THE EVOLUTION OF ANTITRUST IN THE DIGITAL ERA:
Essays on Competition Policy

Volume One

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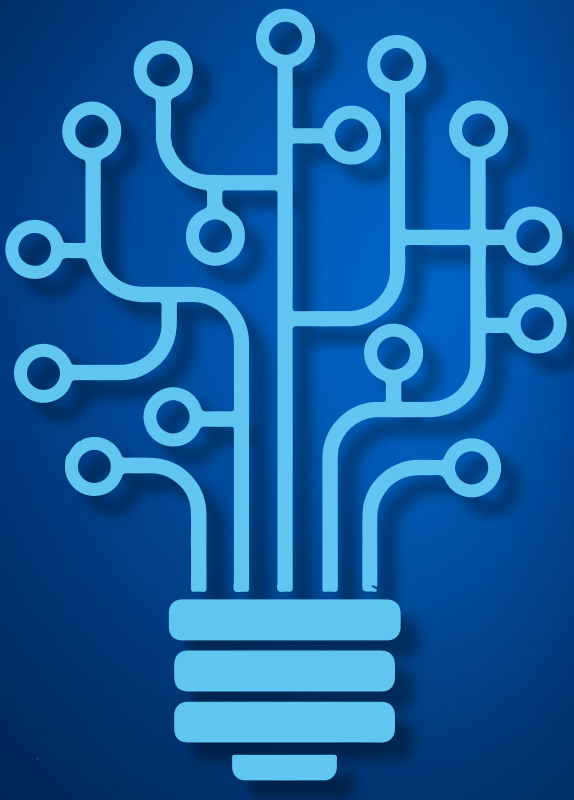

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Editors' Note

The story of antitrust is the story of technology. The essays in this volume tell the latest chapter in this ongoing saga.

In the late 19th century, the disruptive technology of the day was the railroad. In the expanding U.S., local railroads were bought up and consolidated into broad systems by the "trusts" that gave the Sherman Antitrust Act of 1890, and the resulting worldwide body of law, its name. Moving on from transport, various technologies have formed the locus of economic growth, and therefore of antitrust scrutiny, throughout the past hundred years or so.

After the railroads came Standard Oil, and its control over the key input for 20th century economic growth. Again, this was a reflection of technology, both in other industries' need for vast sources of energy, and the improved refining technology that led to scale in the oil industry itself. Antitrust enforcement, famously, split the company up. Then, mid-century, came the telecommunications revolution. In the U.S., concerns crystallized around the role of the Bell System as an incumbent technology provider. Once more, antitrust enforcement split it up. In the 1970s and 80s, IBM's mainframe computing business became the target of enforcement. Following on from that, the banner cases of the 1990s in both the U.S. and Europe were against Microsoft's practices in the desktop computing space. In the latter two instances, however, the consequences were less radical, due, perhaps, to the intervening Chicago School critique of earlier antitrust remedies.

Despite these different outcomes, at each step along the way, antitrust thinking has been defined by the technologies that gave rise to its greatest enforcement challenges. Since the dawn of this century, attention has turned to the current generation of innovators, in what today is termed the "digital economy." The quandaries facing today's legislators, enforcers, and public, are novel and multifaceted. Nonetheless, they bear comparison with the formative struggles that policymakers grappled with throughout the first century of antitrust.

The pieces in this volume draw on the lessons of the past to set out how competition rules might deal with this new set of concerns, in various jurisdictions around the world. Each one draws on general themes, yet nevertheless addresses specific aspects of the contemporary debate.

Much of today's antitrust discussion concerns the businesses run by large companies such as Amazon, Apple, Facebook, Google, and Microsoft. Each has significant share in a given industry, and derives its revenues from what are described as "platforms." But

how are such platforms different from the incumbent businesses of the past? The answer to this is not clear. Yet queries surrounding the platforms' alleged dominance, and whether their conduct amounts to an infringement of competition rules, have been a source of controversy for over a decade. The pieces in this volume address this dilemma head-on.

At a fundamental level, there is the definitional threshold of what a "platform" even is, and what rules should apply to such a business. Then there is the question of whether "platforms" have a "special responsibility" towards downstream operators that rely on them to reach customers. In other words, can platform operators favor their own businesses in those related markets? Or do competition laws require them to treat all firms in the same way? What are the risks to competition if platforms are given free rein? In antitrust parlance, these questions are assessed under the rubric of "self-preferencing," which has dominated recent headlines.

Pieces by **Thomas Kramler** and **Robert D. Atkinson** & **Joe Kennedy** report on this controversy from the trenches. The authors draw on their considerable experience in dealing with these issues to ask whether antitrust concerns in the digital economy can effectively be addressed within the confines of existing antitrust law and jurisprudence, or whether new rules are needed.

At the time of publication, this "platform regulation" debate is reaching its crescendo. In 2019, various jurisdictions, including the EU, Germany, Australia, and the Brexiting UK, commissioned detailed reports on whether competition rules need to be updated to deal with "platforms," and "self-preferencing" specifically. The coming months and years will see legislatures take action on these reports. Much is at stake in how these reports' conclusions are interpreted. The pieces in this volume form a vital part of that discourse.

Aside from these (almost existential) concerns, there is the question of how "platforms" interact with other actors in the economy. While it is productive for there to be broad discourse on the role of competition and digital regulatory policy, it is also vital for those rules to stay in their own lane. Otherwise, reforms grounded in the logic of antitrust could unduly expand its role, and counteract other policies. This debate has reached an advanced stage in Australia, where policy efforts have honed in on the media and news industry. Pieces by **Simon Bishop** & **George Siolis**, and **Andrew Low** & **Luke Woodward**, describe these developments, and discuss the risks of focusing on a narrow set of sector-specific concerns to derive broad antitrust solutions.

Then, there are even more specific concerns. Algorithms, anonymously executed in server farms, dominate modern commerce. Aside from mundane operational decisions, algorithms are increasingly used to set pricing and other commercial strategies. This can be pro-competitive and efficient. But algorithms, like people, can also restrict competition and harm consumers. If firms use algorithms that "autonomously" tacitly collude through deep machine learning, can the firms that run them be held liable? The pieces by **Andreas Mundt** and **Gönenç Gürkaynak**, **Burcu Can**

& **Sinem Uğur** underline the need for further research on how such algorithms operate in real-life settings, before creating a new head of liability.

Technology allows consumers to access and interact with offers in the digital world with remarkable ease. But it has also created the potential for new forms of consumer exploitation, and facilitates highly individualised price discrimination. This creates opportunities for business models based on exploiting incumbents' superior bargaining position, particularly in the business-to-business space. Platforms can make "take-it-or-leave-it" offers that allow the platform to enjoy all the surplus of trade. This notion of an "abuse of a superior bargaining position" is foreign to competition rules in certain jurisdictions, but is known in Japanese competition law, as discussed by **Reiko Aoki** & **Tetsuya Kanda**.

Moore's Law famously predicts that the number of transistors on a microchip will double every two years, though their cost will be halved. These remarkable advances, coupled with parallel developments in mass data gathering and storage, allow today's computers to solve tasks of extraordinary complexity, including innovative, reliable, and lucrative predictive analytics. Yet this possibility raises profound privacy concerns, as reflected in laws such as the California Consumer Privacy Act and the EU's General Data Protection Regulation. Such rules, in turn, raise novel competition issues.

This dynamic has profound implications for competition law, and how it interacts with privacy rules. Although competition and privacy law are separate disciplines, they are in tension with each other. As **Maureen K. Ohlhausen** & **Peter Huston** discuss, this problem came to the forefront in recent U.S. litigation between hiQ and LinkedIn. The latter, invoking the privacy rights of its members, employed technical measures to block hiQ's automated bots from accessing data on LinkedIn's servers. HiQ, in turn, alleged that LinkedIn's actions were in reality an attempt to restrict competition.

