

The Problems with (Dominant) Platforms

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Bait and Switch

What about Google-Android???

(**Sorry**: The redacted decision is not yet available)

What I'm Thinking About (a lot)

- Now is (by far) the most interesting time to study IO that I've experienced in my career
- Core IO topics are very much in the public eye:



Big Open IO Policy Question (Page 1)

- Rising concentration and margins
 - ▶ Is antitrust law (& economics) “fit for purpose”?
 - ▶ Implications for “collective dominance”? For tacit collusion?
- Monopsony and labor markets
- Algorithmic collusion
- Mergers and innovation
- Attention markets

All of these are first-order important research/policy questions

And I haven't yet mentioned those that I think are the most interesting!

The Problems with (Dominant) Platforms

- The rise of dominant platforms raise a host of questions:
 - ▶ Data as a barrier to entry
 - ▶ Exploitative behavior
 - ▶ Platforms and potential competition
 - ▶ Platforms and exclusion/foreclosure
 - ▶ Platforms and content creation
 - ★ (esp news production)

“If we seek to understand unprecedented phenomena...

... we can't just look at precedent!”

Today's Plan

- Survey:
 - Policy initiatives
 - Academic research
- Highlight potential gaps between the two
 - Which I mean to be **a call to arms!**



A caveat: I've just started this endeavor, so apologies if I've missed something

This conference so far

- Reveals (in some ways) that I'm "preaching to the choir"
- With "platform papers" analyzing:
 - ▶ Conglomerate mergers: Rey & Chen
 - ▶ Data mergers/ownership/brokers: de Cornière & Taylor, Sand-Zantman & Dosis, Gu, Madio, & Reggiani
 - ▶ Multimarket contact and platform competition: Darmon
 - ▶ Online privacy and market structure: Sapi & Sabatino
 - ▶ Platform price parity clauses and segmentation: Calzada, Manna, & Mantovani
 - ▶ Platform competition with user groups: Yehezkel
- My reaction: **More please!**
 - ▶ **Especially:** more papers tied to the issues directly confronting policymakers

Ongoing policy initiatives

- The Australian Competition and Consumer Commission's (ACCC's) "Digital Platforms Inquiry"
 - ▶ Preliminary findings published 10 December 2018
- The Furman Report of the Digital Competition Expert Panel
 - ▶ "Unlocking Digital Competition", published 13 March 2019
- European Commission, DG Competition Expert Panel
 - ▶ "Competition policy for the digital era" (Crémer, de Montjoye, Schweitzer)
 - ▶ Report coming soon!
- FTC Hearings, German inquiry, etc.
 - ▶ [More stuff is coming...](#)

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What are the big areas of concern? I

1 Dominance of (some) digital platforms

- ▶ (For today: think Google and Facebook)
- ▶ i.e. “The source of the troubles”
- ▶ → Data as a barrier to entry

2 Exploitative conduct

- ▶ w.r.t. consumer privacy
- ▶ w.r.t. value of user data
- ▶ w.r.t. content creators, especially news producers

What are the big areas of concern? II

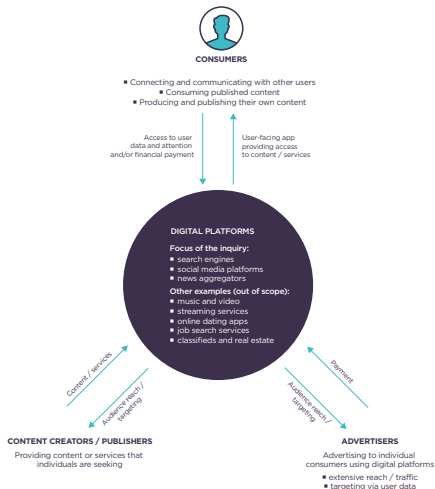
- ③ Exclusionary behavior to protect core dominance (in two flavors)
 - ① Mergers: The elimination of “potential competition”
 - ★ i.e. acquiring nascent/potentially future competitors
 - ★ Possibly including “killer acquisitions”, i.e., acquiring a company with the express purpose of closing it down
 - ② Conduct, e.g. foreclosure and/or exclusion:
 - ★ Concerns that dominant platforms can leverage that dominance into adjacent markets
 - ★ (Possibly protecting their core market in the process)
 - ★ e.g., the EC’s Google Shopping, Google Android, and Google AdSense cases

