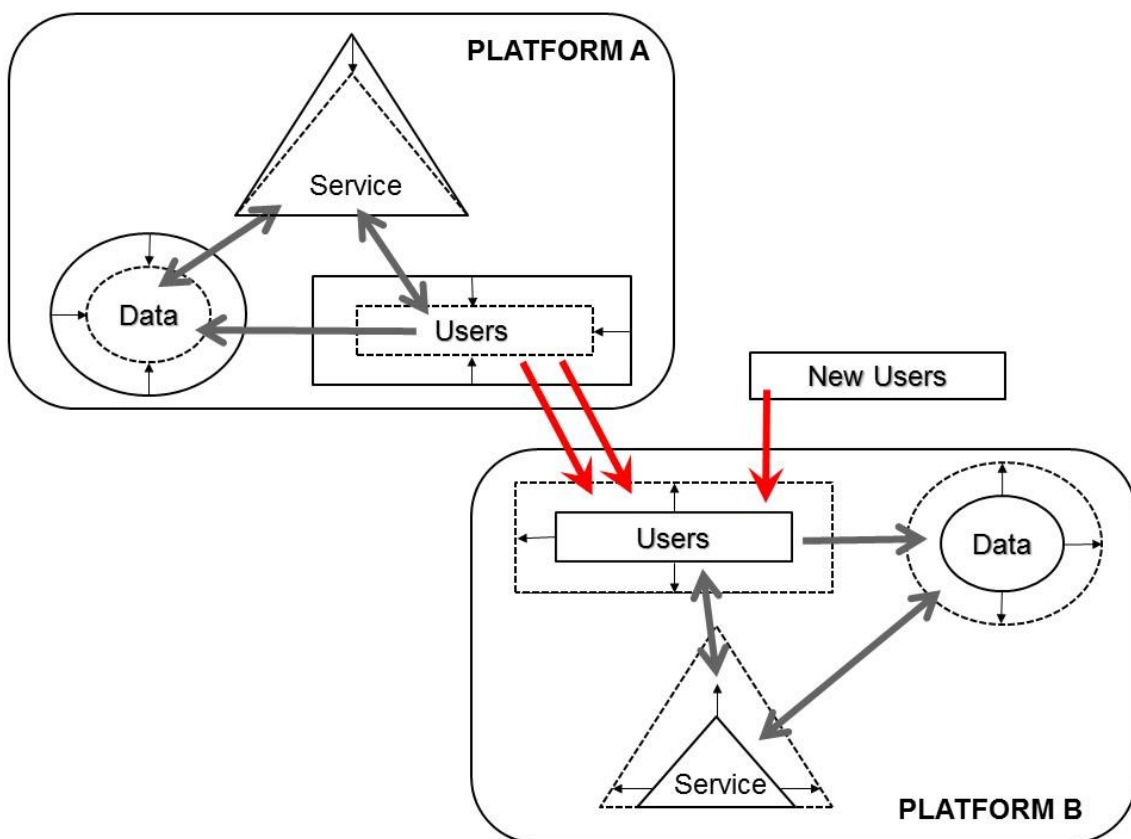


Figure 1: The platform-data model for substitutes. Solid lines show the initial situation. Dashed lines indicate the situation after platform B has gained market share. Thick arrows show dependencies. Qualitative illustration.

3.2 Platforms offering complements

The platform market is determined by two platforms A and B that offer complementary products (see figure 2). A is again regarded as the incumbent. B gains market share by offering a product that is complementary to A's product.

In theory, platforms offering complementary products should have an interest in making their data portable in order to be able to extract positive synergy effects. However, this is often prevented by information asymmetries.

In the model, under data portability, if the number of users of B increases, it is likely that the number of users of A will increase as well, since it becomes more attractive to use A's products in combination with B's products. Users can easily transfer data back and forth between both platforms. There might also be a significant amount of new users that both platforms benefit from. Accordingly, the volume and quality of data will increase for both platforms. The products of both platforms will gain in quality (higher triangle) and variety (broader triangle). Apart from the mutual benefit of A and B, the emergence of new business models is probable.² Without data portability, it can be expected that the increase in users for A and B will be significantly less pronounced, if positive spill-overs exist at all. Potential mutual benefits are lost.

