

Platform Mergers and Antitrust

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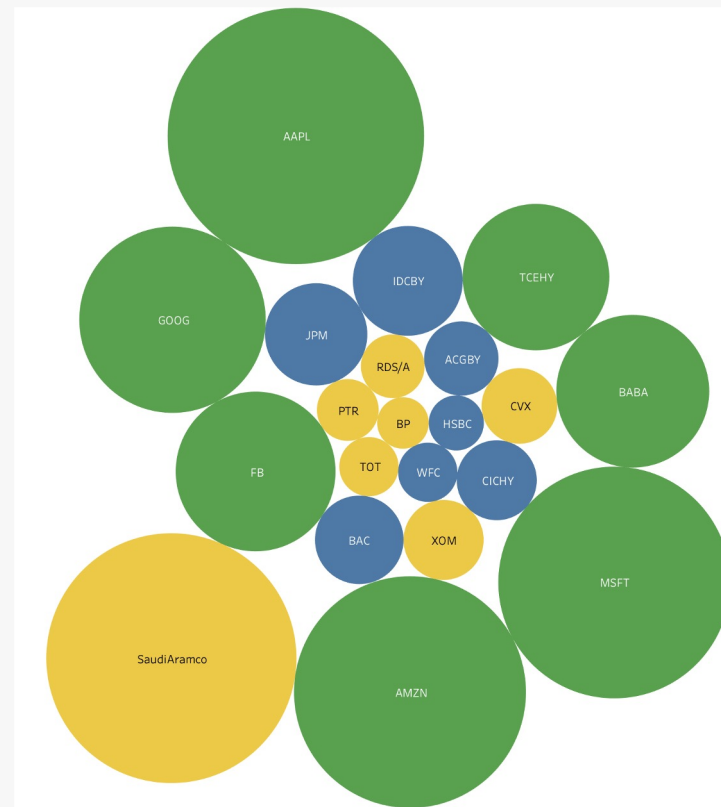


First Some Background

Largest 7 Market Caps in Banking, Oil, & Tech/Platforms

Tech (Platforms) ...

- Enormous market cap
- Scaling fast
- Largely B2C
 - B2B growing ...
- Scope goes beyond typical firm boundaries
- Monopolies?

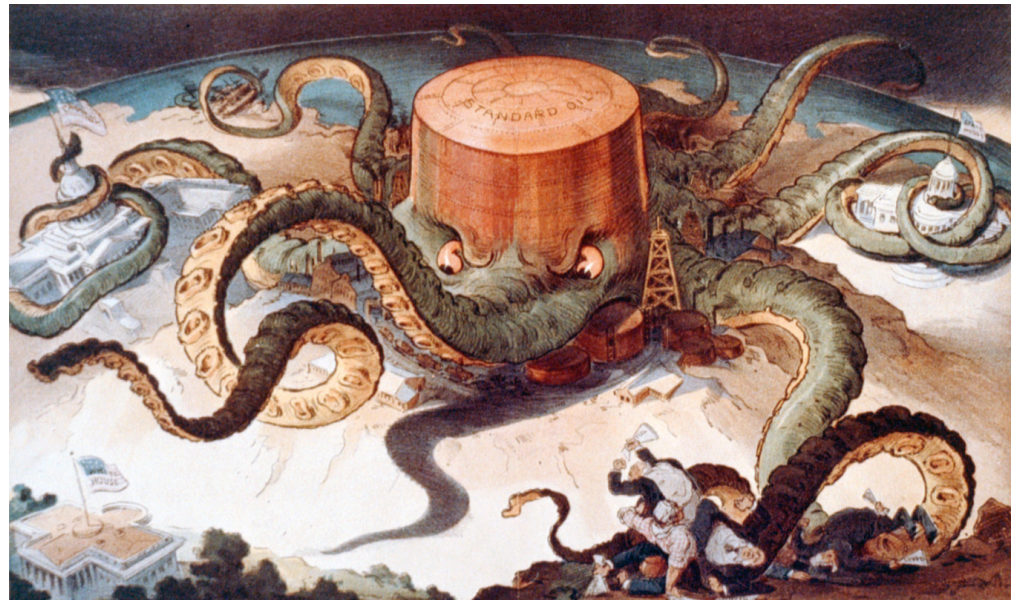


Bank USD 1.4T
Oil USD 3.3T
Tech USD 8.1T

As of 07/15/2022

Traditional tests of monopoly power

- Ability to fix prices
- Ability to exclude competition
- Willful acquisition or maintenance of power
- Exceptions for success as result of superior product, business acumen or historical accident



<https://definitions.uslegal.com/m/monopoly/>

Do big tech firms fit the test?

Largest (by market cap) firms don't fit model of traditional monopolists

... they

- **Often offer free services (usually to consumers; sometimes suppliers); "free" users pay in data and/or attention but not direct currency**
- **Operate at loss for a long time**
 - **Can internalize network effects to cross subsidize free services (Multi-sided networks)**
- **Often protected by strong network effects**

<https://news.utexas.edu/2017/11/01/are-facebook-and-google-monopolies/>

<https://www.theverge.com/2017/9/5/16243868/google-monopoly-antitrust-open-markets-barry-lynn>

Example: How easy is it to switch social networks?

