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Disruptive innovation and implications for competition policy

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European University Institute
Department of Law

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Abstract

While competition is good for consumers and economies, competition rules alone cannot necessarily produce adequate outcomes for all circumstances. Other norms, particularly regulatory norms, are also often likely to be relevant. The current legal and policy debates about ‘disruptive innovation’ highlight the need for a healthy mixture of competition and regulation. This paper offers a series of reflections arising from the challenges posed by disruptive products, services and business models. These reflections cover matters such as the capacity of legal procedures to keep pace with rapidly changing market environments. Competition advocacy can help regulators decide controversial points. The paper discusses several sectors, such as the car-riding and overnight sleeping sectors, in which different interests must simultaneously be accommodated within the boundaries of national tradition and European Union law. As discussed, some of these matters have now been adjudicated by the EU Courts. The related subjects of the acquisition of data as well as the requirements of privacy and data protection principles are also considered. The paper reflects on the role of network effects and on the difficult choices to be made with regard to the wisdom of relying on competition law or on the nature of innovation itself to deliver appropriate responses to the growth of network-based economic power; and the paper notes but does not suggest a remedy for the problem of delay as inimical to effective judicial review.

Keywords

Competition Law, Disruptive Innovation, Regulation of Disruptive Products and Services, Big Data, Internet Privacy

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Summary thoughts*

I have two and a half, possibly three, thoughts to contribute in this paper. The first is that while competition with a small ‘c’ is obviously good for consumers, good for opening up choices, good for injecting novelty into the marketplace, and good for rewarding risk-taking innovators, we cannot rely on the Competition Rules (with capital letters) alone to deliver adequate outcomes. This is not because the rules are too vague—indeed, their high level of generality should be an asset in flexibility—but because other norms are also relevant.

Competition authorities should have a seat in the stadium where the new rules are battled over, but they should not aspire to decide the outcome of the contest. The regulatory concerns cannot be dismissed on the ground that consumers will be better off with more competition. In the case of two huge disruptive waves of innovation, in the car-riding and overnight sleeping sectors, public regulations of the marketplaces were and are extensive, reflecting genuine public policy concerns, some more persuasive than others. The quality of the regime and the quality of the services delivered are very relevant to how the regulator should decide. Competition advocacy is very important, and its capacity to recognize failures, abuses and ugly bullying practices is an important role. But competition law should not prevail automatically over all other legal norms.

The second thought is that the conventional stately rhythm of decision making, subject of course to sceptical, respectful, rigorous and thorough judicial review, may be too slow for effective intervention. I realize that I have written frequently about the need to improve due process rights in procedures before the European Commission; and I realize that perfection and effectiveness in enforcement are not easy to reconcile. The speed of change in the marketplace is sometimes astonishing. Massive alterations in how we interact with new technologies can occur in a few months, far faster than a properly conducted competition case. There has been a tendency to settle dominance cases in Brussels, which means no judicial review at all in a field where there are very few cases. One possible reaction would be to suggest that we need more interim measures initiatives from the enforcers: not quick and dirty, but a provisional intense assessment of a problem. Possibly the decision should describe the principles at stake rather than prove a condemnation in a thousand paragraphs. Our recently acquired rules on expedited procedures might help, but speed has a cost. Alternatively, we could be rethinking traditional approaches to remedies.

The third thought is rather gloomy: rather than a helpful observation, it acknowledges a problem which sounds insoluble. In the case of a sector which is regulated, we can hope that regulators will intervene, and that competition law can correct or constrain the acquisition of dominant power. Disruptive innovation involving platforms which are data-driven seems much more difficult to control or moderate in the public interest. The platforms become stronger and richer as the weeks go by, and expand into new sectors which were unimaginable 20 years ago, and were still fanciful 10 years ago. Characterizing product innovation as itself abusive does not seem attractive as a matter of policy; nor is compulsory dismembering of a successful firm. But we do not yet seem to possess satisfactory mechanisms for delivering better conditions of competition in such situations. I am not condemning, just wondering doubtfully.

* The author is Honorary Professor at the University of Glasgow and Judge at the General Court of the European Union. These remarks are very obviously personal comments for an academic gathering which I have attended since its inception in 1995. They certainly do not reflect the Court’s view on anything. I thank my colleagues for stimulating ideas.

