

Governance of Data: Exclusive Property vs. Access

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In the current discussions about the appropriate legal rules for the digital economy, the topic of data ownership has emerged as one of the many new questions that require careful analyses and consideration. Although calling data the “new oil” is misleading, data is indeed a new and critical input resource for the digital economy, and the striving of businesses for collecting and analyzing these potentially very valuable data is a rational strategy. At the same time, new markets for trading data are also developing rapidly. Therefore, it is not surprising that two questions emerge: (1) How can data holders protect “their” valuable data and does the legal system provide sufficient protection? (2) Who should benefit from the data and should therefore be the “owner”? This is also linked to the question whether persons or firms receive fair remuneration for “their” data in the digital economy. The dominance of large platforms and firms and the ensuing competition problems provide good reasons for such concerns. These questions are seen as particularly important for “smart manufacturing” (industry 4.0) with deeply connected value networks of many firms, within which machine-generated data are produced and exchanged in real-time, as well as for new mobility concepts such as “connected cars” and the future “Internet of Things”. In the political discussion, the topic of data ownership was raised in the European Commission’s “Digital Single Market Strategy” and was, for example, emphasized by Commissioner Oettinger who claimed the need for a virtual and digital law of property that also includes data.¹

¹ Commissioner Oettinger, Speech at Hannover Fair, April 2015, ZfC 2/15, 41 http://www.compliancedigital.de/download/123622/zfc_20150202.pdf, *European Commission*, A Digital Single Market Strategy for Europe, Communication, COM (2015) 192 final, 6 May 2015.

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In the ICT and business communities the term “data ownership” is used widely, but not in the sense of legal property but who is the de facto holder of data, and can therefore decide on the use and trade of these data. Questions of the design of data governance in firms and network of firms are seen as very important and solved through contractual arrangements and/or technical restrictions. However, the question has been raised whether beyond such contractual solutions it is necessary to protect data by also granting exclusive property rights to the data holders. In that respect three kinds of data have to be distinguished. For one part of the data (such as music files etc.), property rights already exist, as far as they fulfill the requirements of traditional IPRs (e.g., copyright law). Another large part of data in the digital economy are personal data, which are subject to privacy or data protection laws. For personal data it is very controversially discussed whether and to what extent persons can “trade” their personal data, and therefore we can speak of the “proPERTIZATION” of personal data. But ideas involving developing markets for “licensing” personal data are receiving increasing attention. Here, the concerns are mostly discussed from a privacy or consumer protection perspective. The discussion concerning the introduction of a new property right on data, however, has focused on the large amount of data which are neither protected by traditional IPR law nor data protection law. These are especially data that are produced by machines, e.g. sensor data, and used in machine-to-machine communication. But since data is codified information, there are many kinds of data in the digital economy that might be protected by such an IPR, e.g. not only raw data but also processed data or data as the result of data analytics. Although the de facto holders of data are legally protected against a number of behaviors that impede the holding or use of their data (e.g. destruction or compromising the integrity of data through tort law, or their misappropriation through trade secret law), they are not protected as a legal exclusive property (similar to physical property or an IPR). Since data, as codified information, is an intangible good, the question has emerged whether a new *sui generis* IPR on non-personal data should be introduced.

Since this is an entirely new debate that also raises fundamental questions regarding the monopolization of information and dangers for the public domain, the discussion so far has focused primarily on the question whether such an IPR on data is necessary at all and less on the specifics of the design of such a *sui generis* IPR. The main arguments for such an IPR refer to the protection of these valuable data, the facilitating of creating markets for trading and a more efficient use of data, and concerns about the distribution of the benefits of the data, especially also within the networks of firms. In the legal discussion, the idea of a new IPR on data has been received critically, especially regarding its necessity but also its problems and dangers.²

² See for this discussion *inter alia* Zech, “Information als Schutzgegenstand” 2012, pp. 421–440; Dorner, “Big Data und ‘Dateneigentum’. Grundfragen des modernen Daten- und Informationshandels, Computer und Recht”, 2014, p. 617; Zech, “Daten als Wirtschaftsgut – Überlegungen zu einem “Recht des Datenerzeugers”, Computer und Recht, 2015, p. 137; Wiebe, “Protection of industrial data – a new property right for the digital economy?” 2016 GRUR Int. p. 877.