Note: Because G&F are so dominant in their own product markets, competitive threats (and thus these issues) are more likely to come from adjacent (i.e. vertical) “layers of the stack”

(1) Platform Dominance

Q: Which platforms are we talking about?

Figure 1.1: Interactions of digital platforms with their users



(A: Google and Facebook)

(Thus even more questions outside this scope)

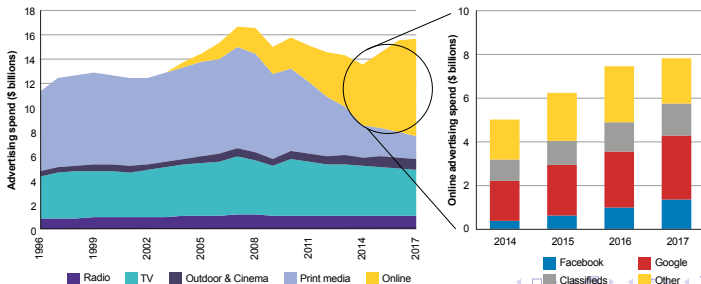
What are their (G&F's) business models?

- Primarily rely on consumer attention / consumer data to sell advertising
 - ▶ Google: Largely search advertising
 - ▶ Facebook: Largely display advertising
- Rich data allows them to offer highly targeted/personalized ads

What evidence is there that they are dominant?

- In Australia (S: ACCC Report):
 - ▶ Google Search accounts for 90% of desktop computer search and 98% of mobile user search (92% globally); 96% share of online search advertising
 - ▶ 17m (68% of A pop) access Facebook monthly; Facebook has 46% share of display advertising revenue (no other has more than 5%)
- Online taking over ad industry; majority of this is G & F:

Figure 1: Australian advertising expenditure by media format and digital platform



Why are they are dominant? I

1 Strong network effects (“feedback loops”):

- ▶ Direct: more users increases (a) G’s search algorithm, (b) the value of F’s social network
- ▶ Indirect: Advertisers value more users as:
 - ★ Allows better targeting
 - ★ Increased reach increases price *per impression*?
- ▶ Cross-product data accumulation
 - ★ G: Search, YouTube, Shopping, Gmail, Maps, plus 3rd party data if you use Chrome and they use G ad services (90%+)
 - ★ F: Facebook, Instagram, WhatsApp

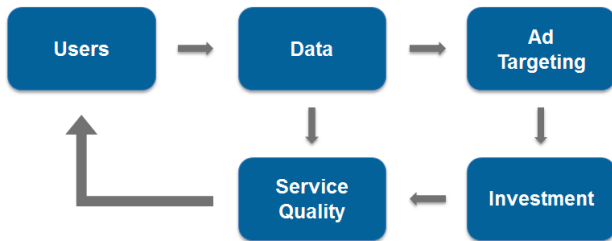
What are the empirical magnitudes here?

(Perhaps hopeless without their data, but one has to flag it as a (the!) crucial research question...)

Feedback loops

- 2 They invest profits into providing high-quality products

Figure 1. Feedback Loops



- ▶ Can't forget this!
- ▶ (But it doesn't mean it's the *only* reason they are dominant)

Why are they are dominant? II

③ They have acquired potential competitors (?)