Speed and unpredictability

The swiftness of commercial developments can be amazing. New products emerge, succeed, fail or survive at a pace which astonishes a person over fifty. The personal histories of the founders of two of the most shockingly disruptive new businesses, Uber and Airbnb reveal early failure, early problems, personal dramas and, in a quite short time, vast wealth (from student grunge to billions of turnover in 6 years), momentum and success for the organization.¹

Disruptive innovation probably means not an improvement on the established way of doing things but a completely new manner of approaching the market. There has been a transformation of the market for music. Pianos used to be made and sold in vast numbers, since ordinary people enjoyed music-making, and sheet music was a thriving business. Then radio offered live and recorded music. Pianos are much rarer today, though of more consistent quality. Phonographs and gramophone records gave way to tapes, then the Walkman, and the laser-reading CD player and the Discman, and now we can stream music on smart phones for a very attractive price. Much technological creativity was devoted in the seventies, eighties and nineties, rather than monetizing consumer appeal, to thwarting the growing technical capacity to play music or films without paying royalties. The inventor may discover that the invention leads off in unexpected directions. (As Thomas Legrand of France-Inter has noted, one of the fathers of the gramophone believed that the new machine's principal application would be to preserve the voices of the dead.²)

Amazon has upended the world of retailing by delivering at speed, regardless of the cost or need, almost anything most people are likely to want. It has established a concept supermarket in Seattle where the customer's presence in the shop is identified (maybe via an app on the customer's phone) and the customer's picking up and removing or replacing a head of broccoli is recorded. The customer leaves without any check-out and his credit card is debited for the purchase. Amazon is a massive disruptor.

The unpredictability of events and whether a new product / service / app / game will be successful can be equally astonishing. It was not obvious that Uber would prevail over Lyft. Maybe it will fail. Vivino is an app which allows wine lovers to take a picture of a wine label, then pauses for a few moments, then reports on where the wine comes from (unless it is unrecognized rotgut), advises on what other drinkers say about it, and in what nearby shops it can be found and at what price. Great fun, tremendously ingenious, harmless, pro-competitive and excellent for enhancing oenological snobbery: a completely novel idea (at least to me) which has been successful. I use Vivino much more often than Snapchat, which allows the user to send an image to a friend and to arrange the settings so as to delete the image from the friend's phone after a certain time. Spotify and other streaming techniques allow users to access a huge catalogue of music without having to own or store it. I cannot guess at how many millions of songs are listened to every hour on smart phones around the world.

The levels of unpredictability and ignorance (ignorance enhances unpredictability in this area) are very high. I recollect deciding not to invest in Google in the 1990s, since I could not see how a free internet browsing site would one day make money. I know of an excellent lawyer who achieved by internal promotion exceptional success in a famous giant of the IT age. What could be a more glittering prospect? Yet shortly thereafter he left to join a company whose name I did not even know.

The phenomenon of unpredictability and risk is by no means confined to grey-haired lawyers. Several famous names have confronted massive existential challenges which put their future at risk or at least in question. Facebook had to cope with customers' lurch to mobile smart phones—and did so amazingly rapidly. Fake news and the massive public anxiety about the influence of the malignant over the ignorant and the naïve may well present another existential challenge. Apple lurched through commercial

¹ *The Upstarts*, by Brad Stone, just published by Penguin Random House, gives a lively, thorough account of their history.

² Thomas Lagrande, 'Macron ... Disruptif ?' (5 October 2016), <https://www.franceinter.fr/emissions/l-edito-politique/l-edito-politique-05-octobre-2016>.

disasters in the 1990s. Microsoft had celebrated litigation battles about its business model of an ever-expanding range of technical features presented by Windows, as well as problems related to spam and junk mail. IBM in the last century was a prime antitrust target in both the US and in Europe.³ Amazon's social model is harshly criticized.

The surprises are not confined to the pleasures of music, wine and pictures: currency itself is now on offer in electronic form, often called crypto currency, of which the best known is Bitcoin. The very idea of a currency which is 'homemade' not issued by a central bank is extraordinary. It is a deflationary currency whose algorithm has a maximum predetermined number of coins (about 21 million) which can be 'mined'. Thus, a bitcoin holder in Venezuela will be able to avoid the consequences of local hyperinflation. The value of the currency is rooted in the difficulty of creating the next unit of currency: its security contributes to its value. Those who dislike or distrust public authorities trust instead in the power of computers on a peer-to-peer network to manage the process of 'mining' more coins. They do not need a treasury official or a central bank for purposes of authentication of the unit of currency. The blockchain creates a private secure platform, which is totally independent of government and immune to fluctuations in the price of gold. The value of the digital token (the bitcoin) varies but the underlying token remains secure. About 16,300,000 have thus far been 'mined' with a theoretical value of about \$34 billion. (Early adopters who lent their computing power to the mining effort were part of a hobby movement which led to the emergence of a real market that was the launch pad for today's thriving business scene which is backed by many supporters and huge computing power.)

