

# Driving Traffic to Websites

Search Engine Optimization, and Search Engine Marketing

# Search Engine vs. Directory

*Note: Engines “won” ...they became more popular than directories*

- Search engine
  - An online tool that helps users of the Internet find sites and information
  - Most search engines use automated programs (spiders, robots) to look for relevant information to index in their database(s)
  - Examples: [www.google.com](http://www.google.com), [www.yahoo.com](http://www.yahoo.com), [www.bing.com](http://www.bing.com)
- Search directory
  - A catalog of websites organized by category to allow users to easily browse for the information they need
  - Search directories are organized by real people who discover new sites and relevant information by exploring the Internet themselves and by reviewing submitted sites
  - Example: [www.dmoz.org](http://www.dmoz.org); previously [www.yahoo.com](http://www.yahoo.com)
    - Historically, DMOZ provided database access to search engines like Google, Yahoo, others, to enhance their results (not so much anymore)

# History

- **Yahoo!** founded: January 1994
  - Started as a directory (manual)
- **AltaVista** founded: December 1995
  - The first search engine (automated)
- **Google** founded: September 1998
  - Started as a search engine
- **Bing**, formally Live Search, formally MSN Search founded: 1998
  - Originally used AltaVista data under their own brand

*Note: Most services, both directories and engines, provide access to each other's databases; when using any particular service it's not clear which company actually indexed (obtained) the results you're looking at*

# Definitions

- Search robots
  - A.k.a. bots, wanderers, spiders, and crawlers,
  - Tools many web search engines use to build their databases.
  - Most robots work like web browsers, going to webpages and following their links, except they don't require user interaction
- Search Engine Results Pages (SERP)
  - The page you see *after* you perform a search
  - A ranked listing of results (web pages) based on the keywords you provided as part of your search
  - Ranking is performed by an algorithm (usually proprietary); the higher the ranking (the position in the list) the higher the relevance to your search term(s)
- “Organic” results vs. Paid Placements
  - In addition to ranked listings from the algorithm (“organic” results), paid placements may appear on a SERP
  - The ranking of the paid placements is also determined by an algorithm which primarily counts payment as a ranking factor

# More Definitions (Paid)

- Impression
  - Every time a user views a SERP that displays your ad, it is counted as an impression
- Page view
  - Every time a user clicks your ad, it is counted as an page view
- Pay per click (PPC) and Cost per (thousand) Impressions (CPM)
  - A.k.a. Cost per click (CPC) and Cost per impression (CPI)
  - An advertising model used to direct traffic to websites, in which advertisers (website owners) pay a publisher (typically a search engine company) when the ad is viewed (an impression) or the ad is clicked (a page view)
  - Impressions → Clicks → Page Views → Conversions (sales)
- Clickthrough rate (CTR)
  - The number of ad clicks divided by the number of impressions, in a percentage
  - $CTR = (Clicks / Impressions) * 100\%$   
For example, if you received 7 clicks out of 1000 impressions, your page CTR would be 0.7%

# Web Development Activities for Search

- SEO - Search Engine Optimization
  - Getting the website to appear well in the “organic” SERPs
- SEM - Search Engine Marketing
  - Paying to get placement (advertise) on SERPs
  - Using media (any) to get people to visit a website (e.g. QR codes)
- SMO - Social Media Optimization
  - The use of social media outlets to generate publicity with the intent of driving website traffic