

Market Definition and Theories of Harm in Online Search and Advertising

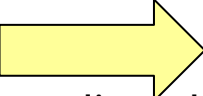
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Outline

- ❑ I. Background discussion on product market definition
- ❑ II. Market definition and online advertising
- ❑ III. Market definition in online search and advertising
- ❑ IV. Theories of harm

I. Background discussion on product market definition

- ❑ Step 1: identify the homogeneous goods market and then consider whether to include substitute products
- ❑ Step 2: measure the firm's market share and the nature of the competitive constraints to infer market power
- ❑ Evidence of substitution is not always available  survey research and certain assumptions are necessary (e.g., regarding the credibility of the stated preferences or the competitive price benchmark)

Market definition: an exercise in science or religion?

"By focusing on whether products are in or out of the market, one converts a necessarily continuous question into a question of yes or no." (F. Fisher, *Diagnosing Monopoly*, in Q. Rev. Econ. & Bus. 1979)

"One often needs to know the right answer –i.e., how much market power exists- in order to know which market definition is best." (L. Kaplow and C. Shapiro, *Antitrust*, in M. Polinsky and S. Shavell, Handbook of Law and Economics 2007)

"Why ever define markets, when the only sensible way to do so presumes an answer to the very question that the method is designed to address?" (L. Kaplow, *Why ever define markets*, Harv.L. Rev. 2010)

The proper role for market definition

- ❑ It fulfills the crucial task of conveying a complex and often multi-faceted economic reality in a “clear-cut”, binary (yes-or-no) language that suits the legal framework.
- ❑ When there is a considerable risk that the translation is not accurate, it is questionable whether such process ought to remain highly determinative of final outcome:
 - If the market is defined too broad, competition authorities are not able to detect, punish and prevent potentially anticompetitive conduct, especially leveraging of dominant position into neighboring markets (Type I Errors)
 - On the other hand, too narrow definitions would lead to an overly strict scrutiny over the improvement of products and the expansion into new lines of commerce, thereby chilling both aggressive and dynamic competition (Type II Errors)

Proposed approach

- ❑ Make only a tentative, *prima facie* market definition based on consumer demand (Commission Notice 97/C 372/03 on the definition of relevant market, at 47: “all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their prices and their intended use”)
- ❑ Focus on competitive constraints and direct evidence of market power
- ❑ However, do not leave art. 102 definitions open (vs. merger control)

II. Market definition and online advertising

- ❑ Main source of revenues for the vast majority of internet-based businesses
- ❑ Key differences from offline advertising:
 - (1) much better targeting
 - (2) allows advertisers to monitor ad effectiveness
- ❑ Yet Goldfarb and Tucker (2011) find that offline and online are perceived to be at least to some extent substitutes (their empirical basis being on the data related to the market reaction to a solicitation ban for personal injury lawyers, and a ban for billboard advertising of alcohol)

Relation between advertising and the ad-based business

- ❑ Web-based “search results” is the product that internet users want; however, so far that is only offered in conjunction with the sale of advertising space to a distinct group of consumers
- ❑ Can Internet search be a market in itself?
- ❑ ECJ in *Delière* (C-51/96 and C-191/97) on whether a service can be considered an “economic activity” even if it is not paid for by those for whom it is performed:

“In that connection, it must be stated that sporting activities and, in particular, a high-ranking athlete's participation in an international competition are capable of involving the provision of a number of separate, but closely related, services which may fall within the scope of Article 59 of the Treaty (...) For example, an organiser of such a competition may offer athletes an opportunity of engaging in their sporting activity in competition with others and, at the same time, the athletes, by participating in the competition, enable the organiser to put on a sports event which the public may attend, which television broadcasters may retransmit and which may be of interest to advertisers and sponsors. Moreover, the athletes provide their sponsors with publicity the basis for which is the sporting activity itself.” (at 56-57)

Different types of online advertising

- ❑ Four criteria to categorize online ads: (*Microsoft/Yahoo* decision)
 - ✓ According to the format (text, display; video)
 - ✓ According to the device on which they are shown (desktop; mobile; tablet)
 - ✓ According to the pricing mechanism (Cost Per Thousand Impressions or CPM; Cost Per Click or CPC; Cost Per Action or CPA)
 - ✓ According to the selection criteria (search and non search)
- ❑ Can two different markets be identified for search and non-search ads?
 - Traditionally, search advertising has been conceived of as better able to respond directly to consumer needs, and non-search advertising aimed at generating brand awareness
 - *Google/DoubleClick*: no need to answer, but distinction is blurring and remains clear only for publishers (who view the two types as complements).
 - *Microsoft/Yahoo*: no need to answer, but market investigation showed an increasing convergence. Cited reasons include the growth of behavioral targeting and the fact that all main players (Google, Microsoft and Yahoo) offer all types of advertising.
 - Central question is whether one type constrains the pricing of the other – not answered yet