“Even when people want to quit Facebook, they don’t have any meaningful alternative ... According to the Pew Research Center, a quarter deleted their accounts from their phones [after Cambridge Analytica], but many did so only temporarily...After all, where would they go?”

- Chris Hughes, Facebook co-founder

“If I buy a Ford and it doesn’t work well and I don’t like it, I can buy a Chevy. If I’m upset with Facebook, what’s the equivalent product I can go sign up for?”

- Senator Lindsey Graham

<https://www.technologyreview.com/s/611425/its-time-to-rein-in-the-data-barons/>

<https://www.nytimes.com/2019/05/09/opinion/sunday/chris-hughes-facebook-zuckerberg.html>

<https://www.theverge.com/2018/4/10/17220934/facebook-monopoly-competitor-mark-zuckerberg-senate-hearing-lindsey-graham>

<https://www.pewresearch.org/fact-tank/2018/09/05/americans-are-changing-their-relationship-with-facebook/>

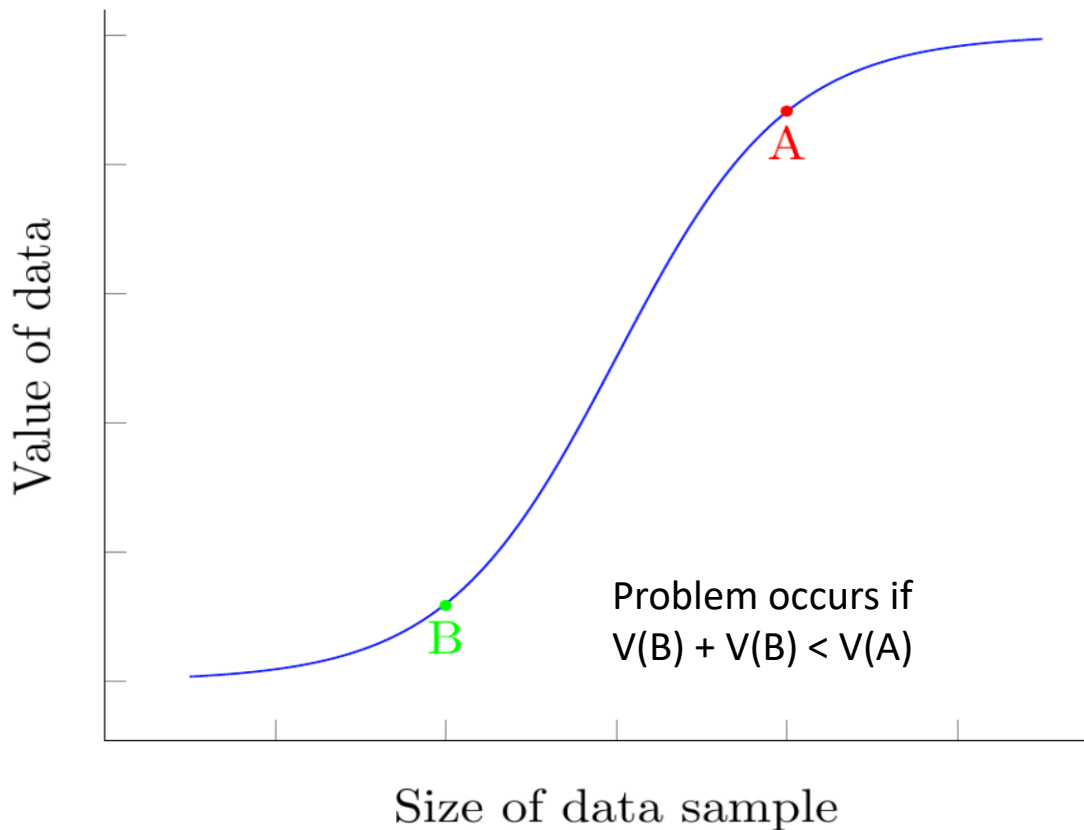
Example: Where is Amazon Dominant?

- Large in e-commerce & mkt cap
- Grocer-perishables
- Delivery chain
- Content creator
- Cloud computing services
- AI/ML as a service
- ... Dominant in niches but fear is growing



<https://www.yalelawjournal.org/article/amazons-antitrust-paradox>
<https://www.visualcapitalist.com/chart-shows-amazons-dominance-ecommerce/>

Role of data and data learning curves



- Users' data and its aggregation can have immense value.
- Data feedback loop enabled through machine learning and artificial intelligence
 1. Better information leads to better products & services
 2. Further improvement of algorithmic systems through experimentation
- Break-up reduces value
- Similarly, blocking access to new markets may reduce value creation.

As Value Creation Moves outside, Platforms have Best/Most Data

- Facebook + Google
 - Data allows highly targeted advertising ...
 - get **75%** of digital advertising budget in America
 - control **84%** of global spending on online ads, excluding China
- In the U.S. Amazon handles:
 - > **83%** of e-book sales
 - ~ **90%** of online print sales
 - **44%** of all e-commerce transactions
 - Mines the data to pick off the highest profit sectors



<https://www.technologyreview.com/s/611425/its-time-to-rein-in-the-data-barons/>

Many studies/commissions (EU, US, WEF, etc.)

