

Connected cars

Navigating the competition law implications

A defining element of the digital economy is that services are provided for free to consumers. The *quid pro quo* is that the service supplier (for example, Google) can monetize the data generated by the consumer, often in ways in which the consumer is not fully aware. Based on this business model, future car manufacturers (known as original equipment manufacturers, or OEMs) might sell cars to consumers at a reduced price in return for using the customers' data. A primary issue to address, if this is the case, is how best to navigate competition laws to enable OEMs to meet their goals and compete more effectively.

It is commonly recognized that an autonomous car will produce more data than any current data-generating activity. Ford's Chris Brewer, Chief Program Engineer, Autonomous Vehicle Development, stated in December 2016 that the company's next-generation autonomous development vehicle will produce one terabyte of data every hour – more than the average person would use in mobile phone data in 45 years.¹ It is also generally recognized that connected cars will communicate with other cars. These two points mean that the holder of this data will have an extensive amount of data about people's movements and the environment in which they are moving. This is fundamental data that likely can be monetized in many ways.

The more cars for which a business "owns" the data, the more useful and more value the data has, because the ability to monetize data increases as the scale of data held increases.

If you own the car, you own the data

A key question to address is who owns the data? It would seem that the best response is another question: who owns the car?

The vast majority of consumers answering this question would say, "I own the car." Yet that natural response, even under current business models, is likely incorrect. For example, a company car will be owned by the company, so a very large enterprise, such as EY, might claim to own a global fleet of over 100,000 cars. Consumers who purchase a car using third-party finance – a bank, a specialist finance company or an OEM's captive finance arm – know that the car is owned by the finance company until the loan is repaid. Finance company ownership is significant. In the United Kingdom, for example, approximately 75% by volume and 57% by value of privately purchased cars are via finance companies.² If the finance company owns the car, then, given the potential

1. Chris Brewer, "Building Ford's Next-Generation Autonomous Development Vehicle," *Medium website*, <https://medium.com/@ford/building-fords-next-generation-autonomous-development-vehicle-82a6160a7965>, 28 December 2016.

2. Dave Brown, "Number of cars bought on finance grows by six per cent," *Car Dealer Magazine website*, <http://cardealermagazine.co.uk/publish/number-of-cars-bought-on-finance-grows-by-six-per-cent/93188>, 10 July 2015.

value of the data generated, the same company can be expected to seek to own the data. On this premise, it can be foreseen that car finance contracts will require the consumer to assign all rights to the data generated by the car. It will be interesting to see if such assignment clauses become standard. It would seem this is likely, unless a separate market exists for consumers themselves to monetize the data produced by their car.

OEMs should consider the benefits of their captive finance arms, which could offer better-than-market terms in order to win customers, and thus own the data generated by customers' cars.

A customer that decides to purchase a car will have done so as a result of many influences. The price of the car will be a critical element. In the traditional business model, an OEM has a natural reluctance to lower the purchase price of a car. With connected cars and the ability to monetize the data generated, the OEM could share some of the future revenue with the customer. This could be done by estimating a total lifetime revenue stream for the average customer and reducing the purchase price of the car by an amount that is related to this estimated revenue. An alternative would be not to lower the purchase price, but instead share the revenue stream with the customer on an agreed basis. For example, the OEM could send regular payments to a customer. This may also generate additional customer loyalty and open a channel of communication to a customer about future product developments. In a competitive market, several different outcomes are possible, with OEMs potentially choosing different options.

A presumption made above is that all customers are treated

OEMs could share the revenue from a customer's data stream, thus creating a new customer contact and additional customer loyalty initiative.

equally. That is likely to be suboptimal. A customer that drives a greater distance and who drives more in urban environments would generate more data and thus be more valuable to an OEM. While a revenue-share model will naturally take account of such customer differences, other models might not. For example, an OEM might decide to offer a larger discount from the purchase price depending upon the "value" it attributes to a customer (high mileage customer = larger discount). Pursuing that route may come with its own issues in relation to perceptions of price discrimination and customer fairness.