As the authors discuss, this case represents the archetypal conflict between data privacy and competition, and will be repeated throughout the world in years to come. The policy dilemma between privacy rules and antitrust cannot be overstated. Protecting privacy by restricting data flows can hinder competition by denying new entrants access to the data they need to compete. On the other hand, ensuring that rivals have easy access to data can diminish privacy by distributing data in ways that consumers may not anticipate or want.

The foregoing should make clear that the story of antitrust in the "digital economy" is but one chapter in a saga that is still being written. Like all sagas, it draws from universal themes, and is self-referential within its canon. Yet it is all the more interesting as a result.

The editors would like to thank Elisa Ramundo, Sam Sadden, and Andrew Leyden for commissioning, compiling, and editing this volume.

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The Australian Chapter: Competition Policy Developments and Challenges for the Digital Economy

By Andrew Low & Luke Woodward [1]

Abstract

The Australian Competition and Consumer Commission's 18-month inquiry into digital platforms was initiated to assess the impact on media and news of those platforms, principally Google and Facebook. The inquiry and the ACCC's draft and final reports promoted broad discourse on competition and digital regulatory policy; yet many of the reform recommendations are anchored in a potentially narrow "problem – solution" framework that may work against a more coherent digital policy reform agenda. This paper provides an overview of the Australian digital policy landscape and competition policy developments and the risks of relying on an inquiry emanating from a narrow set of "problems" (largely media plurality issues) to derive broad digital economy wide policy reform "solutions." We conclude that the ACCC's inquiry, while a valuable contribution, should not be seen as the road-map for digital economy reform; rather it should serve as a stepping stone for a broad and balanced policy reform process to ensure that the Australian economy can flexibly adapt, so as to accommodate and enable future digital innovation.

I. INTRODUCTION

Competition policy in Australia concerning issues associated with the digital economy has been largely driven by a substantive 18-month inquiry conducted by the Australian Competition and Consumer Commission ("ACCC") into digital platforms and their impact on media and news between December 2017 and July 2019, with a particular focus on Google and Facebook ("DPI"). As part of the DPI, the ACCC received extensive submissions and compelled the production of information and documents. The Government directed the DPI pursuant to the Competition and

1 Andrew Low is a Senior Lawyer in Gilbert + Tobin's Competition + Regulation group. Luke Woodward is the head of Gilbert + Tobin's Competition + Regulation group. The views expressed in this paper are the authors' views alone.

Consumer Act 2010 (Cth) ("CCA"). It did so in exchange for support for its media law reforms in 2017.[2]

The ACCC released its final report on July 26, 2019 ("Final Report") with 23 specific recommendations and on December 12, 2019, the Government released its response to each of the 23 recommendations.

The practical outcome of the DPI for digital competition policy in Australia may have been initially overstated in some respects as being "ground breaking." It is unlikely to result in substantial potential change to the current competition framework and has missed an opportunity to analyze in a more balanced and in-depth manner the broader implications of disruptive innovation on our economy beyond Google and Facebook. The Government's response to the DPI has also resulted in policy initiatives that would appear to benefit few companies outside of traditional news, media and advertising. For consumers, arguably the response has not sought to promote broader social benefits beyond a traditional consumer protection and welfare lens.

This outcome is not unexpected. In essence, digital economy competition policy in Australia is being driven by a "*problem – solution*" framework. That is, a framework of reform that arises from the specific issues the ACCC was asked to inquire into; namely the interaction between digital platform providers – such as Google and Facebook – and traditional news and media markets. While the ACCC was not limited to identifying only competition issues or proposing competition solutions – it was at its inception limited in scope with a focus on identifying specific problems arising from the particular political focus on the impact of digital platforms on media and advertising markets. The Government's approach has been to build a roadmap for digital reform by responding to the recommendations that arise from the DPI's narrow lens. This approach risks lacking the consistency and coherence to support clear guidance for businesses operating in the digital economy as to the expectations around realignment of commercial norms of conduct.

The awareness and learnings from the DPI and the following discourse arising in Australia has been overall beneficial. They have supported a general social and political consensus that clearly beneficial innovations in platform technology are not necessarily without the risk of harms and consequences, and that some of those consequences potentially extend to the fundamental operation of a liberal democracy.

For our part, we would recommend caution about driving regulatory policy for the disruptive technologies across the whole economy through the institutional lens of a competition regulator in a problem-solution directed media-based inquiry. The substan-

2 Jennifer Duke, "ACCC to probe Facebook, Google over media disruption," *Sydney Morning Herald* (online, December 4, 2017) https://www.smh.com.au/business/companies/facebook-google-set-for-accc-probe-over-media-disruption-20171204-gzxxow.html.

tive inquiry into these issues should not end with the Government's response to the DPI-specific issues, otherwise there will be a real potential for one-sided reform and policy without a clear and coherent agenda. The Final Report should be treated as a strong invitation for a broad policy discussion outside the problem-solution lens, and to determine how the Australian economy may fundamentally be re-structured around future digital innovation. A more complete assessment of technology, a clear expression of the values and objectives sought collectively, and consequent assessment of the laws and policies is more likely to support better outcomes in the long term for the digital economy.

II. THE AUSTRALIAN DIGITAL POLICY LANDSCAPE

On December 4, 2017 the then Treasurer (now Prime Minister), Scott Morrison, issued the Terms of Reference ("ToR") to the ACCC, directing it to conduct an 18-month long public inquiry into the impact of digital platform services on the state of competition in media and advertising services markets, pursuant to Section 95H(1) of the CCA. ACCC Chairman, Rod Sims, accurately called this a "world first" inquiry of its kind into digital platforms that goes to "the heart of their business models."[3] The Government agreed to undertake the DPI as a condition of the then Senator, Nick Xenophon's support for significant legislative changes to media control and ownership laws under the *Broadcasting and Services Act 1992*. This also occurred in the wake of growing international interest from competition regulators in digital platforms and their conduct in the use of data and advertising practices.

In this context, the ToR directed the ACCC to look at "the impact of digital search engines, social media platforms and other digital content aggregation platforms (platform services) on the state of competition in media and advertising services markets, in particular in relation to the supply of news and journalistic content, and the implications of this for media content creators, advertisers and consumers." Matters to be considered included, but were not limited to, the extent to which platform services are exercising market power in commercial dealings with the creators of journalistic content and advertisers; the impact of platform services on the level of choice and quality of news and journalistic content to consumers; the impact of platform services on media and advertising markets; the impact of longer-term trends, including innovation and technological change, on competition in media and advertising markets; and the impact of information asymmetry between platform services, advertisers and consumers and the effect on competition in media and advertising markets.

The ToR were arguably sufficiently broad to cover a wholesale review of Google's and Facebook's business practices, and to identify issues that concern adver-

3 John McDuling, "As Rod Sims takes on the tech giants, the world will be waiting," *Sydney Morning Herald* (online, December 7, 2017) https://www.smh.com.au/business/companies/the-whole-world-is-watching-20171206-p4yxgc.html.

tisers, content creators, and consumers. However, it is apparent and unsurprising that the ToR primarily focused on digital platforms' impact on competition in media and advertising markets.