- ▶ Facebook: Instagram (\$715m, 2012), WhatsApp (\$19b, 2015)
- ▶ Google: Mostly vertical acquisitions (e.g. Doubleclick (\$3.2b, 2008))
 - ★ (Discussed further below)

④ Default bias

- ▶ G Chrome and Safari have 80% of the (A) browser market
- ▶ G pays \$12 *billion* to Apple to be default on Safari
- ▶ The Google Android case was all about contractual restrictions to ensure G Search's default status on mobile devices running Android
 - ★ **Magnitudes?**

Why are they are dominant? III

5 Limited multi-homing and high switching costs:

- ▶ Loss of personal data, Lack of interoperability (e.g. messaging apps)
- ▶ Inertia
 - ★ Magnitudes? Experiments?

These are all (plausible) theoretical arguments. Where can we get empirical estimates on their relative importance?

How to address this/these issue(s)?

- The various government initiatives have all put forward ideas for addressing the issues I'll discuss today
 - ▶ I'll summarize them here
 - ★ (For sourcing: ACCC, Furman, ECEP)
 - ▶ And point to academic research where available
- The key question: Will they work???
- ▶ Often more research is needed

Dominance: How to address? I

- Personal data mobility and systems with open standards (Furman) / Data portability and interoperability (ECEP)
 - ▶ e.g. profile, network of contacts, and broadcast feed (Facebook)
 - ▶ Furman: Details TBD (by a newly-constituted Digital Markets Unit);
 - ▶ ECEP: Data regulation?
- Data “openness” (\equiv access, Furman)
 - ▶ “A significant intervention”
 - ▶ Furman: Details TBD; ECEP: An extensive discussion:
 - ★ Not best under Article 102 (tho could be done there if need be)
 - ★ Prefers market-based solutions or a regulatory regime

The details matter here: Reports suggest regulation. How exactly would this look? Can theory provide guidance?

Dominance: How to address? II

- Choice screens (ACCC) ≡
 - ▶ Choice of browser requirement (computers, tablets, mobile devices)
 - ▶ Choice of search engine requirement (browsers)
 - ★ Each with no default option
 - ▶ Another significant intervention
 - ★ Would need to know the benefits (vis reduced default bias) to balance against any costs
- Break them up!
 - ▶ It's on the table: News Corp Australia CEO, Elizabeth Warren (U.S. Presidential candidate)

(2.a) Exploitative Behavior

Exploitative behavior: Claims

- Arguments have been made that the dominance of some digital platforms allows them to demand terms and conditions that consumers and/or businesses would not otherwise accept (in more competitive markets)
 - Can qualify as an **abuse of a dominant position**
- Primary examples:
 - **Re: consumers**: privacy and the value of user data
 - **Re: content creators and publishers**: expropriation of the value of their content
 - ★ Discuss the former next; latter at the end of the talk

Exploitative behavior re: consumers

- Digital platform services are clearly valued by consumers
 - ▶ Concern is that they have become “must-have” services
 - ▶ → lack of “informed and genuine choice”
- This driven by two structural elements (ACCC):
 - ▶ **Informational asymmetry** between consumers and platforms re:
 - ★ Extent of data collected and how it is collected, used, and shared
 - ★ Value of that data to the digital platform
 - ▶ **Bargaining power** held by digital platforms v consumers
 - ★ Take-it-or-leave-it terms and bundled consent

Competition and Privacy

This means that it's *both* the case that:

- (Lack of) **Competition is a privacy concern**
 - ▶ Different from the Privacy Paradox: even if they consumers value privacy, they feel they have no choice but to give it up
- (Lack of) **Privacy is a competition concern**
 - ▶ Bundled consents (privacy policies generally) permit greater data collection and monetization
 - ▶ Enhancing dominance

Can these links be formalized?

(If so, of considerable value to the public debate on competition and privacy)

Consumer exploitation: How to address? I

- Just forbid it:

- ▶ On 6 February 2019, German regulator (Bundeskartellamt) forbid Facebook:
 - ★ From making its use conditional on collecting user- and device-related data and ...
 - ★ ... combining Facebook-account info with 3rd-party information ...
 - ★ ... without the users consent
 - ★ **The key:** “there is no effective consent to the users’ information being collected if their consent is a prerequisite for using the Facebook.com service in the first place”
- ▶ Concluded F’s data policy “constitutes an abuse of a dominant position ... in the form of **exploitative business terms**”

Case brought under German law. Does it generalize?

