BUNDESWETTBEWERBSBEHÖRDE

Media Markets as Two-Sided Markets: Consumer Behaviour and Search Engines

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The Pros and Cons of Antitrust in Two-Sided Markets

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November 28, 2014

Stockholm

Some Facts about Online Advertising

- Online advertising revenue in Europe in 2013: € 27.3 billion (2006: € 6.6 billion), more than 1 in 4 advertising €s was spent online

- Digital was the only segment of advertising industry with a positive growth of 11.9% in 2013 (highest market growth in Russia with 27% and Turkey with 24%); growth in the total advertising industry was - 2.9%; increase in EU GDP: 0.1%

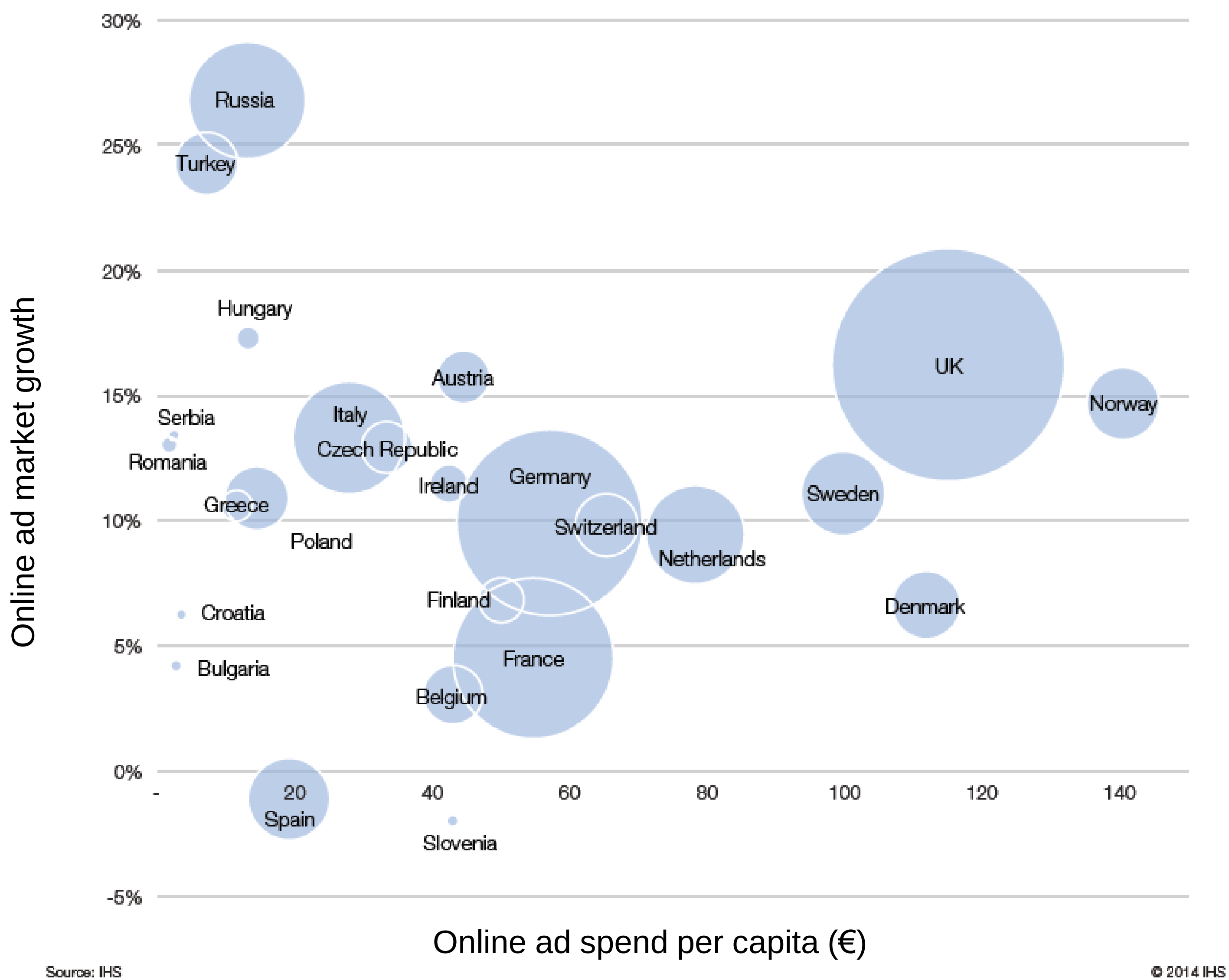
- Growth due to
  - continuing migration of traditional media spend to digital
  - new advertising opportunities within digital (eg mobile and video advertising)

