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Introduction

The interface between digitalized information (Data), intellectual property, privacy regulations, and competition law in the 'Internet of Things' (IoT) scenario is currently triggering the interest of politicians, businessmen, the academic community, and, even, the general public. The groups are interested for different reasons; for example, businessmen see an opportunity for the creation of wealth; researchers see the possibility of gaining, analyzing, and distributing knowledge efficiently; and everyone acknowledges that the collection and distribution of data may raise several concerns in reference to private and public power, freedom, privacy, and data protection concerns.

The interface between the legal systems triggered by the creation, distribution, and consumption of data is difficult to grasp, and this book, therefore, tries to dissect this interface by the following information, that is, 'the data' from its sources, to users and reusers, and, ultimately, to its consumers.

The book starts with an attempt to identify the relevant problems from an economic and legal point of view. What are the major challenges? What legal systems are applicable in the process of creating and utilizing data? Which sector-specific regulations and intellectual property rights may be applicable when data is obtained from websites, platforms, and devices, and distributed to the Cloud, and, ultimately, when is it reused? Who 'owns' data, and do the current legislative efforts from the EU in reference to data create nascent property rules? The book will discuss when creators, holders, and users of raw or processed data, either private or public bodies, should benefit from the application of competition law, and whether competition law facilitates solutions for the needs that are identified.[1] The book specifically focuses on the application of competition law vis-à-vis the bodies that

1 See Ariel Ezrachi and Maurice E. Stucke, *Virtual Competition the Promise and Perils of the Algorithm-Driven Economy* (Harvard University Press 2016); and Maurice E. Stucke and Allen P. Grunes, *Big Data and Competition Policy* (Oxford University Press 2016).

collect or hold data focusing on the issue of whether competition law may be used to gain access to data, or the infrastructure around that data.[2] May competition law be used to create a level playing field between holders and nonholders of essential data?

The book will raise the issue of sector-specific regulation in the arena of data. Access to data is a disputed issue not only under 'general' competition law but also discussed in reference to general and sector-specific regulations in reference to data. Regulations such as the newly proposed Data Act,[3] Digital Markets Act,[4] Digital Service Act,[5] the Platform-to-Business (P2B),[6] Data Free Flow Regulation,[7] the Open Data Directive,[8] PSD2,[9] and the *eCall* Regulation[10] are discussed.[11] Indeed, it seems that rules regarding access of data are currently seeping into sector-specific

[2] In reference to Open Data, see Josef Drexl, 'The Competition Dimension of the European Regulation of Public Sector Information and the Concept of an Undertaking', in Josef Drexl and Vicente Bagnoli (eds), *State-Initiated Restraints of Competition* (ASCOLA Competition Law, Edward Elgar 2015), 64–100. See also Björn Lundqvist, '"Turning Government Data into Gold": The Interface between EU Competition Law and the Public Sector Information Directive – With Some Comments on the Compass Case' (2013) 44(1) IIC – International Review of Intellectual Property and Competition Law 79–95.

[3] 'Proposal for a Regulation of the European Parliament and of the Council on harmonised rules on fair access to and use of data (Data Act)', COM (2022) 68 final (23.2.2022).

[4] 'Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act) Brussels', COM (2020) 842 final (15.12.2020).

[5] 'Proposal for a Regulation of the European Parliament and of the Council on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC', COM(2020) 825 final (15.12.2020).

[6] Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services.

[7] Regulation (EU) 2018/1807 of the European Parliament and of the Council of 14 November 2018 on a framework for the free flow of nonpersonal data in the European Union.

[8] The Directive on the reuse of public sector information Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the reuse of public sector information, OJ L172, 26.6.2019, 56–83 (The old PSI directive: Directive 2003/98/EC, known as the 'PSI Directive') entered into force on 31 December 2003. It was revised by Directive 2013/37/EU, which entered into force on 17 July 2013.

[9] In order to accelerate retail banking innovation and simplify payments, the European Commission is mandating standardized API access across the EU. The initiative is part of the European Commission's update of the Directive on Payment Services(PSD). The revision to the Directive on Payment Services (PSD2) requires banks to provide access to third parties. See Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015, on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC, and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC (Text with EEA relevance). cf Commission, A Digital Single Market Strategy for Europe, COM (2015) 192 final <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52015DC0192> accessed 20 September 2016.

[10] Regulation (EU) 2015/758 of the European Parliament and of the Council of 29 April 2015, concerning type-approval requirements for the deployment of the eCall in-vehicle system based on the 112 service and amending Directive 2007/46/EC.

[11] There are several French national initiatives to open e-platforms for third-party competitors. See French Senate Report (20 March 2013).

regulations, implying an obligation either to share data or to grant open access to the device, which collects the data.[12]

The first part of the book concludes, first, that general competition law may not be readily applicable to access data, except for the situation where the dataset is indispensable to access an industry or a relevant market.[13] Even though general and sector-specific regulations seem to emerge as a tool for accessing data held by competitors or firms, in general, they fail to fulfill their aim to create competition and a leveled playing field.

In reference to the new obligations now being implemented vis-à-vis platforms, the use of a new competition tool for the benefit of use of the competition authorities is more beneficial than trying to obtain the same result through heavy and detailed sector-specific rules. Indeed, one takeaway of the first part of the book is that instead of having ex ante rules as prescribed in the Digital Markets Act, Data Act, and other sector-specific regulations, a more general Competition Tool should be enacted and used by national competition authorities.