(Even if so, this is about using multiple sources of data - problem still remains with F-only data)

Consumer exploitation: How to address? II

- I would argue more is needed than individual data mobility and open standards: need also **countervailing power**
 - ▶ Weyl (*Radical markets*) advocates for “data unions”
 - ★ Treat “Data as Labor” and let them (it?) organize
 - ▶ Analogy I like: data as (copyrighted) performances
 - ★ Foster the creation of “**data collecting societies**” modelled on those that collect royalties for musical compositions and performances
 - ★ While consumers currently receive services they clearly value “for free,” they might choose differently if they knew that G or F earned \$200/year based on their online activity

How much value is there in consumer data (again)? How could such mechanisms be designed?

(3.a) Exclusionary Behavior (Mergers): Potential Competition

Exclusionary behavior (Mergers): Potential Competition

- All of the governmental initiatives (ACCC, Furman, ECEP) highlight the adverse consequences of allowing dominant digital platforms to acquire potential competitors
 - ▶ With some claiming evidence of *under-enforcement* of mergers in the digital sector generally
 - ★ Over 10 years, Apple, Amazon, Facebook, Google, and Microsoft have made more than 400 acquisitions globally
 - ★ None have been blocked; in Europe, only Google/DoubleClick and Apple/Shazam went to Phase II
 - ★ With the benefit of hindsight, UK's (then OFT) approval of F/Instagram “looks a bit naive”
 - ▶ → too many “false positives”
 - ★ (See ECEP Report, “Error Cost Framework” for cites in support)

Why (even vertical) mergers involving dominant platforms should be treated carefully

- From Bresnahan (2001, “Economics of the Microsoft case”):
 - ▶ Imagine platforms as a bundle of complementary technologies
 - ▶ Two competing economic forces:
 - 1 Network effects and sunk costs → concentration within individual technologies
 - 2 “Divided Technical Leadership” ≡ “distinct, specialized firms advance key, complementary technologies used by the same applications” → [a competitive force](#)
 - ▶ Thus beware (vertical) mergers between dominant players of complementary technologies
 - ★ e.g., Facebook/Instagram, Google/DoubleClick, Google/YouTube, eBay/PayPal
 - ★ [Oops]
 - ★ (G especially is dominant throughout its vertical “stack”)

The EC Expert Panel sees it the same way

- For cases “where a dominant platform and/or ecosystem” seeks to acquire a target with a high future market potential:

“In such cases, competition law should be particularly concerned about protecting the ability of competitors to enter markets, as competition in the market is typically reduced and *competitive threats will typically come from the fringe*. (emphasis added)

In this setting, the competitive risk resulting from an acquisition is not limited as in traditional ‘conglomerate’ theories of harm to the foreclosure of rivals access to inputs. It extends to the strengthening of the platforms (or ecosystems) dominance...”

Exactly!

→ (And perhaps BTE are more-than-cumulative when a platform is dominant at multiple layers in a stack?)

Contemporary literature on potential competition

- Thy: Chen & Rey (2015, WP): “A theory of conglomerate mergers”
 - ▶ Efficiency benefits from one-stop-shopping (consumption synergies) traded off against softening of competition
 - ★ Negative impact on welfare if markets are concentrated *and* full bundling.
 - ▶ → Prevent tying/bundling after the merger
 - ★ (Other theory papers?)
- Emp: Cunningham et al (2019, WP): “Killer Acquisitions”
 - ▶ Great setting: pharma, 21 years, 50k+ drugs in development
 - ▶ Well-defined markets (therapeutic market x mode of action), easily-measured competition (# prods/firms present/in pipeline)
 - ▶ Results: Projects acquired by incumbents with overlapping v non-overlapping products **39.6% more likely to be killed**

More (theory) research is needed!