- The mature markets still have the main part of online ad spend; UK (€7.4bn), Germany (€4.7bn) and France (€3.5bn) account for more than ½

- The top 10 markets account for 86% of total spend

Source: IAB Europe AdEx Benchmark 2013 / IHS Technology

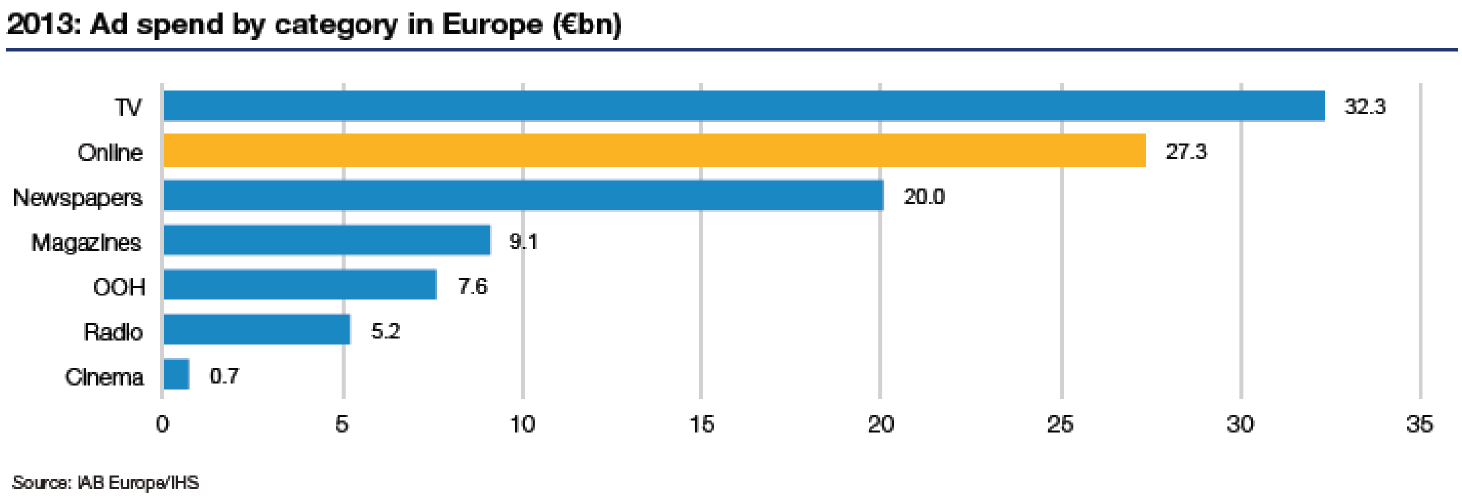
Some Facts about Online Advertising



Bubble size indicates the size of the online ad market

Some Facts about Online Advertising

- Online overtook print newspaper and is therefore 2nd largest media category in Europe since 2012



