The Beneficial Suggestions to Improve Page Rank, Website Popularity & importance of Search Engine

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Abstract

In today advanced technical environment millions of Users are using Search Engine to retrieve information. Each and every User who is using Computer using the World Wide Web or called an Internet facility is aware with such phenomena.
As we know that Search Engine is a type of Computer Software that browses the Internet in systematic & pre defined manner. The Search Engine is designed to find or retrieve the information or data on the World Wide Web.

1. Introduction

As we know that since the web based search engine appeared in 1994, the search engine has achieved great development. It aims for information routing contribution the retrieval service for users by searching, gathering and understanding, extracting, organizing and processing the information on internet with certain tactics. Traditional search engine comprises of three major components, download, index and search. A copy of all visited pages is stored for later use; Normal search engine returns thousands of matches in response to a user query. The size of information is too large to go through.

2. Drawbacks of Existing Search Engine

Today's Search Engine suffers from following Drawbacks.
1. Crawler is not able to analyze the context of the keyword in the web pages before they download it.
2. The user submits his requests for finding of information without explicitly mentioning the context in which he or she desire.
3. Crawler treats user search requests in isolation.
4. Results returned are identical, independent of the interest of user.
5. There is a need to prepare separate files for each web document.
6. Augmentation is required in HTML document

3. Literature Review

Search engine optimization is the process to improving the visibility of a website or webpage in search engine SEO may target different kind of search like image search, local search, video search, academic search, news search, industry specific vertical search. Search engine is a term index that they create. This index contains the words in each document, pointers to their location within the document.
Search engine has four essential modules:-
1. Document processor

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2. Query Processor
3. Search and Matching function
4. Ranking Capability
Example of Search Engine is Alta Vista, Google, Hot Bot, and MSN. In other word we can define the Parts of any search Engine are
(1) Crawler or Spider
(2) Index
(3) Search Engine Software
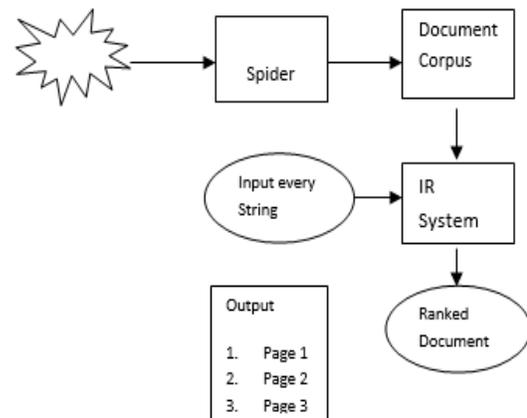General Architecture of Search Engine is as follows

Fig-1 Architecture of Search Engine

4. Types of Search Engine

According to functioning three types of search engine [7]
4.1 Crawler Based Search Engine

They create their listings automatically. Spider builds them. Computer algorithm ranks all pages. These types of search engines are heavy and often retrieve a lot of information. For complex search it allows to search within the results of previous search and enable you to refine search results.

2) Human Power Directories:
These are designed by human selection means they depend on professional to create listings. These never contain full text or webpage they link to.

3) Hybrid Search Engine:
These are different from traditional text oriented search engine such as Google or directly based searched engine such as Yahoo in which each program operates by comparing a sets of metadata
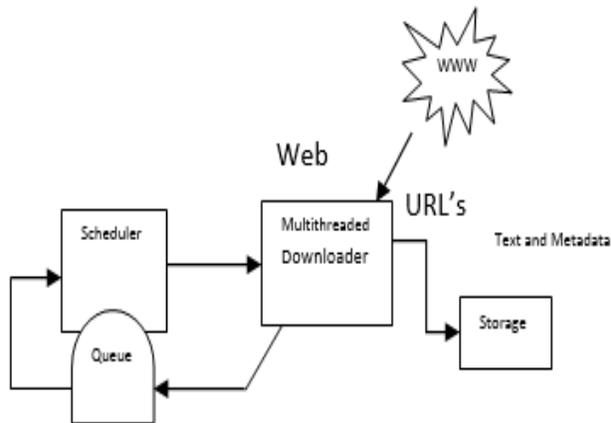
5. Goals of Search Engine

(1) Quality-Means effectiveness can be defined as to retrieve the most relevant set of document for a query. Process text and store text statistics to improve relevance be used.

(2) Speed-Means efficiency may be defined as a process queries from users as fast as possible For it specialized data structure should be used.

6. How Web Based Search Engine Works?

Web based search engine works by saving the information of many web pages, which they retrieve itself These pages are retrieved by a web crawler which is also called spider

which follows every link on the site (Figure-2 [3])

Fig-2:- Working of Search Engine

Search engine is a term used for information retrieval. Search engine match queries against an index that they create. This index contains the word in each document, pointers to their location within the document. This is called inverted file.

7. Traditionally Used

1) Create unique, accurate page titles
Title of webpage should be unique and descriptive so that search engine can uniquely identify the page by its title. Title should not be too long. E.g. Royal Treat

2) Accurately describe the page's content
One should select content of page as per given title, there should not be any ambiguity if a user clicks on the link of the page s/he should find the correct information given as per the title.

3) Make use of the "description" meta tag
Although Meta tag is not the first choice of any search engine but it is a good habit to provide meta description, it tell the search engine about the page content.

4) Improve the structure of your URLs

Structure of the URL should be simple and clear so that it can be memorize by the user.

5) Create a simple directory structure
Directory structure of the website should be simple so that the search engine can crawl it quickly and easily.

5) Put an site map page on your site, and use an XML Sitemap file
Sitemap describe the directory structure of a website so we should provide a sitemap for the user of the website and the search engine so that it can crawl the website easily. At the same time there should be a XML sitemap and HTML sitemap.

6) Create fresh, unique content
Content of the website should not be copied from anywhere it should be created by the person who is claiming for the content in other word there should not be plagiarism.

7) Make use of free webmaster tools
Webmaster tools are tools which are used for search engine optimization. Use back link generator and checker, page rank analysis, broken link founder, keyword planner.

(8) be aware of rel="no follow" for links
Programmer should be aware of rel="no follow" for links because these type of statement stops the search engine to follow the link.

(9) Make effective use of robot.txt
Web site owners use the /robots.txt file to give instructions about their site to web robots; this is called The Robots Exclusion Protocol.

(10) Use heading tags appropriately
Use heading tag in the text accordingly; one should avoid font tag to enlarge the text.

(11) Use effective Back links
Use back links effectively to your site, one should post there we blink over various popular social network and blogging sites e.g. Blogger, word press, LinkedIn, twitter etc.

8. Proposed Techniques

1. Search Engine should crawl the information word by word then find the frequency of the word to rank the page.
2. Search Engine should be able to categorize content on the basis of Context.
3. Create a good unique content for your site
4. Inbound links for a particular site.
5. Update the website regularly with new content
6. Ensure that the content matches your site description and keywords
7. Optimize the pages
8. Avoid overloading of site with keywords
9. Utilize back links
10. Create and submit the sitemap
11. Translate your website if easily possible with the help of Translator.
12. Create an RSS feed.
13. Capitalize on social networks.
14. Become more shareable by providing your visitors a couple of easy ways to share your content would be a good start.
15. Clean up bad links
16. Use Bookmarks in architecture of Search engine

9. Conclusions

In the above discussion different Traditionally Used methods were discussed, except it some proposed method

were also discussed, which should be always consider to Improve Page Rank and Website Popularity

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