(I'm pessimistic whether empirical work is feasible - but would be happy to be wrong!)

Potential competition: How to address? I

Propose changes both to the law and (possibly) to economic approaches.

Re: changes to the law:

- Require mandatory notification of *all* transactions by (dominant) digital platforms (ACCC, Furman)
 - ▶ (ECEP disagrees, albeit mildly)
- **Change merger standards** to account for
 - ▶ Impacts on potential competition? (ACCC, Furman, ECEP)
 - ★ (See next slides)
 - ▶ Amount/nature of data acquired? (ACCC)
 - ▶ Acquisition price?
 - ★ (EC experts suggest to wait and see how works in Member States)

Potential competition: How to address? II

Changes to the law, cont:

- Change the burden of proof?
 - ▶ Currently competition authorities have the burden of proving that a merger is anti-competitive
 - ▶ Notifying parties should bear the burden of showing adverse effects are offset by merger-specific efficiencies (ECEP)
 - ★ Emphasize it is *not a presumption*
- Establish a rebuttable presumption that a merger involving a dominant platform is unlawful?
 - ▶ e.g., Motta and Peitz (2019), Klobucher bill in the U.S. Senate (2019)

Can these tradeoffs be formalized?

Potential competition: How to address? III

Changes to economic approaches:

- How to account for potential competition???
- ▶ Current EU merger law based on “more likely than not” criterion
- ▶ Furman: “Balance of harms” ≡ “an approach which takes into account the scale as well as the likelihood of harm in merger cases”
 - ★ EC experts (mostly) agree: suggest to translate (similar) concept of “error cost framework” into legal tests.
- ▶ **Note:** the UK’s CMA replied it *doesn’t* like the idea:
 - ★ “challenges applying this kind of test in a transparent and robust way”;
 - ★ “wary of unintended consequences”;
 - ★ appears worried about (significant) over-enforcement

Can academics help clarify appropriate mechanisms?

(3.b) Exclusionary Behavior (Conduct): Foreclosure

Exclusionary behavior (Conduct): Foreclosure

- If a dominant digital platform can't acquire a competitor, it may instead have an incentive to hobble rivals, e.g. via foreclosure:
- With goals of
 - ① Impacting competition in an adjacent market and/or
 - ② Limiting competition in its core market
- Sample EC cases:
 - ▶ Google Shopping, Google Android, Google AdSense

Exclusionary behavior (Conduct): Academic literature I

Relatively robust (and growing) literature here:

- Carlton & Waldman (2002, *RAND*): **monopoly tying of a complementary product can prevent entry** in its primary (tying) market and leverage market power in the secondary (tied) market
- Choi & Jeon (2016, WP), “A leverage theory of tying in two-sided markets”:
 - ▶ Q: How does a zero price in a two-sided market affect incentives to tie its monopolized product to a potentially competitive one?
 - ▶ A: **Tying circumvents a zero price constraint, limiting competition in the tied good market** and softening competition in the tying good market.
 - ★ (Extended to the facts of Google Android by allowing payments to OEMs in Etro & Caffarra (2017))

Exclusionary behavior (Conduct): Academic literature II

Literature, cont:

- De Cornière & Taylor (2018, WP), “Upstream bundling and the leverage of market power”:
 - ▶ Consider an upstream firm offering a (monopoly) operating system and a (potentially competitive) browser to a device manufacturer
 - ▶ Only one browser is valued by consumers; contractual frictions imply positive markups upstream
 - ▶ Bundling an OS and browser is always profitable (lowers slotting fees), and anti-competitive when the value of the OS is high enough and the rival's browser is more efficient

Developing a credible and coherent theory of harm underlying antitrust (conduct) cases is *essential*

These were designed (in part) with Google Android in mind. [Keep an eye open for future opportunities!](#)

Platform foreclosure: How to address?