Bitcoins and other crypto currencies are traded on a secondary market. The value of the first bitcoin transactions was negotiated by individuals on the *bitcointalk* forums with one notable transaction of 10,000 bitcoins used indirectly to purchase two pizzas. The values have ranged from \$0.003 in 2010 to \$31.00 in 2011 and to \$2209.29 in 2017. This anecdote illustrates how something incapable of being imagined before the advent of huge privately accessible computing power has become a big business. The technology is getting support for other decentralized secure networks like 'Ethereum' which offers a virtual currency and means of rendering services for payment in the currency.

Twenty years ago, Google was a cheerful aid to internet searching. Nine years ago, Uber was experimenting with how to bring taxi drivers and clients physically closer. Today, driverless cars move (cautiously) round the Google campus. Uber is delivering millions of rides around the world. Thomas Friedman suggests that by the time the regulation of ridesharing has been perfected, driverless cars may have made those rules obsolete.⁴ He further suggests that understanding a new technology and regulating it intelligently needs from 10 to 15 years, but then notes that the technology may have passed through success, then dominance, then decline, in seven years.

Examples of noisy regulation

Regulations are the subject of debate, as they should be in a democratic society. The controversy may relate to safety, tax, insurance, morality, traditional well-established values, pitting mastodons versus nimble creators, technophiles versus old incumbents, and of course new money versus long invested patterns and barriers to exit. I have the impression that the experiences of Uber and Airbnb have involved fiercely contested lobbying in which neither side (call them disruptors opposed to traditionalists) had an obvious advantage.

³ Apple and Uber despite their success confront real competitors. The transportation company Lyft, launched in 2012 and present in 200 cities in the United States, works similarly to Uber and offers multiple levels of services through its smartphone application. As for smartphones and mobile computers, Samsung is one of Apple's main competitors, with the Android operating system running on its phones and tablets.

⁴ Thomas Friedman, *Thank You for Being Late* (2016).

The Uber story is a good way of illustrating my first proposition. In a number of states in the United States, cars which carry more than one person are entitled to use an express lane while cars with a solitary driver fume in slower traffic lanes. This phenomenon led to the birth of ‘ridesharing’, which was in its turn boosted by the mobile phone (smart phones came later) and the availability of computing resources to plot routes so that sharers and drivers could get together. Originally Uber allowed only licensed taxi drivers (or black limousine drivers) to use its system. That eased the safety and insurance concerns. Then a competitor went further: allowing any private citizen with a driving licence and a car to collect passengers who were nearby as identified by a telephone app. This step helped transform sprawling suburbs with no public transport and few taxis. Ordinary citizens with a car and time on their hands could make some money. Uber was unsure if such a step was lawful, but it wanted to chase its competitors who did not have such hesitations.

There ensued a fierce session of passionate advocacy as California grappled with what line to take about ridesharing companies. Uber’s leader, Travis Kalanick, proved to be an unorthodox but unusually successful lobbyist. Instead of being bland and cuddly, he was ferocious and confrontational. He summoned up hundreds of e-mails from liberated Uber fans who either drove Uber cars or used them. The local taxi model was unsatisfactory in many ways. The battle was loud and vigorous. His legal team coined the term ‘Travis’s Law’ to describe his approach:

Our product is so superior to the status quo that if we give people the opportunity to see it or try it, in any place in the world where government has to be at least somewhat responsive to the people, they will demand it and defend its right to exist.

The taxi cab lobby was vociferous and the voices of Uber, Sidecar, Zimride and Lyft were all heard clamorously. Finally, there was a decision to legalize ridesharing’s commercialization by licensing ‘transportation network companies’.

Parallel but different conversations occurred in major European cities. Indeed, two cases were brought before the ECJ, one from Barcelona⁵ and one from Lille.⁶ In the Spanish case, Uber Technologies Inc. argued that it provided technical, organizational and other resources whereby both the platform providing the service and the vehicle owners were remunerated. Uber Technologies did not hold the administrative licences and authorizations referred to in the national legislation governing taxi services; nor did the owners and drivers of the vehicles have the licences and permits referred to in those rules. On the other side, a taxi drivers’ association in Barcelona argued that the fact that the defendant lacked licences and authorizations amounted to a breach of the provisions governing competition in Spain: Uber, it said, enjoyed an unfair advantage and deceitfully indicated to the user that the service provided was lawful. So, did Uber Systems Spain provide a ‘transport service’ in Barcelona? Or did it provide an ‘information society service’ covered by the ‘Information Society’ Directive 98/34⁷ or a ‘service in the internal market’ within the meaning of Directive 2006/123?⁸ Services falling within the scope of the two Directives present the advantage of not being subject to any prior authorizations and are, in principle, immune to any restrictions in accordance with the principle of freedom to provide services. In the end, the Grand Chamber of the Court of Justice held that a paid service employing a smartphone app to connect non-professional drivers using their own vehicle with persons making urban journeys was inherently linked to a transport service and hence was to be classified as ‘a service in the field of transport’. Such a service fell outside the scope of both of the Directives.