From an economic perspective, the introduction of such an IPR on data cannot be recommended.³ Most important is the argument that there is so far no evidence for a general incentive problem for the production or analysis of data. On the contrary, in the digital economy an exponential increase of produced and analyzed data can be observed, which according to all experts will continue in the foreseeable future, especially due to sensor data and the Internet of Things. From the perspective of law and economics, data is characterized by non-rivalry in use and by excludability because data holders can keep data secret (e.g. also by encryption). Therefore, the production and analysis of data does not seem to suffer from a public good problem through copying (in a similar way as innovations and creative works). More interesting are the arguments whether IPRs on data might facilitate the trade and use of data, e.g. through licensing. However, so far the experience shows that firms have many possibilities for trading data or services based upon data (e.g. targeted advertising) without the need of exclusive property rights; although, a deeper understanding of the emerging data markets and their problems would be valuable. Also, the reasoning concerning the (unfair) distribution of the benefits of data, e.g. in value networks, does not lead to a recommendation for a new IPR. If the contractual arrangements that emerge in the markets suffer from market failures, e.g. through imbalances of market power, then competition law and other regulations are the appropriate regulatory instruments, and not the assigning of IPRs, which can be easily contracted away by firms with market power. Also, from an economic perspective, the introduction of such an IPR can lead to huge problems and dangers. The difficulty of specifying the subject matter of such an IPR and to whom it should be assigned might lead to significant legal uncertainty with the consequence of high costs and impediments for further innovation (similar to those from patent thickets, patent hold-ups, and patent trolls). A fundamental problem is the question whether an IPR on data would also lead to monopolization of (semantic) information, which so far has been avoided in IP law. Particularly important is the concern that an exclusive property right on data would not fit into the basic logic of the digital economy, because Big Data relies on easy access to many different sources of data. Therefore, an exclusive property right might hamper data-driven innovation in the digital economy.

Therefore, it is not surprising that the policy discussion surrounding data governance in the digital economy is shifting to the question of access to non-personal data. For example, the OECD in its 2015 report on “Data-Driven Innovation” presented a very different perspective on data.⁴ Here the resource data is seen as an “infrastructure” that can be used for developing innovative products and services in the digital economy. From that perspective, easy access to as many data as possible is important, and it is crucial to remove barriers to access, sharing and exchange of data for ensuring a “free flow of data”. This can be linked to the discussions concerning open data and data commons but also to the discussion about public sector information. In that respect, one important policy discussion refers to

³ See for the following Kerber, “A New (Intellectual) Property Right for Non-Personal Data? An Economic Analysis” (forthcoming in GRUR Int 11/2016).

⁴ See OECD, “Data-Driven Innovation. Big Data for Growth and Well-Being” 2015.

the need for standardization, interoperability and also portability of data.⁵ Since in the future digital economy much more data might be held privately in relation to publicly available data than in the past, the issue of access to these privately held data will be an increasingly important question. To some extent, the question of access to data might be solved under competition law, e.g. using an essential facility reasoning (Art. 102 TFEU), but the possibilities under competition law are rather narrow. Therefore, it will be necessary to think about other solutions for solving access problems, perhaps also in a sector-specific way. It is also clear that questions of access to data have to be addressed very differently in respect to personal data. Even if the introduction of an exclusive property right on non-personal data might not be a recommendable policy option, the question of the appropriate legal rules for the governance of data in the digital economy will be one of the most important policy questions in the coming years.

⁵ See European Commission (*supra* note 1), p. 15.