- Institute a platform Code of Conduct (Furman)
- Enforcement action insufficient: “ex-ante regulation is likely required” (CMA reply)
 - ▶ Of what kind exactly?
- Ensure competition authorities have sufficient capabilities (Furman)
 - ▶ Information-gathering powers outside of market investigations?
 - ▶ Specialist skills needed to evaluate theories of harm
- “Interim measures” (Furman, ECEP)
 - ▶ In markets that tip, authorities must be able to intervene quickly
 - ▶ Especially if later intervention may have to go far in order to “reset” the market
 - ★ Can these tradeoffs be formalized?

(2.b) Exploitation: Platforms and News Production

Platforms and News Production

- F and G are now important and growing sources of news media referrals
 - ▶ In A, responsible for 50% (!) of traffic to news media websites
 - ▶ Gives them market power in negotiations with publishers
- News organizations are particularly susceptible to changes in platforms' business strategies
 - ▶ e.g. First-click free (FCF), Accelerated mobile pages (AMP)
 - ★ While in effect, Google required publishers to accept FCF (allowing readers to go behind publisher's paywalls) as a condition for crawling their news stories.
 - ★ Google News's "Top News" carousel prominently displays AMP-format articles; encourages readers to consume news via Google rather than on publisher websites; Google keeps the data

Disclosure: I have done consulting on behalf of a publisher adverse to Google's FCF and AMP policies

Platforms and News Production: What's the claimed theory of harm? I

- Publishers argue that Google seeks to position itself as an intermediary between consumers and providers of news
 - ▶ Extracting rents by virtue of that position
 - ▶ **Threatening** the revenue streams essential to **the production of journalism and original content**

Platforms and News Production: What's the claimed theory of harm? II

- Furthermore, because Google profits from advertising, it has an incentive to encourage users to consume news in “ad-supported” ways
 - ▶ e.g., by keeping them in the “Google ecosystem” and discouraging direct connections to publishers
 - ▶ This is particularly concerning to (high-end) publishers pursuing models of subscription pricing

This ToH appears plausible, but has not (to my knowledge) been formalized

Platforms and news production: How to address? I

- Empower a regulatory authority to monitor, investigate, and report on digital platforms' news algorithms to ensure they do not cause significant detriment to the production of news and journalistic content (ACCC)
 - ▶ [Vague]
- Enhance countervailing power:
 - ▶ Exempt publishers from antitrust enforcement so that they can negotiate collectively with platforms?
 - ★ e.g. David Cicilline's (U.S. Representative, Rhode Island) 2018 "Journalism Competition and Preservation Act"
 - ★ (Analogy to possible responses to consumer exploitation)

Is there a market failure? How to correct?

Empirically: what consequence are reduced revenues for journalistic quality?

Platforms and news production: How to address? II

- Reform copyright law

- ▶ EU's controversial copyright law approved by European Parliament on 29 March 2019
 - ★ (Passed to EU Member States who have 24 months to implement it)
 - ★ (And figure out the details)
- ▶ A key element (with details TBD): the “link tax”
 - ★ Advocates say will level the playing field between publishers and platforms
 - ★ Opponents claim it will restrict how content is shared online

This is happening, with uncertain effects. Can academics clarify?

(x) Platforms: Marketplaces

Platforms: Marketplaces

- The ACCC report focused on Google and Facebook
- The Furman report (somewhat) similarly:
 - ▶ Focusing on platforms with “strategic market status”
- The ECEP report discusses at length platform *marketplaces*
 - ▶ Where the platform itself is the “regulator”
 - ▶ Setting the “rules of the game” on the platform
 - ★ Conclude these should be fair, unbiased, and pro-user
 - ★ Discuss **leveraging** and **self-preferencing**

Don't have much to say here other than it looks quite interesting (and is clearly important)

Conclusion

Conclusions

- There are numerous policy questions centered on dominant platforms that are of **first-order importance**
 - Questions that need the time and attention of academics
- My hope is that by sharing with you the focus of the ongoing policy debate
 - Some of *you* will be inspired to tackle some of *them*!

Thank you