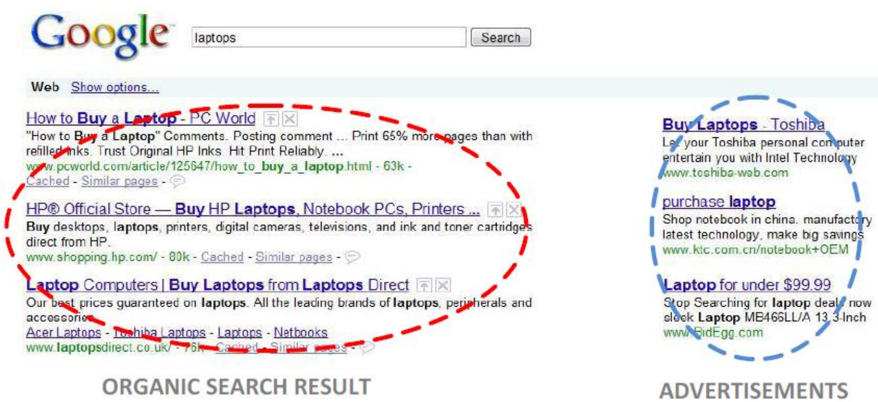
OOH=Out of Home

- 49% of the online revenue comes from paid-for-search, 34% from display advertising (mainly via mobile, social media, video and programmatic buying and selling mechanisms), 17% from classified & directories

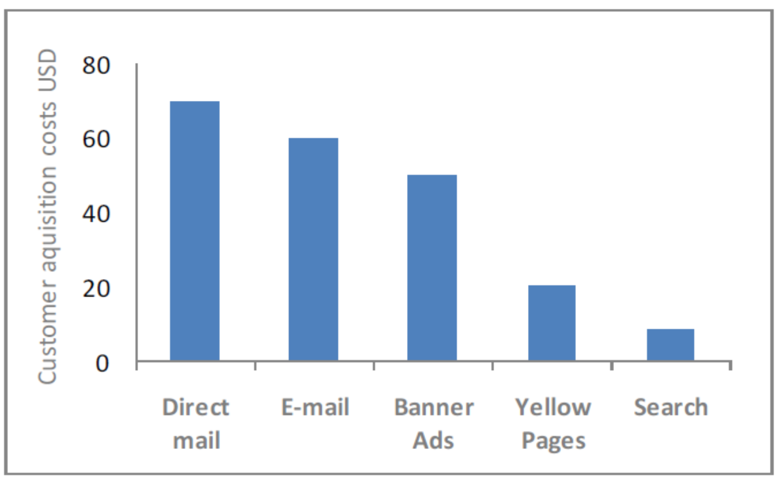
Source: IAB Europe AdEx Benchmark 2013 / IHS Technology

Search Engines

- In Europe almost 1 in 2 online ad €s are caused by paid-for-search:



- Approximate customer acquisition costs across various channels:



Search engines

- have high fixed costs but
- low marginal costs
- need (inter alia) a mass market and a strong brand

Graphs: Hansen (2009), Battelle (2005)

