

Online search and ads

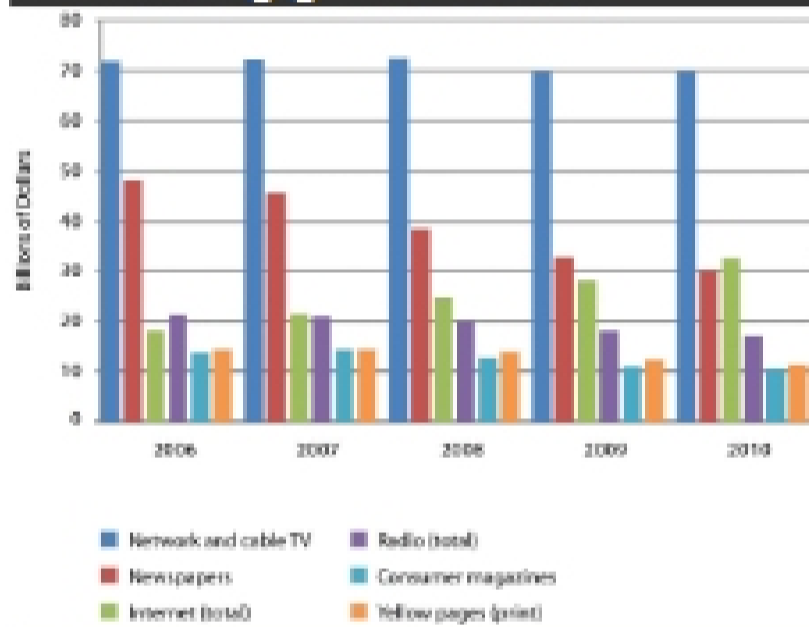
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Mike Pengum

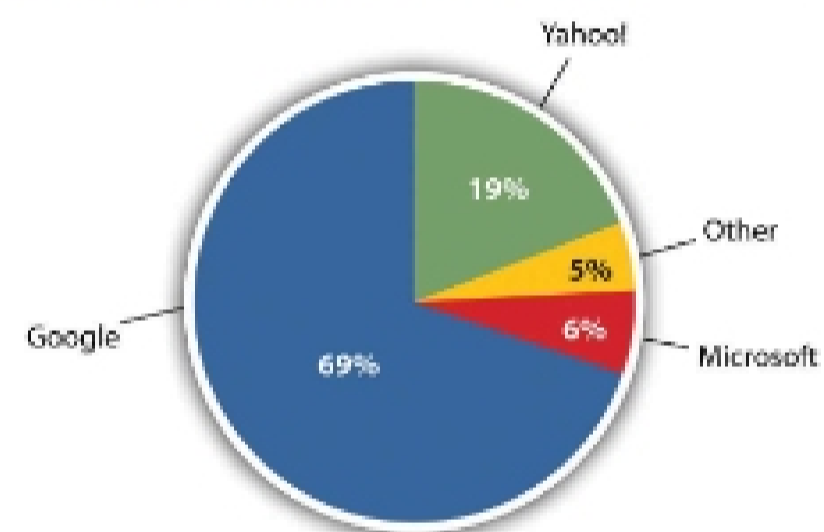
Online ads POA

- Market overview
- Google search ads
 - Page Rank vs. Ad Rank
 - Google AdWords ads
- Google AdSense ads
- Fraud types
- Customer profiling

Advertising growth: online



Online ads market share



Some online advertising options

- paid search ads
- image (or "display") ads, such as horizontally oriented banners, smaller rectangular buttons, and vertically oriented "skyscraper" ads)
- interstitial ads, ads that run before a user arrives at a Web site's contents)
- ads in games

How do online-ads companies make \$

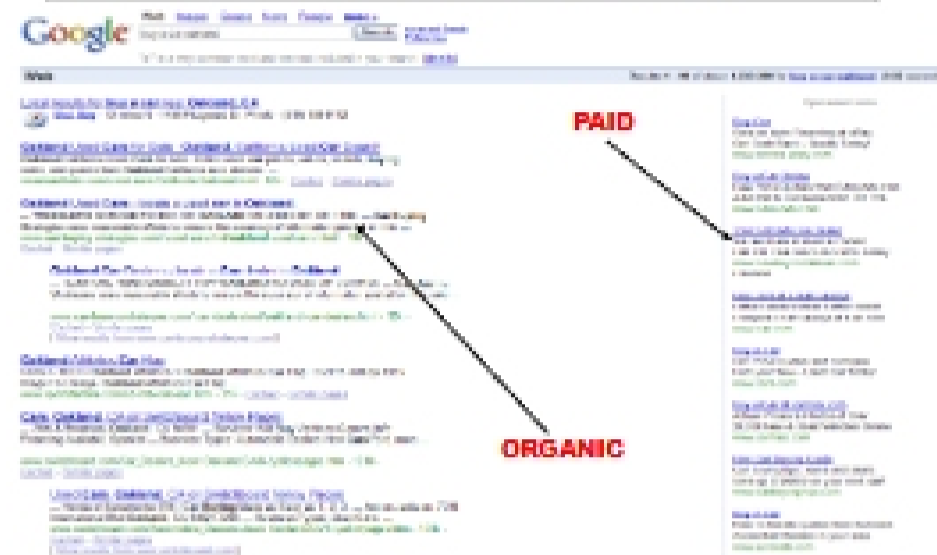
- Companies like Yahoo! that serve out ads into your browser window get paid by the client companies featured in those ads
- How is online advertising paid for?
 - Cost per click (CPC), or
 - Cost per thousand impressions (CPM), or
 - Affiliate programs (typically, % of consumer's purchase on the linked-to site)
 - Negotiated price for fixed time period
 - E.g., I'll pay you \$2,000 per week for having my company's banner ad at the top of your website home page

How important is the online ads market?