OEMs, their suppliers and other stakeholders

So far the viewpoint expressed has been that of the OEM. Suppliers, both Tier 1 and those further down the chain, have an interest in generating revenue from connected cars. Some will be better placed to seek their own touch points to customers. For example, wire harness suppliers, by providing the electrical network and many electrical endpoints (sensors and, increasingly, data transmitters), are well placed to seek to obtain data from customers. A potential development is not only an ever-closer relationship between OEMs and their suppliers, but also new forms of partnerships, such as what EY calls "industrial mash-ups."³

Other stakeholders already have or will have touch points with a customer's car – for example, Uber, Apple and Zipcar. Each stake relates to the car or to the customer. For example, a customer will have her iPhone with her during the journey and may be streaming similar data to Apple as the car is streaming to the OEM.

What EY calls "industrial mash-ups" could be created as a result of the monetization sought by multiple stakeholders.

3. For an overview, visit <http://www.ey.com/gl/en/industries/technology/ey-top-of-mind-global-industrial-mash-ups>.



The competition law issues

Competition laws address three aspects of doing business, namely (1) the ability of a business to buy another business or enter into a joint venture or similar strategic partnerships (“transaction review”); (2) the extent to which two or more businesses can agree to cooperate or do business with each other (“anticompetitive agreements review”); and (3) the ability of a business that is dominant to undertake business practices that may negatively impact the competitive position of third parties or abuse or exploit customers (“abuse of dominance review”). It should be noted that in some countries the concepts of and application of competition laws overlap with consumer protection laws and broader commercial laws relating to unfair competition.

In relation to the points raised in this paper, the following competition law issues and potential solutions are identified.

While this paper doesn’t address the issue, it must be underlined that an important issue is the extent to which a customer may automatically have rights over that data, or at least have rights in relation to that data that are protected. Such data protection rights must be addressed by the OEM.

Land grab

Two or more stakeholders may seek to gain the advantage by requiring the customer to recognize that all data generated by the car belongs to the stakeholder. This could be the case, for example, when an OEM sells a car that is acquired using third-party finance. Here, both the OEM and the finance company may wish to monetize the data.⁴ In this scenario, it would likely be important for the OEM to be able to provide finance through its captive finance arm and to offer a finance deal that on a stand-alone basis beats the competition. Care should be taken as to “how low” the captive finance company goes; meeting the competition is a valid strategy under competition law, but low-balling can raise issues.

An alternative to consider takes advantage of the fact that digital data is replicable, so the data generated by the customer’s car can be given both to the OEM and to the finance company. It would then be for each to seek to monetize the data in the best way possible. Under this alternative, the agreement with the customer would be nonexclusive, or more accurately, in the case of the OEM, exclusive with the exception of the specifically identified finance company, and vice versa. Such a partial exclusive agreement should receive little attention under competition law.

A hybrid is for the OEM to have such a partial exclusive agreement, but in relation only to a preferred finance company. This may allow the OEM to enter into a stable commercial relationship with a third-party finance company, and so avoid the transaction cost of frequently having to negotiate with many individual finance companies. Such an agreement will require a detailed anticompetitive agreement review.

4. While a finance company may not have the ability to monetize the data, it could license a third party that does have the resources and skills to do so, or it could seek to sell the data to a third party.

Data pooling

An OEM may decide to pool the data generated. Data pooling has the commercial advantage of creating “big data” and thus recognizably a greater ability to monetize the data. Data pooling agreements, particularly with competitors, would be subject to an anticompetitive agreement review, and care should be taken to avoid such relationships being channels for collusive conduct. But properly constructed, data pools, even with competitors, are compatible with competition law.

Selling a car for \$1?

To date, commentators’ studies have focused on the value of product packages that enable a car to be connected and provide a specific functionality as a result – for example, a motorway pilot that automatically drives the car while it is on a motorway. One commentator estimates a total value of EUR140 billion by 2022.⁵ There are no supported estimates of the revenue that could be generated from the data itself. However, a 2013 study by GSMA and SBD estimated that global revenue from connected cars would be EUR40 billion in 2018.⁶