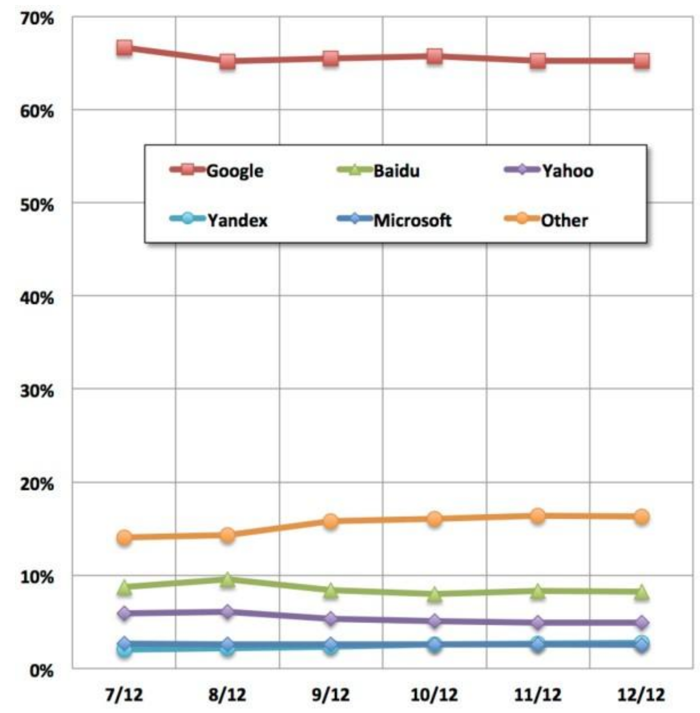
Search Engines

- Three search engines among the top five most visited websites worldwide
  [Alexa web statistics 2014]
  - Google (1)
  - Yahoo (4)
  - Baidu (5)

- Google has a global market share of 65%

- Search engines act as an intermediary between users, advertisers and content providers

- Business model is based on advertising revenues



Source: Comscore (2012)

Pricing of Online Advertising

- **CPM (cost-per-mille):** Advertiser has to pay a predefined amount for every thousand impressions (comes from print media, based on how many copies the consumers bought). Online advertising: Impression = every time a user views an advertisment on the webpage

  → *Minimal risk for host website*

- **CPC (cost-per-click):** Advertiser is only paying the host website of the ad if the ad is clicked on by a user (ie 1,000 views but no click = no pay)

  → *Host website and advertiser share risk*

- **CPA (cost-per-aquisiton):** The advertiser is only paying the host website of the ad if a new customer could be aquired.

  → *Host website is taking the risk*

All pricing models introduced in the last decade, eg **CPE (cost-per-engagement)**, **CPF (cost-per-follower/fan)** for social media, **CPV (cost per view)** for internet video, **CPI (cost-per-app install)** for mobile, **CPA (cost-per-action)** such as e-mail sign-ups or downloads, **CPL (cost-per-lead)** for a sign-up of a consumer interested in the advertiser's offer, can be categorized to these three listed categories.

Implications for Competition Policy

- Standard models of advertising-financed media platforms predict that
    - entry will lower ad-levels and price per ad / viewer will go up (eg Anderson & Coate, 2005)
    - mergers have opposite effect, ie raising ad-levels of oneself and rivals (strategic complements) and lower price per ad / viewer (eg Gal-Or & Dukes, 2006)
    - if there are subscription fees (as a complementary way of finance), the ad-level is independent of the number of firms (eg Anderson & Coate, 2005)

- Empirical studies indicate mixed evidence or no explicit result:

  Ad levels fall with concentration (eg Jeziorski 2011), no systematic relationship between ownership structure and ad prices or levels (eg Chipty 2006), no clear evidence of a relationship between ownership and ad level (eg Sweeting 2010), higher local ownership concentration increases ad prices and ad volume (eg Brown, Alexander 2005)

- Standard theory models assume that viewers single-home (no effective competition for advertisers), there is no advertising congestion (the attention spans are unlimited) and advertising is a nuisance to users

Implications for Competition Policy

Modification of the standard approach:

- Competition between advertisers (ad congestion), eg Anderson & Peitz (2013)

- Multi-homing viewers (also generates competition for advertisers), eg Ambrus & Calvano & Reisinger (2014); Anderson & Foros & Kind (2014):

  If viewers multi-home:

  - Entry can lead to higher ad-levels and lower ad-prices
  - A merger will lead to lower ad-levels and raise the price per ad

Contradiction to the predictions of the standard theory models.

Consumer behaviour and the characteristics of a two-sided market (if determinative) play a crucial role in competition policy!

Implications for Competition Policy

Area of conflict?

- What is in the interest of competition authorities?
  - Lower ad-prices because advertising costs will be incorporated in consumer prices

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  - Lower ad-levels since ads are annoying for consumers (ie lower nuisance costs for viewers) but higher ad-prices
- Theoretical optimum for consumers:
  Little and low-cost advertising
- Recommendations for mergers?

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Thank you for your attention.

Questions or Comments?