- Documenting the Harm from “Big Tech” firms
 - Gatekeeper firms can exclude other actors
 - Firms may engage in M&A to reduce competition
 - Firms may offer reduced quality products (such as poor privacy protection)
- Ex post enforcement doesn't appear to work; too long thus rare and seemingly random in its impact
 - Need for new tools
- Ex ante prohibitions gaining traction
 - What actions will trigger review?

ICC paper in Special Issue on Regulation

Industrial and Corporate Change, 2021, **00**, 1–30

DOI: <https://doi.org/10.1093/icc/dtab048>

Original Article

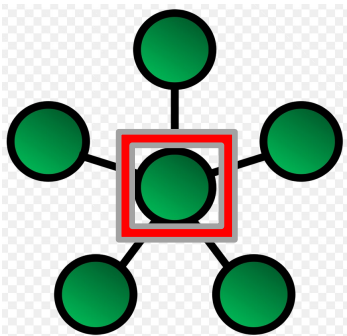


Platform mergers and antitrust

Geoffrey Parker^{1,*} Georgios Petropoulos^{2,3,4} and Marshall Van Alstyne⁵

Much focus on gatekeepers: what are they?

Imagine platform ecosystem as a star-network with the platform as the central node



Second-best
measure: user
base of platform.

- The value that the platform brings to the ecosystem indicates to what extent the actors of the ecosystem depend on the platform
- Gatekeeper: Platform of high economic dependence
- Our first best measure to assess if a platform is a gatekeeper is the number of interactions among users it facilitates
- Interaction is not a transaction necessarily
- Platforms should be required to report the number of interactions they facilitate at different points of time
- Authorities should assess if this is a truthful report (e.g., through an embedded auditor)

Data set on M&As by GAFAM

- **Combine sources like: Crunchbase, Wikipedia, the Thurman Arnold Project at Yale University, and Microsoft Investor Relations Acquisition History**
- **Conducted further research to identify**
 - the price of the acquisition (if it is disclosed),
 - the acquired firm, its specialization & the industry it belongs to
 - motive of the acquisition (from public statements)
 - how the acquired firm was integrated in the business model of the big tech company
 - whether the acquisition involved technology transfer, talent acquisition, or both (balanced)

Why were they not stopped? (U.S. centric ...)

- **The U.S. antitrust regulation philosophy since 1980s (Chicago...)**
 - Tolerant of mergers and acquisitions AS LONG AS consumer prices do not go up
- **New antitrust claims:**
 - How do tech consumers pay if services are “free”? With data...
 - New research shows that there is clearly consumer benefit

Furman, Jason, and Peter R. Orszag. "Slower Productivity and Higher Inequality: Are They Related?." (2018).

Brynjolfsson, Erik, et al. *GDP-B: Accounting for the Value of New and Free Goods in the Digital Economy*. No. w25695. National Bureau of Economic Research, 2019.

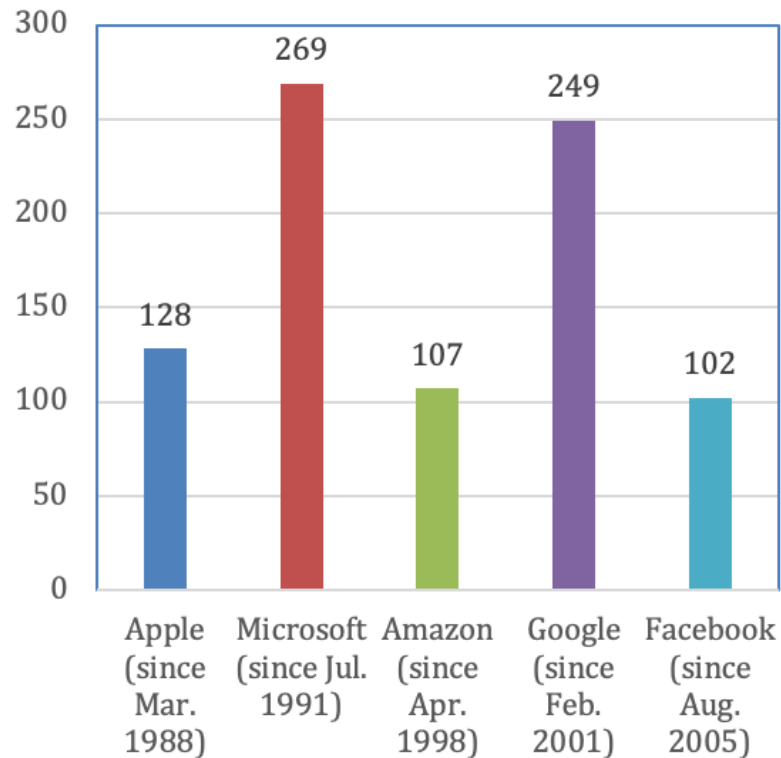
Why were they not stopped?

“The inability of antitrust authorities to control the merger wave initiated by the GAFAM in the US and the fact that in Europe a limited number of cases brought by the EC Commission against Microsoft, Google or Amazon have not had a tangible effect on their behavior has meant that a number of critics argue that direct regulation of the GAFAM would provide a better way to control them than ineffective competition law enforcement.”

