



Antitrust Analysis of Multisided Platforms

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WHAT'S DIFFERENT?

Firms Are Different

A traditional firm buys “raw material”, makes stuff, and sells it to consumers.

Toyota makes cars, sells to consumers.



A multisided firm recruits one type of customers, and makes those customers available to another type of customers. The customers **are** the raw materials.

BlaBlaCar gives drivers and passengers access to each other.

Economics Are Different

The demand by one group for the business depends on the interest (and therefore the demand) of the other group for platforms.

Passenger demand depends on availability of drivers.
Driver demand depends on availability of passengers.

The demand of each group is dependent on the demand by the other group.

Fewer drivers reduces demand by passengers.
Fewer passengers reduces demand by drivers.



Formulas Are Different

Single product firm profit function

$$\Pi = (P_1 - C_1) D_1(P_1)$$

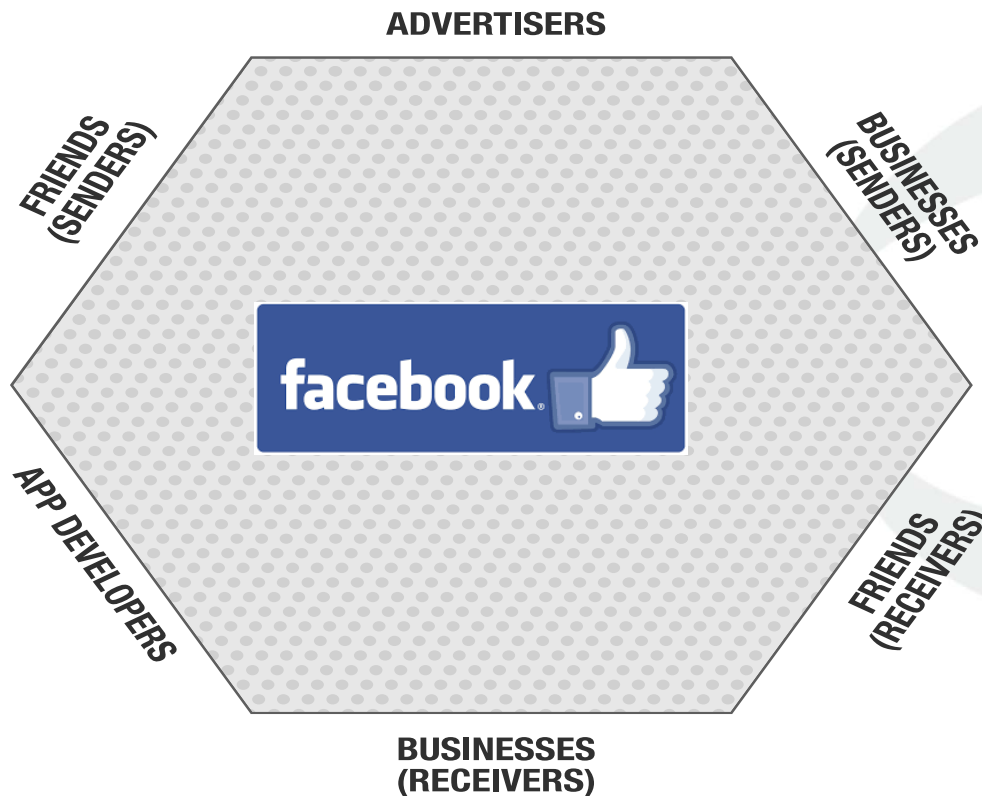
These terms don't appear in single-product profit maximization problem.

Two-sided platform firm profit function

$$\Pi = (P_1 - C_1) D_1(P_1, Q_2) + (P_2 - C_2) D_2(P_2, Q_1)$$

Two-sided case is mathematically very different than single-sided case **because of interdependent demand**. (This is basic Armstrong (Rand 2006) model but point is general and robust.) **THIS DIFFERENCE IS A BIG DEAL. WRONG FORMULA=WRONG RESULTS.**

Markets Are Different



Facebook's six sided platform competes for advertising spending and user time with other platforms, some of which are social networks but others of which aren't.

