8th bi-annual Postal Economics Conference on
E-commerce, Digital Economy and Delivery services

Toulouse, Manufacture des Tabacs April 3-4, 2014

Google and multisided platform economics: what lessons for delivery services?

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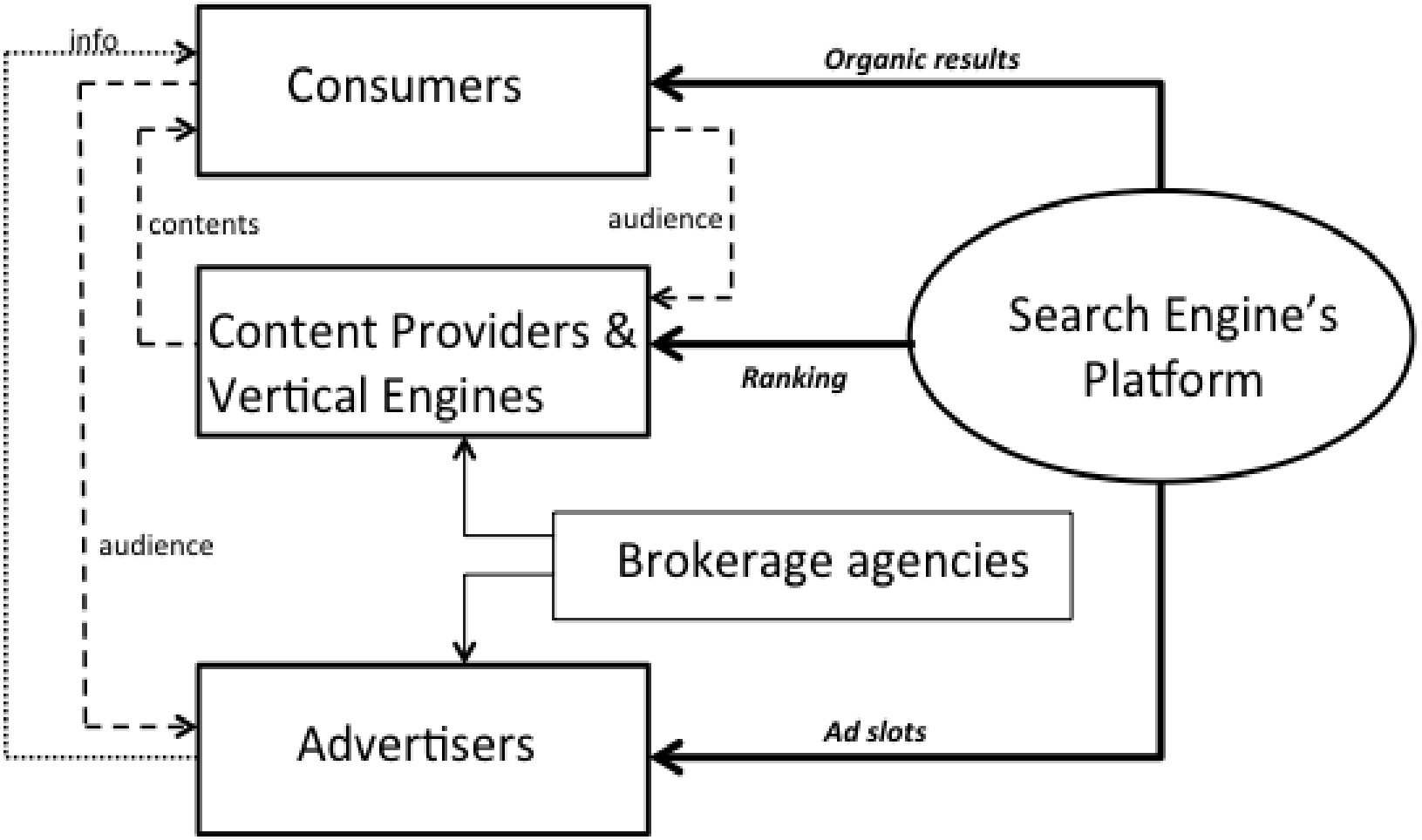
This presentation:

1. Innovation brought by search engine's business model
2. Main network externalities exploited by SEs
3. Disruption of the traditional advertising value chain
4. Google's Antitrust case and its opponents
5. The multisided nature of postal services
6. Automated Parcel Lockers (APLs) and its potential ability to disrupt the integrated postal value chain
7. Alternative business models

Google's SE is one of the most successful business models in digital markets

- High relevancy of both organic results and ads generated by the same algorithm
- Ad's traditional negative externality imposed on consumers switched to a positive one (the ε parameter used for slot's allocation bids is crucial)
- Why SEs are highly profitable: relevancy (measured by click-through-rate, or CTR) fully exploited by network effects, bid mechanism, and scale
- SE's business model is pretty mature for PC devices, not yet for smartphones and tablets (ad prices are lower, consumer's needs are different)
- In the next few years Social networks will become true SE's competitors, when social graph technology will be fully calibrated to ads

Search engine's main outputs, externalities, and sides



Notes:

- Search engine direct outputs
- strong externalities
- weak externality
- Ads brokerage market

SE's puzzle the traditional advertising industry

- Traditional media (telcos, TV broadcasters, newspaper publishers) are worried by its effectiveness in advertising: Intermedia competition is already on work

- SEs provide advertisers highly accurate estimates of ROI, and supply ad services to both large and small firms

- SEs not only effectively compete with other media for firm's advertising budget (in the UK Internet overtakes TV in market share),

- but also disrupt their value chain: by directly connecting consumers and advertisers, SEs tend to bypass brokerage agencies and, most important, puzzle their controversial over commission method of getting revenues from TV broadcasters and other large media

- By using information gathered on the web for both organic results and own services (e.g. Google News), SE's make news a commodity

The Antitrust Google case

The European Commission (and formerly, FTC in the US) raised four allegations to Google for abuse of dominant position

1) To deliberately distort organic search results for favoring its own services with respect to competitors (i.e. Vertical Engines)
2) To violate copyright by keeping information from third parties websites without their consent
3) To include exclusivity clauses in contracts with advertisers
4) To prevent advertisers API transferability to competing SEs

Allegations no. 1) and 2) are discussed, because they raise interesting economic questions

Allegation no. 1: Do SEs face incentives to selectively and regularly distort organic results?

- Some scholar (Jullien and Calvano, 2012; Etro, 2013) maintain that “tweak” ranking is likely to occur if the SE has a very large installed customer’s base, enjoys the largest customers behavior data set giving it an unbeatable technological advantage, can raise monopoly prices and a significant share of advertisers single-home

- In my opinion, although this theoretical possibility exists, for a SE risks of spoiling its reputation toward customers greatly exceed benefits arising from the distortive action

- The reason is that competition in SE’s market is fundamentally quality driven, measured by observable click-through-rates of ads displayed, pushing toward its discipline (prices strictly reflect CTR)

- All SE face a typical tradeoff (Varian, 2007) between accepting (favoring) highly paid ads but with poorly relevant for customers, or to not accept it, giving up short run revenues but to both increase reputation and future revenues: a rational SE always chooses the second option

How SE's market works: some empirical evidences

Table 1. % of Advertisers using Google AdWords and BingAd by economic sector, US Market, Q3 2012*

	Google only	*Google & BingAd*	*BingAd only*
Shopping and Classified	24,3%	69,9%	5,8%
Financial Services	43,6%	45,0%	11,4%
Travel	50,4%	45,0%	4,6%
Education	49,8%	46,5%	3,7%
Computer and Internet	54,0%	38,5%	7,5%
Business	60,0%	36,1%	3,9%
All sectors	**42,0%**	**51,9%**	**6,1%**

Source: Adgooroo Report (2013)

Multi-homing is practiced by nearly half of advertisers

Table 2. Google and Yahoo! Bing Ad Impressions and paid search Ad Spend by economic sector, Q3 2012