⁵ C-434/15, *Asociación Profesional Elite Taxi*.

⁶ C-320/16, *Uber France*.

⁷ Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services, OJ L 204, 21.7.1998, p. 37.

⁸ Directive 2006/123/EC of the European Parliament and of the Council of 12 December 2006 on services in the internal market, OJ L 376, 27.12.2006, pp. 36-68

In the French case, Uber France was accused of misleading commercial practices (i.e., the publication on its websites of commercial communications encouraging consumers, drivers and users to participate in a transport service provided by private individuals for money, giving the impression that the service was lawful). Uber France replied that the purpose of its services was to put individuals in touch with one another, so that they could share a common journey, in the spirit of a ‘collaborative economy’—a French version of Californian ridesharing. The defendant argued that its services were not organized with the intention of making a profit and were instead a simple technical aid which enabled individuals to get in touch. However, the referring court was sceptical and noted that Uber France was recruiting and selecting drivers who wished to perform paid work, not merely to share a planned journey with another individual. Further, Uber fixed the rates and received payment for the journey, from which it deducted its own remuneration before paying the remainder to the driver, and it prepared the invoices. The status of the various parties involved in the process was ambiguous: the driver was somewhat like a professional but could be an amateur; while the person carried was a customer who paid for the transport but could be described as someone who merely shares a journey and makes a contribution to the costs. The French court expressed a concern that requirements relating to the carriage of the passengers, in particular those relating to safety and insurance, be respected.

Uber argued that the provisions of French law it had allegedly breached⁹ fell within the scope of ‘technical regulations’ which relate to the ‘information society’ services under Directive 98/34. According to this argument, since the provisions had not been notified to the Commission prior to their promulgation, they could not be enforced against the defendant. Advocate General Szpunar broadly rejected most of Uber’s contentions and considered that the service provided by the company was not an information society service but a transport service. From an economic perspective, he explained, transporting passengers constituted the main component of the service. He therefore recommended that the Member States should in principle be free to regulate Uber’s activity. The Grand Chamber of the Court ultimately confirmed that a national prohibition of an unauthorized system putting customers in contact with persons carrying passengers by road for remuneration was indeed a prohibition of a service in the field of transport. Here again, therefore, the service was excluded from the scope of both of the Directives.

That was Paris and Barcelona. As to London, former Mayor Boris Johnson—as of this writing the Foreign Secretary of the UK—was close to the vociferous taxi drivers of London, but must have disappointed them by saying that the regulators ‘could not disinvent the internet’. As a result, today Uber and other ride booking services are making big inroads on the use of taxis. London taxi drivers are passionate in lamenting the encroachment on their profession, entry to which is notoriously difficult due to the need to master ‘The Knowledge’—which is publicly and severely examined.

Airbnb had different but comparable experiences in many cities around the world. Should it be regarded as a wholesome vehicle for letting homeowners make a little money by admitting guests who want to spend a couple of nights in a distant city? Or should it be regarded as an underhand way of avoiding the extensive (and expensive) rules which burden small hoteliers? The hoteliers and the trade unions who defended hotel employees were maybe not as audible as a honking protest of cab drivers, but they did have an impact. And accordingly, in Paris, Tokyo, Portland, San Francisco and elsewhere regulations about taxes, fire escapes, and a maximum number of nights have been adopted. As recently as last October, New York adopted yet another attempt to strike a fair balance between the various interests. Regardless of these tussles, Airbnb reported that in 2016 it was responsible for more than 1,250,000 bookings *every night*.

I mention these debates at length because they seem to confirm that these questions are being well addressed (albeit diversely addressed) without relying on Articles 101 or 102. It is not my purpose to

⁹ Specifically, Article L.3124-13 of the Code des transports prohibits the organization of a system for putting customers in touch with persons carrying on the activities of the carriage by road for consideration using vehicles, where such persons are neither road transport undertakings nor taxi drivers.

suggest that either Uber or Airbnb is right or wrong or that it should or should not prevail in one or other of its regulatory battles. My point is that the competition rules are not a silver bullet which can target accurately and solve such a vast problem which presents difficulties and opportunities. Neither side was entirely happy, but neither side was paralyzed. Consumers are getting the benefit of choice. Competition advocacy has helped the regulator to decide.

