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Search Engines: Types of Web Search Engines

PDF notes



What Are Search Engines?

A search engine is a tool that helps you search for information on the internet by typing in specific words or phrases known as a "query." The search engine then scans billions of websites and returns a list of results that are most relevant to your search. Popular search engines include Google, Bing, and Yahoo. These search engines organize vast amounts of online content and help you find what you're looking for with just a few clicks.

The main purpose of a search engine is to make information accessible by narrowing down the millions of websites into relevant search results. Rather than having to visit different websites manually, you can type in keywords and quickly find the information you need.

How Do Search Engines Work?

Search engines use complex algorithms—sets of instructions and calculations—to sift through vast amounts of data and rank websites based on their relevance to your query. Here's how it works:

- 1. **Crawling:** Search engines send automated programs called web crawlers (or spiders) to visit websites and collect data about their content. Crawlers follow links from one page to another, gathering information like text, images, and videos from each site they visit.
- 2. **Indexing:** Once the crawlers collect data from websites, the search engine organizes and stores this information in a database called an index. This index helps the search engine quickly retrieve relevant information when you perform a search.

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3. **Ranking:** When you enter a query, the search engine uses its algorithm to rank results based on factors like relevance, website authority, and content quality. The goal is to show you the most accurate and useful websites first.

4. **Displaying Results:** After ranking the results, the search engine displays a list of web pages that are most relevant to your query. These results may also include images, videos, and other media depending on the search type.

Understanding how search engines work is important because it shows that not all search results are equal. While the search engine ranks results, it doesn't always guarantee that the first results are the most accurate or trustworthy. Therefore, it's essential to critically evaluate the content you find.

In this video, explore how search engines work by diving into the three fundamental tasks: crawling, indexing, and ranking.