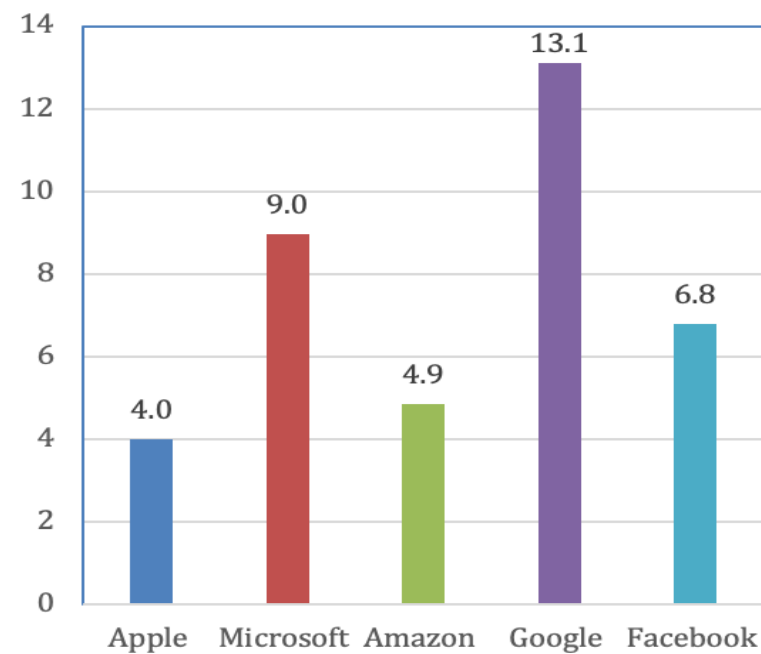
Jenny, F. (2021). Competition law enforcement and regulation for digital platforms and ecosystems: understanding the issues, facing the challenges, and moving forward. *Industrial and Corporate Change*.

