

DIGITAL ADVERTISING

Professor Kartik Hosanagar

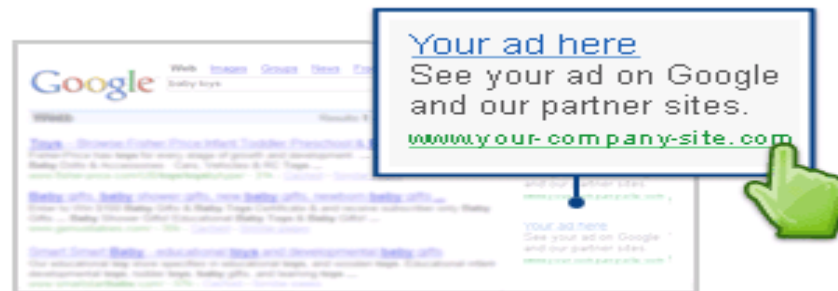


Goals of an Online Ad Campaign

- Profitably acquire customers for the long-term
- Support the launch of a product (maximize acquisitions given some budget)
- Match the Cost Per Acquisition (CPA) of other channels

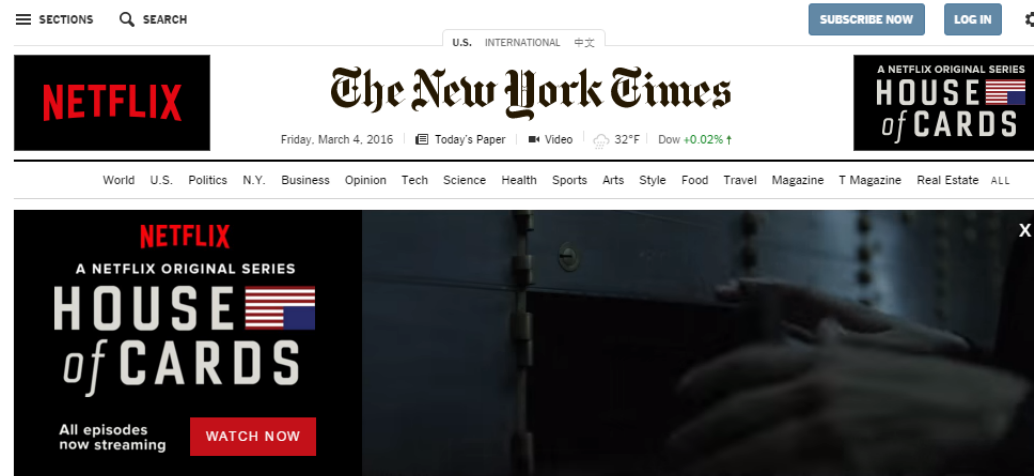
Elements of Digital Advertising

Search Engine Marketing



Elements of Digital Advertising

Display Ads



WHARTON ONLINE

Entrepreneurship

Elements of Digital Advertising

Social Ads



Elements of Digital Advertising

	Search Engine Marketing	Display Ads	Social Ads
PROS	<ul style="list-style-type: none">• Based on consumer search (high Intent)• Simple format (3 lines of text)	<ul style="list-style-type: none">• Reach• Inventory availability• Range of formats (interactive ads, videos, gifs)	<ul style="list-style-type: none">• Targeting capabilities (employer, job title, interests)• Cost, especially for mobile apps
CONS	<ul style="list-style-type: none">• Can be expensive• Limited demographic information	<ul style="list-style-type: none">• High variability in quality & performance• Low consumer interest & response rates	<ul style="list-style-type: none">• Harder to quantify value for e-commerce, etc

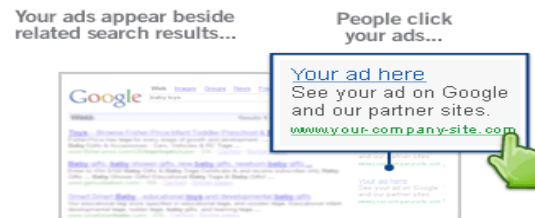
Search Engine Marketing (SEM)

- Search engines run keyword auctions to sell available inventory of ad positions

1 Select Keyword



2 Submit Ads and bids (cost per click)



3 Ongoing optimization

Ad group	Default Max. CPC	Clicks	Imps	CTR	Avg. CPC	Cost	Avg. Pch
best educational apps for kids	auto \$0.05	10	305	3.28%	\$0.41	\$4.13	2.0
educational apps for kids	auto \$0.05	249	6,732	3.70%	\$0.42	\$105.72	2.2
quad games for kids	auto \$0.05	267	6,894	3.87%	\$0.43	\$114.11	2.1
math apps for kids	auto \$0.05	86	1,392	6.18%	\$0.40	\$39.95	1.7
reading apps for kids	auto \$0.05	125	2,487	5.01%	\$0.42	\$51.89	2.1
quad apps for kids	auto \$0.05	175	4,524	3.83%	\$0.42	\$73.18	1.9
Total - all but removed ad groups		912	22,644	4.03%	\$0.43	\$388.98	2.1
Total - all ad groups		912	22,644	4.03%	\$0.43	\$388.98	2.1

