

# Review on Search Engine & Search Engine Optimization

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## ABSTRACT

A search engines (SE) that gives the relevant information to a user for search query, this technique called as search engine optimization (SEO). The Search Engine Optimization is a process of webmaster or website user to make their website or webmaster improve ranking in the Search Engine result. If we know search engine optimization then it is useful to increase the availability of webmaster or website in Search engine result. In this paper focus on On page optimization & Off page optimization techniques as well as Page Rank Algorithm and SEO tools.

**Keywords:** Search Engine, Search Engine Optimization, On Page Optimization, Off Page Optimization, SEO Techniques, Keyword Analysis, Meta Tags, Directory Submission

## I. INTRODUCTION

Now a day's most people search the required information on search engine to get result. For mining the data on the internet then we use the Search engine that is set of program. Each search engine has its own working method. Search engine optimization also gives idea regarding for website ranking.

## II. SEARCH ENGINE

Search engines are an way of searching information on the Internet. According to Alexa Traffic Rank, Google.com Yahoo.com, YouTube, etc.. is the popular web site in the all states as well as in the world. It was the first web site to visit one billion people in monthly unique visitors in May 2011. Search engines as a starting point for navigating the Web. While search engines a connecting content providers and end users to crucial link. The Search engine is a system software which is use to find information or query on the World Wide Web (WWW) using keywords. SE collecting the information or data, process on it and represent the results to the end user in a systematic manner as well as quickly and accurately.

### A. How Search Engine Work?

Search engines perform multiple activities in order to display results. Search engine is divided into two parts crawling and indexing as well as very search engine has

its own crawler or spider to search the data as per the user requirements. Crawler used the 'Robots.txt' file to tell the crawler which files is crawled and which files is not.

In indexing some arachnid takes a preview of website page, some file each word on a page title, metadata, headings, and section or two on a pages. At that point client visits the connections accessible on site at that point, this information is utilized to rank the page and to choose which pages should to be appeared and in a specific request.

- 1) Crawling - Process of recovering all the pages connected to a site. This procedure performed by specific programming called a crawler or a bug Heading:
- 2) Indexing - Process of creating index to fetched web pages and store then into a reverse database from where it is later to retrieve an end user. The process of indexing is searching the words and query that give the best details of information on page and assigning the page to particular user. Crawling - Process of recovering all the pages connected to a site. This procedure performed by specific programming called a crawler or a bug Heading:
- 3) Processing - In a search engine, when a request comes, then the search engine processes it & it compares the string from the search request with the

indexed pages in the database on page and assigning the page to particular user.

4) Calculating connection - it's one page contains the pursuit string then the web searcher begins calculation pertinency of each page in its ordering to the inquiry string.

5) Retrieving Results - The last advance of internet searcher is showing the best coordinated outcomes. Web search tools that are Google and Yahoo! Are refresh their importance calculation every month. When you see change in your rank it is algorithmic move.

### III. SEARCH ENGINE OPTIMIZATION



**Figure 1:** SEO Process

All paragraphs must be indented. All paragraphs must be justified, i.e. both left-justified and right-justified. SEO is a process of search data for SE to visible higher ranking Web Pages or websites to improve the availability of website access. The occurrence of Twitter, Bing, Yahoo, Google and Ask the SEO principles and SE innovations is the process of development. Search engine optimization (SEO) is one type of process to affecting the visibility of a website or a web page in a search engines results as well as it's referred to as natural, organic, & earned results i.e. Wikipedia. User fetches the different types of searches like content search, video search, image search, vertical search etc as well as banking, travelling, payment etc. There are different element of SEO strategy i.e. optional for actually imperative to the goal of an SEO multiple Website analysis

- A. Competitive analysis
- B. Proper Keyword Research.
- C. Content Development
- D. On – page optimization
- E. Off- page Optimization
- F. Return on Investment Analsi
- G. Local SEO
- H. Daily, weekly and monthly reports.

### IV. TYPES OF SEARCH ENGINE OPTIMIZATION

Mainly two types of Search Engine Optimization (SEO) are: On page optimization and Off page optimization.