On July 26, 2019, the ACCC's Final Report was released, outlining 23 specific recommendations for reform. There were 5 competition-specific recommendations:

The ACCC recommended reform of the merger provisions of the CCA.[4] Under Section 50 of the CCA, a merger or acquisition is prohibited if it would result in a substantial lessening of competition. The Final Report recommended that this assessment should expressly include consideration of two additional factors: "the likelihood that an acquisition would result in the removal from the market of a potential competitor"; and "the amount and nature of data which the acquirer would likely have access to as a result of the transaction."[5] These recommendations are targeted at addressing the risk of acquisition of "nascent competitors" by dominant platforms and the importance of data in merger. The ACCC recognized that this reform is intended to signal the significance of the factors and their relevance. However, this recommendation is not a substantial change to Australian merger laws under the CCA, as Section 50 likely already provides for the consideration of these factors in the overall assessment. For example, the removal of "potential" competition is at the heart of the *Vodafone v. ACCC* (2019)[6] case, and the significance of data was considered in the ACCC's 2018 review of the Transurban consortium WestConnex bid.[7]

The ACCC recommended to reach agreement with large digital platforms about an acquisition notification protocol (and absent commitment to such a protocol, the ACCC will make further recommendations to the Government).[8] The proto-

4 Section 50 of the CCA prohibits acquisitions of shares or assets that would, or would likely, result in a substantial lessening of competition.

5 ACCC, Digital Platforms Inquiry "Final Report" (July 26, 2019), Recommendation 1.

6 Federal Court of Australia matter number NSD818/2019. On May 24, 2019, Vodafone sought a declaration from the Federal Court challenging the ACCC's opposition to Vodafone's proposed merger with TPG. In the ACCC's opposition, it considered TPG to be "the best prospect Australia has for a new mobile network operator to enter the market": https://www.accc.gov.au/media-release/accc-opposes-tpg-vodafone-merger. This is despite TPG publicly stating it had no plans to build a mobile network absent the merger. On February 13, 2020 Middleton J ruled in favor of TPG and Vodafone finding that the proposed merger would not substantially lessen competition in any market in contravention of section 50 of the CCA: *Vodafone Hutchinson Australia Pty Ltd v Australian Competition and Consumer Commission* [2020] FCA 117.

7 In 2018, the ACCC decided to not oppose the Transurban consortium from bidding to acquire a majority in the WestConnex toll road on condition of Court enforceable undertakings to make toll road data available to competitors: https://www.accc.gov.au/media-release/accc-will-not-oppose-transurban-consortium-westconnex-bid-following-undertaking.

8 ACCC, Digital Platforms Inquiry "Final Report" (July 26, 2019), Recommendation 2.

col would specify the types of acquisitions requiring notification, including minimum transaction value and minimum advance notification period prior to completion. Such protocols would not require any legislative reform, rather it concerns how large digital platforms will engage with the informal merger process in Australia. And so, in effect creating notification thresholds for a subset of companies. However, in practice, the ACCC is not prohibited from unilaterally commencing informal reviews of mergers irrespective of whether they have been notified, nor is it prohibited from requesting notification of all mergers in certain industries. Accordingly, this recommendation is also unlikely to be a substantial change to the current practices in Australia – even if it does signal an intention to place more onus on large digital platforms to engage with the ACCC's informal review process.

The ACCC recommended that Google should provide Android users with the same options being rolled out to existing Android users in Europe, that is, the ability to choose the default search engine and internet browser on devices. Absent the introduction of this within 6 months, the ACCC will recommend the Government to consider compelling Google to offer this choice.

The ACCC recommended the creation of a new branch within the ACCC to focus on proactive investigation, monitoring and enforcement of issues in markets in which digital platforms operate as well as an inquiry into the supply of ad tech services and advertising agencies.

Another significant focus of the Final Report was consumer protection with respect to privacy and data. A significant recommendation of the Final Report include the call for an introduction of a broader and general "prohibition on certain unfair trading practices,"[9] which is in additional to the current prohibition against unconscionable conduct and misleading and deceptive conduct under the Australian Consumer Law ("ACL").[10] This recommendation to extend the current ACL prohibitions in order to address the broader unfairness observed in the digital economy.[11] A breach

9 Recommendation 21 of the Final Report proposes an amendment to the CCA to include a prohibition on "certain unfair trading practices." The precise scope is not defined.

10 Under Sections 20-22 of the ACL, unconscionable conduct is prohibited. Unconscionable conduct is generally understood in Australian jurisprudence to mean "conduct that is so far outside societal norms of acceptable commercial behaviour as to warrant condemnation as conduct that is offensive to conscience": *ASIC v. Kobelt* (2019) 368 ALR 1 at [92].

11 Final Report, p 498. The broader provision would be intended to capture conduct by businesses including failing to put in place appropriate security measures to protect consumer data; and businesses collecting data without express informed consent or providing insufficient time or information for consumers to properly consider contract terms.

of the ACL attracts significant penalties.[12] It also recommended a modernization of Australia's privacy laws to better protect users of digital platforms.

Other recommendations were targeted to media specific issues, namely digital platforms and their relationship with news and media businesses, the disruption of Australian media and the risk of underinvestment in journalism, and the impact of digital platforms on the consumption of news and journalism. The ACCC will also do further internal work to consider the applicability of data portability for digital platforms.

The Treasurer, the Hon. Josh Frydenberg MP's initial response to the Final Report was that the Government broadly supported the ACCC's recommendations, stating that "these companies are among the most powerful and valuable in the world. They need to be held to account and their activities need to be more transparent."[13] The Government also accepted that: "the ACCC's overriding conclusion that there is a need for reform – to better protect consumers, improve transparency, recognize power imbalances and ensure that substantial market power is not used to lessen competition in media and advertising services markets" as well as the need to develop a harmonized media regulatory framework.[14]

On December 12, 2019, the Government released what it called "a roadmap for a program of work and series of reforms to promote competition and enhance consumer protection and privacy in a digital age."[15] This "roadmap" is in essence a response to each of the 23 specific recommendations arising from the ACCC's Final Report. It is far from a comprehensive statement of policy for the digital age.

The Government has shown its support, or support in principle, for most of the 23 recommendations that the ACCC made in the Final Report, with only a small handful of recommendations not supported, but even those are not rejected outright. There is an immediate commitment to a new Digital Platforms Branch of the ACCC to monitor digital platforms and undertake specific inquiries, including an ad tech services and advertising inquiry. A voluntary code of conduct will also be negotiated between digital platforms and news media organizations. The Government has indicated overall support for and will further consult on some of the specific and

12 The ACL imposes a maximum penalty of $10 million per contravention or three times the benefit obtained from the breach or 10 percent of the company's annual turnover per contravention.

13 Josh Frydenberg, "Opinion: Digital giants are powerful companies and must be more accountable," *Sydney Morning Herald* (July 26, 2019, online) https://www.smh.com.au/politics/federal/digital-giants-are-powerful-companies-and-must-be-more-accountable-20190726-p52b73.html.

14 *Ibid*.

15 Treasury, "Government Response and Implementation Roadmap for the Digital Platforms Inquiry," December 12, 2019, https://treasury.gov.au/publication/p2019-41708.

substantial recommendations to reform several aspects of privacy and consumer protection laws.

The Government's response to the competition-specific recommendations were less inspiring. The merger recommendations would be consulted on in 2020, browser and search engine choice would be examined in 2021, and the ACCC would be given a new branch dedicated to monitoring digital platforms and a direction to inquire into ad tech and advertising agencies. There would also be negotiations commencing for a voluntary code of conduct between digital platforms and news media organizations. The ACCC's digital advertising services inquiry was directed on February 10, 2020, with an interim report due December 31, 2020 and a final report due August 31, 2021.[16] The focus is specifically on digital advertising technology services and digital advertising agency services (and related markets). On the same day, the ACCC was also directed to conduct a five-year inquiry into digital platform services – which includes search engine services, social media services, online private messaging services, digital content aggregation platform services, media referral services and electronic marketplace services.[17] The direction also covers digital advertising services supplied by digital platform service providers and the data practices of digital platforms and data brokers. An interim report is due September 30, 2020 and then further interim reports every six months until a final report by March 31, 2025. In September 2020, the ACCC released an issues paper for the second interim report focusing on app market places; which is due to the Treasurer by March 31, 2021.