For the most valuable customers (metrics to be determined), an OEM might sell a car with a very high absolute discount in return for the customer’s agreement that all data generated belongs to the OEM. Such a high absolute discount might more readily be offered at the rollout phase, when the OEM is seeking to obtain scale and thus greater value for its data. While a very high absolute discount might seem speculative for OEMs with a high average unit revenue, such as Mercedes Benz (EUR40,621), it

may be less speculative for an OEM with a relatively low average unit revenue, such as Suzuki (EUR8,288).⁷ The question then is whether selling cars at materially below market price for comparable cars raises competition issues. In brief, and perhaps surprisingly, it likely is not an issue because low pricing, even pricing below the OEM’s cost of manufacture, would only be a concern if an OEM was in a dominant position. Given that even the largest OEM in its strongest markets has not to date been found to hold a dominant position, the preliminary view is that such pricing would be acceptable. Should such pricing become common in a market, such as a particular country, there may be allegations of collusive conduct designed to keep out new entrants, so keeping an eye on what the competition is doing would be necessary for compliance purposes.

In addition, similar conduct by the leading OEMs can prompt competition authorities to conduct an investigation into the sector on the suspicion that the market is “broken” because competitive outcomes are not naturally occurring. Also, leading OEMs acting in a similar manner could be subject to an abuse of dominance review on the basis that the conduct of this collective of OEMs is an abuse. Regular competition law checks on the actions of competitors will enable flagging potential issues before they become real issues.

In relation to sharing revenue with customers, competition issues should not arise. However, the contracts would need to be drafted carefully so customers understand what they were signing to avoid a breach of consumer laws designed to protect “vulnerable” customers from sophisticated businesses.



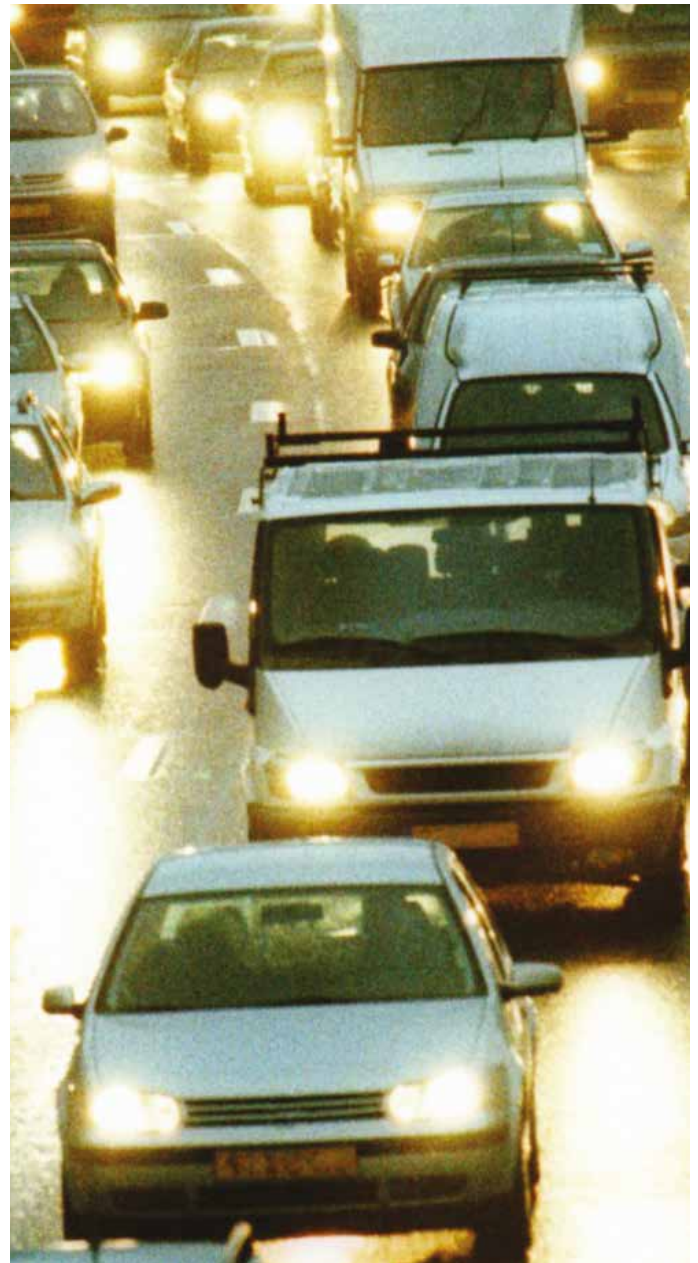
While connected cars offer multifarious and profitable business models, OEMs should also pay attention to data privacy. As masses of data are collected, processed and linked in the digital era, privacy law becomes more and more important as both, a matter of compliance, but also a competitive advantage. Against the backdrop of the new EU General Data Protection Regulation (GDPR) coming into force in May 2018, OEMs prospectively will have to fulfill stricter requirements, for example regarding data subject rights, and the supervisory authorities will enforce such requirements and sanction data breaches with fines of up to 4 million euro.