Google's market cap is greater than that of...

- ... **News Corp**
 - which includes Fox, MySpace, and the Wall Street Journal,
- ... **Disney**
 - includes ABC, ESPN, theme parks, and Pixar,
- ... **Time Warner**
 - includes Fortune, Time, Sports Illustrated, CNN, and Warner Bros.,
- ... **Viacom** (MTV, VH1, and Nickelodeon),
- ... **CBS**,
- ... and the **New York Times** — combined!

Paid vs. Organic (natural) search



Where organic results come from?

- Will your new blog or personal page show up in Google's **organic** search results?
- Google indexes content of over one trillion URLs
- Uses "software robots / spiders / Web crawlers" (i.e., software) to sporadically traverse links on the WWW
 - Depending on the time/day of the last spider visit, Google's index of a page can differ from the current page
 - You can sometimes pull up the old page by clicking on a "show Cached page" link in Google
- To have your page "not" be indexed, put this in <head>


```
<META NAME="ROBOTS" CONTENT="NOINDEX, NOFOLLOW, NOARCHIVE">
```

Order of organic search results

- from <http://www.google.com/technology/index.html> :
- "PR [Page Rank] relies on the uniquely democratic nature of the web by using its vast link structure as an indicator of an individual page's value. In essence, Google interprets a link from page A to page B as a vote, by page A, for page B.... But, Google looks at more than the sheer volume of votes, or links a page receives; it also analyzes the page that casts the vote. Votes cast by pages that are themselves "important" weigh more heavily and help to make other pages "important."

Aside: Google intranet search

- Your organization can set up an internal Google search page behind its firewall that indexes the pages on the company's **intranet**
 - ...requires purchase of Google's "Search Appliance"
- This may be extremely useful, as Google.com's organic index spans only public WWW pages
 - Private pages (such as your Facebook page and other pages that are password-protected) cannot be crawled to by the search spiders



Paid search ads

- Google (Facebook too) constantly runs auctions to determine who is the current highest-bidder for paid search ads
- Much like "PageRank" for organic search results, sponsored links are ordered according to their:
 - **Ad Rank** = Maximum CPC × Quality Score
- The "Quality Score" for a sponsored link depends on:
 - How closely the ad seller's keywords match the user's search keywords
 - How good the page is that the sponsored link points to
 - The prior CTR (click-through rate) performance of that sponsored link

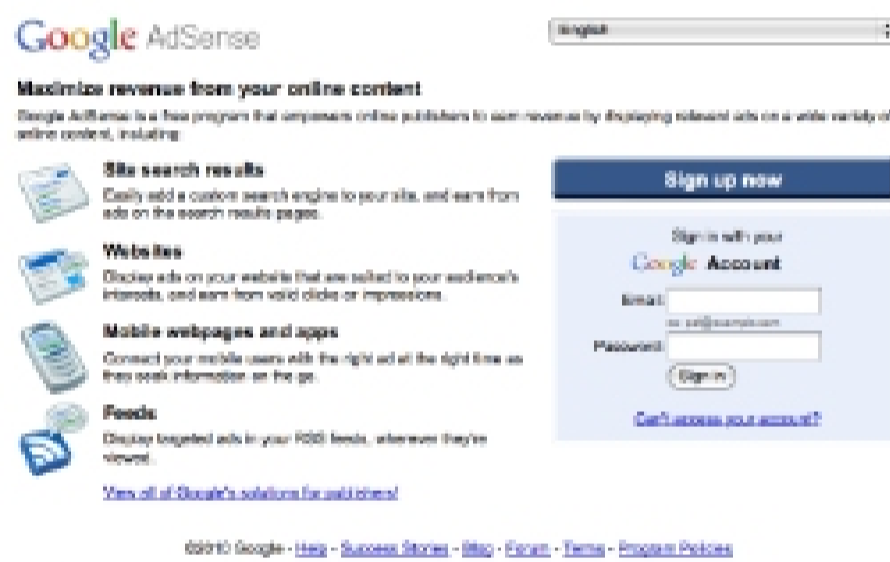
For advertisers: Google AdWords paid search ads



CPC rates can be expensive!

Business/Industry	Keywords in the Top 25	Avg. CPC
Structured Settlements	2	\$51.97
Secured Loans	2	\$50.67
Buying Endowments	1	\$50.35
Mesothelioma Lawyers	5	\$50.30
DUI Lawyers	4	\$49.78
Conference Call Companies	1	\$49.64
Car Insurance Quotes	3	\$49.61
Student Loan Consolidation	3	\$49.44
Data Recovery	2	\$49.43
Remortgages	2	\$49.42

Google AdSense: small Google served ads on your site, not in Google searches



Google AdSense ads on site (lower left)



Fraud risks (learn these from the text!)

- Enriching click fraud
- Enriching impression fraud
- Depleting click fraud
- Depleting impression fraud
- Rank-based impression fraud
- Disbarring fraud
- Link fraud
- Keyword stuffing

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