In addition to the legislative policy response, in August 2019, the ACCC has flagged it is in the advanced stages of five separate enforcement actions against Google and Facebook under current competition, consumer, and privacy laws against digital platforms in 2020.[18] Two cases have been commenced by the ACCC – an action against Google for misleading and deceptive conduct in relation to its location tracking and data retention practices;[19] and an on July 27, 2020 the ACCC commenced action against Google alleging misleading and deceptive conduct around Google's expanded use of consumers personal data.[20] Public sources have also confirmed the

16 Details of the ACCC's digital advertising services inquiry can be found at https://www.accc.gov.au/focus-areas/inquiries-ongoing/digital-advertising-services-inquiry.

17 Details of the ACCC's digital platform services inquiry can be found here https://www.accc.gov.au/focus-areas/inquiries-ongoing/digital-advertising-services-inquiry.

18 Michael Fowler, "ACCC gears up for court battle with Google and Facebook," *Sydney Morning Herald* (August 13, 2019, online) https://www.smh.com.au/business/consumer-affairs/accc-gears-up-for-court-battle-with-google-and-facebook-20190813-p52gp5.html.

19 Stephen Letts, "Google sued by the ACCC over alleged misuse of personal data," *Australian Broadcasting Corporations* (October 29, 2019, online) https://www.abc.net.au/news/2019-10-29/google-faces-accc-federal-court-misleading-use-of-data/11649356.

20 ACCC Media Release, "ACCC alleged Google misled consumers about expanded use of personal data," July 27, 2020.

ACCC is in advanced stages of an investigation into Google relating to its ban of Unlockd apps from Google's platform.[21]

There have separately been other consultations in 2019 concerning the use of artificial intelligence ("AI") in Australia. On April 5, 2019 the Minister for Industry, Science and Technology released a discussion paper to encourage the conversation on "how we should design, develop, deploy and operate AI in Australia" and sought feedback on the draft AI ethics principles presented in the discussion paper.[22] A set of high-level principles were published by this discussion paper. The principles, however, are voluntary only and do not mandate or set any compulsory framework for utilizing AI.[23] Other parallel projects on AI include the Australian Human Rights Commission's project on Human Rights and Technology[24] and the Ethical AI for Defence workshop conducted in Canberra on July 30 to August 1, 2019.[25] Currently, these projects do not currently have a clear legislative agenda attached to them.

Australia is also in the process of rolling out the Consumer Data Right – a sector-by-sector data portability standard in Australia, currently implemented for the banking sector but envisaged to apply to other industries including energy and telecommunications.[26]

On April 20, 2020, the Australian Government asked the ACCC to develop a mandatory code of conduct to address bargaining power imbalances between Australian news media businesses and digital platforms, specifically Google and Facebook. On July 31, 2020 the ACCC released its draft code for public consultation ("Draft Media Bargaining Code**"**) – responses of which were due by August 28, 2020. This draft code is the subject of significant debate in Australia. A focus of the debate is whether the code, which is directed to correcting a bargaining power imbalance be-

21 Paul Smith, "ACCC to sue Google over Unlockd," *Financial Review* (November 5, 2019, online) https://www.afr.com/technology/accc-to-sue-google-over-unlockd-20191030-p535u9.

22 Department of Industry, Innovation and Science, "Artificial Intelligence: Australia's Ethics Framework" (online) https://consult.industry.gov.au/strategic-policy/artificial-intelligence-ethics-framework/.

23 Department of Industry, Innovation and Science, "AI Ethics Principles" (online) https://www.industry.gov.au/data-and-publications/building-australias-artificial-intelligence-capability/ai-ethics-framework/ai-ethics-principles.

24 Australian Human Rights Commission, Human Rights & Technology (online) https://tech.humanrights.gov.au/.

25 Department of Defence, "Ethical AI for Defence: World experts gather in Canberra," (August 1, 2019) https://news.defence.gov.au/media/media-releases/ethical-ai-defence-world-experts-gather-canberra?utm_source=miragenews&utm_medium=miragenews&utm_campaign=news.

26 Treasury, "Consumer Data Right," https://treasury.gov.au/consumer-data-right.

tween digital platforms and news media companies, appropriately recognizes the significant and broader value exchange between the relationship.

While acknowledging there are a number of processes in place that concern potential digital reform, at the time of writing, Australia is largely in a position whereby the legislative policy agenda will be focused on the specific recommendations arising from a media focused DPI, and also the competition regulator's continued enforcement focus under the current laws on digital platforms and the digital economy. The ACCC appears ready to test the limits of the current competition and consumer laws and jurisprudence through its enforcement activities, including how far consumer laws can be extended to deal with privacy issues, the thresholds for unconscionable conduct prohibitions, and the issues regarding removal of potential competitors in M&A transactions.

III. LIMITATIONS OF THE PROBLEM-SOLUTION APPROACH TO DIGITAL REFORM

The problems identified in the ACCC's DPI are important issues to consider and debate, and indeed its recommendations in the Final Report have received careful consideration and are the subject of extensive submissions to Government and responses. However, as recognized in the Final Report, the ACCC was focused on three groups of users – advertisers, media content creators, and consumers – and particular regard was had to news and journalism.[27] Accordingly, the issues it identified, and hence its recommendations, were made in this context.

Focusing on specific problems will lead to identifiable solutions, but this approach does not necessarily lead to good policy design.

In a problem-solution framework, the identification of the problem for investigation is of significant importance as it drives the recommendations for solutions. Here, the problem identified was in the context of media reforms and impacts of Google and Facebook on traditional media and advertising markets. It did not arise from a broader direction or intention to rethink, review and design competition policy for the digital economy in a balanced way. Accordingly, there is a significant gap in the current policy discourse in Australia to address a number of issues beyond Google, Facebook, media and advertising.

While Google and Facebook are an important part of the "digital economy," they do not represent the full spectrum of disruptive innovation that is impacting our economy and society. This spectrum, to name a few examples, includes advances in AI, facial recognition technology, self-driving cars, private payment systems, internet of things, ride-share platforms, and pioneers of such technologies are just a starting list of technologies that will likely lead to significant disruption to existing markets.

27 ACCC, Digital Platforms Inquiry "Final Report" (July 26, 2019), pp 4-5.

Each of these innovations are also likely to raise their own challenges as to how we would regulate for competition, consumer rights and privacy – while at the same time challenging us to revisit our ability to direct our economy towards growth through innovation. Nonetheless, the DPI and its recommendations were not directed towards these technologies and their potential effects.

Another issue arising from the problem-solution framework of "inquiries" is that by their very nature, inquiries tend to proceed on the assumption that there is a problem that requires a solution. There will tend to be absent from the equation a broader consideration of trade-offs and why certain practices are reasonable. If one goes looking for a problem, one will usually find one – this is more so for highly experienced enforcement institutions.

To illustrate, consider the recommendations in the Final Report regarding the regulation of "data" and its use by digital platforms. The Final Report engages with data in terms of considering data portability, data enabled market power (and therefore regulation of where that market power might unilaterally or in an M&A context substantially lessen competition), existing individual consumer and privacy rights (that is, ensuring consumers have transparency and can provide fully informed consent to the use of data). The recommendations are also overall linked with the penumbra of preserving "fairness" in the online environment.[28] These solutions may arguably be justifiable when the assessment occurs in the context of considering Google and Facebook's use of data and the need to promote consumer protection, competition and privacy.

However, it is not to be assumed that such an assessment of data is complete. Data is crucial to a range of technologies and innovations outside Google and Facebook, and it also impacts policies other than consumer rights and privacy. As an illustration, in April 2018, it was reported that in Delhi facial recognition technology helped trace 3,000 missing children in 4 days.[29] It was reported in August 2016 in the UK that a new AI software can accurately predict breast cancer risk by intelligently reviewing millions of records in a short amount of time.[30] Similarly, AI such as IBM Watson for Health and Google's DeepMind Health are also working to analyze large amounts of patient data.