Keyword Creation

Generate list of relevant keywords and organize into campaigns

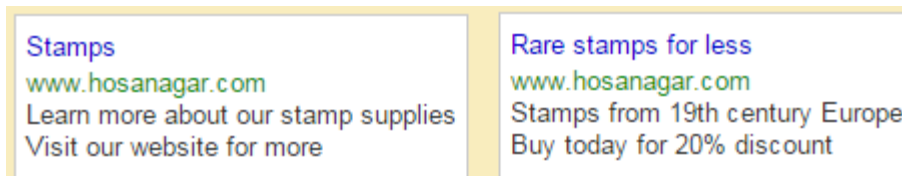
**Each campaign
consists of
keywords»**

Keywords Created
porsche new york city
fine auto dealer new york ny
sports car in new york city
certified pre-owned vehicle new york ny
buying a car in new york city
leasing car new york ny
auto insurance new york ny

Tools like Adwords keyword planner are useful

Design Ads

- Be as precise as possible about what the value to your customer and what differentiates you
- Have a clear call to action



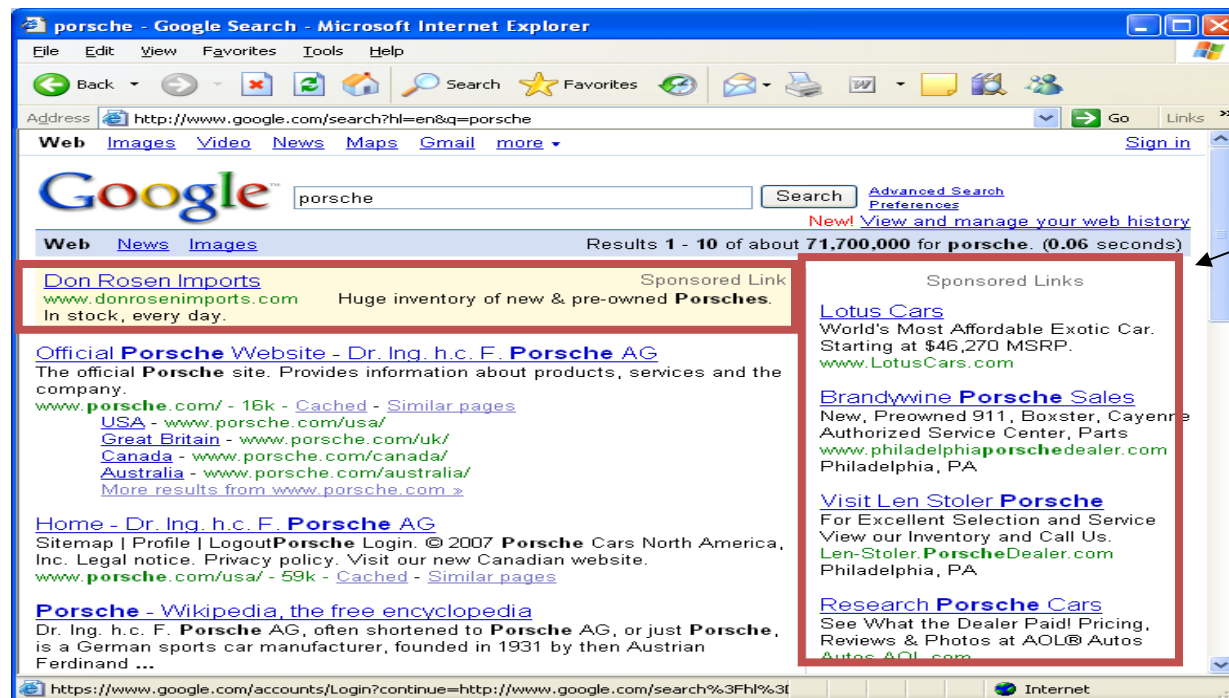
Bidding Strategies

Good bidding strategies are more aggressive for keywords with high value per click (vpc) but low cost per click (cpc)

Key Word	Sports car NYC	Lease car NYC	Auto insurance NYC	Porsche dealer NYC
Expected cost per click (cpc)	\$8.73	5.29	5.59	2.93
Expected revenue per click	\$15	\$6.50	\$3.50	\$15

Search Engine Placement

Once advertiser submits keywords, ads & bids, search engine displays them in search results



Search Engine Ranking Policies

- What determines an ad's rank and CPC (cost per click)?
 - Ad rank is based on $\text{Bid} * \text{QualityScore}$
 - QualityScore based on historical CTR, ad copy, landing page quality, etc
 - You may be ranked higher than someone despite having a lower bid (because your quality score is higher)
- Check out the video “Search Advertising With Google: Quality Score Explanation by Google Chief Economist”
https://www.youtube.com/watch?v=qwuUe5kq_O8