The main challenge for the data industry, at its current development, is to create a leveled playing field by trying to facilitate the implementation of IoT. We will see IoT platforms developing by collecting, storing, and using data in competition with the incumbent industry firms. The utilization of data will increase competition and innovation in the industry to the benefit of consumers and society, and it is necessary to create the right balance or equilibrium in reference to access and utilization of data so as to generate innovation and competition. The second part, therefore, starts with a discussion of the relevant constitutional and market economy values and principles that is at stake for the future. Internet revolution 4.0 is discussed and dissected. Even though there is an emerging consensus today that big tech firms must be tamed, that has not always been the case. The hands-off policy choice both in the United States and in the EU throughout the twentieth century was to treat the Internet as a new legal dimension and that information society services should be nonregulated.[14] The choice was to subject it to significantly less regulation than

[12] Alex Chisholm and Nelson Jung, 'Platform Regulation – Ex-Ante versus Ex-Post Intervention: Evolving Our Antitrust Tools and Practices to Meet the Challenges of a Digital Economy' (Spring–Autumn 2015) 11(1) Competition Policy International 7–21.

[13] cf C-170/13 – Huawei Technologies ECLI:EU:C:2015:477.

[14] According to Savin, in 1997, then-US President Bill Clinton's senior policy advisor Ira Magaziner played a decisive role in outlining the scope of regulatory reach toward information society services, thus defining the shape of the modern Internet. Magaziner's main contribution was a 'hands-off' approach to regulating the content layer of the Internet. The policy principles that Magaziner introduced were deceptively simple. The Internet is a medium with enormous potential for 'promoting individual freedom and individual empowerment'. In order to preserve this, where possible, the rules that govern it 'should be set by private, non-profit, stakeholder-based groups'. Governments should refrain from intervening unless absolutely necessary. This approach resulted in a firm policy based on a simple idea: The private sector should lead and, where regulation is needed, it should be kept to a minimum and should foster a 'predictable, consistent, and simple legal environment'. This created a completely different

either telecommunications networks and services or broadcasting media with editorial control.[15] The magnitude of this policy choice should not escape us, indeed while cables and radio waves used to convey the Internet were heavily regulated to disperse power, the content layer largely remained free. The issue is then whether to start regulating the content layer, that is, the data-driven businesses, or whether there is still a compelling reason for not introducing heavy behavioral regulations.

The thesis put forward in the book is that neither heavy sector-specific regulation of the data-driven economy should be introduced nor strict principles of net neutrality, while instead a new form of right to access and transfer data should be enacted for the benefit of the business users of platforms and users and data generators of IoT devices. The solution could diminish market power and alleviate signs of unfairness and market failures, while keeping the data-driven economy and competition 'free' from excessive ex ante regulation. It will infuse competition by promoting the users, often small- to medium-sized enterprises (SMEs), to equal access and utilization of data in the digital economy. This issue is explored in Chapters 4–7, while dissecting the Digital Markets Act and the Data Act.

In the end, it will be argued that the regulation of the data-driven economy could be limited in ambit, while being amended or supplemented with a right for accessing and transferring the data that is collected and stored by data holders. Such an access and transfer right should be drafted as a 'countervailing' right with inspiration from the exemptions for data mining and reverse engineering and would allow users to circumvent the data holders' right to protection under technical protection measures (TPMs), database rights, and trade-secret legislation to gain access to the data generated by themselves and to utilize said data. Such a limited access and transfer right (ATR) could be included in the Data Act or be included in an updated database directive.

Moreover, the right to access and transfer for users should also be aligned with the General Data Protection Regulation (GDPR), giving a user the right to access and transfer personal data when the user can provide equal protection under the GDPR as the original data-holder.

The ATR could be supplemented in an updated version of the database directive, for the benefit of users. The database directive could moreover go further and grant a more elaborated right when users have invested time and/or effort to create useful data to the level that the user would gain a database right in its own right

regulatory pattern on the content layer than the one seen in many other networked industries. cf Andrej Savin, 'New Directions in EU Policymaking on the Content Layer: Disruption and Law' (29 April 2020) Copenhagen Business School, CBS LAW Research Paper No 20-05 <https://ssrn.com/abstract=3588387>. See also Ira C. Magaziner, 'Creating a Framework for Global Electronic Commerce' (July 1999) Future Insight, Release 6.1 n <www.pff.org/issues-pubs/futureinsights/fi6.1globaleconomiccommerce.html>; and Jonathan Nuechterlein and Philip Weiser, *Digital Crossroads: Telecommunications Law and Policy in the Internet Age* (2nd ed., MIT Press 2013).

[15] Nuechterlein and Weiser (n 14).

In reference to the sensors or the systems that will collect the data from IoT devices, the book argues that the Data Act should be revised and – more clearly – take its starting point in the principle or doctrine that the holder of the property right to the device and the sensor should also hold the right to extract data from the sensor and device. The legal point of departure should, thus, be based on the legal consequences of trade in goods and services, and the doctrine of exhaustion. A property holder should have the right to license access to the sensor to third parties. Often that would imply giving access to a platform or tech giants. Yet, the user of IoT devices with sensors should have equal right to access and transfer the user-generated data, including such inferred data originating from the sensor. Indeed, the right proposed in the book (the ATR) should be granted to the user, and it will create a level playing field between users, property holders, and platforms, while protecting and honoring the business model of data-driven platforms as well as business models of the incumbents of the old industry, and ultimately of the users.