How did data enable these technologies and public benefits to emerge? Would the DPI's recommendations inhibit these use cases (for example, how do you get in-

28 ACCC, Digital Platforms Inquiry "Final Report" (July 26, 2019), Recommendation 21.

29 "Delhi: Facial recognition system helps trace 3,000 missing children in 4 days," *The Rimes of India* (April 22, 2018, online) https://timesofindia.indiatimes.com/city/delhi/delhi-facial-recognition-system-helps-trace-3000-missing-children-in-4-days/articleshow/63870129.cms.

30 Sarah Griffiths, "This AI software can tell if you're at risk from cancer before symptoms appear," *Wires* (August 26, 2016, online) https://www.wired.co.uk/article/cancer-risk-ai-mammograms.

formed consent from missing persons or from millions of deceased medical records), or adequately protect individuals from misuse in these cases? It's not clear.

Similarly, the debate over the Draft Media Bargaining Code is reflective of issues that may arise when creating policy that is specifically directed to addressing one issue (e.g. the impact of digital platform competition in terms of advertising erosion on public interest journalism) while potentially not taking into account broader aspects of commercial relationships and consumer and commercial value creation.[31]

Further, not only were the DPI's solutions specific to competition law, it was also limited to seeking to resolve disruption in traditional media and advertising markets. However, the disruptive impacts of digital innovation are much broader. In the same way Google and Facebook are not fully representative of the digital economy, media companies are not fully representative of the industries disrupted (both positively and negatively) by digital innovation. The DPI's sector specific approach to responding to technological disruption is not new. In Australia, the New South Wales and Victorian response is reflective of this. For example, the Victorian, Australia taxi industry has sought repeatedly to blame Uber for its demise, and to seek protection and compensation.[32] This approach may tend to have an incomplete view of the full breadth of trade-offs, including benefits, society is being asked to accept in exchange for technological advancement in the digital economy such as increased competitive alternatives for consumers to taxis and improved services.

It is conceivable that regulation can be crafted to achieve a prohibition of harmful conduct without necessarily trading off other values, but to assess this requires an impartial and broader review of the line between harm and reasonably necessary harm which is not focused only on the impact of one industry on another. For example, to what extent are we prepared to forego consumer rights or privacy rights in order to promote technology innovation, to facilitate lower barriers to entry into previously high-barrier industries, creation of new business markets and increased competition, better distribution and communication of peer-to-peer ideas, creating new employment and new industries, and requiring existing industries to innovate their business model and Government to innovate its regulatory approach? The pres-

31 See for example Google, *Mandatory News Media Bargaining Code – Response to ACCC's concepts paper*, (June 5, 2020) https://www.accc.gov.au/system/files/Google.pdf.

32 "Uber came to our 'shores, illegally, like pirates' class action lead plaintiff says," *Australian Broadcasting Corporation* (May 3, 2019, online) https://www.abc.net.au/news/2019-05-03/uber-to-face-class-action-against-taxi-and-private-drivers/11073640; Paul Smith, "Uber faces Victorian taxi industry class action over illegal operation," Financial Review (November 21, 2017, online) https://www.afr.com/technology/uber-faces-victorian-taxi-industry-class-action-over-illegal-operation-20171121-gzpuo6. New South Wales in December 2015 established a $250 million "industry adjustment package" to compensate taxi drivers; and in 2016, Victoria announced an overhaul of the taxi industry offering to buy back licenses.

ent discourse in Australia is not enabling of a nuanced value trade-off assessment between disruption that is acceptable and disruption that is not.

IV. THE CHALLENGE FOR DIGITAL REFORM IN AUSTRALIA

The challenge in Australia is the tendency to place too much emphasis on the recommendations in a competition regulator-led inquiry to drive digital policy reform, such that they are seen as a complete and unified roadmap to regulating the digital economy. In part, this may be a tribute to the degree of trust and confidence in the ACCC as a regulator.

For example, the Australian Government's policy agenda has been focused on reviewing privacy, consumer, and competition laws, consistent with the Final Report's recommendations. This multi-disciplinary approach has merits when looking to solve specific problems, recognizing that competition law is not the panacea for all things digital. However, it is limited in terms of regulating the digital economy as a whole and we should not assume reform within these three laws will be sufficient or acceptable to drive better outcomes. The objectives of each of these laws are underpinned by specific principles and standards that may be too narrow or inflexible to cope with broader themes. For example, the consumer welfare standard has been a clear and objective framework supported by economic rigor for competition laws in Australia, however, there is criticism and at times frustration that this standard is not sufficient to achieve a total welfare for consumers.

By comparison, the European Union's ("EU") Digital Single Market strategy includes a much broader range of steps to make the EU's single market fit for the digital age including – shaping the digital single market to open up opportunities for people and businesses and enhance Europe's position as a world leader in the digital economy; boosting the European digital industry (for example, ensuring SMEs and non-tech industries benefit from digital innovations); building a European data economy; improving connectivity and access; investing in network technologies; creating a digital society; supporting media and digital culture; and strengthening trust and security.[33]

Furthermore, outside the context of solving the specific problems identified in the DPI, more often than not privacy, competition and consumer protection laws do not have consistent objectives. Privacy protection and open data can be in conflict,

33 See European Commission, Digital Single Market Strategy at https://ec.europa.eu/digital-single-market/. Steps forward by the European Commission include 5G digital transformation, AI, media rules for the 21st century, blockchain, cloud computing, connectivity, copyright, culture, cybersecurity, digital identity, digital skills for all Europeans, eHealth, open data, platforms, safer internet, the Internet of Things, and more https://ec.europa.eu/digital-single-market/en/news/digital-single-market-brochures.

where innovation and increased competition can come at the cost of privacy rights. Consumer laws at times can put the protection of consumers over the efficient operation of markets and consumer warranties is an example of this. In essence, our existing legislative regimes make a trade-off between these rights based on a valued judgment arrived at through a democratic process. While each of these laws can be expanded to have a multi-tiered approach to address specific problems identified in the DPI, they also tend to create ambiguity which is not conducive to creating clear commercial norms in a digital environment.

Over reliance on a policy review undertaken by a competition regulator will inevitably reflect that regulator's institutional character or specific capability in the policy solutions it proposes. For competition regulators, that capability is couched primarily in enforcement capability (that is, to investigate and seek penalties for conduct that is considered a contravention). In this way, the ACCC is an effective competition and consumer enforcement agency, and indeed the outcomes of the Final Report perhaps reflect its enforcement mindset. Around the same time the ACCC was undertaking its DPI, a similar review was being undertaken for the UK Government by a specially constituted panel of experts lead by the former Chief Economist to President Obama, Professor Jason Furman. While the "Furman Report" has much in common with the ACCC's Final Report, there are subtle but important differences in approach to the challenges of the digital economy. The Furman Report emphasized an *ex ante* co-regulatory approach to identifying permitted and non-permitted behavior:[34]

> The approach should combine participation and consultation with the scope for regulatory enforcement…It should only intervene where doing so is effective and proportionate to achieve competitive aims. Where this is the case, the Panel wants to introduce a system where industry has greater clarity and confidence over what constitutes acceptable practice and the rules that apply. The best way of achieving these outcomes is through introduction of a digital platform code of conduct…developed collaboratively…with platforms and other affected parties. This will provide the opportunity to clarify what constitutes unfair or unacceptable conduct.

The ACCC's proposed approach tended to set broad requirements of unfairness and to back those with expanded enforcement powers: [35]

While the existing tools and goals of competition law and consumer law frameworks remain applicable to digital markets, the opacity and complexity of these markets make it difficult to detect issues and can limit the effectiveness of the broad principles. As a result, the ACCC considers that existing investigative tools under competition and consumer law should be supplemented with additional proactive investigation, monitoring and enforcement powers to achieve better outcomes for Australian businesses and consumers.

