Beata Mäihäniemi, Com*petition Law and Big Data. Imposing Access to Information in Digital Markets*. Cheltenham: Edward Elgar, 2020. x + 325 pages. ISBN: 9781788974257. GBP 95.

This is an ambivalent book. In fact, the author embarks on a difficult undertaking. A large part of the litigation handled by competition agencies in recent years concerns the digital economy, and it is sometimes difficult to find one's way through the jurisprudence, even when the analysis is confined to the European judicial level. This book aims to shed light on the subject by proceeding as follows. It first introduces readers to the topic by means of discussing the competitive issues created by two-sided markets. It then studies the implications of ensuring consumer welfare as the goal of competition law and turns on the practices related to access to information. It concludes on remedies. Overall, the reader explores a wide range of issues raised by the digital economy from a technological, economic, and legal perspective.

   This book proposes a (truly) neutral look at the state of the literature and case law in the field. This is appreciated. It provides solid teaching material, but this neutrality comes at the price of descriptive developments. For example, Chapters 3 and 5 lead readers to familiarize themselves with the subject matter, without shedding light on the author's thesis. The end-argument finally appears in the chapter conclusion, when stressing the need to measure the amount of data possessed by companies in digital sectors when analysing their market power (p. 87). Although the idea should be discussed, the reader will not necessarily be convinced of the need to change the analysis accordingly in the absence of analyses of the limits to that approach and its precise methodology. Chapter 10 is also lengthy and sometimes overlooks the book's general thrust, looking at peripherical topics such as standard essential patents.

   Most fundamentally, one may find oddities in the book's approach. From the outset, readers are told that "this book addresses the question of when, and under which conditions, access to information (which can be a good, an input, etc.) can be granted under EU competition law" (p. 1). Despite this assertion, it then focuses on data. The author justifies this analogy between data and information several times, for example, when explaining that "Google's market power is based on the information it possesses, such as its capacity (big data)" (p. 161), or that "restrictions on the portability of advertising campaigns/data are treated as a refusal to provide interoperability information" (p. 184).

   This approach neglects the fundamental distinction between data and information. Data are raw material, some would say, collections of recorded values. Information is data that has been

processed to be subsequently exploited. For example, all the searches carried out by a user generate data, which is then processed to establish a profile (information). The book overlooks this difference and, consequently, deals with how to grant access to data (using APIs, p. 205) while reaching conclusions on the importance of EU competition law to impose access to information (p. 299). This confusion makes the approach quite static. Because it presumes that data and information are interchangeable concepts, it does not address the process of transforming data into information. The analysis thus compares two photographs, one for data (before), the other for information (after). One may regret this, as looking instead at the film has a lot more to teach us.

At the market level, the process of transforming data often explains the creation and maintenance of dominant positions. Indeed, today's internet giants are mostly selling information, not data. Therefore, it is not the single ability to "gather equally significant volumes of users' data" (p. 162) that could enable competitors to capture market share, but rather their ability to obtain this data *and* process it afterwards. Some markets require rapid processing (e.g. to maximize the probability of converting an internet search into an act of purchase). Others require innovative processing (e.g. to offer a personalized algorithm to social network users). They come with distinct competition issues.

At the firm level, the transformation of data into information leads to understanding the implementation of several practices that the author describes as anticompetitive. For instance, when companies affect "the quality of information to be accessed by users through search bias" (p. 213), the practice is tied to data processing rather than data capture. In the end, looking at the treatment rather than the mere possession of data (p. 38) requires entering the internet giants' black box.

Perhaps fortunately, the European Commission has also been reluctant to dive into the issue of data processing, often preferring quantitative analyses. The *Google Shopping* case (2017) is a great example of a static analysis in which two photos (before and after applying a different algorithm to competing price comparison websites) replaced a counterfactual that could have captured the market's dynamics. This explains why Mäihäniemi's book remains highly relevant for understanding the current case law.

At times, the book is even prophetic. For example, the author calls for paying greater attention to the issues of access to information (p. 277). Emphasis is placed on so-called self-preferencing practices – which are dealt with in the Digital Markets Act proposed in December 2020. The author of this book however diverges from the Commission, which plans on making the practice *per se* illegal. Instead, the book suggests following a case-by-case analysis (p. 285), which, as a matter of fact, is in line with several decades of case law, making competition law a more empirical field than it used to be.

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