PREDATORY PRICING

Pricing Below Cost Common

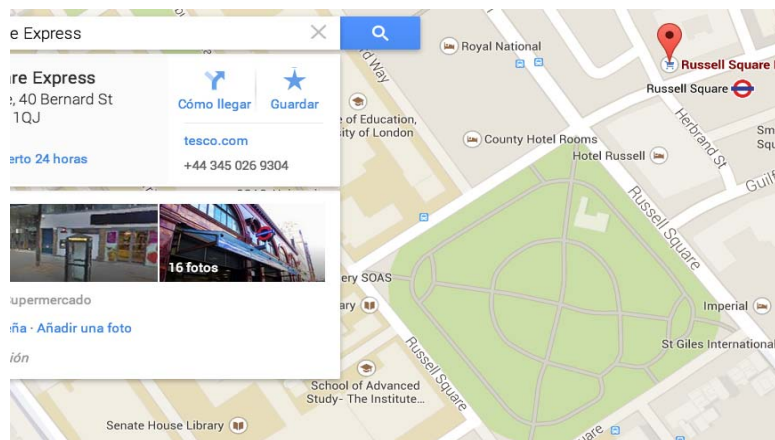
Traditional Firms: Price less than marginal cost ***does not maximize short-run profits***—it is abnormal—and is consistent with firm trying to drive rivals out of business to secure long-run monopoly.

Multisided Firms—Price less than marginal cost to one group of customers ***often does maximize short-profits***—it is normal—so does not necessarily cause any concerns.

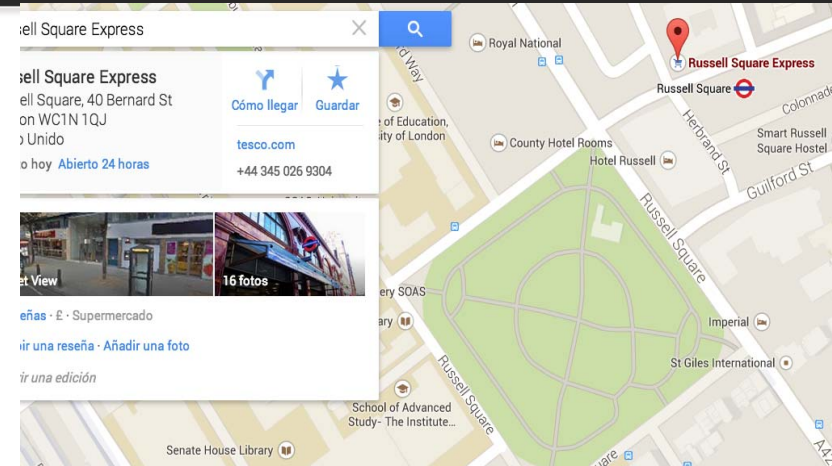
Platforms Can Have Money And Subsidy Sides



Bottin Cartographe v. Google



Bottin Cartographe charges developers for access to map APIs. Single-sided firm.



Google gives developers access to APIs for free.
Makes money from advertising. Two sided firm.

Google accused of predatory pricing for allowing companies to embed maps for free.