Timing and Delay

Competition cases in well-respected jurisdictions are rarely completed quickly. In 2016, the average duration of proceedings at the General Court was 38.2 months in competition cases, which are commonly document-heavy and present multiple questions of fact and law. The average duration of all cases decided by the General Court was 18.7 months. The duration is going down, which is good news and which reflects a priority of the Court. But to consider the effectiveness of the process of enforcement we should look at the entirety of the time consumed, from the start of the controversy in the marketplace to the disposition of the case in court.

The courts are a vital part of quality control. This is an old debate. If we are too deferential, too ready to assume the public authority was right, the authority may become careless. But if we are too ready to second guess the authority's conclusions we may encroach on its duties. But whether robust or deferential (and after *Chalkor* and *Menarini* robustness is required) the outcome must be delivered promptly. Yet under today's conditions I would guess that from first complaint to DG Comp, through investigation, statement of objections, hearing, decision to appeal and judgement would likely consume at least four years. The bigger the market and the vaster the consequences, the more time is likely to pass. The time during which the controversial practice is in force would prolong the period, of course. That calls for a fresh approach. Four and a bit years may mean more than an entire business cycle.

I have serious doubts about whether the procedures we traditionally use are adequate for the task where the market place is moving faster than the enforcers and the judges. This is not a criticism, more an admission of uneasiness.

In some complex cases the delay can be much longer. In *Groupement des Cartes bancaires* (T-491/07 and C-67/13 P), the duration of the procedures has been about 14 years, from the first notification about the terms on which new banks would be admitted to the old banks' credit card system made to the Commission in 2002, to the judgment of the General Court in 2016. The Commission adopted two statements of objections, in 2004 and in 2006. In 2007, the Commission adopted a decision in which it took the view that the Groupement had infringed Article 81 EC (now Article 101 TFEU) by establishing a series of pricing measures with an anticompetitive object or effect. The Groupement appealed to the General Court, which dismissed the action in 2012. An appeal against this decision was brought before the Court of Justice. On 11 September 2014, the Court of Justice set aside the judgment of the General Court and referred the case back to the General Court, on the ground that the case requires an examination of complex questions of fact based on elements which were not assessed by the General Court in the judgment under appeal. On 30 June 2016 the General Court rendered its judgment.

The *Cartes Bancaires* saga was a lengthy one and involved more than one statement of objections, so it was not typical. But also *Microsoft*, *GSK Spain* and other big decisions took time to prepare, time to decide, and time to review judicially. Courts do not usually move swiftly, as issues are complex and parties need time to describe their arguments usefully. Big problems usually take more time. In a number of cases still under appeal parties have demanded and obtained compensation for the damages they suffered through not having received a judicial outcome in due time.¹⁰

¹⁰ In *Gascogne Sack Deutschland v Union* of 10 January 2017 (T-577/14) and *Kendrion v Union* of 1 February 2017 (T-479/14), the General Court ordered the European Union to pay compensation to the applicants for the material damage

As noted, the General Court now possesses an expedited procedure. The expedited procedure was used in *GSA and SGI v Parliament*, a judgment of 10 November 2015 (T-321/15), where the applicants had submitted tenders relating to the guarding of the European Parliament's site in Brussels. The contract had been awarded to another tenderer. The appeal was lodged at the General Court on 22 June 2015 and the General Court decided of its own motion to adjudicate the case under the expedited procedure, under Article 151(2) of its Rules of Procedure. The duration of proceedings (till 10 November 2015) was thus 4.5 months.

The application in the classical manner of competition law disciplines to technologies that are evolving swiftly may be problematic. Both enforcers and the judiciary need to reflect on whether existing procedures are appropriate in every circumstance. Speed is not impossible. The EU Commissioner in Porto at the ICN conference mentioned the possibility of interim measures as a means of accelerating disposition of cases while getting the benefit of possible judicial scrutiny. So it is not impossible to imagine solutions. But the current patterns of decision making seem too *chronophage* too time-consuming for modern technological markets.

The Special Problem of Data

The acquisition of data

I have described the current state of the tussle between disruptors and traditionalists involving ridesharing and home sharing, suggesting that the real problem of competition must involve regulatory choices as well as competition advocacy. My third comment relates to a sector where regulations are not very relevant to the basic business model. Although the success of Airbnb and Uber has been prodigious, the success of the FAANG five (Facebook, Amazon, Apple, Netflix, Google) has been beyond remarkable. The stock market value of these companies is 2.4 trillion dollars or \$2,400,000,000,000—more than all the world's car companies, more than the domestic economy of most countries. The price of an Amazon share recently touched \$1000, and on the same day Google's parent was at \$997. We know that wealth and size are not in competition terms a demerit. But the wealth and the size are awesome. The success of the industry leaders has been fuelled not by acquisition (though it helped Microsoft to buy Skype and Facebook to acquire WhatsApp and Instagram) but by the amassing of huge amounts of data which permit the intelligent targeting of future customers.