	Total impressions *(million)*		***Paid search Ad Spend*** *(million US $)*	
Economic Sector	*AdWords*	*Yahoo! Bing*	*AdWords*	*Yahoo! Bing*
Shopping and Classified	18.66	11.35	497.74	56.05
Financial Services	4.11	5.31	418.82	81.01
Travel	5.79	3.43	199.42	27.89
Education	2.23	1.93	201.39	17.50
Computer and Internet	8.68	8.01	305.97	42.95
Business	3.57	3.32	220.42	18.31

Yahoo! Bing network overtakes Google in Financial services

Table 3. Google and Yahoo! Bing Average click-through rates and Average cost per click by economic sector, Q3 2012

	Average click-through-rate		*Average cost per click (US $)*	
Economic Sector	*AdWords*	*Yahoo! Bing*	*AdWords*	*Yahoo! Bing*
Shopping and Classified	3.70%	1.13%	0.72	0.44
Financial Services	3.53%	0.81%	2.88	1.98
Travel	4.14%	1.27%	0.83	0.64
Education	2.57%	0.44%	3.51	3.07
Computer and Internet	3.25%	1.35%	1.80	0.40
Business	3.12%	0.60%	1.98	0.91

Google enjoys with no exception higher CTRs

Table 4. Differences % between Google and Yahoo!Bing in click-through-rates and prices by economic sector, Q3 2012

Economic Sector	*Price premium*	*click-through-rate*
Shopping and Classified	64%	227%
Financial Services	45%	336%
Travel	30%	226%
Education	14%	484%
Computer and Internet	350%	141%
Business	118%	420%

Price premium paid by advertisers to Google is smaller than CTR differences (not in Computer, but Yahoo!Bing prices are the lowest among economic sectors)

Remedies proposed by Google:

1) to create the new class of specialized results, where icons of 3 vertical competitors are shown on result's page; competitors participate to a reserved bid for being shown

2) To allow publishers to opt-out if they are unwilling to be shown on Google News

Three main topics are relevant for this case:

- Google accept the idea of being a gatekeeper subject to a light regulation, where a third party ("The Monitoring Trustee") is charged for effectively enforce proposed remedies

- Ex-post regulation does not imply a free provision of ads slots

- The principle of search neutrality promoted by Google's opponents "*organic results should be generated by objective, transparent and easy to control ranking criteria only"* is semiologically inconsistent, aimed at lowering SE's product differentiation, i.e. to commoditize it, thus spoiling innovation

Allegation no. 2: Copyright infringements

- Online publishers see Google as saprophyte making money from their valuable contents (similar claims are raised by Telcos toward OTT)

- News are a peculiar public good: being freely provided on the Internet, its owner cannot discriminate between group of users

- Google does not make money with Google News nor deny a possible Coasian bargain with publishers, but considers as unacceptable the principle of a regulated remuneration

- The opting-out choice, in particular in latest remedies proposals allowing deep granularity, puzzles publishers, since they are obliged to continuously calculate the cost opportunity of showing or not specific news or even part of it

Does SE's business model shows some features that may be useful for the postal industry?

- Technology Innovation plays in both industries a crucial role, challenging the fully integrated value chain of the pre-digital era

- In the postal industry the leading part of the value chain has been, up to now, delivery

- Postal delivery on its ubiquitous mode (either universal or build by market forces), coped with the sender-pays-all principle, can be considered as a peculiar multisided market, where network externalities really matter, but are exhausted since long time

