

# A FEW REMARKS ON THE ROLE OF INTERMEDIARIES IN THE DIGITAL ECONOMY

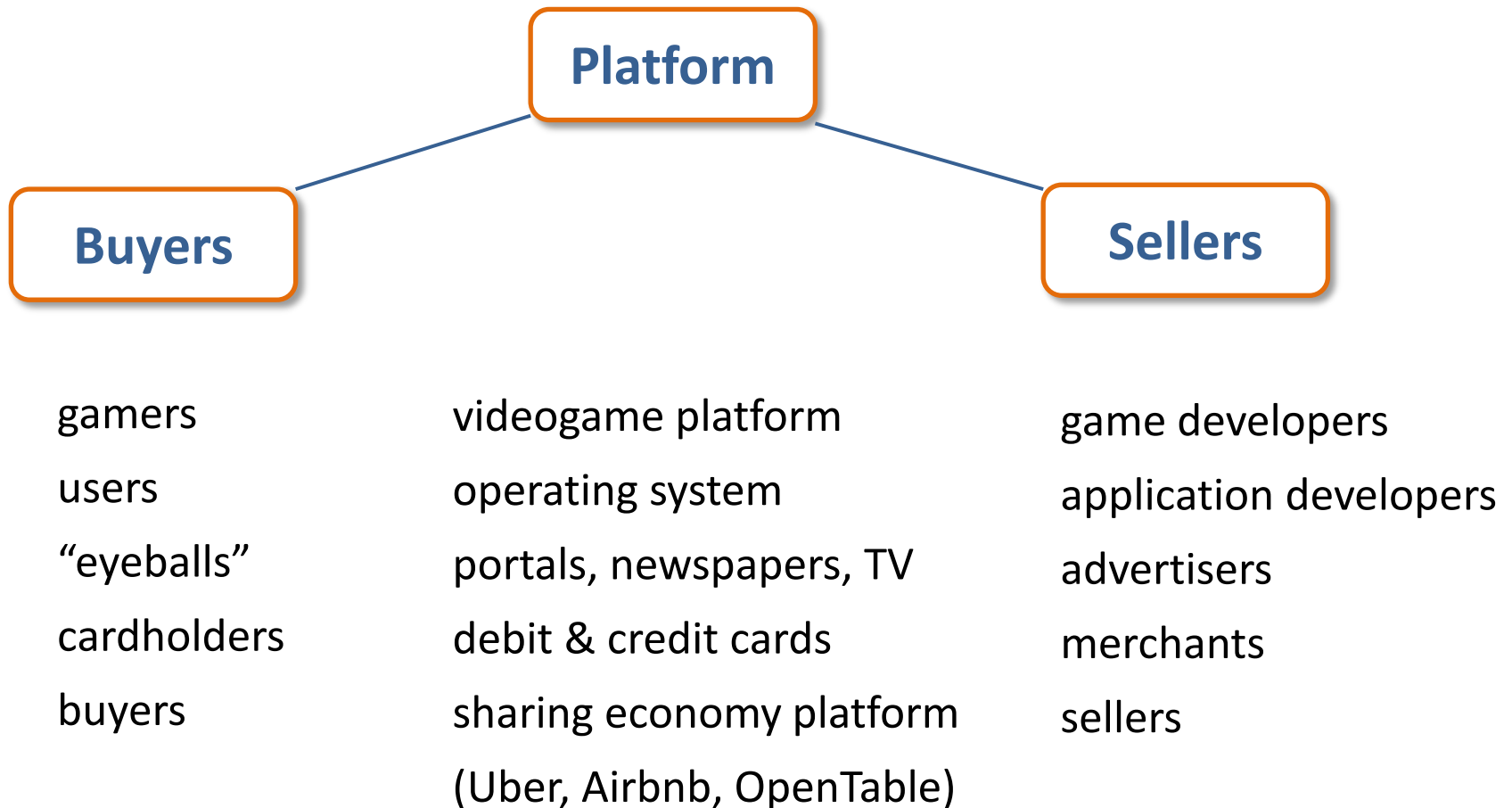
## Colloquium « The Future of Research in the Digital Society »

Ministère de la Culture – TSE – IAST  
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# I. TWO-SIDED MARKETS: BACKGROUND



# The choice of a business model: general principles

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Charge according to what each side can bear and mind the cross-group externalities

- Account for elasticities of demand on both sides: price structure should aim at getting both sides on board, not to allocate costs “fairly”.
- Account for surplus generated on the other side: high value to other side → low price on this side, high price on other side; and conversely (advertising).