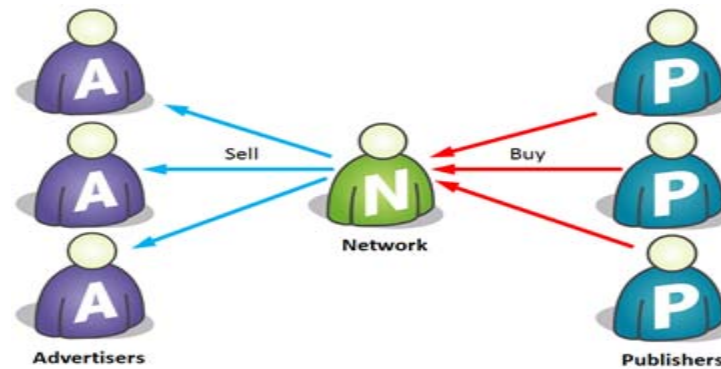
Third-party SEMs Offer Marketing Services

It is important to monitor SEM performance by focusing on the right metrics.

<i>Metrics:</i>	<u>Impressions</u>	<u>Clickthrough Rate</u>	<u>Conversion Rate</u>	<u>Value Per Conversion</u>	<u>Cost Per Click (CPC)</u>
	Quantity		Quality		Cost

Ad networks

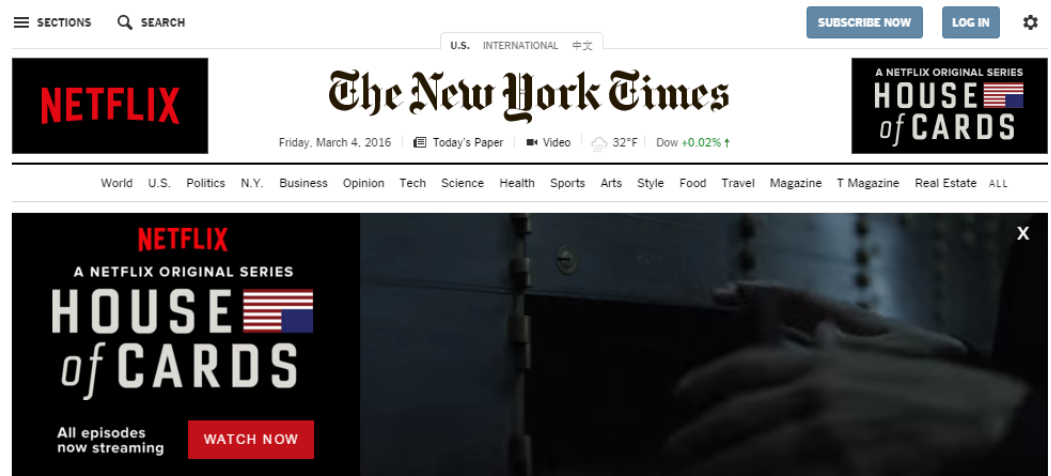
Ad networks connect advertisers to publishers hosting advertisements



Examples: Facebook, Google Adwords, InMobi (mobile)

Selecting the Right Ad Network

- Reach
- Type of ad inventory
- Audience Composition
- Targeting Capabilities



Social Ads

- Social ads allow rich targeting capabilities such as:
 - Interests: “Anime movies,” “dieting,” etc
 - Income
 - Behavioral profiles: “moms of preschool kids,” “corporate moms”
 - Name of employer, educational institution, etc
 - Job title

Running Successful Ad campaigns

- Constant Experimentation






Experimenting with different images

Running Successful Ad campaigns


- Experimenting with ad text, targeting, etc

Suggested App

 **SmartyPal: Educational Stories, Videos & Games that Grow with Your Preschool/Kindergarten Child** 

Sponsored · 

Learn to love learning on The Good Screen!
Download our free iPad games for kids ages 3-7.



iPad App Invite!
Available on the App Store

[Install Now](#)

Suggested App

 **SmartyPal: Educational Stories, Videos & Games that Grow with Your Preschool/Kindergarten Child** 

Sponsored · 

Give your little genius a fun learning buddy.
Download our free iPad app for kids aged 3-7



iPad App Invite!
Available on the App Store

[Install Now](#)

Recap: Elements of Digital Advertising

	Sponsored search Ads	Display Ads	Social Ads
PROS	<ul style="list-style-type: none">• Based on consumer search (high Intent)• Simple format (3 lines of text)	<ul style="list-style-type: none">• Reach• Inventory availability• Range of formats (interactive ads, videos, gifs)	<ul style="list-style-type: none">• Targeting capabilities (employer, job title, interests)• Cost, especially for mobile apps
CONS	<ul style="list-style-type: none">• Can be expensive• Limited demographic information	<ul style="list-style-type: none">• High variability in quality & performance• Low consumer interest & response rates	<ul style="list-style-type: none">• Harder to quantify value for e-commerce, etc

Digital advertising is a data-driven activity. Success requires constant experiments, measurement, optimization



ONLINE