Dr. Peter Katko, EY Law, Global Digital Law Leader

5. *Connected car report 2016: Opportunities, risk, and turmoil on the road to autonomous vehicles*, strategy&, <https://www.strategyand.pwc.com/reports/connected-car-2016-study>, 28 September 2016.

6. *Connected Car Forecast: Global Connected Car Market to Grow Threefold Within Five Years*, GSMA, https://www.gsma.com/iot/wp-content/uploads/2013/06/cl_ma_forecast_06_13.pdf, February 2013.

7. See figure 4 in *The World’s Car Manufacturers 20th Edition* (Automotive World, 2017).



Price discrimination

Charging different customers different prices is not itself a breach of competition law. However, for many people it simply feels wrong, and the financial benefits to an OEM having different prices according to the estimated value of a customer's data may not be worth the consumer backlash and even potential political interference. Discriminatory pricing arguably would occur between two sales where each customer received a discount according to the estimated value of the data that would be generated by the customer. However, discriminatory pricing would seem unlikely to be a credible "consumer-led" allegation if a data revenue shared model is adopted by the OEM. If the agreement is to share 20% of the data revenue with a customer, and then if the data generated by one customer means it gets more in absolute amount compared to a low data-generating customer, this is not even on its face discrimination. Instead, it is the OEM paying the former customer more for generating more data.

Industrial mash-ups

EY's definition of industrial mash-ups applies the following three sharing economy principles to business-to-business opportunities:

- ▶ Sharing services/data or property (that is, capital assets) via increasingly automated methods
- ▶ Separating the original, or orthodox, value of a service or asset from potential new business value
- ▶ Integrating other organizations' specialized services into your own solution



Fundamentally, the sharing economy exists because of the idea that you can separate, or detach, new kinds of value from an underlying physical thing. You're able to use your car as a transportation service, or use your apartment as a hospitality service, because another organization has built an easy-to-use, automated transactional environment on the internet with new kinds of usage terms that depart from standard lease contracts.

Jeff Liu, EY Global Technology Industry Leader, TAS

Industrial mash-ups are likely to be of interest, indeed necessary, to OEMs' strategic thinking because many of the skills and tools needed to monetize data generated by customers may not be available to the OEM, or simply the OEM wishes to generate the revenue but not commit to making the monetization of generated data part of its core business.

Industrial mash-ups, when they create structural change, may be subject to transaction review. They likely will be structural when they are intended to be long-lasting and where the venture has itself all the resources necessary to address the market. Most transaction reviews will merely be process issues, but there are risks in jumping the gun on the venture before consents are obtained, so advice should be taken at the first stages of conception in order to avoid breaches of the law that can lead to material fines.

Where the industrial mash-up is not structural, an anticompetitive agreements review will likely be required. Such review should commence at the conception stage and continue until documents are signed. The review will confirm that commercial bargains are not struck on the basis of terms that could be challenged, potentially going to the heart of the economic basis for the project.