# Pricing

platform's cost per transaction

price charged to side  $i$

side  $j$ 's willingness to pay to interact with a side -  $i$  user

$$\frac{p_i - (c - v_j)}{p_i} = \frac{1}{\eta_i}$$

elasticity of demand

$c - v_j$  : "opportunity cost"

# Two-sided platforms' business model

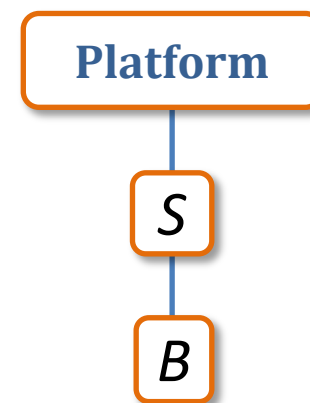
Two-sided platforms account for what each side can bear and for externalities → very skewed pricing patterns

low-price side	high-price side
consumers (search engine, portal, newspaper)	advertisers
cardholders	merchants

# Platforms as regulators

Useful benchmark: the *vertical view*

*Example:* IP-owner (platform) licenses to a seller. Contrast two-sided market: platform has relationship with buyer; hence, more protective of buyers' interests, less protective of sellers' interests.



- Key difference:  $P$  willing to constrain  $S$ , as  $P$  can (partly) recoup benefits on  $B$  side. Hence,  $P$  regulates interactions whereas it would grant  $S$  commercial freedom under the vertical view.

## Regulation of interactions between end-users

2SP performs balancing act through other instruments than price:

- The platform as a competition authority.  
(illustrations: Macintosh-Windows; Palm OS licences)
- The platform as a price regulator.  
(illustration: no surcharge for payments with card)
- The platform as a licensing authority.  
(illustrations: exchanges: solvency requirements, prohibition of front-running; dating clubs)
- The platform as a supplier of information and enforcement.  
(illustrations: auto auctions arbitration processes, eBay's feedback forum)

## *Example: The sharing economy*

- Licensing authority: background checks, training, terminating participants with poor reputation.
- Improving rating system
- Protecting buyer: mediation, money-back guarantees.



# Multi-homing

## *Exogenous multi-homing*

Suppose for example that buyers single-home while sellers multi-home:



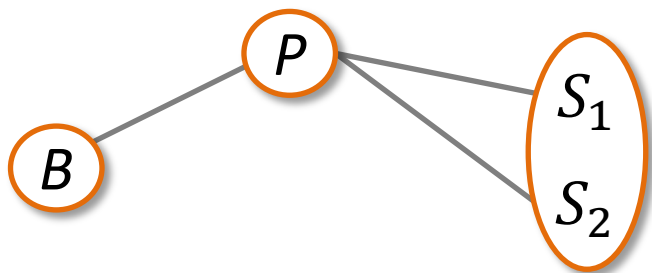
Single-homing side (competitive bottlenecks) treated favorably: monopoly prices in multi-homing market and low prices in single-homing one.

## *Endogenous multi-homing*

## II. ANTITRUST: CHALLENGES

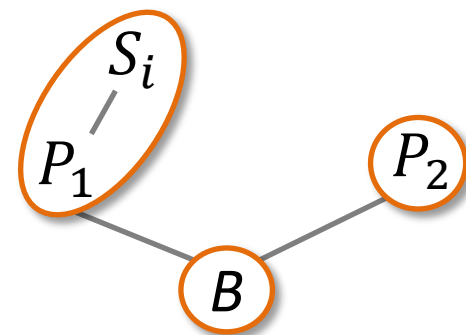
- Received antitrust doctrine does not apply to multi-sided markets: monopoly pricing and below cost pricing may be permanent features of a competitive environment.
- But economics must provide more guidance than that on

### *Horizontal mergers among users*



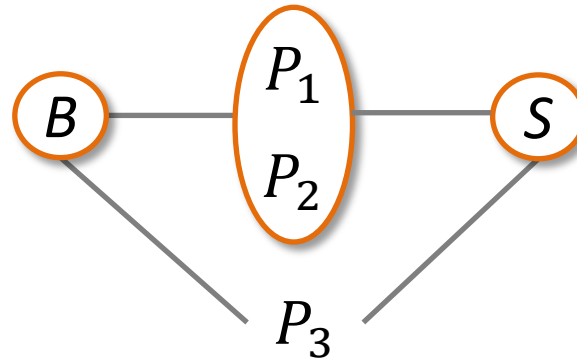
complements/substitutes...