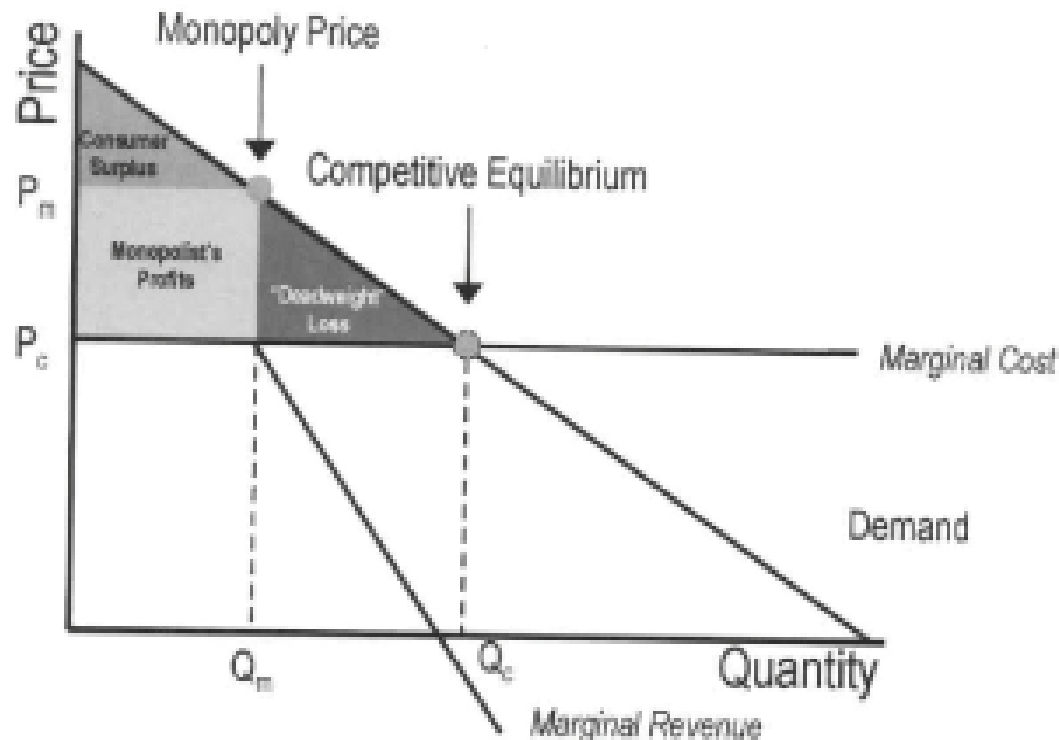
Paris Commercial Tribunal agreed

Paris Court of Appeals reversed

“It may be rational to offer products or services for free on a market not to oust competitors but to increase the number of users on another market.” “[T]he free business model is quite widespread in electronic markets.”

MARKETS AND CONSUMER WELFARE

Traditional Analysis of Consumer Welfare



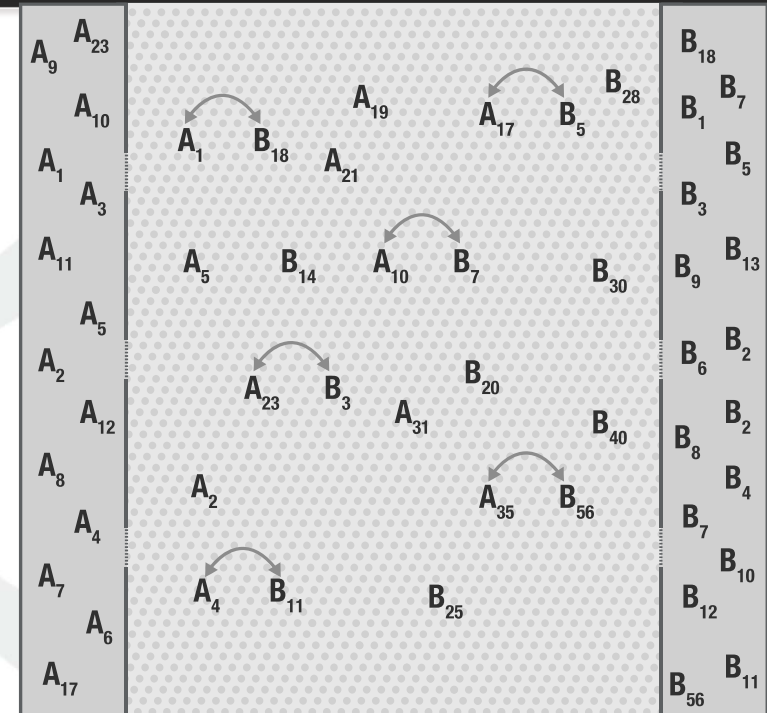
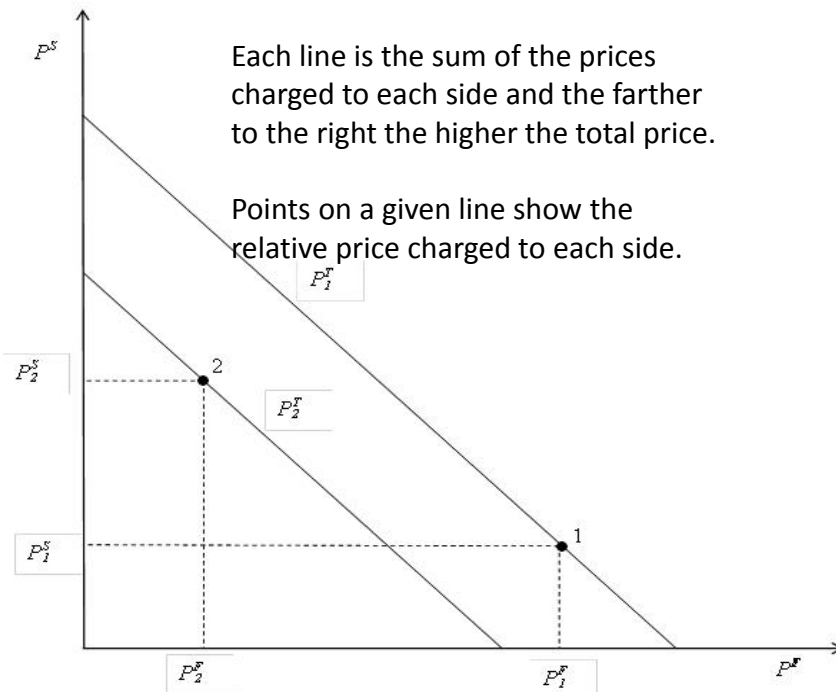
Market consists of product under consideration and close substitutes.