The digital hand and competition law

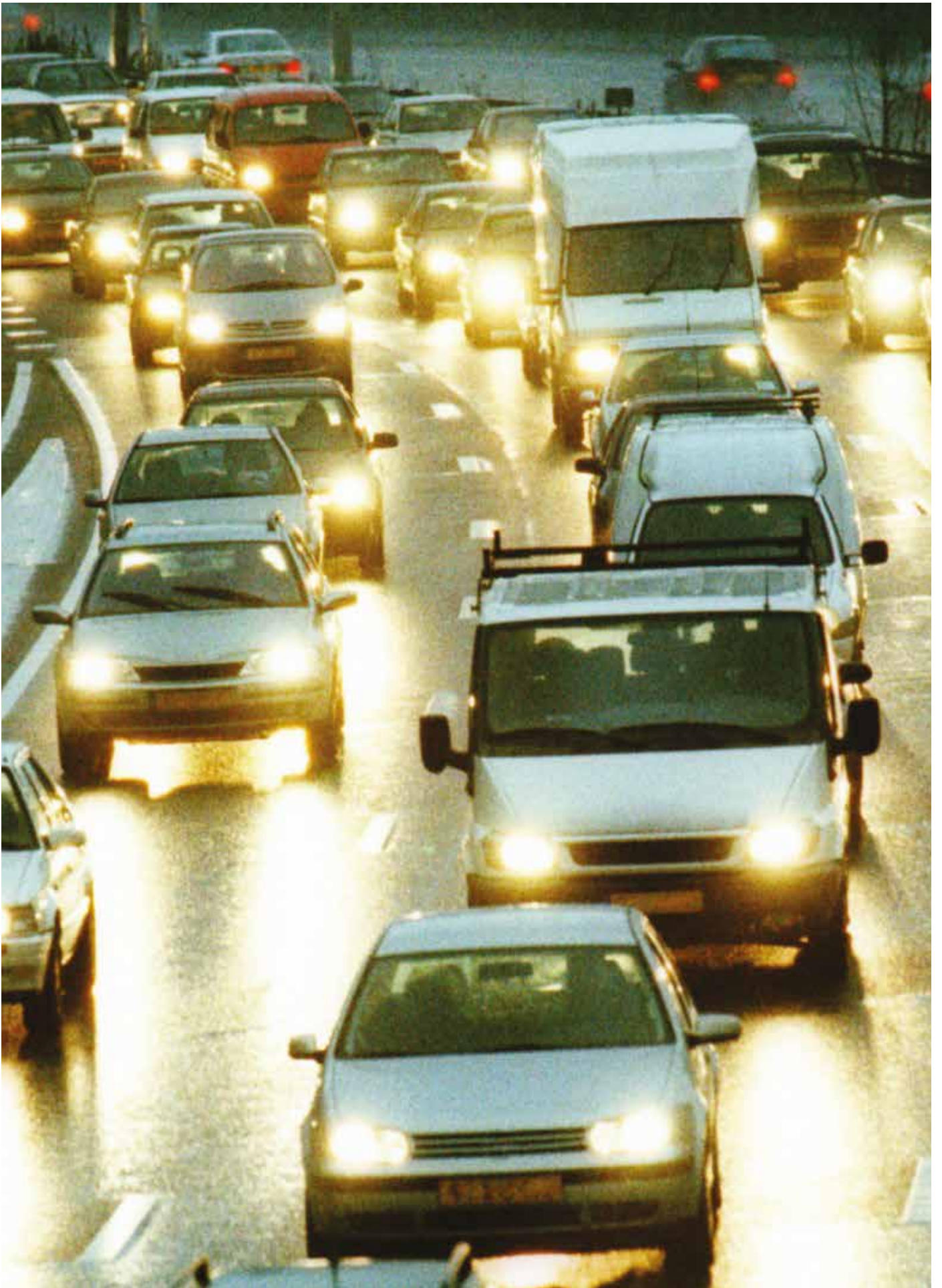
In relation to the new economy, some commentators have suggested that Adam Smith's invisible hand is being replaced by the digitized hand.⁸ The same commentators suggest that a consequence is that the norms of competition policy and competition law are ill suited to the issues raised by the new economy. While the academic debate continues, policy is discussed within government, and the government agencies that enforce competition law take a mixture of tentative and bold steps. Thus, predicting outcomes has become harder than ever. What is clear, in an environment where clarity is lacking, is that continual reflection on the application of competition law related to OEMs and how they generate revenue is critical to avoid breaches that typically result in extremely high levels of fines.



About the author

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8. See, for example, Ariel Ezrachi and Maurice E. Stucke, *Virtual Competition: The Promise and Perils of the Algorithm-Driven Economy* (Harvard University Press, 2016).



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