Mergers by big platforms

Total Mergers and Acquisitions by GAFAM (855) from 1988 - 2020

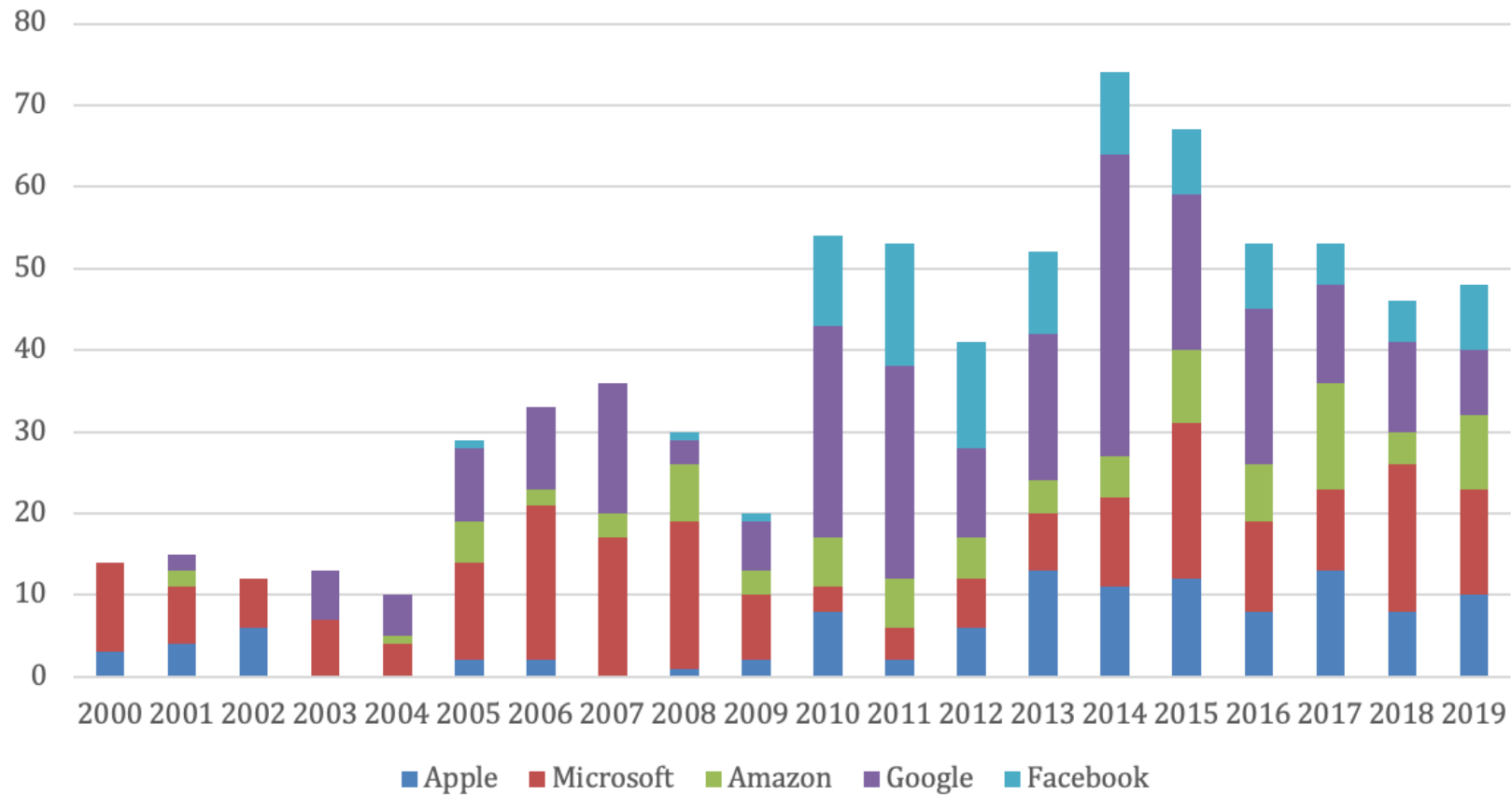


Average number of Merger and Acquisitions per platform per year from 1988 - 2020



The golden era of M&As

Number of GAFAM Mergers and Acquisitions per firm and year between 2000-2019



A typology of M&As

- An additional complementary functionality that can help the company provide more efficient services related to its core business,
- New functionalities, products and services added in the vertical value chain that make the platform market more attractive,
- Substitutable, competing services in firm's core intermediary or vertical markets of operation that reduce competition
- Human capital, either as talent employed by the target firm, or a large user base orchestrated by that firm

Complementary Functionality Integrated to Core

Amazon	Apple	Facebook	Google	Microsoft
LiveBid.com (online broadcast service for auctions)	Schemasoft (developer of software components for facilitating digital information workflow)	Spool (facial recognition software for social networks)	Neotonic Software (provider of services for e-mail discussion groups)	Fox Software (provider of database software)
Accept.com (longer-range solutions to simplify person-to-person and business-to-consumer transactions on the internet)	Spruce Technologies (graphics software)	Storylane (online advertising services)	Applied Semantics (online advertising)	Altamira (image composition technology)
Touchco (in touch screen technology)	Snappy Labs (photography software)	Pebbles (provider of cellular network technology)	ZipDash (traffic analysis in online maps)	ShadowFactor (software for multiplayer internet gaming)
Goodreads (social reading service)	FingerWorks (multitouch technology)	Two Big Ears (developer of an application for recording video selfie animations)	reMail (search tool for e-mail)	OmniBrowse (wireless data services)

ICC Fig 1

New Products and Services in Vertical Structure

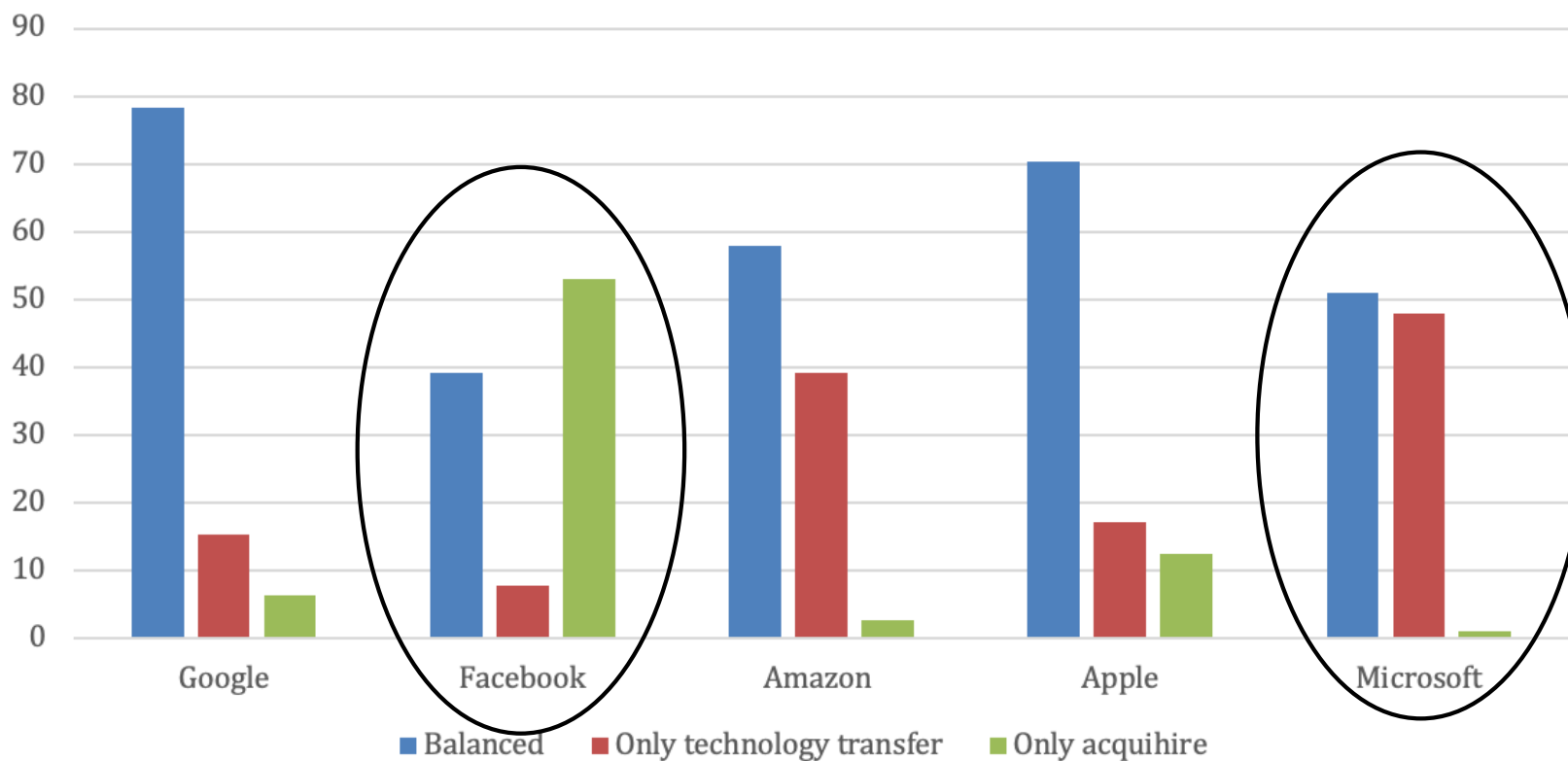
Amazon	Apple	Facebook	Google	Microsoft
Fabric.com (online fabric store that offers custom-measured and cut fabrics, as well as patterns, sewing tools and accessories)	Emagic (mapping company that offers mass transit information)	Pryte (developer of a pedometer that works with iPhone)	2Web Technologies (online spreadsheets)	Hotmail (web-based e-mail service)
Reflexive Entertainment (developer and distributor of video games)	PowerSchool (student information systems)	Wit.ai (in-house music production studio)	Marratech (video-conferencing)	FASA Interactive (interactive entertainment software)
IMDb (online database of information related to retail goods)	Spotsetter (technology, which involves layering social data on top of a maps interface)	Infiniled (platform for creating electronic products through a 3D printing process)	Upstartle (word processor)	CompareNet (online comparison—shopping services)