### *Vertical mergers*



dominant platform  
vs. entering platform

## Horizontal mergers among platforms

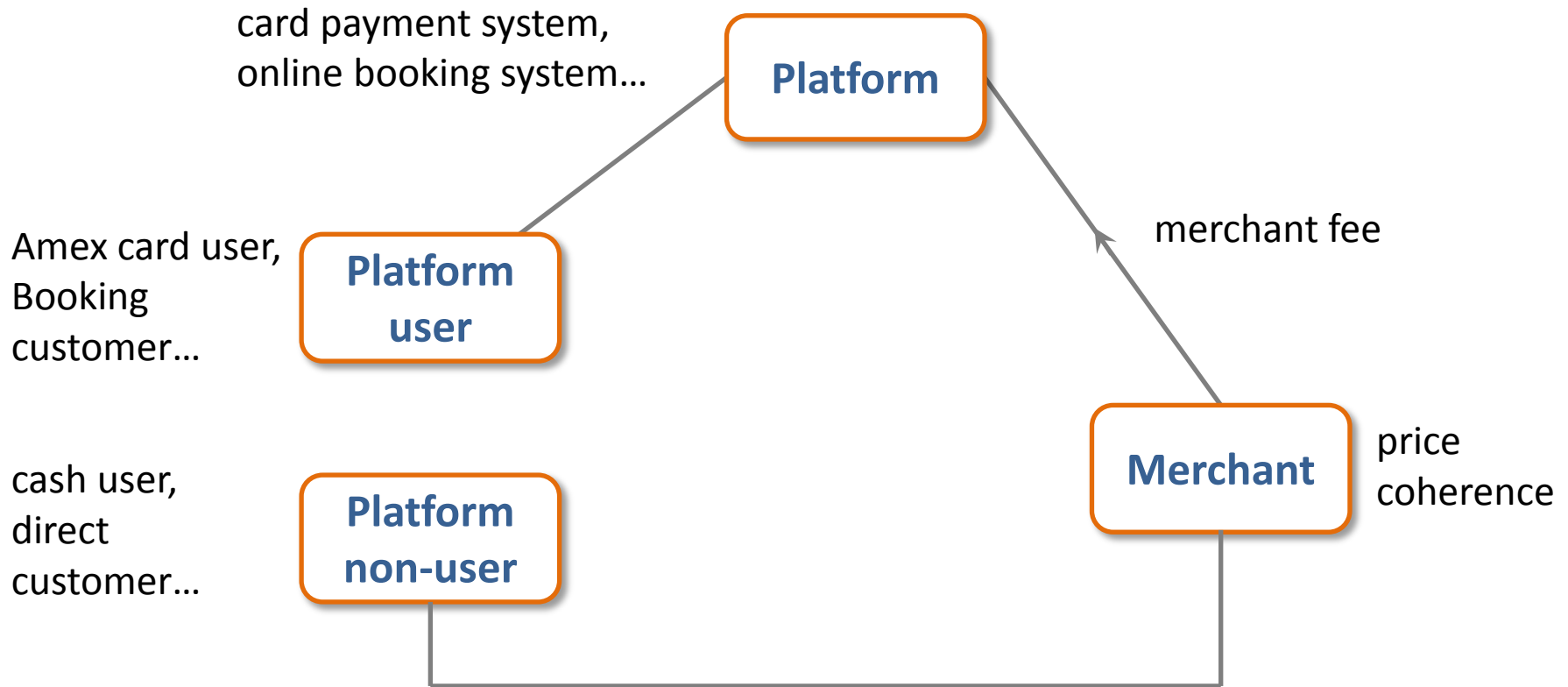


[Do not apply SSNIP test to one side only for market definition purposes; need to pick correct demand function.]

Large network externalities  $\longrightarrow$  substantial market power. Must guarantee that contestable entry by more efficient entrant not deterred: should be able to gain critical mass. Should data (ratings, content...) belong to user or to platform?