Increase in market power from merger or abuse of market power

- raises prices
- reduces output and
- lowers consumer welfare.

Platforms Have Multiple Interrelated Customer Groups

Side S and side F .



Platform serves distinct customers groups often with different products and services that help bring customers together and facilitate exchange. Increase in price on one side can have offsetting lower price on other side and through feedback effects can increase overall welfare and platform output, and possibly welfare for each group separately.

United States vs. American Express



American Express attracts high-spending customers through rewards program (subsidy side) and makes profit from merchant fees (money side). Prohibits merchants that agree to accept Amex cards from steering Amex cardholders to another card they are carrying that is cheaper for merchant.

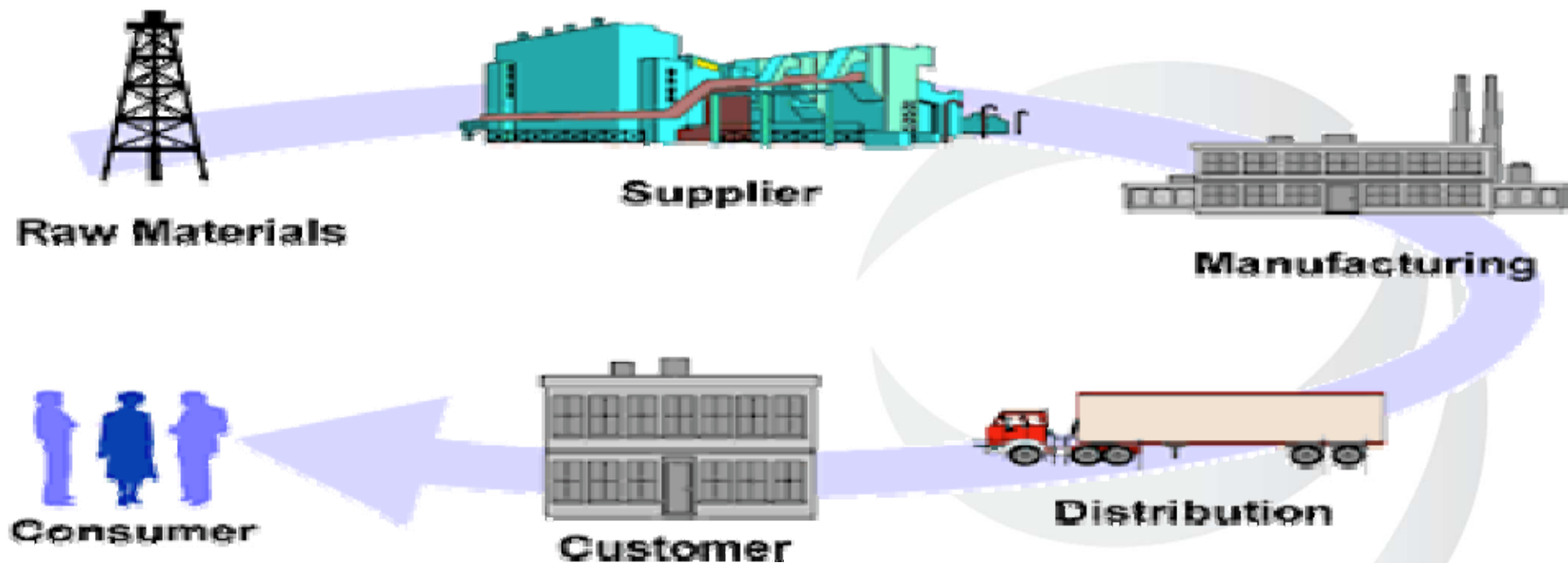
U.S. Department of Justice claimed this was anticompetitive vertical restraint that harmed competition in network services market for merchants and raise prices to merchants.