34 Digital Competition Expert Panel, "Unlocking Competition: Report of the Digital Competition Expert Panel," (March 2019), p. 58.

35 ACCC, Digital Platforms Inquiry "Final Report" (July 26, 2019), p. 13.

Understandably, from an enforcement perspective, the ACCC considers codes of conduct that are not "binding, legally enforceable and with meaningful penalties for breaching them" to be of "little use."[36] However, the use of significant penalties for the purposes of specific or general deterrence is only meaningful if there is clarity in the conduct seeking to be deterred. Absent such clarity in a dynamic digital economy, is over emphasizing the importance of penalties in order to drive business norms likely to lead to effective outcomes?

The system of assessing the areas of grey between conduct that may be seen as unacceptable or unfair in one sense, but at the same time beneficial, is not a feature unique to the digital economy. The current unconscionability test in Australia is reflective of this balance and the *ASIC v. Kobelt* case[37] in Australia is an example of grey areas which do not lend themselves well to "big stick" prosecutions.

The High Court of Australia's decision in *ASIC v. Kobelt* has been said to support of lowering the standards required for unconscionable conduct in Australia.[38] However, this case is also reflective of the challenges in assessing fairness in areas of grey in commercial conduct – the case concerned the provision of a system of credit called "book-up" by a general store in Mintabie, South Australia, where almost all of the customers were Anangu persons residing in two remote communities. The book-up system was that the general store required its customers' debit card and PIN to be linked to a store account to withdraw moneys owed. ASIC's case was that this system was unconscionable because the customers were vulnerable, and the respondent took advantage of this vulnerability to "tie" customers to its store. However, the High Court dismissed ASIC's case based on evidence that, *inter alia*, most customers considered the system as beneficial to them in many ways.[39]

V. NEXT STEPS FOR DIGITAL POLICY IN AUSTRALIA

Competition policy and competition regulators are a logical starting place to examine the impacts of digital markets that are subject to "tipping," and to grapple with issues of market structure, including concentration of economic power and winner-takes-all markets. Competition policy has always been concerned with un-

36 Rod Sims, Chair ACCC, *The Digital Platforms Inquiry: Melbourne Press Club speech*, August 13, 2019 at https://www.accc.gov.au/speech/the-digital-platforms-inquiry-melbourne-press-club-speech.

37 *Australian Securities and Investment Commission v. Kobelt* (2019) 368 ALR 1 ("ASIC v. Kobelt").

38 Rod Sims, Chair ACCC, *The Digital Platforms Inquiry: Melbourne Press Club speech*, August 13, 2019 at https://www.accc.gov.au/speech/the-digital-platforms-inquiry-melbourne-press-club-speech.

39 *Australian Securities and Investment Commission v. Kobelt* (2019) 368 ALR 1.

derstanding how markets work and the primary means of regulating those markets. Consumer law policy has also been the primary tool for protecting consumers in trade or commerce, and it seems logical to apply that lens to the digital economy.

However, a competition regulator's inquiry – or even one focused on consumers – is not necessarily the most desirable end point for policy design. The imagination of competition policy is limited and not completely able to conceptualize the guard rails for the digital economy in a balanced and holistic way. Reflective of this is the current challenge to the consumer welfare standard of competition laws and advocates of a total welfare standard. Furthermore, as noted above, competition law remedies primarily involve enforcement penalties which are not well calibrated for establishing broader commercial norms in the digital environment.

In Australia, at this time, it appears there are at least two potential paths for us to take. First, our Government continues to work in accordance with the narrow path carved out by focusing on the DPI's recommendations, with an assumption that they are sufficiently broad of a roadmap for Australia's digital reform (despite the DPI only addressing specific problems). Second, and alternatively, the Government can take the broader meta theme of the DPI which is that potentially unchecked digital innovation may have unintentional and unappreciated social and economic consequences (both good and bad), and consequently conduct a broader policy design and balanced review that has a clear intention to enhance the position of all Australians in the digital economy.

Editors' bios

David S. Evans' academic work has focused on industrial organization, including antitrust economics, with a particular expertise in multisided platforms, digital economy, information technology, and payment systems. He has authored eight books, including two award winners, and more than one hundred articles in these areas. He has developed and taught courses related to antitrust economics, primarily for graduate students, judges and officials, and practitioners, and have authored handbook chapters on various antitrust subjects.

David's expert work has focused on competition policy and regulation. He has served as a testifying or consulting expert on many significant antitrust matters in the United States, European Union, and China. He has also made submissions to, and appearances before, competition and regulatory authorities with respect to mergers and investigations in those and other jurisdictions. David has worked on litigation matters for defendants and plaintiffs, on mergers for merging parties and intervenors, and for and in opposition to competition authorities.

Allan Fels AO graduated in economics (first class honors) and law from the University of Western Australia in 1965. He has a PhD in Economics from Duke University and was a research fellow in the Department of Applied Economics at the University of Cambridge from 1986-1972, where he wrote The British Prices and Incomes Board (Cambridge University Press, 1972).

On his return to Australia Professor Fels joined the Economics Department of Monash University as a Senior Lecturer, before becoming Professor of Administration and Director of the Graduate School of Management from 1984 until 1991.

The career of Professor Fels in Australia falls into two parts. He was generally regarded as the nation's leading regulator, serving as inaugural Chair of the Australian

Competition and Consumer Commission (and its predecessor bodies) from 1989 until 2003. The Australian Competition and Consumer Commission is the country's regulator of competition law and consumer law; it also regulates public utilities in the telecommunications and energy industries (in a similar manner to industry-specific bodies such as Ofcom in the UK and FCC in the US). He has had numerous other regulatory roles (for example, in insurance, agriculture, telecommunications, and aviation).

Professor Fels remains a leading figure globally in competition policy. He co-chaired the OECD Trade and Competition Committee from 1996 to 2003 and continues regularly to be a keynote speaker at major global competition events including the world's two peak events, the International Competition Network Annual Conference and the OECD Global Competition Forum.

He was a participant in the 15-year process of drafting the Chinese Antimonopoly Law 2008 and currently advises the Chinese government on the law's implementation. Academically, he is co-director of the Competition Research Centre at the Chinese Academy of Science, a prestigious position, and an international adviser to the Chinese Academy of Social Science.

The second part of Professor Fels' career has been academic. He was appointed Foundation Dean of the Australia and New Zealand School of Government and served in that position from 2003 until 2012. The predominant activity of the School has been the provision of management development programs to senior public servants in the two countries. There is also a substantial research program and other professional and outreach activities.

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She has received an NSF CAREER Award for her work on digital privacy, the Erin Anderson Award for an Emerging Female Marketing Scholar and Mentor, the Garfield Economic Impact Award for her work on electronic medical records, the Paul E. Green Award for contributions to the practice of Marketing Research, the William F. O'Dell

Award for most significant, long-term contribution to Marketing, and the INFORMS Society for Marketing Science Long Term Impact Award for long-run impact on marketing.

She is a cofounder of the MIT Cryptoeconomics Lab which studies the applications of blockchain and also a co-organizer of the Economics of Artificial Intelligence initiative sponsored by the Alfred P. Sloan Foundation. She has been a Visiting Fellow at All Souls College, Oxford. She has testified to Congress regarding her work on digital privacy and algorithms, and presented her research to the OECD and the ECJ.

Catherine Tucker is coeditor at Quantitative Marketing and Economics, associate editor at Management Science, Marketing Science, and the Journal of Marketing Research and a research associate at the National Bureau of Economic Research. She teaches MIT Sloan's course on Pricing and the EMBA course "Marketing Management for the Senior Executive." She has received the Jamieson Prize for Excellence in Teaching as well as being voted “Teacher of the Year” at MIT Sloan.