Substitute Goods/Services

Amazon	Apple	Facebook	Google	Microsoft
Bookpages (online bookstore)	Lala.com (music streaming)	FriendFeed (social media platform)	Orion (web search engine) Sprinks	Lionhead Studios (game developer)
Telebook (online bookstore)	MOG (music streaming)	Chai Labs (online sharing platform for travelers)	Aardvark (social search platform)	StorSimple (cloud-integrated storage solutions)
Zappos (online shoe retailer)	HopStop.com (online maps)	WhatsApp (messaging platform)	Episodic (online video platform)	R2 Studios (home entertainment)
Woot (online retailer)	Swell (music streaming)	Instagram (social media platform)	Plink (mobile search engine)	Mojang (game developer)

Type of Mergers

Mergers & Acquisition Goals: % Balanced, % Acquihire, % Technology Transfer



Competition concerns

- **Three broad categories of concerns**
 - Dynamic concerns (e.g., killer acquisitions, kill zone effect, platform envelopment and market foreclosure)
 - Horizontal concerns (e.g. M&As that lead to competitive bottlenecks)
 - Vertical concerns (e.g., distortion of competition upstream and market foreclosure)

Policy responses:

1. A proposal for the ex-ante regulation towards a better information flow in digital ecosystems:

- In-situ data rights that address dynamic concerns and make firm boundaries endogenous

Details in:



The EU Digital Markets Act
A Report from a Panel of Economic Experts

Luís Cabral

Justus Haucap

Geoffrey Parker

Georgios Petropoulos

Tommaso Valletti

Marshall Van Alstyne

GDPR and U.S. Congress Data Portability

Data Portability

- Porting data removes context. Your response to someone else's post or their response to yours is lost. Platform keeps *their* data (Berlind 2018).
- Data decays. 1x transfer is a depreciating stock.
- More data pools = more data risk. "White hats" must defend everywhere but "black hats" can attack anywhere.
- 3rd party possession creates risk of *re-sharing* to unauthorized 4th, 5th ... parties.
- Wasted investment in redundant infrastructure.
- Data removed from context is not actionable. Cannot *share* a benefit with friends. Cannot *receive* them either.
- Chicken-n-egg problem: small firms do not start with data from which to create network benefits. But, without such benefits, consumers are not motivated to share data.

In-situ information exchange mechanism

- New regulation obliges platforms to open their data infrastructures to competitors while keeping their governance model separate
- Raw data is used at the location it is collected i.e. *in situ*
- *User* grants permission for 3rd party access
- Bring algorithms to data instead of data to algorithms

Examples:

- Payment Services Directive 2 (PSD2): banks must provide infrastructure so that 3rd parties may access information without any transfer of data (e.g. payment initiation services)
- Open Algorithms project which began implementation in 2017 in Colombia and Senegal under the leadership of MIT.