U.S. District Court agreed and found platform market “takes the concept of two-sidedness too far.”

Circuit Court of Appeals, citing two-sided economic literature extensively reversed, finding that it was necessary to consider both cardholder and merchant side of platform for analysis of market definition, market definition and competitive effects. Consumer welfare analysis has to include both cardholders and merchants.

BOTTLENECKS AND CRITICAL MASS

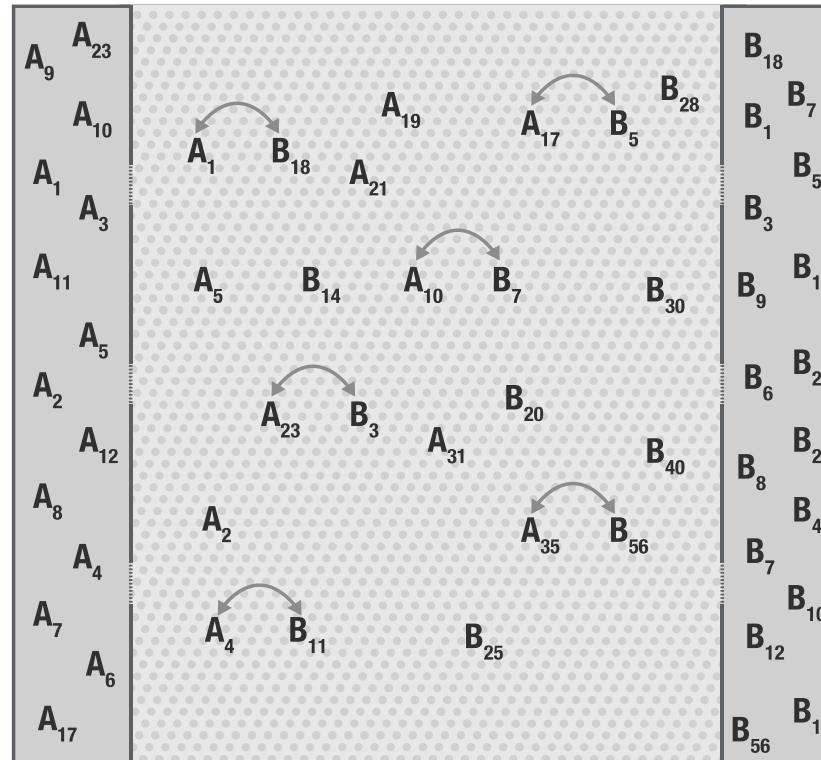
Many Traditional Cases About Firms that Make Stuff or Sell Service



Traditional single-sided firms generally make stuff and sell stuff. They aren't in the "access" business with the exception of the distributor.

Platforms Sell, and May Control, Access

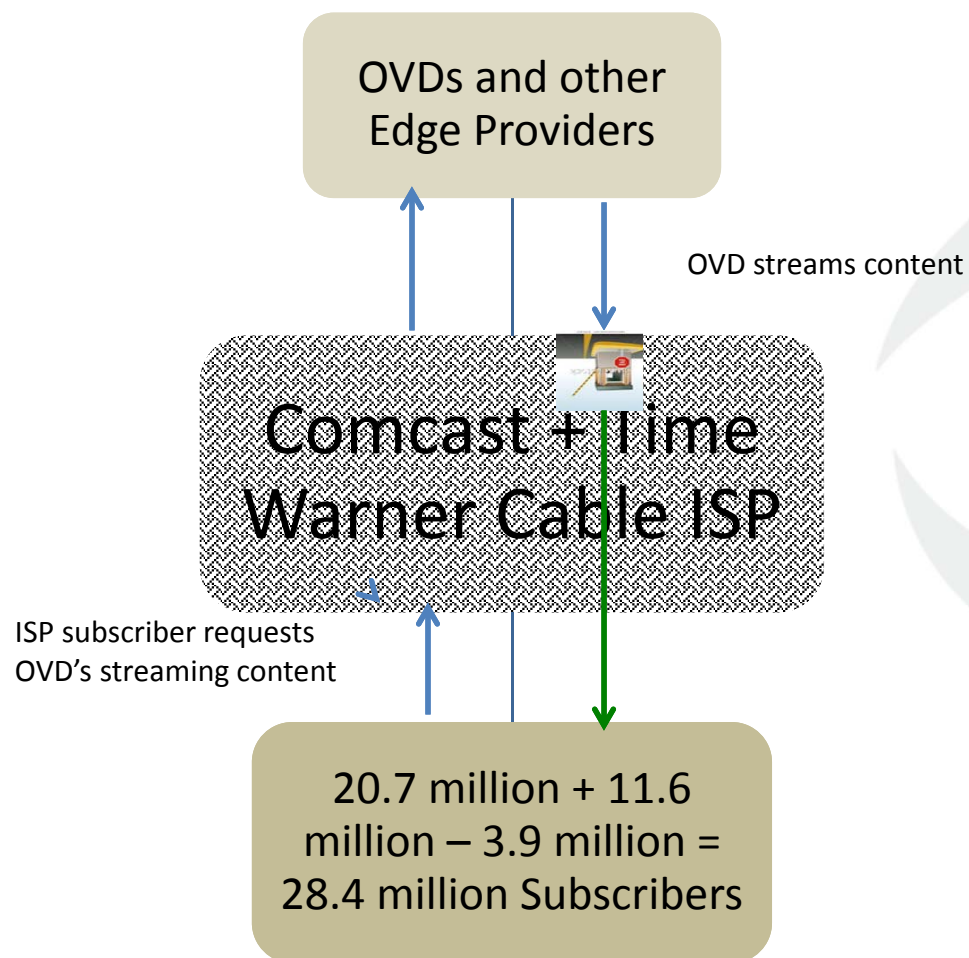
Can “A-type” customers reach “B-type” customers without going through the platform?