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Robert D. Atkinson is founder and president of the Information Technology and Innovation Foundation ("ITIF"), the world's leading think tank for science and technology policy. He is an internationally recognized scholar, a widely published author, and a trusted adviser to policymakers around the world, with expertise in the broad economics of innovation and specific policy and regulatory questions around new and emerging technologies. Rob's most recent book, co-authored with Michael Lind, is Big Is Beautiful: Debunking the Myth of Small Business.

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Simon has published widely including reports and articles on market definition, non-horizontal mergers, bidding markets, loyalty rebates and vertical restraints. He is the co-author of The Economics of EC Competition Law (3rd edition, Sweet & Maxwell, 2009), a leading textbook on the application of economics to European competition law, and is co-editor of the European Competition Journal.

Aleksandra Boutin is a Founding Partner of Positive Competition. She is featured in the Who's Who Legal: Thought Leaders - Competition, a ranking listing the world's leading competition professionals. She has more than fifteen years of experience in competition policy as an enforcer, consultant and academic. She is a member of the Scientific Council of the GCLC and a Non-Governmental Advisor for Poland in the ICN.

Aleksandra advises clients on a wide range of competition issues in the context of competition proceedings in front of the European Commission, National Competition Authorities and Courts. Her recent experiences involve cartel overcharge analysis, vertical and horizontal mergers, exclusionary and exploitative abuses, state aid and information exchanges. She has also advised clients in antitrust cases involving digital platforms in e-commerce and in the software industry.

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Naval also advises a number of clients in cartel cases and is involved in challenges on account of due process and natural justice issues before the Supreme Court of India.

David S. Evans' academic work has focused on industrial organization, including antitrust economics, with a particular expertise in multisided platforms, digital economy, information technology, and payment systems. He has authored eight books, including two award winners, and more than one hundred articles in these areas. He has developed and taught courses related to antitrust economics, primarily for graduate students, judges and officials, and practitioners, and have authored handbook chapters on various antitrust subjects.

David's expert work has focused on competition policy and regulation. He has served as a testifying or consulting expert on many significant antitrust matters in the United States, European Union, and China. He has also made submissions to, and appearances before, competition and regulatory authorities with respect to mergers and investigations in those and other jurisdictions. David has worked on litigation matters for defendants and plaintiffs, on mergers for merging parties and intervenors, and for and in opposition to competition authorities.

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Andrew has a particular expertise and interest in, and has contributed significant thought leadership to, digital issues for competition policy and regulation. This includes chairing sessions including with the ACCC Chairman and international experts Maurice Stucke and Ariel Ezrachi on reflections on the Digital Platforms Inquiry and whether Robots Can Collude?. He has authored a number of papers including Decoding the Data Lifecycle, ACCC signals a changing approach to digital M&A, Digital Reform unfolds, and Impact of competition policy on data access and management, and the soon to be published Digital Competition Australia 2021 (Lexology/GTDT). He has spoken at the Law Council of Australia's Rising Stars 2019 Conference on digital competition policy.

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Payal Malik is Adviser, Economics and Head of the Economics Division at the Competition Commission of India. She is on secondment from PGDAV College,

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Her research and professional collaborations have been with NCAER, Delhi, OECD, Orbicom, IDEI, University of Toulouse, University Of Québec at Montreal, CEPR, JRC, European Commission, IPTS Seville, ICEGEC, Hungary, Department of Information Technology, TRAI, Ministry of Power, Ministry of Information and Broadcasting, Planning Commission of India, CSO, India, WSP-SA, World Bank and AFD, Paris. She was on the team that drafted the Electricity Act of India ushering competition into the sector.

She has a BA (Hons.) in Economics from Lady Shri Ram College, University of Delhi and an MA and MPhil in Economics from the Delhi School of Economics. She also has an MBA in finance from University of Cincinnati, Ohio.

Vinicius Marques de Carvalho is Partner at VMCA Advogados and Professor of Commercial Law at the University of São Paulo. He holds a PhD in Commercial Law from the University of São Paulo and a PhD from the University Paris I (Pantheon-Sorbonne) in Public Comparative Law. He was a Yale Greenberg World Fellow (2016), President of the Administrative Council for Economic Defense ("CADE") (2012-2016), Vice-President of the International Competition Network (2013-2016), Secretary of Economic Law (2011-2012) and Commissioner at CADE (2008-2011).

Marcela Mattiuzzo is Partner at VMCA Advogados and PhD Candidate in Commercial Law at the University of São Paulo. She holds a Masters in Constitutional Law from the same institution and was Visiting Researcher at Yale Law School. She was Advisor and Chief of Staff at the Office of the President at the Administrative Council for Economic Defense ("CADE"), Commissioner at the Federal Fund for the Defense of Collective Rights and CADE's representative before the National Strategy for the Fight Against Corruption and Money Laundering.

Andreas Mundt has been President of the Bundeskartellamt since 2009, member of the Bureau of the OECD Competition Committee since 2010 and the Steering Group Chair of the International Competition Network since 2013.

After qualifying as a lawyer, Andreas Mundt entered the Federal Ministry of Economics in 1991. In 1993 he joined the staff of the Free Democratic Party in the

German Parliament. In 2000 he joined the Bundeskartellamt as rapporteur and later acted as Head of the International Unit and Director of General Policy.

Maureen K. Ohlhausen chairs the antitrust group at Baker Botts LLP, where she focuses on competition, privacy and regulatory issues and frequently represents clients in the tech, life sciences, energy, and retail industries. She served as Acting FTC Chairman from January 2017 to May 2018 and as a Commissioner starting in 2012. She directed all FTC competition and consumer protection work, with a particular emphasis on privacy and technology issues. Ms. Ohlhausen has published dozens of articles on antitrust, privacy, regulation, FTC litigation, and telecommunications law issues and has testified over a dozen times before Congress. She has received numerous awards, including the FTC's Robert Pitofsky Lifetime Achievement Award. Prior to serving as a Commissioner, Ms. Ohlhausen led the FTC's Internet Access Task Force and headed the FTC practice group at a leading communications law firm. Ms. Ohlhausen clerked at the U.S. Court of Appeals for the D.C. Circuit and received her J.D. with distinction from the George Mason University School of Law and her B.A. with honors from the University of Virginia.

Dr. Burton Ong, LLB (NUS); LLM (Harv); BCL/DPhil (Oxon) is an Associate Professor at the Faculty of Law, National University of Singapore ("NUS"), where he teaches and researches in the fields of competition law, intellectual property and contract law. He is an Advocate and Solicitor of the Supreme Court of Singapore, as well as an Attorney and Counsellor-at-Law in New York State. He is a member of the Ministry of Trade and Industry's Competition Appeal Board, an IP Adjudicator with the Intellectual Property Office of Singapore and sits on the dispute resolution panel of the Casino Regulatory Authority. He is a Director (Competition Law) at the EW Barker Centre for Law and Business at the National University of Singapore. He is the editor of "The Regionalisation of Competition Law and Policy Within the ASEAN Economic Community" (2018), published by Cambridge University Press.

Alejandra Palacios, Chair of Mexico's Federal Economic Competition Commission (Comisión Federal de Competencia Económica; "COFECE") is the first woman to head the Mexican antitrust authority. Following a major constitutional reform that set forth a new framework for competition in Mexico, Alejandra was appointed by Congress in 2013 to head the COFECE. She was reelected in 2017 for a second four-year tenure that will end in September 2021.

Before her current role at COFECE, Alejandra worked as Project Director at the Mexican Institute of Competitiveness (the Instituto Mexicano para la Competitividad; "IMCO") for research projects focused on economic regulation, telecom, public procurement and other issues related to competition.