III. Market definition in online search and advertising

- ❑ Conjunction of internet search+ online search advertising/online advertising
- ❑ The concept of search is characterized by a continuous product innovation:
 - From “regular” search to “specialized” search,
 - From “personalized” search to “social” search
 - From “navigational” search to “semantic search”
- ❑ The model of advertising has also undergone significant innovation:
 - Increasing ability to use “behavioral” targeting” and methods to price and monitor ad effectiveness

Complication #1. The two-sided nature of the market

Defining features:

- ❑ One group of customers needs the other
- ❑ Unequal pricing structure
- ❑ Indirect network effects

In the case of search engines, add:

- ❑ Third and even fourth group of customers (content providers and publishers)
- ❑ Interaction between algorithmic and paid search results (with perverse incentive effects)
- ❑ Lack of transparency (as to the nature of a result) and difficult measurement of the output (quality) on one side of the market (the user side)

Complication # 2: the growing importance of user data

- ❑ From basic data, to “personalized search” data, to “advanced search” data
- ❑ “The new raw material of business, on par with capital and labor” (*The Economist*, February 2010)
- ❑ Significant asset and barrier to entry in neighboring markets (if cross-sectorial versatility)
- ❑ Cause of switching costs (if no effective cross-company portability)
- ❑ Economic value?

Implications for market definition

- ❑ For multi-platform integrated companies, the relevant market on the advertising side could be wider than the specific type of advertising which the business model appears to be based on.
- ❑ Google may dominate traditional internet search, and nonetheless face stronger competition from the advertising side.
- ❑ However, the focus for market definition should ultimately be on a product for which there is consumer demand -arguably, not advertising!

Competitive constraints I (demand and supply substitution)

User side:

- ❑ Traffic+scale+relevance (“virtuous circle”) trumps the ability of competitors to switch.
- ❑ Information asymmetry and switching costs make it hard for consumers to switch.

Advertising side:

- ❑ Demand substitution is possible (some multi-homing), but occurs only if the increase in price is substantial (Google as “must-have”)
- ❑ Supply substitution is low: Google’s platform offers better ROI

Competitive constraints II (potential entrants)

- ❑ Costs are very high, but not insurmountable (for companies such as Microsoft, Apple, Twitter, Amazon, Ebay)
- ❑ Biggest challenge is the uncertainty about when (if ever) your engineering team will make your algorithm better than Google's
- ❑ If traffic is the key, why is Microsoft not receiving a greater benefit from Facebook?
- ❑ Google-Apple "no poach" agreements: a sign of weakness or of increasing strength?

Conclusion on market definition

- ❑ Demand and supply substitution appear to exert little constraint on Google's ability to exploit its position
- ❑ Dynamics governing the entry of potential competitors are unclear, but appear to be based on a combination of technology, volume of traffic and ability to collect and deploy user data to provide more targeted search results.
- ❑ Under these circumstances, it seems appropriate to focus the analysis on survey research supplemented by direct evidence of market power -for example, identifying specific instances of search bias (Edelmann, 2010) and looking at the ability to decrease the value of an ad placement by more than 10%(M. Patterson, 2012)

IV. Theories of Harm

- ❑ Dominance enables the engine to adopt two different types of exclusionary strategies
 - (1) Exclusive dealing
 - (2) Discrimination which leads to exclusion from top results
- ❑ In addition, it is possible that a dominant company engages in two types of exploitative practices:
 - (1) Unfair pricing (excessive prices or discriminatory prices for advertisers)
 - (2) Deception

Exclusive dealing

- ❑ With advertisers
- ❑ With publishers
- ❑ With OEMs
- ❑ With ISPs

Discrimination

- ❑ Leveraging: blending specialized results (“Universal Search”) and promoting the social network (“Social Plus Your World”)
- ❑ Demotion: see “Panda” updates
- ❑ Other types of discrimination:
 - Priority placement: see “Finance” case
 - “[When] we roll[ed] out Google Finance, we did put the Google link first. . . . [T]hat has actually been our policy since then, because of Finance. It seems only fair, right? We do all the work for the search page and all these other things, so we do put it first....So for Google Maps, again, it’s the first link, so on and so forth. And later that it’s ranked usually by popularity” (Marissa Mayer, *Speech on Scaling Google for Every User at the Google Seattle Conference on Scalability* at 44:35; video available at <http://www.youtube.com/watch?v=LT1UFZSbcxE>)
 - Other exceptions: better framed, no “host crowding” rule

Two screenshots of Google search results where Google's "Universal Search" mechanism has "blended" prominent and eye-catching links to Google's own service into its search results. Links to Google Product Search (and Google News) are highlighted in red.