Can “A-type” customers reach “B-type” customers without going through the platform?

Platform could become a **bottleneck** for either or both group of customers if answer is **no**.

Comcast Time Warner Cable Merger and Two-Sided Broadband Providers



Merger would increase size of bottleneck to ~28 million subscribers (~40% increase) (based on public numbers).

Extensive evidence that access price per subscriber increases with number of subscribers.

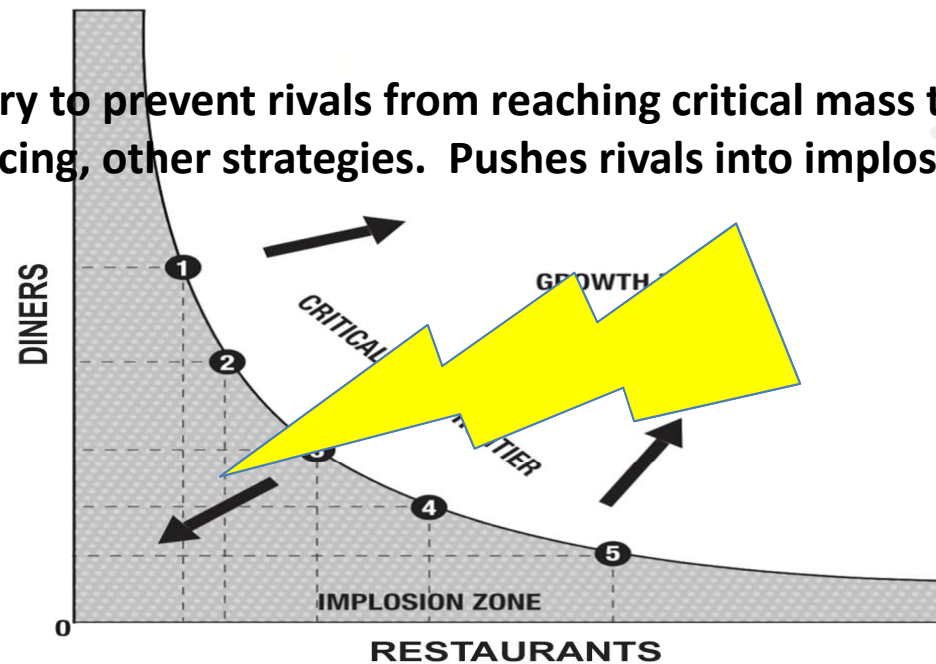
Standard horizontal merger effect (price increase result of increased bargaining power rather than internalization of pricing externalities).

Current terminating access fees likely much lower than profit-maximizing level; Comcast focused on “breaking zero” price barrier and under intense regulatory scrutiny. Therefore increase will be from larger base in future.