Since June 2016, she is Vice-President for the International Competition Network ("ICN"), the most prominent international network on competition, composed of 138 competition authorities around the world, and as of 2017, Member of the Bureau of the Competition Committee of the Organisation for Economic Cooperation and Development ("OECD"). Alejandra is also a member of the International Women's Forum, Mexico chapter. In 2019 the Women@Competition organization included her in its list of "40 in their 40s" as one of the 40 most notable women in competition in the Americas, Asia and Europe.

Alejandra holds a bachelor's degree in Economics, as well as an MBA from the Instituto Tecnológico Autónomo de México ("ITAM"). She completed a second master's degree in public policy at the Centro de Investigación y Docencia Económicas ("CIDE").

Her academic work includes teaching as well as serving as the Academic Coordinator for the ITAM Economics faculty.

Aman Singh Sethi is a Principal Associate at Shardul Amarchand Mangaldas. He has a diverse work experience, and has been closely involved on matters pertaining to anti-competitive agreements and abuse of dominance before the CCI, the National Company Law Appellate Tribunal as well as the Supreme Court of India. He has also been involved in a number of challenges seeking due process and the preservation of natural justice rights for clients against the CCI before the High Court of Delhi.

Aman has worked for several clients in the high-tech/disruptive industry, agrochemicals and agricultural traits, cement, petrochemicals, and telecommunication sectors in contentious cases. He also writes, and advises clients, on issues related to the interplay of competition law and intellectual property.

Along with co-authors Naval Satarawala Chopra and Yaman Verma, he successfully represented Matrimony.com in an abuse of dominance case against Google. Aman has also represented Uber and Indian hospitality disruptor OYO in wins against abuse of dominance claims before the CCI.

George Siolis joined the Melbourne office as a Partner when RBB Economics was established in Australia in 2009, and since then he has advised clients on

a number of contentious mergers before the ACCC as well as a variety of behavioral matters involving the alleged misuse of market power. He is a member of the Consumer and Competition Committee of the Business Law Section of the Australian Law Council and is listed in Who's Who Legal of Competition Lawyers and Economists. George has worked as a micro-economist for 20 years. Prior to joining RBB Economics George worked with Telstra and was an economic consultant based in the UK for eight years where he developed and led the communications practice at Europe Economics.

Celestine Song is an Assistant Director at the Competition and Consumer Commission of Singapore, where she leads teams working across a wide range of competition enforcement, policy formulation, outreach and advocacy work, including providing competition advice to government agencies. Prior to joining CCCS in 2014, Celestine worked on manpower and productivity policy formulation matters in the Ministry of Manpower. Celestine holds a bachelor's degree in Economics from the Nanyang Technological University of Singapore and a masters' degree in Public Policy from Peking University.

Hi-Lin Tan is the director of the policy and markets division and a member of the senior management at the Competition and Consumer Commission of Singapore, where he is involved in engaging and advising other government agencies on competition matters, and conducting market studies, investigations, and other competition law enforcement activities. Among the cases he has supervised include a market study on online travel booking, and abuse of dominance investigations into online food delivery and payment terminals.

Prior to joining CCCS in 2007, he was a teaching fellow at Boston College, a trading member of the Singapore Exchange, and an economist at the Monetary Authority of Singapore. He holds a PhD in economics from Boston College and master's and bachelor's degrees from the London School of Economics.

Sinem Ugur is a senior associate at ELIG Gürkaynak Attorneys-at-Law. She graduated from Istanbul Commerce University, Faculty of Law in 2011. She is admitted to the Istanbul Bar and has experience close to 10 years in competition law in a variety of industries. She provides legal consultancy to global and domestic clients in all areas of competition law including vertical agreements, abuse of dominance, cartel cases, concentrations, joint ventures, and compliance programs. Sinem Ugur has co-authored numerous articles relating to competition law and international trade matters in English and Turkish. She is also fluent in German.

Yaman Verma is a Partner at Shardul Amarchand Mangaldas with over 10 years' experience practicing competition law. He is recognized as a "future leader" (Who'sWhoLegal, 2017-20); a "rising star" (Competition/Antitrust, Expert Guides, 2018-20) and included in the list of "next generation lawyers" for India (Legal 500, 2017-20).

Yaman has successfully defended WhatsApp against abuse of dominance allegations in relation to its privacy policy, Microsoft Corporation against allegations of unfair and discriminatory software licensing terms, and e-tailer Flipkart against allegations of preferential treatment and discrimination.

Yaman has recently advised on Facebook's acquisition of minority shareholding in India's fastest growing telecom company. Previously, he helped obtain unconditional approvals for Vodafone India's merger with Idea Cellular Limited, the capital alliance between Suzuki Motor Corporation and Toyota Motor Corporation, the Fiat/Peugeot merger, Walmart's acquisition of Flipkart (and successfully defended the approval in follow on litigation), and Microsoft's acquisition of Nokia's mobile telephony business. He has also advised on obtaining conditional approvals for several major global transactions, including Dow/DuPont, Agrium/PotashCorp, and Linde/Praxair.

Yaman has represented Globecast Asia in their leniency application before the Commission, and was successful in obtaining a 100 percent reduction in penalty for Globecast and its officials. He advises several trade associations in relation to compliance with competition laws.

Beth Webster is Director of the Centre for Transformative Innovation at Swinburne University of Technology. She is also Pro Vice-Chancellor for Research Impact and Policy. Her expertise centers on the economics of the way knowledge is created and diffused through the economy. She has a PhD in economics from the University of Cambridge and an M.Ec and B.Ec (hons) from Monash University. She is a fellow of the Academy of Social Sciences Australia.

Professor Webster is responsible for providing advice and leadership on policies relating to the economic and social impact of research, public industry and innovation policies. She is also responsible for measuring university research engagement and impact.

Professor Webster has authored over 100 articles on the economics of innovation and firm performance and has been published in RAND Journal of Economics, Review of Economics and Statistics, Oxford Economic Papers, Journal of Law & Economics, the Journal of International Economics and Research Policy. She has been appointed to a number of committees including the Bracks' review of the automotive

industry, Lomax-Smith Base funding Review, CEDA Advisory Council, and the Advisory Council for Intellectual Property. She is a past President of the European Policy for Intellectual Property Association and is the current General Secretary of the Asia Pacific Innovation Network.

Luke Woodward heads Gilbert + Tobin's Competition and Regulation group, advising and representing clients on competition and consumer law investigations and prosecutions, ACCC acquisition and merger clearances and infrastructure regulation, including in the digital, telecommunications, gas, electricity, water, airports, sea ports and rail industries in Australia.

He has over 30 years competition and consumer law enforcement experience, both on the enforcement side with the former Trade Practices Commission ("TPC") and Australian Competition and Consumer Commission ("ACCC"), and in private practice. Prior to joining the firm in 2000, Luke held senior positions at the ACCC as General Counsel, Executive General Manager, Compliance Division (responsible for enforcement) and Senior Assistant Commissioner, responsible for mergers and asset sales.

Luke was awarded "Competition Lawyer of the Year" in Best Lawyers 2021 and is recognized as "the ultimate strategist" by a client who notes: "He knows the law, knows the ACCC inside and out and knows the best way to approach a matter from a strategic perspective; it's a real value-add." (Chambers Asia-Pacific 2020).

THE EVOLUTION OF ANTITRUST IN THE DIGITAL ERA:
Essays on Competition Policy

Volume One

Editors
David S. Evans
Allan Fels AO
Catherine Tucker

This collection of essays represents the first in a series of two volumes that set out to reflect the state of the art of antitrust thinking in digital markets in jurisdictions around the world. The issues it tackles are many: the role of innovation, the conundrum of big data, the evolution of media markets, and the question of whether existing antitrust tools are sufficient to deal with the challenges of digital markets. Each author tackles the overarching themes from their unique national perspective. The resulting tapestry reflects the challenges and opportunities presented by the modern digital era, viewed through the lens of competition enforcement.

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