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The Economics of the Digital Economy











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WTO Webinar on
*The economic characteristics
of data and data-driven markets*
Thursday 10 December 2020

Introduction

Valuations

	Apple AAPL	\$2.112 T
	Saudi Aramco 2222.SR	\$2.090 T
	Microsoft MSFT	\$1.617 T
	Amazon AMZN	\$1.583 T
	Alphabet (Google) GOOG	\$1.225 T
	Facebook FB	\$815.87 B
	Alibaba BABA	\$729.41 B
	Tencent TCEHY	\$727.84 B
	Tesla TSLA	\$593.32 B
	Berkshire Hathaway BRK-A	\$536.59 B

Disruption / Innovation

- ☞ Replacement of old market places: Amazon;
- ☞ New social etiquette: eHarmony, Tinder;
- ☞ Totally new “intermediaries”: Swyft, Uber and their competitors, energy markets, blablacar.

The characteristics of the digital economy

The “characteristics” of digital industries

- 👉 Innovation
- 👉 Increasing returns to scale.
- 👉 The role of intellectual property.
- 👉 Switching costs.
- 👉 Data.
- 👉 Network effects.
- 👉 Two sidedness.

Monopoly is not bad

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BUT We do not know how “competition for the market” should function to discipline large network firms.

⇒ We do not know how much of a problem this is.

Network externalities

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"If you want to play the odds when it comes to online dating, you need to be swiping where everyone's swiping."

Network externalities: definition

There are (direct) network externalities if the 'utility' of a participant to a platform increases with the number of other participants on the platforms.

- ☞ Sometimes network externalities can be dominated by the consequences of congestion when the number of participants become too large. Example: movie theater.
- ☞ Sometimes people also speak of 'indirect' network externalities.
Example: more people at the movie theater \implies fresher popcorn.
Example: more users \implies more data \implies better service.

...

Network externalities \implies

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- & market outcomes will tend to be one platform.

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Those are the “goods” aspect of competition between platforms
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- ☞ Better price and/or better quality does not **guarantee** that a platform will attract consumers.
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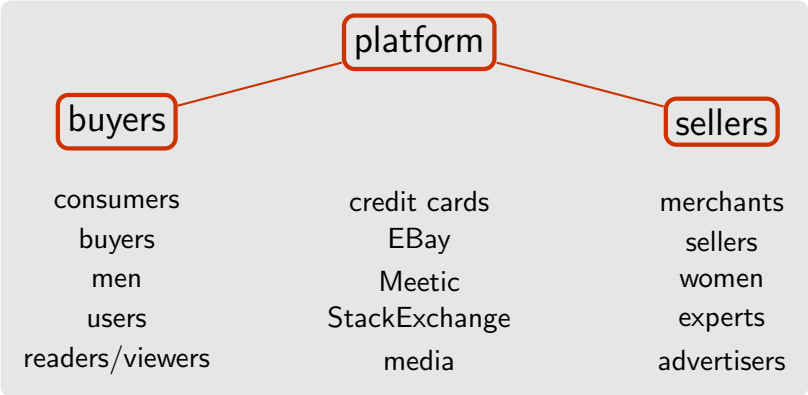
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- ☞ Better price and/or better quality does not **guarantee** that a platform will attract consumers.
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- \implies Incumbency advantage.
- ☞ These effects are reinforced by competitive advantage due to access to data.

Two sided platforms

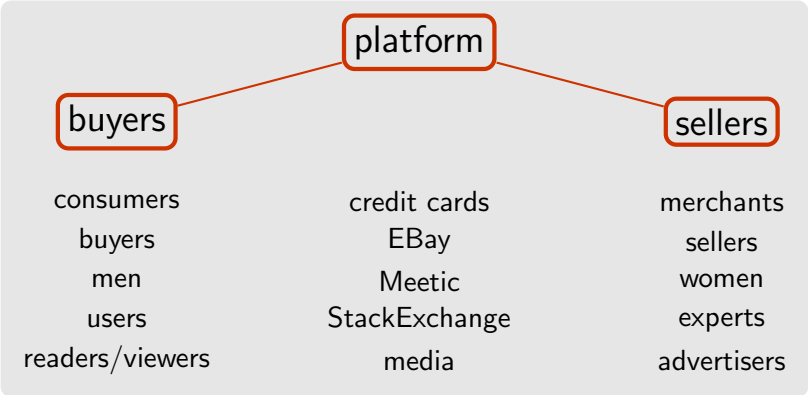
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A user is both a client and something which is sold to users on other side.

As in the one sided case

- ☞ It is generally more efficient to have one platform.
- ☞ The market will tend to monopolization.
- ☞ Collectively migrating to a new **better** platform requires consumers to solve a difficult coordination problem.

New issues

Pricing

- ☞ Price structure should aim at getting both sides on board, not to allocate costs “fairly”.
- ☞ Price low on one side if users on that side are very valuable to users on the other side.
 - ➡ Google charges 0 to consumers — and provide them with a very valuable service.

“Platforms as regulators”

Two sided platforms organize the interactions between the two sides:

- 👉 Restrict / encourages entry: iOS and Android apps.
- 👉 Regulate prices: no surcharge rules for credit cards.
- 👉 Law enforcement: arbitration processes.
- 👉 Organize matching: Meetic.

Access to data enables them to

- 👉 “regulate efficiently”;
- 👉 extract profits from this regulatory activity.