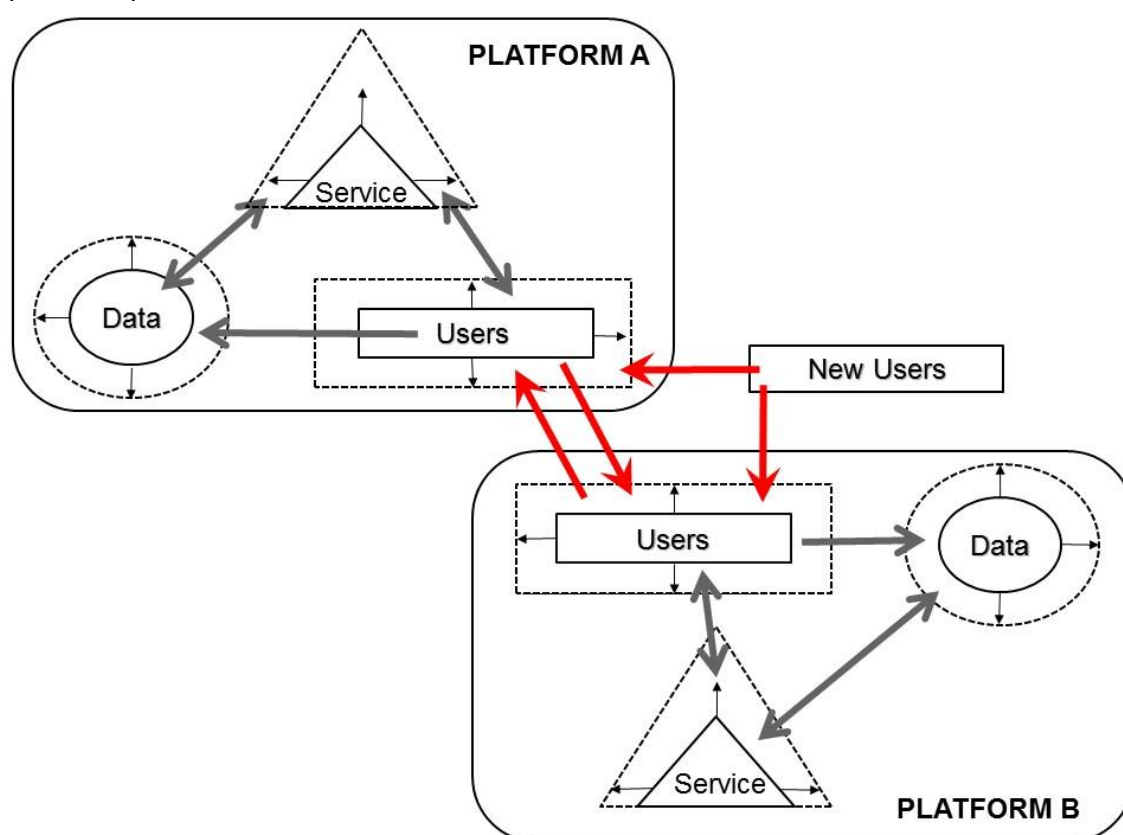


Figure 2: The platform-data model for complements. Solid lines show the initial situation. Dashed lines indicate the situation after platform B has gained market share. Thick arrows show dependencies. Qualitative illustration.

Therefore, it is recommendable or at least not harmful to competition to strictly interpret and follow the GDPR's right to data portability for platforms offering complementary products or those offering substitute products and abusing their market dominance. In order to provide a coherent policy recommendation, it needs to be

² An example for a potential new business model based on data portability is an energy-price comparison platform that could make recommendations based on the exact usage pattern of the respective household which is transferred to the platform by smart home technologies.

identified what determines anticompetitive conduct and in which platform markets the risk for anticompetitive conduct is high.

3.3 Detecting anticompetitive behaviour

Anticompetitive behaviour in online markets implies exploiting the peculiarities of platform markets, namely the concentration forces network effects, economies of scale, congestion, differentiation and switching costs (Evans & Schmalensee, 2007). In markets where the potential concentration is high, the risk that a company exploits market concentration forces is high as well. Table 3 summarizes the expected degree of market concentration forces for online marketplaces, social networks, and search engines. Based on the strength of the concentration forces, a so-called concentration score is determined that indicates the average degree of market concentration and hence the likelihood of its abuse.³ In the original paper, the reasoning behind the scores is thoroughly explained.

	Effect on concentration	Search engines	Online marketplaces	Social networks
Direct network effects	+	low 1	low	high
Indirect network effects	+	high 3	high	medium
Economies of Scale	+	high 3	high	medium
Differentiation	–	low 3	high	high
Congestion	–	low 3	medium	medium
Switching Costs	+	medium 2	high	high
Market concentration (score)		high (2.5)	medium (2.17)	medium (2.17)

Table 3: Market Concentration Forces. Strength of market concentration forces for different types of platform markets. The concentration score indicates the degree of market concentration, with $1 \leq \text{score} < 1.75$ indicating low market concentration, $1.75 \leq \text{score} < 2.5$ indicating medium market concentration, and $2.5 \leq \text{score} < 3$ indicating high market concentration.

All in all, the degree of market concentration and hence the risk of dominance abuse is particularly high in search engine markets. In online marketplaces and social network markets, the degree of market concentration is medium. In these markets, the appropriateness of the right to data portability should be decided upon case-wise, depending on the size of the company in question, since the potential to abuse market dominance increases with firm size.

³ Effects highly enforcing concentration are rated with a score of 3, effects only weakly enforcing concentration are rated with a score of 1. For example, as congestion leads to less concentration, low congestion implies higher concentration than high congestion and is therefore rated with a score of 3.

4 Policy recommendations

According to the above analysis, data portability is recommended in cases where platforms offer complementary products and in cases where platforms offer substitute products and the risk of anticompetitive conduct is high, i.e. in search engine markets. In all other cases, a strict interpretation of the GDPR's right to data portability is not warranted. On the contrary, this would likely constrain the development of new business models and hamper innovation by requiring firms to share their main asset, personal data, for free. Thereby, it would eventually harm competition instead of fostering it, protecting competitors instead of competition (Swire & Lagos, 2013).

Multi-sided platform issues should be approached with more humility, relying on the self-correcting powers of the market provided that certain values such as privacy and security are protected by flanking policy frameworks.

References

- European Parliament and Council. (2016). REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), from http://ec.europa.eu/justice/data-protection/reform/files/regulation_oj_en.pdf
- Evans, David S. & Schmalensee, Richard. (2007). The Industrial Organization of Markets with Two-sided Platforms. *Competition Policy International*. Volume 3 (1), pp. 151–179. DOI 10.3386/w11603.
- Shapiro, Carl & Varian, Hal R.. (1999). *Information Rules: A Strategic Guide to the Network Economy*. Boston, MA: Harvard Business Press.
- Swire, Peter & Lagos, Yianni. (2013) Why the right to data portability likely reduces consumer welfare: Antitrust and privacy critique. *Maryland Law Review*. Volume 72 (2), pp. 335–380. DOI 10.2139/ssrn.2159157.