The internet offers many services for no monetary cost to consumers. When a consumer visits a website, she sees a collage of material: the kitten videos she is looking for, or the article on James VI and his family she needs for a history exam; links to other points on the site; tools for interacting with the site; and of course advertisements (along the edges of the screen, or possibly a video that will play prior to the chosen content). These advertisements are usually targeted, that is tailored for the specific visitor. If I look at a page in the court, Luxembourg restaurants are brought to my attention. This is not accidental. A complete cycle has been completed, beginning with an analysis of the space available for the ad (the physical dimensions of the screen) and a review of the visitor's personal interests based on prior browsing and shopping history (compiled from the cookies present on the user's system—small packets of code the system is able to read and which have a 'fingerprint' that tells the site where the user has been and what she has done in the past). Based on this analysis, among other criteria, certain advertising agents that might be interested in trying to sell the user something (hotels, tools, toys, cosmetics, holidays) are notified to bid. The bidding process pits different ad agents against each other in an auction. The agents are programs or algorithms that analyse much of the same data as before, decide the maximum amount to spend to place an ad in front of the particular consumer (generally minute fractions of a cent per placement).

suffered by the company as a result of the breach of the obligation to adjudicate within a reasonable time. In both cases the length of the proceedings exceeded by 20 months the reasonable time for adjudicating.

This whole process takes just milliseconds, and most consumers never know that such a complex dance of machines is ever taking place. They just know they get free Google service when writing a paper on the foreign policy of the Stuart kings or when looking for a cute video to include in a birthday greeting.

The advertisement management companies (the ones who house the auctions) offer a service that advertisers want to pay for. The more advertisers are willing to pay, the more revenue a website can bring in. The more revenue a site can bring in, the more it can offer to its consumers and the more people will visit it. Thus, a virtuous (or vicious, depending on one's opinion) cycle is created. As a result, more and more data are collected on those who use the internet.

I was recently told of a man in the US who first found out he was to be a grandfather because his fifteen-year-old daughter had received a book of coupons in the mail from the local supermarket. The coupons were aimed at an expectant mother. His young daughter was obviously not a candidate for motherhood. He went to the store to complain and received apologies. A few weeks later when customer service called to reiterate the company's remorse, the man had to apologize in return. He was soon to become a grandfather. The shop had been able to tell this and a lot more about the daughter from her internet activity.

Privacy and data protection

Today the problem of intrusive snooping is somewhat separate from the handling of personal data from employment, communications, medical records, physical location records, personal biographical data and the like. I mention the topic to note that the field is not immune to regulatory concerns, but the most intense regulatory, privacy, touches a theme rather different from antitrust. Most data are stored at some point in an electronic format commonly on a third-party server, particularly in this age of cloud storage. Often, the third party is not in the same country as the originator, and may not even be on the same continent.¹¹ Huge server farms in Ireland, for example, store vast amounts of data from all over the world.

Sending an email to a private server or intranet may entail an electronic journey around the world and through multiple jurisdictions.¹² If there is a stored copy of that email available to the sender or recipient it will likely be at a server facility in relatively close proximity to the user. How that e-mail or data will be treated as far as privacy considerations are concerned varies greatly as between the EU and the US.

One European privacy law practitioner working in the US has noted that for many European professionals, it seems that the US lacks any privacy protection at all, while from a US perspective the privacy laws of the EU seem crazy in their restrictions and intrusiveness.¹³ Americans seem to focus more on the individual's responsibility to protect their own data through non-participation if they so choose, and on allowing all actors on the internet as little interference from the authorities as possible.¹⁴

¹¹ Google and Microsoft are two of the largest cloud service providers. While they are both expanding their global infrastructure, the majority of the material still resides in the US.

¹² See https://www.oasis-open.org/khelp/kmlm/user_help/html/how_email_works.html.

¹³ See <http://privacylawblog.fieldfisher.com/2014/how-do-eu-and-us-privacy-regimes-compare>.

¹⁴ See for instance 47 U.S.C. § 230, which states: 'No provider or user of an interactive computer service shall be treated as a publisher or speaker of any information provided by another information content provider.' This protects ISPs from defamation charges based on information posted using their services. See *Zeran v. America Online*, 129 F.2d 327 (4th Cir. 1997).