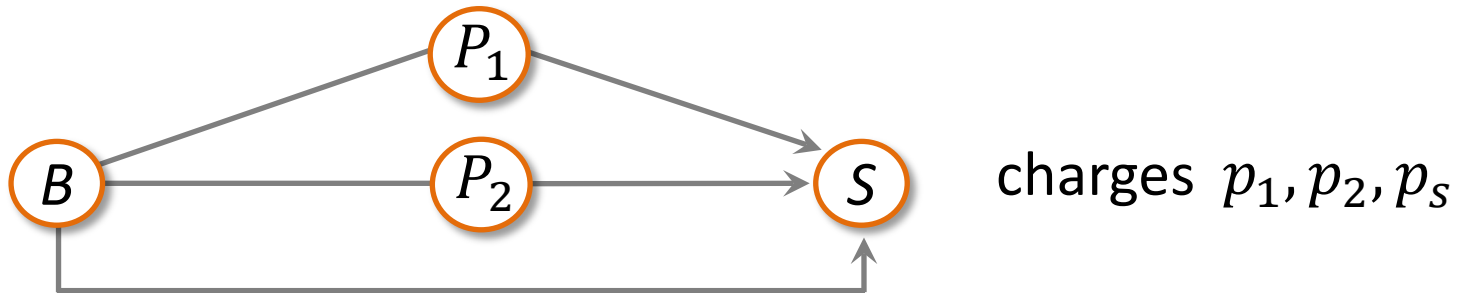
# Wither antitrust for two-sided markets?

## Optimal regulation of must-take cards, must-join platforms



[Rochet-Tirole (2002, 2011)'s tourist test, Edelman-Wright (2014)... Bourguignon-Gomes-Tirole (2014): tourist test + prohibition of surcharges fine; current regulations of surcharges too lenient.]

# Gatekeeping platforms: jockeying for the control of the value chain (2)

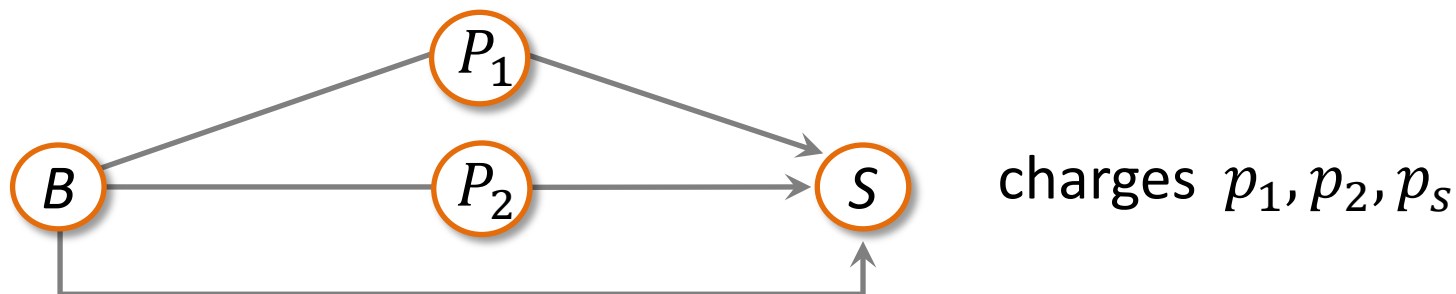


Booking proposal: only constraint  $p_i \leq p_s$

Macron law: hotel owners have full pricing freedom.

[Amazon in UK and Germany no longer allowed to ask for price coherence]

Would Booking proposal suffice?



- (a) Single seller: role of (endogenous) multi-homing
- (b) Competing sellers  
[even so, elements of complementarity: (a) more competition;  
(b) finding right match.]
- (c) Large firms with brand recognition.

# III. REGULATORY CHALLENGES: (1) TRUST

- Users are de facto “selling” data against some ancillary service (search, social networking, instant messaging, online video, or even transaction: Uber, Airbnb)
- Trust of users in use of data?

## *Incomplete contract*

- platform’s investment in security
- resale of data (incentive for vertical integration if prohibited?) Property rights to users?
- what happens in bankruptcy?

## *Limited attention/knowledge*

Do users understand consequences of that particular transaction? How “informed” is informed consent?

# IV. REGULATORY CHALLENGES: (2) INSURANCE

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## Gathering of data

- useful for controlling moral hazard (monitoring of driving, of number of miles, fitness trackers, persuasion to change habits...)
- may destroy insurance (most obviously genetic testing; but also monitoring of online habits: spending).

## *In between*

Facebook likes predicts smoking, drug behavior,...

Smaller and smaller risk pools.



# V. REGULATORY CHALLENGES: FISCAL ASPECTS

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## *Domestic*

- Uneasy continuum from untaxed exchange activities (home production, trade with family & friends, clubs, associations supporting small farming,...) to commercial activities.
- Particularly pregnant in France, where labor is heavily taxed (average SS contribution: 60 %; VAT; various income taxes).

## *International*