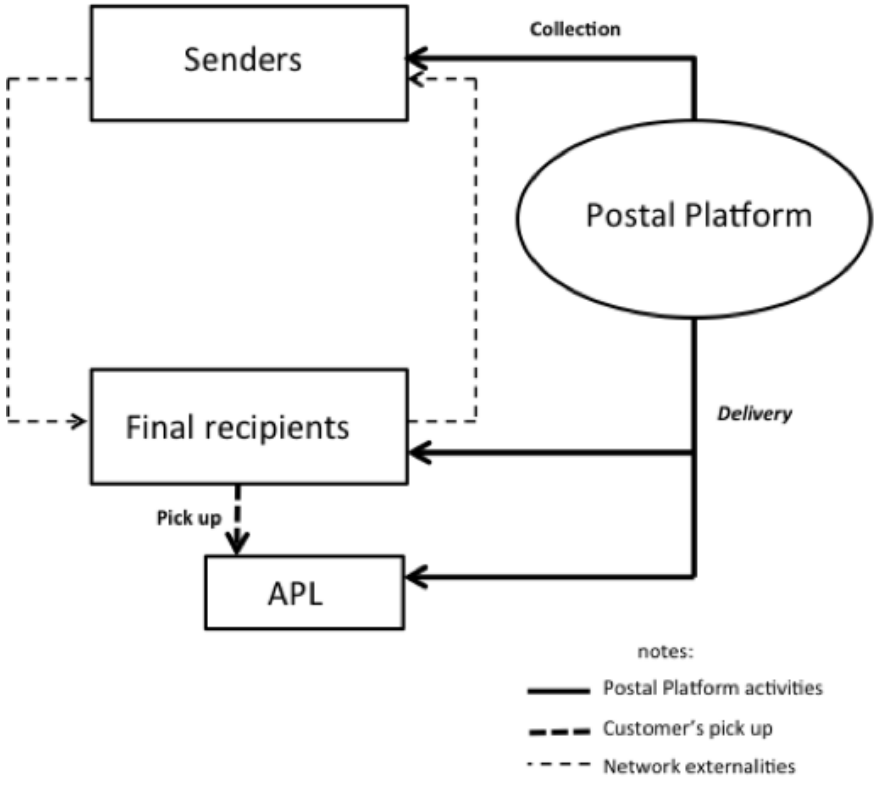
- The advent of Automated Parcel Lockers (APLs) may challenge delivery's historical dominance on the postal integrated value chain; Postal operators may loose the role of side controlling platform (at least in B2C parcel market)

- APLs business model is only at its infancy

Today, three APL's business models are observed:

Model a): APL manufacturers sell or rent the machine to postal firms, thus increasing alternative delivery options for somebody else's customer

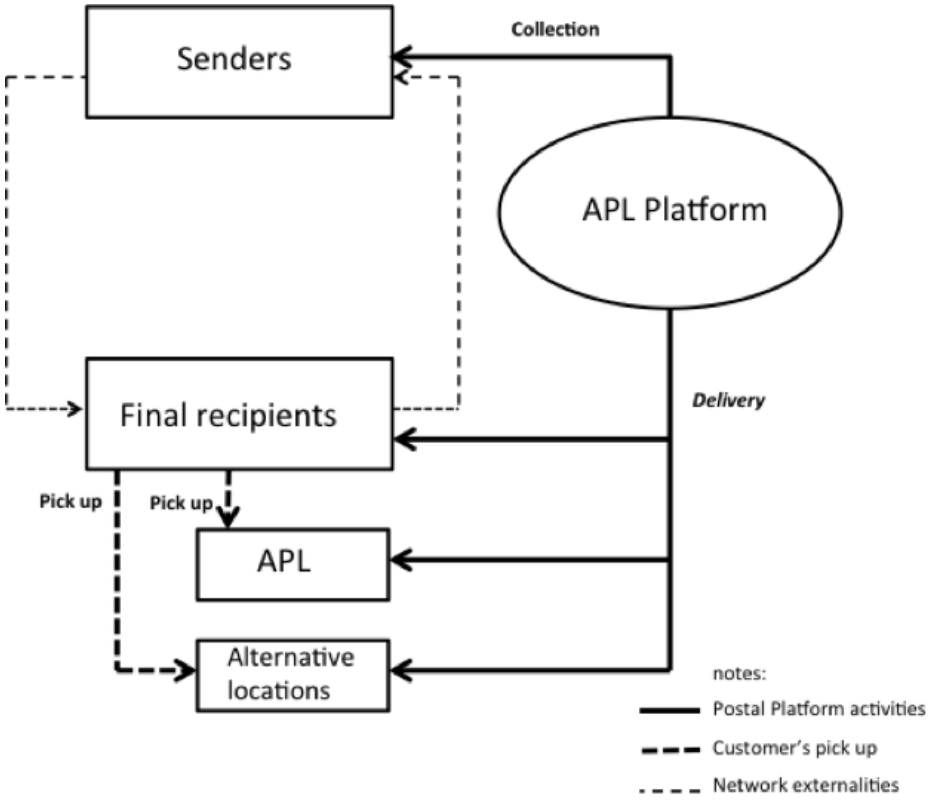
Fully vertically integrated mode: La Poste, DHL, TNT and others