Google search results for "nikon d7000".

Search results include:

- [Nikon D7000 Review: 1. Introduction: Digital Photography Review](#)
- [Nikon D7000](#)
- [Shopping results for nikon d7000](#) (highlighted in red)
- [Nikon | Imaging Products | Nikon D7000](#)
- [Nikon D7000 Digital Camera review - Trusted Reviews](#)

The "Shopping results for nikon d7000" section is highlighted in red and contains:

- [Nikon D7000 Digital SLR Camera + 18-105mm VR Lens Kit](#) (£726 - 13 stores)
- [Nikon D7000 Digital camera - SLR with Live View mode. movie](#) (★★★★★ 243 reviews - £920 - 50 stores)
- [Nikon D7000 Digital SLR Body Only](#) (£825 - 4 stores)

Google search results for "samsung galaxy".

Search results include:

- [Samsung Galaxy Tab - The all-in-one Android tablet | samsung.com](#)
- [Samsung GALAXY S & GALAXY S II](#)
- [Samsung Galaxy Tab - Next Generation Touchscreen Android Tablet...](#)
- [GALAXY Tab - Samsung Mobile](#)
- [Shopping results for samsung galaxy](#) (highlighted in red)
- [News for samsung galaxy](#) (highlighted in red)

The "Shopping results for samsung galaxy" section is highlighted in red and contains:

Samsung GALAXY S II 16 GB	Samsung Galaxy Tab 16 GB - Android	Samsung GT I9000 Galaxy S 8 GB - shared - 158 MB	Samsung GALAXY Ace	Samsung Galaxy S 8GB Android
£420	£299	★★★★★ (201)	£215	£291

The "News for samsung galaxy" section is highlighted in red and contains:

- [Samsung Galaxy Tab 10.1 Could Be an iPad-Killer](#) (5 hours ago)
- [Samsung Galaxy S2 \(S II\) Price & Plans Roundup: Compare Deals](#)
- [HTC Sensation vs Samsung Galaxy S2](#)

Excessive and discriminatory prices

- ❑ A dominant company can do so notwithstanding the fact that the exact price is established through a competitive auction process:
 - (1) setting an artificially high minimum bid
 - (2) lowering a company's quality score

Deception: a new type of abuse?

- ❑ Google has engaged in such conduct on its “blacklisting” policy (“We don’t whitelist or blacklist anyone” J. Holtz, Google Senior Competition Counsel EMEA, FT February 25 2010)) and on its own philosophy of search (“objective results” vs. “our view”).
- ❑ Knowing or willful misrepresentation is a prohibited conduct under US antitrust law, where the test focuses on its link with achieving or maintaining monopoly power.
- ❑ Could it be applied in the EU context? Arguably, yes. It might fall under the *chapeau* of art 102 (a) (“directly or indirectly imposing unfair purchases or selling prices *or other unfair trading conditions*”)
- ❑ However, need to define limiting principles, particularly one ensuring non-triviality

Key outstanding questions

- ❑ Can we attribute an economic value to data so as to consider online search as a market in itself?
- ❑ Can we still maintain that online advertising is divided in the two markets of search and non search? And can further segmentations of online search advertising be identified, according to the type of content searched (e.g. video search, social search, flight search)?
- ❑ Can a provision traditionally applied to pricing conduct be used to impose a general search neutrality obligation? If so, is it consistent with the case-law to use art. 102 © on mere secondary line discrimination? (Firms condemned for secondary line discrimination have been unavoidable trading partners or engaged in concurrent abuses)
- ❑ Can we impose liability on the basis of deceptive conduct? If so, what would the limiting principles be?

Conclusions

- ❑ The search engine industry is becoming too important in the distribution of information to adopt a “wait and see” approach
- ❑ Features justifying intervention: informational asymmetry and tendency to natural monopoly
- ❑ But: difficult for competition law to take care of all the concerns. Time to regulate?
- ❑ Potential alternative: transparency obligations applied to both sides of the market (similar to what has been imposed on the advertising side in the Italian “Google News” case and French “Google v. Navx” case); and a “notice and take down” procedure for demotion