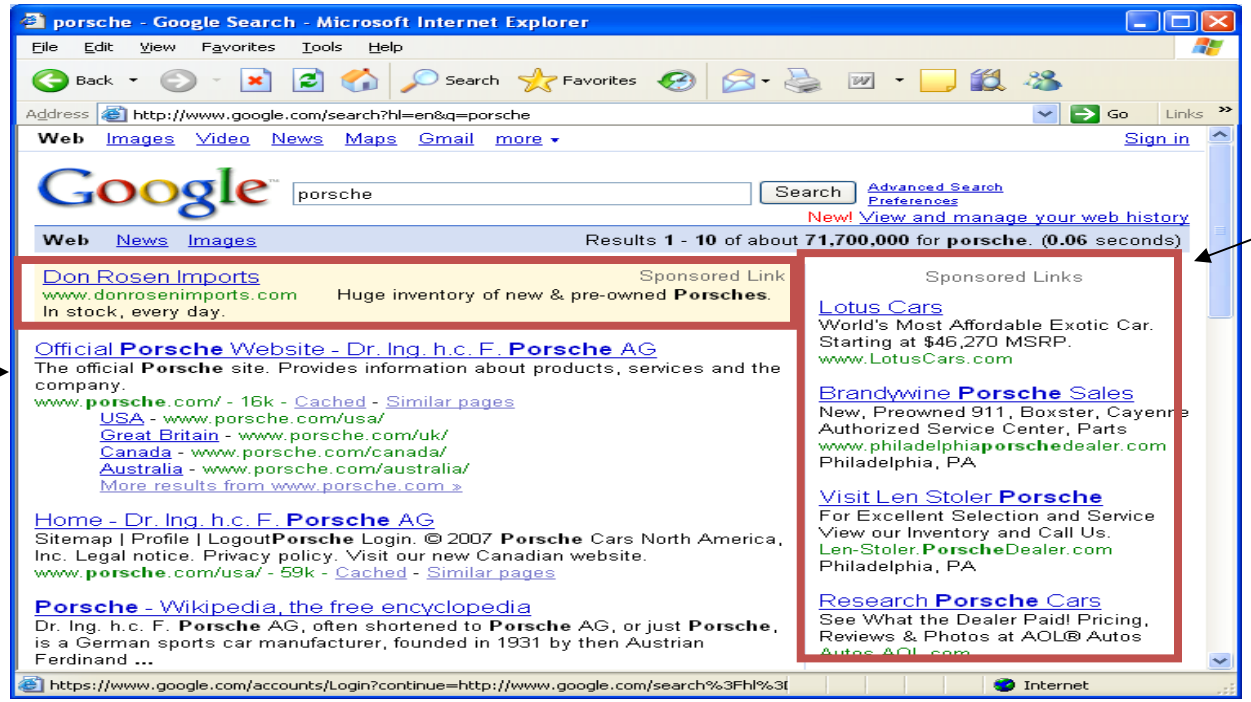
SEARCH ENGINE OPTIMIZATION (SEO)

Professor Kartik Hosanagar

Wharton
University of Pennsylvania
ONLINE

Search Engine Optimization/Marketing (SEO/SEM)

Search results consist of both organic and sponsored results. SEO focuses on placement among organic results and SEM among sponsored links



Organic Search results

Sponsored ads

How Search Engines Work

Search engines perform three main functions:

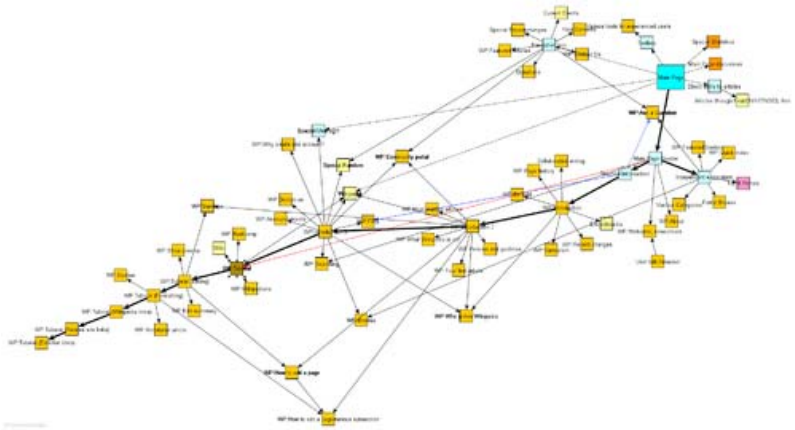
i. Gather all pages on the web (**crawling** or **spidering**)

ii. Organize the contents of the pages to allow easy lookup (**indexing**)

iii. In response to a query, determine which pages match, and rank order them (**ranking** and **display**)

Core Elements of SEO: Crawling

- Ensure all your pages are crawled by search engines
  - Maintain a sitemap that makes it easy for search engines to discover all your pages
  - Dynamic content should also be indexed so add them to sitemap or create static versions for indexing



Sample sitemap (source: Wikipedia)

Core Elements of SEO: Indexing

Ensure your website is indexed for the “right” kinds of keywords

- Index records the pages that are relevant for any given keyword
  - Keywords are words/phrases that represent the content of a webpage
- Mention important keywords prominently on your website
  - There are several free keyword tools that provide information on search volume and competition for each keyword (e.g. Google’s AdWords keyword planner)

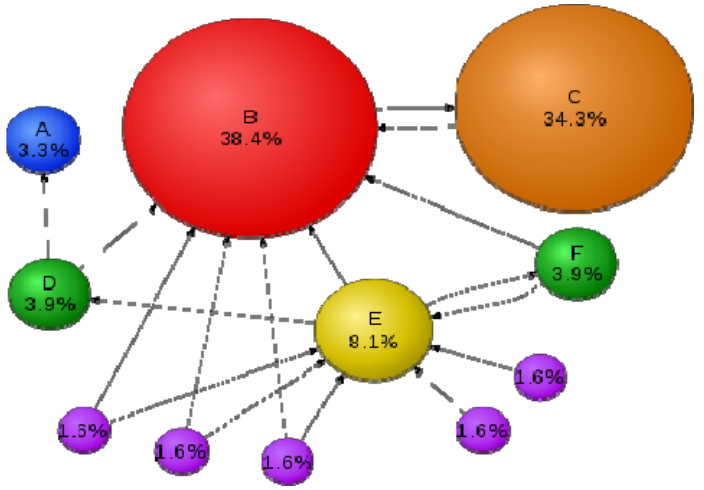
Keyword (by relevance)	Avg. monthly searches	Competition
florists	22,200	High
wedding florist	2,400	Medium
wedding florists	880	Medium
find a florist	260	Medium
enchanted florist	2,900	Low
cheap florist	480	High

Keyword planning (source: Adwords keyword planner)

Core Elements of SEO: Ranking

Ranking depends on keyword appearance and inlinks to your website

- The number and quality of “inlinks” into a webpage indicates how authoritative is that page
  - Try to ensure lots of high-quality links into your website
  - Black hat techniques rarely work because search engines prioritize links from high quality pages



Google PageRank. Note how Page C has a high score (34.3%) because it gets an inlink from an authoritative website unless website E whose score is lower (8.1%) on account of lots of links from poor quality websites (source: Wikipedia)

Role of Blogs

- Primary purpose of blogs is to provide timely information to customers, establish thought leadership, etc
- Blogs can be useful with SEO
  - By offering more content, you will be indexed for more search queries

ONLINE