

Driving Traffic to Websites

Search Engines and Search Directories

Search Engine vs. Directory

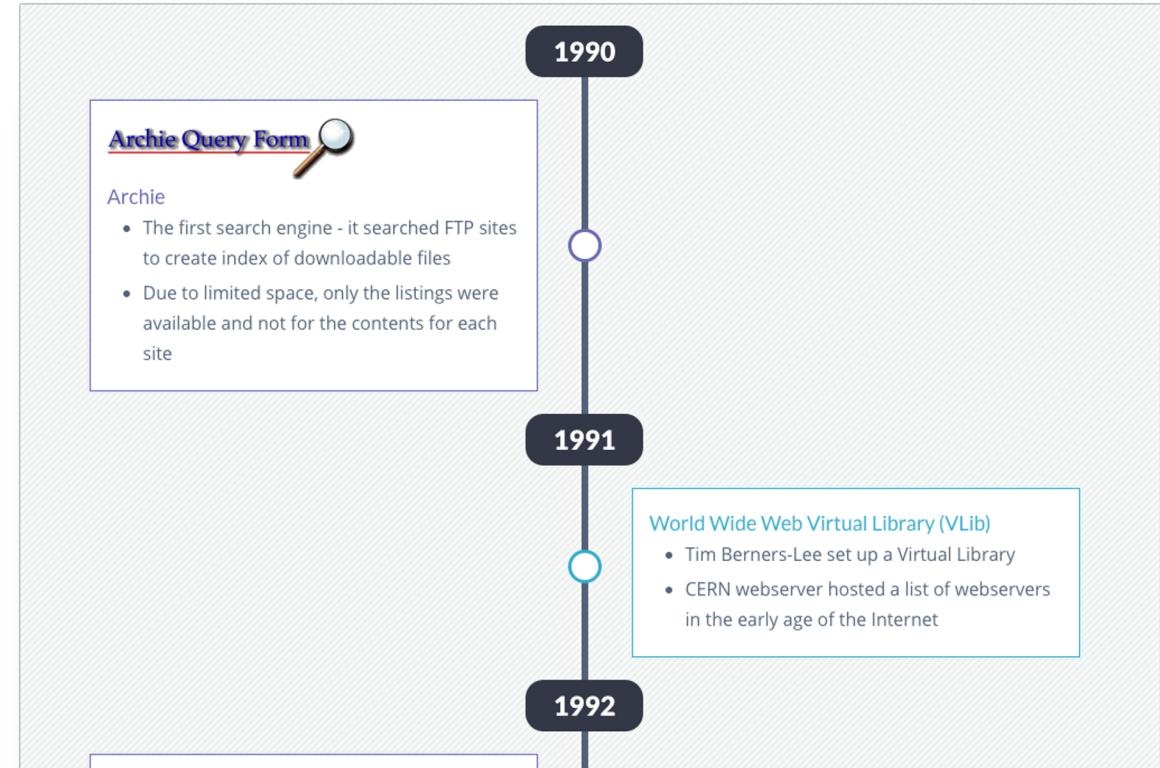
Note: Engines “won” ...they became more popular than directories

- Search engine
 - **An online database**
 - Most search engines use **automated programs** (spiders, robots) to look for relevant information
 - Examples: www.google.com, www.yahoo.com, www.bing.com
- Search directory
 - **A catalog of websites** organized by category
 - **Organized by people** - discover new sites and relevant information
 - Example: www.dmoz.org; previously www.yahoo.com (pre-2014)
 - Historically, DMOZ provided database access to search engines like Google, Yahoo, others, to enhance their results (not so much anymore)

- 
1. Google (87%)
 2. Bing
 3. Yahoo
 4. Baidu
 5. Yandex.ru
 6. DuckDuckGo
 7. Ask.com
 8. AOL.com
 9. WolframAlpha
 10. Internet Archive
- <https://www.reliablesoft.net/to-p-10-search-engines-in-the-world/>

Evolution

- **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



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