Contrast GDPR's data portability vs. In-situ access

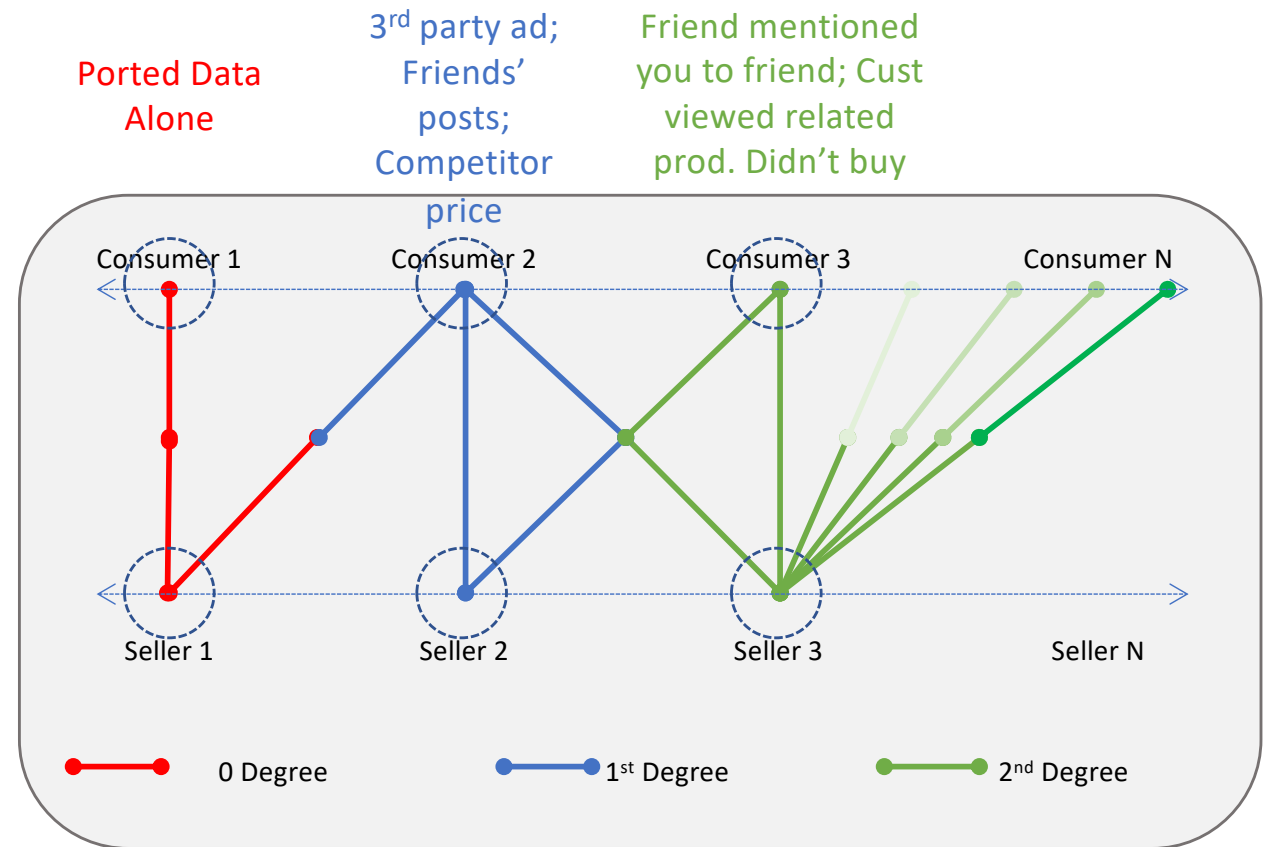
Data Portability

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In-Situ Access

- All context is preserved. Data provided by friends and 3rd parties remains intact.
- Access *in situ* grants use of recent flows and updates as well as the stock.
- A single point of access simplifies security, reducing the number of entry portals. Easier trace of who had access via APIs at same portal.
- 2nd -ary uses are curtailed. It's not possible to re-share data if 3rd parties do not have the data.
- Efficient use of existing infrastructure. Supply economy of scale.
- Data in situ is actionable. Benefit can be shared across existing infrastructure.
- Reduces chicken-and-egg problem. Startups can access data in context to prove they offer value. Permission revocable if they fail.