Building Critical Mass and Exclusion

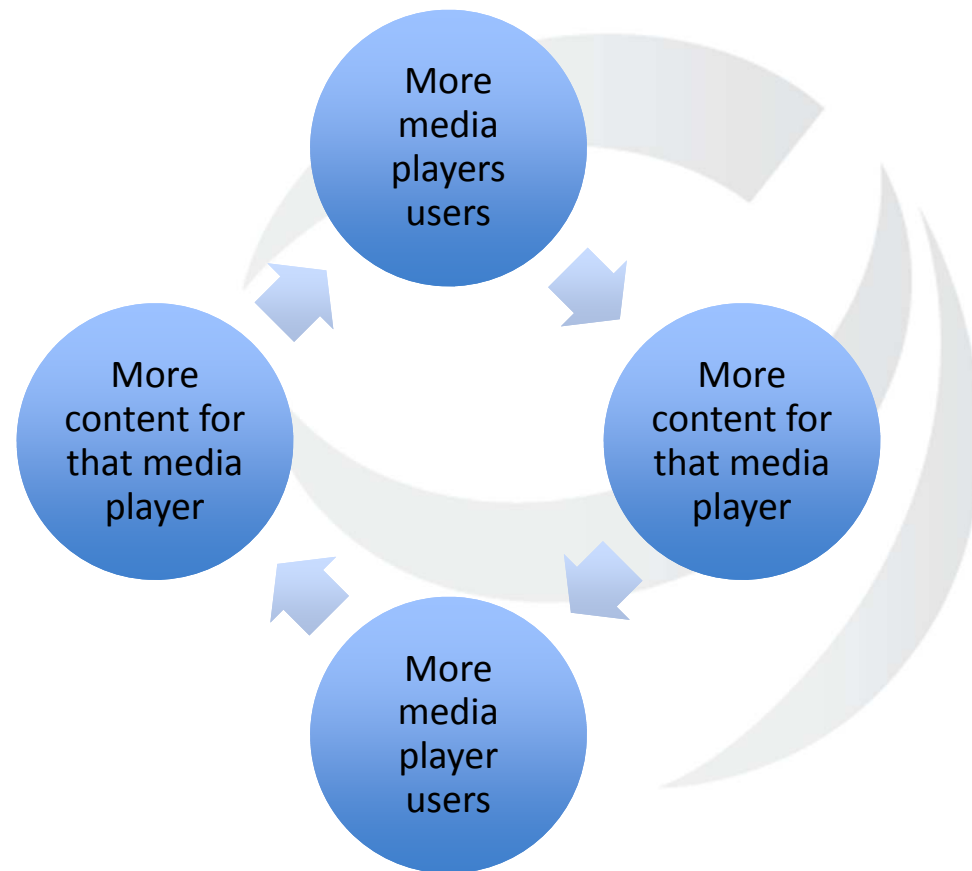
The Matchmaker Desert: Getting to Critical Mass

Platforms could try to prevent rivals from reaching critical mass through exclusive deals, pricing, other strategies. Pushes rivals into implosion zone.



EC's Two-Sided Exclusion Theory for Windows Media Player

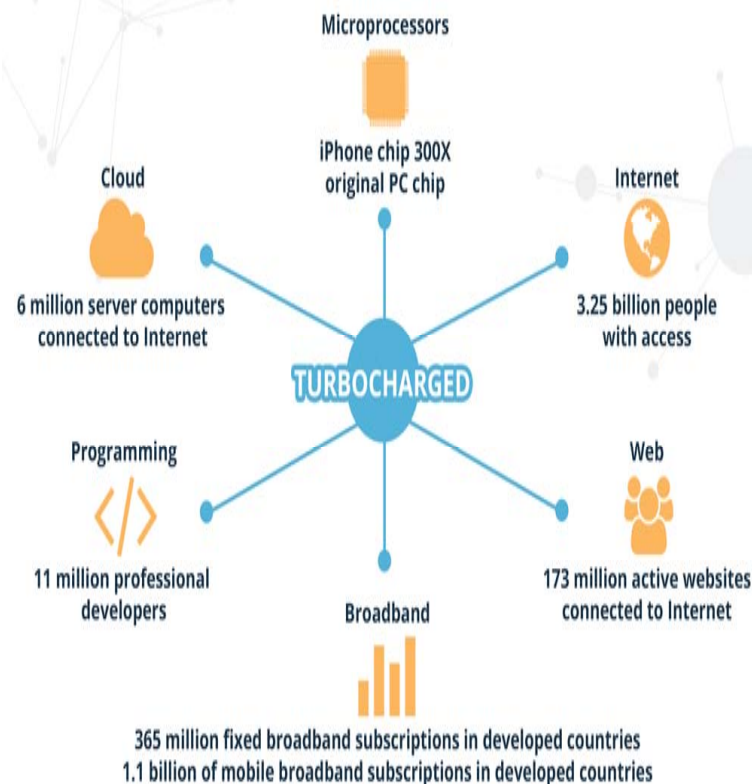
Users didn't bother getting other streaming media players because Microsoft came for free. With more users content providers coded music and videos mainly for WMP. With content mainly for WMP users had even less reason to use other streaming media players. And so on.



