**ANATOMY AND WORKING OF SEARCH ENGINES**

M. Sharvani

B.E-2/4, CSE

[sharu2551@gmail.com](mailto:sharu2551@gmail.com)

**ABSTRACT:**

The World-Wide Web is moving rapidly from text-based towards multimedia content and requires more personalized access. The amount of information on the web increases vigorously and so do the number of new users, inexperienced in the art of web search. Search engines use automated software programs known as Spiders or Robots to survey the Web and build their databases. Web documents are retrieved by these programs and analysed. Data collected from each web page are then added to the search engine index. When you enter a query at a search engine site, your input is checked against the search engine’s index of all the web pages it has analysed. The best URLs are then returned to you as hits, ranked in order with the best results at the top. Internet search engines are special tools on the websites that are designed to help people find information on the World Wide Web. A directory stores the name of the site, a relevant category and a short description of what is contained in the site. The information is stored as a hierarchy, with divisions represented by separate pages. When the site is searched, the search is performed on the title and description of the site, not on the contents of the site. The search engine such as Google links all URLs on the web. Then based on the keywords it sends its crawlers, which return the linked pages with the keywords as hits. It then ranks all the pages sent by them and displays results. There are many factors on which search engines list and rank web pages. They use complex algorithms like PageRank, Fresh content, updated content, metadata, geo-relevant content, optimized keywords to decide on the listing. Search engines search the Internet or select pieces of the Web content based on important words known as keywords. Search engines keep an index of the words they find, and where they find them. Search engines allow users to look for words or combinations of words found in that index. Basic categories of search engines are spider, crawlers, indexer, database. A spider is a robotic program that downloads Web Pages. It works just as the browser does when connected to a website and download a page. As a spider downloads pages, it can strip apart the page and look for links. It is the crawlers job to then decide where the spider should go to next based on the links, or based upon a pre-programmed list of URLs. An indexer rips apart a page into its various components and analyses them.

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