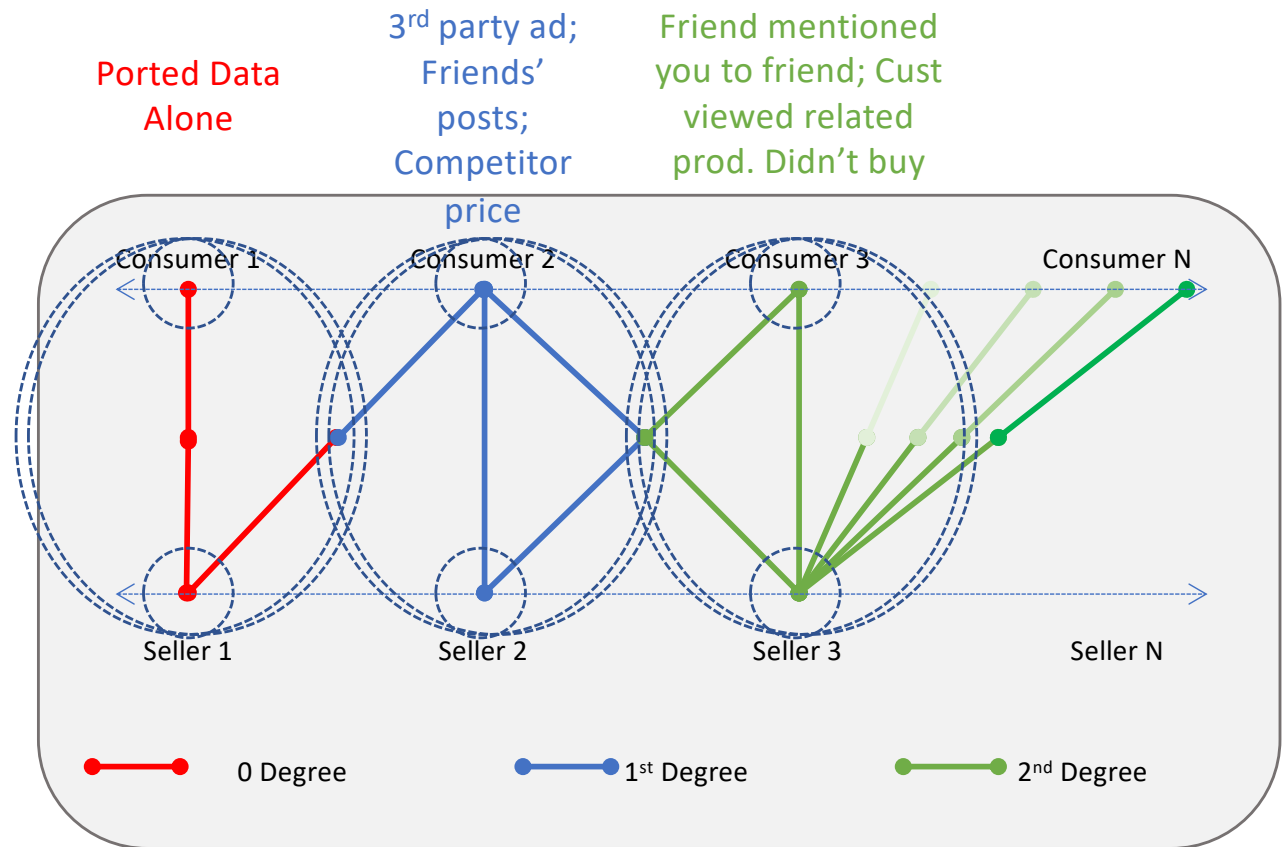
- **Own data** is only network degree 0 (not 1, 2 ... N).
- Porting loses context!
- Hard to assign property rights in jointly shared context



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-
- **In Situ (better)**: enable shared access to enable multiple parties to create value
 - MH ↑ competitive access, Share value with users ↑

Bring the algorithm to the data,
don't take the data from the infrastructure

- **Own data** is only network degree 0 (not 1, 2 ... N).
- Porting loses context!
- Hard to assign property rights in jointly shared context
- **In Situ (better)**: enable shared access to enable multiple parties to create value
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Additional Policy Proposals

1. **A proposal for the ex-ante regulation towards a better information flow in digital ecosystems:**
 - In-situ data rights that address dynamic concerns and make firm boundaries endogenous
2. **New ex-ante rules to address vertical merger concerns:**
 - Firewall to maintain equality of access for upstream competitors
 - Objective and enforceable criteria over matching and ranking
3. **An adjustment of the merger notification threshold in the case of horizontal and conglomerate mergers, and partial reversal of proof.**
4. **New tools to assess dynamic effects of mergers:**
 - Use of online experimentation

Regulation should ensure

- Trust and security
- Compatibility standards
- Effective dispute resolution mechanism and liability rules
- Data encryption
- Prohibition of exclusivity (over access to data) agreements
- Non-discrimination clause (Acemoglu et al. 2020, Bergemann et al. 2020)
- Periodic evaluation

In Situ Access is Making Progress

European Commission's High-level Panel of Economic Experts (L. Cabral, J. Haucap, T. Valletti and three of us): In-situ data rights to complement the DMA.

DMA as approved by the EU Parliament Internal Market Committee in Nov 2021: "this [access to information by business users or third parties acting on their behalf] shall include at the request of the business user, the possibility and necessary tools to access and analyse data "in-situ" without a transfer from the gatekeeper"

However, text on the agreement over the DMA (May 2022) does not specify how business users will get access to information.

Important: Only access to zero degree data? We should go beyond the that if we want to address information market failures.

Discussion

Related Research

2011
Platform
Envelopment



Strategy

[<link>](#)

2017
Platform Ecosystems:
How Developers
Invert the Firm



Firm
Inversion

[<link>](#)

2022
Platform
Mergers &
Antitrust



M&A
Antitrust

[<link>](#)

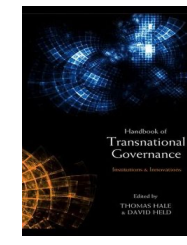
2020
EU Digital
Markets
Act



DMA
Review

[<link>](#)

2020
Digital
Platforms
& Antitrust



Antitrust

[<link>](#)

2018
Innovation,
Openness
& Platform
Control



Platform IP &
Competition
Policy

[<link>](#)

Q&A

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