The laws amount to a curious mixture of freedom to act, freedom to contract, and a patchwork of organically developed statutory and common law protections of privacy and dignity.¹⁵

Circuit Judge Fuentes of the Third Circuit Court of Appeals captured the American outlook on the subject of privacy—a sluggish or lethargic acceptance that it might be an unachievable goal—quite succinctly:

Most of us understand that what we do on the Internet is not completely private. How could it be? We ask large companies to manage our email, we download directions from smartphones that can pinpoint our GPS coordinates, and we look for information online by typing our queries into search engines. We recognize, even if only intuitively, that our data has to be going somewhere. And indeed it does, feeding an entire system of trackers, cookies, and algorithms designed to capture and monetize the information we generate. Most of the time, we never think about this. We browse the Internet, and the data-collecting infrastructure of the digital world hums along quietly in the background.¹⁶

The European view of internet privacy

For many of the services that society needs to function, information must be collected and shared. For the efficient running of many businesses outside of the internet itself it is also necessary to share or move data from one entity to another, or at least from one jurisdiction to another even if it is under the control of the same entity. This is true in the banking sector, and insurance and health. Corporations with employees and customers around the world would wish to transfer data routinely. Originally, data transfer across the Atlantic was done through a ‘safe harbour’ agreement between the US and the EU.¹⁷ This agreement allowed the transfer of data to the US so long as the entity controlling the data conformed to standards equivalent in their level of protection to what would be required in Europe.¹⁸ This was ensured in the case of US companies by the publication of a privacy policy and submission to the jurisdiction of the Federal Trade Commission Act § 5 prohibiting application of ‘unfair or deceptive acts or practices in or affecting commerce, or [to the jurisdiction] of another statutory body that will effectively ensure compliance’ which would make that privacy policy fully binding.¹⁹

¹⁵ US courts have found that, by clicking on ‘I agree’, one is actually bound by the terms so long as the access and notice of those terms and conditions was presented or available in a manner such that a reasonable internet user could have known of their existence. See *I. Lan Systems, Inc. v. Netscout Service Level Corp.*, 183 F.Supp.2d 328 (D. Mass. 2002) (finding that online contracts were analogous to classic contracts; despite the form of presentation, the same rules apply for finding of their validity. By clicking ‘I agree’, the party manifested an intent to be bound); *Specht v. Netscape Communications Corp.*, 306 F.3d 17 (2d Cir. 2002) (where future Supreme Court Justice Sotomayor stated, concerning the validity of a contract that contained an arbitration clause: ‘Whether governed by the common law or by Article 2 of the Uniform Commercial Code (‘UCC’), a transaction, in order to be a contract, requires a manifestation of agreement between the parties.’ Here, a consumer’s clicking on a download button does not communicate assent to contractual terms if the offer did not make clear to the consumer that clicking on the download button would signify assent to those terms.’); *Groff v. America Online*, C.A. No. PC 97-0331 (R.I. Super. May. 27, 1998) (upholding the enforceability of agreements whereby a user, by continuing to use the site or service, agrees to the relevant terms and conditions); *Nguyen v. Barnes & Noble, Inc.*, 763 F.3d 1171 (9th Cir. 2014) (holding that some actual notice—more than a button on the bottom of the screen that would lead to a terms and conditions page—must be presented to the user in order for that user to agree to be bound by continuing to use the site).

¹⁶ *In re: Nickelodeon Consumer Privacy Litigation*, 827 F.3d 262, 266 (3d Cir. 2016).

¹⁷ The Commission implemented Decision 2000/520 under the authority granted it per Art. 25(6) of Directive 95/46. (‘The Commission may find, in accordance with the procedure referred to in Article 31(2), that a third country ensures an adequate level of protection within the meaning of paragraph 2 of this Article, by reason of its domestic law or of the international commitments it has entered into, particularly upon conclusion of the negotiations referred to in paragraph 5, for the protection of the private lives and basic freedoms and rights of individuals.’)

¹⁸ Decision 2000/520, Preamble recital (5).

¹⁹ *Ibid.*

This regime became controversial after 2013 with the revelations of Edward Snowden concerning the intelligence collections efforts by the US government. The safe harbour agreement was applicable to private entities and did not take into account the ‘lawful’ seizure of information by government entities that might seem to contravene the publicly stated privacy policies of those entities.²⁰ Max Schrems, an Austrian student privacy activist, brought a complaint against Facebook Ireland to the Irish Data Protection Commissioner (‘IDPC’), asking that the IDPC: halt the sharing of information between Facebook Ireland, the hub of Facebook’s European operations, and Facebook Inc.; investigate the potential for violations of EU law inherent in the newly revealed US collections regime; and review the safe harbour agreement in light of this investigation.²¹

The Commissioner initially refused to do so on the ground that the safe harbour involved determinations made by the European Commission and that a national authority could not review or overturn the Commission’s findings.