MATCHMAKERS HIGHLY DYNAMIC FOR NOW

Matchmakers Competition Highly Dynamic and Fluid

Today, Though, These Power Brokers Are Turbocharged



Capital costs of entry are low.

Disruptive innovation can reach global scale quickly.

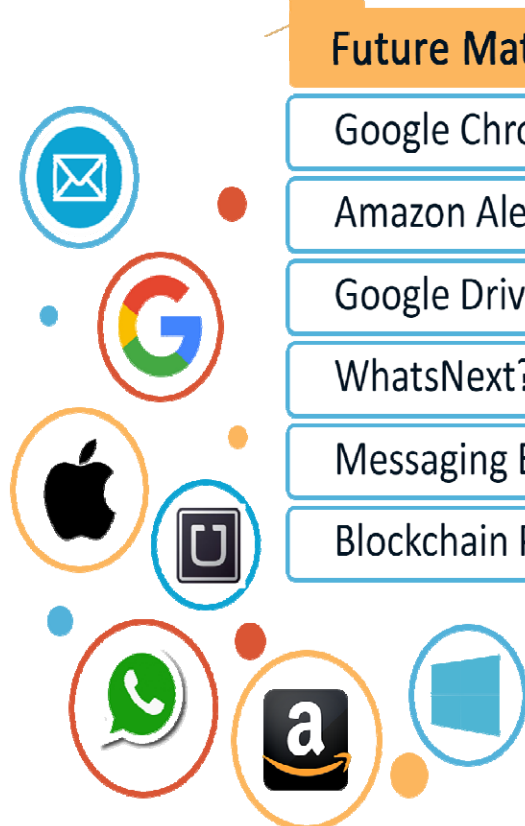
Platforms add sides, features, to compete with each other crossing market boundaries.

New technologies like mobile, AI, IOT, opens new possibilities for disruptive innovation.

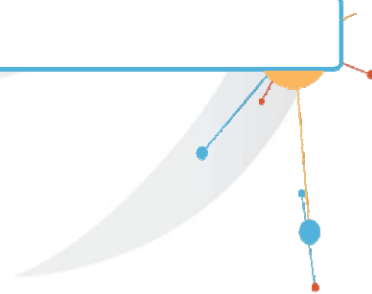
Many platforms look different but basically compete intensively to harvest “attention” from people which they then compete to sell to advertisers.



Market Power May Be Fragile for Matchmakers



Future Matchmaker?	New Matchmaker	Old Matchmaker
Google Chrome	Apple iOS	Windows
Amazon Alexa	Google Search	Ad-supported media
Google Driverless Cars	Uber	Taxi companies
WhatsNext?	WhatsApp	Telco voice/SMS
Messaging Bots	Amazon Marketplace	Shopping malls
Blockchain Platforms	BATS	NYSE



Tencent and Market Power in Dynamic Markets



**Supreme People's Court of China
Qihoo 360 v. Tencent**

**Abuse of dominance involving tying and
exclusionary practices involving Instant
Messaging and Security Software**

Supreme Court finds Tencent does not have market power as a platform despite high share of IM-market.

“...highly dynamic competition exists in the Internet environment and the boundary of the relevant market is far less clear than in traditional areas.”

CONCLUSION

Antitrust Analysis of Multisided Platforms is Burgeoning Field

Hot area in economic with increasing number of theoretical and empirical papers. Taught in all the top departments.

Lots of cases and investigations around the world particular involving online platforms. Competition authorities are relying on multisided analysis.

Key decisions adopt multisided framework including European Court of Justice in *Groupment Cartes Bancaires vs. European Commission*, Chinese Supreme People's Court in *Qihoo 360 vs. Tencent*, and U.S. 2nd Circuit Court of Appeals in *U.S. Department of Justice vs. American Express*.

Fortuitous intersection of the emergence of the new matchmaker economy and the new economics of multisided platforms.

Thank You!



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