#### A. On page optimization

The On page optimization technique, the optimization is base on coding part of WebPages. It provide the techniques that can be done on the pages of a website or WebPages. The on page optimization process helps the SE crawlers to read the website data or information. Website design elements such as: Keywords, title tag, formatting, position, image, external link, density, UML etc., which are controlled by site itself.

- 1) Keywords- For searching we can use those keywords which are most correct in searches. This can be include title tag, Meta tag, and headline tag. Keyword density is the percentage of, to check the one keyword are how many times a keyword repeated on a webpage compared to the total number of words on the page. The Optimum keyword density is up to 1-3%. SE crawler checks keyword provide in <title> tag; <header>
- 2) URL- Gives to the location of webpage on the web i.e. World Wide Web. The short cut of the URL's is ideal via SE Website. The URL is relevant and unique and we can use different URL for country specific domain.
- 3) Image- Search engines do not understand images format content so we provide alt i.e. alternative text in imagetag. For example : 
- 4) XML Sitemap - The user uses the HTML sitemaps. This is helps to find data or relevant information on the webpage easily. While the crawler used the XML sitemap. It is a different format to tell the search engine (SE) about the pages in a website, they related

importance to each other, and how they are updated day to day.

5) Redirections - HTTP response status codes nothing but a Redirections. Standardized undesirable 404 Error page get occurred, when the user cannot communicate with the server. When the page is missing we use 302 codes; it's replaced with a temporary redirect to a custom error page. For permanent redirection we use 301 codes.

## **B. OFF Page Optimization**

We try this by some promotional ways to boost the ranking of a web site within the Search engine result pages.

1) Directory Submission- We have to submit computer address (URL) and web site details to those directories by class below varied headings. Then web site becomes visible to all people whenever they visit the URL. Please lookout that these directories have smart page rank. Some websites with smart page rank Yahoo, DMOZ, networked blogs and blog top list.

2) Article submission- Submit distinctive articles to the directory together with relevant hyperlinks that links to the web site. They will generate a back link for web site. SE crawlers persistently visit these article directories as considering licensed sites. Therefore you'll get additional users because the users visit the Worldwide Web daily access these sites.

3) Blog- Load or produce a blog on web site and take a look at it updated . offer link of our blog to different websites

Press release submission- Press release is all regarding providing latest info or news regarding your web site or the services provided by your company. Please watch out that the content to target the people that have an interest in your product or services furthermore because it be compatible to the search engines. Because it drives the massive traffic to your web site. Some different sites for good page rank are free-press-release.com, openpr.com, prsync.com, przoom.com, newsreleaser.com so on.

4) Social book marking- in a social bookmarking system, users save links to sites that they need to recollect and/or share (Wikipedia). It generates quality backlinks, enhances visibility of web site and will increase referral traffic. Some sites with better page rank are Reddit, Delicious, Stumbleupon, Slashdot, tumblr.com.

5) Search Engine submission- There are two essential motivations to present a page or site to a web crawler. The main reason is include a completely new site on the grounds that the site administrators would rather not sit tight for a web crawler to find them. The second reason is to have a site page or site refreshed in the individual internet searcher.

## **V. ALEXA RANKING**

We can check the positioning of site utilizing alexa.com. It gives positioning by internationally, nation insightful and classification individually. The positioning of a site is relies upon three factors in particular Bounce Rate, day by day site hits per user and every day time spent nearby. Bounce Rate is a level of users who visits the site and leaves the site without taking a gander at different pages. High bounce rate will reducethe positioning of site. To decrease bounce rate the site to perform well. We can enhance the execution of a site by keeping the point of arrival important, offering drawing in content, empowering remarks, expanding inner connections and so on.

## **VI.CONCLUSION**

The analysis paper provides the temporary plan concerning computer programme and their operating. It conjointly illustrates the computer programme improvement techniques like On Page SEO and Off Page SEO. These methodologies show that merely submitting any article or developing any web site isn't necessary. we should always watch out concerning the page content, bounce rate, internal links and every one. as a result of these items play an important role within the website's ranking.

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