Ultimately the issue made its way to the Court of Justice in Luxembourg, which among other things found that the safe harbour was not adequate for the protection of EU citizens’ private data that had been transferred into US jurisdiction.²² The decision provoked considerable excitement and gave rise to new agreements between the US and the EU with greater assurances of privacy protections for EU citizens. Following an interim agreement in August 2016, the EU adopted its General Data Protection Regulation with extraterritorial reach, applicable to any entity that handles, transfers, or monitors the personal information of an EU citizen, wherever that entity might be.²³

In one sense, the *Schrems* case and its antecedents are irrelevant to the application of competition principles to ‘Big Data’. But in another sense the case demonstrates the high public sensitivity to the handling of data, and the difference between the European and American approaches to the handling of data. In another sense the history reveals a high level of sensitivity on the part of the public (and there are many different publics) about large firms, even though we use their services carelessly, casually, maybe recklessly. Should we blame the internet company for gathering the information? Is antitrust a relevant tool to control its conduct?

Network Effects and Unexpected Effects

There are competition law concerns. One is that possession of great creativity and great volumes of data can lead to new ventures in unexpected areas. Google has become a car designer. Facebook has become a news broadcaster. Amazon has become a book shop and may be soon a retail grocer. During the recent polls in Europe and America we have seen use of, and reliance on, social media to observe, to influence and to predict. It is possible to use what can be learned to predict tomorrow’s consumption patterns, or maybe to launch a trend or a movement or a fashion craze. (I learned the word ‘Nowcasting’ while preparing this paper). Fake news is another possible associated concern.

The more questions that are put to Jeeves (the legendary butler of Bertie Wooster in the novels of PG Wodehouse and the name of an early internet search interlocutor) the more Jeeves will learn and the more helpful and rapid will be his responses. Why bother to train a new slave if there is an experienced one on another platform? And very evidently, the more data that the customer has delivered to the data gatherer, the more valuably precise will be the prediction about which wines, rugby tickets, clothes or Bhutanese restaurants may tempt the customer. While often experience equates to expertise, I think that this process is turbocharged in the case of searches done by a richly endowed site. The more it knows,

²⁰ Decision 2000/520, Annex IV (B); C-362/14 *Maximilian Schrems v Digital Rights Ireland Ltd.*, pt. 89.

²¹ *Schrems*, pt. 27

²² *Ibid.*, pt. 36.

²³ See <https://iapp.org/news/a/weve-got-a-finalized-privacy-shield-agreement-whats-new-2/>.

the better it will be. Instead of tentative ideas it can make very precise proposals of attractive goods or services. The preciousness of the opportunity is confirmed by the fact that there has been an auction between offerors to decide who will pay for the privilege of a chance to catch the customer's eye.

And of course, we have known since the days of the elderly telephone companies that the attractiveness of a product increases as the number of other users using the same phone network grows. I speculate that even though we are offered a choice between search engines we are likely to use the one with which we are most familiar, and which generates answers at astonishing speed. On the other hand, alternatives are easily available—why not click on them? The answer is not clear.

Should competition law hope that in ten years' time another technology will have emerged? Or should it fear that the technical superiority of a dominant platform, richly endowed with data, will guarantee a permanently superior position? The answer is not obvious, and traditional notions about price are irrelevant when the consideration for the service is not monetary but the divulgence of insights into our own personalities, age, tastes, foibles and aspirations.

Competition law is a means of disciplining dominant players by subjecting them to the extra requirements of the special responsibility imposed by Article 102. It is not a cure for dominance, and dominance is not in itself an infringement. (But a company like Tetrapak, which has had a series of competition law confrontations with an enforcement authority, may possibly feel uneasy about taking commercial initiatives.)

One can imagine that the special responsibility might be said to include a duty on a dominant firm not to favour its own ventures or its own advertisers, not to discriminate between similar categories of user, and maybe a duty to share vital resources. Before concluding that there is a problem, however, the theory of harm needs to be clear, and the possible remedy must also make sense. It is not that it cannot be done, but reaching conclusions in due time is exceptionally difficult. These are important and uncertain questions. They present difficult issues of principle. I hope that judicial review of decisions about them can be performed in a timely manner such that the judgment emerges when it is still relevant.