Model b) : APL acts as side's coordinating platform directly providing end-to-end services to final customers. It entails:

- agreements with local logistic or carrier operators
- direct joint supply of logistic and delivery services at APL or local stores
- contracts signed with large e-commerce senders

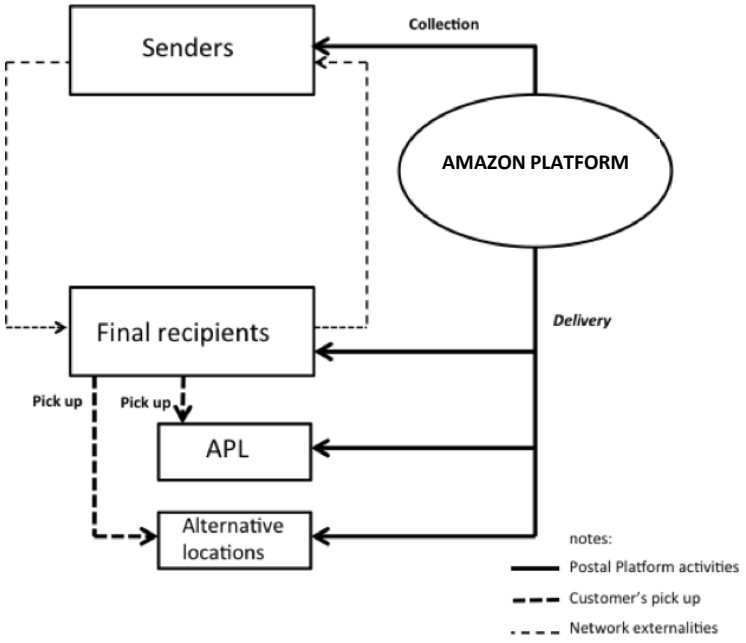
Value chain reshaped mode I: InPost in Poland



Model c): a large on-line retailer runs the business through contracts with local carriers and APLs, acting as side coordinating platform

- Amazon's recent agreements with both Yodel in the UK (possible acquisition) and USPS for Sunday deliveries in the US

Value chain reshaped mode II: Amazon, Google in the Bay area



Consequences of models b) and c)

- face lower distribution costs, since last mile activities are shifted to customers, and logistics is largely simplified. Under c) the platform profitably supplies logistic and distribution services to small retailer

- Being centered on APLs and alternative locations like gas station or supermarkets, new models make home delivery a complementary feature

- Large and small retailers may increasingly be attracted, thus switching on the virtuous circle able to stimulate investments on APL, while strengthening platform's control on both sides

- Combinatorial innovation fueled by transaction digitalization (Varian, 2010) allows high flexibility to adapt the business to local market conditions

- Vertically integrated postal operators may be partly or fully bypassed or commoditized, ubiquitous delivery tend to become irrelevant

Conclusions:

In digital multisided markets network externalities are crucial, but dominance gained through their exploitation can often be reversed by smart competitors (formerly dominant Visicalc, Wordstar, Altavista were quickly substituted by Microsoft Office and Yahoo! respectively)

Google is the present SE's dominant firm on laptops, but Facebook and others may overturn it in smartphones and tablets

APL delivery mode, by allowing the platform owner to recombine in new efficient fashion different segment of the postal value chain, has the potential to disrupt the traditional fully integrated service provision