

Search Engine Optimization and its Presences in Today's Era

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Abstract: -- In the field of web development, there are various approaches delineated and designed which are utilized throughout development method of a website in order to make it a success. These approaches or methodology to make a website rank highest in the search result of a search engine are termed as "Search Engine Optimization". In simple words, the basic approach that can be adopted to increase the user traffic on a website is known as Search Engine Optimization. SEO focuses on two key areas named as On-Page Optimization and Off-Page Optimization. Each key area has its own blessings and drawbacks.

The paper brings out the consideration to the awakening of Search Engine Optimization, followed by the detailed study of the various elements that plays a vital role in making a website high ranking and well optimized.

Keywords:— Search Engines, Search Engine Optimization, Keywords, On-Page Optimization, Off-Page Optimization.

I. INTRODUCTION

Search Engine Optimization is a technique that acknowledges the search engine to recognize one's website and make it rank highest among the millions and millions other websites in response to a search question. Now the Question arises that what is Search Engine? Search Engine is a web software program that allows the user to search documents and files for the keywords and returns the search result in the form of a list containing those requested the keywords. These search engines have their own specialties and algorithms to work on. SEO is basically the tactics to improve the visibility of a website. SEO has two key areas: On-Page Optimization and Off-Page Optimization.

II. HOW SEARCH ENGINE WORKS?

Search Engine follows various techniques and steps to find out the answer to the user's requested query.

Crawling: In this step, software called crawler or a spider, performs the task. The task of a crawler or a spider is to fetch all the web pages linked to a website. This process of fetching web pages is called crawling. Different search engines with their crawlers are as follows

Google	Googlebot
Yahoo	Yahoo Slurp

MSN	MSNbot
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Indexing: After crawling, indexing comes into the picture. In this process, an index for all the fetched web pages are created and are stored in a giant database for further usage. In simple words, indexing is the method of accrediting the page to a particular keyword by identifying the words and expressions that best portray that page.

Processing: Whenever a search query is requested by a user, the search engine compares the search string in the query with the indexed pages that are saved in the database.

Manipulating Relevancy: It is so true that more than one page contains the search string that is requested by the user. So to find out the best result, the search engine starts premeditating the relevancy of each of the page in its index to the search string.

Retrieving Results: After completing all the above-explained steps, the last step that a search engine follows is retrieving the best-matched results for a user requested query. This process is simply displaying the results in the browser.

III. SEARCH ENGINE OPTIMIZATION:

It is the tactics in which the visibility of a website increases by using natural means, i.e., unpaid search result. While optimizing a site, in order to achieve the success in a website various approaches are delineated and designed. Here, a website undergoes the redevelopment phase in order to check whether all our keywords are effectively communicating with the major

search engines or not. This task is done by an SEO (Search Engine Optimizer). Optimizers may target image search, local search, video search, academic search, etc. The process of optimizing a website page involves editing and formatting of contents and HTML codes in order to increase its relevance to specific keywords and proper indexing in search engines. The editing and formatting are done using the indexing pattern that the search engine follows.

IV. TYPES OF SEARCH ENGINE OPTIMIZATION

- 1) On-Page Optimization
- 2) Off-Page Optimization

V. ON-PAGE SEO:

On-Page optimization is the key step which every webmaster should focus on, this optimization technique deals with the changes that a webmaster does in the web page in order to improve its visibility and rank. This optimizing technique is best used to increase the user traffic on a website and improve visitor's satisfaction level. On-Page Optimization believes in regular updation and optimization of contents. It also includes optimization of sitemaps, title tags, URL structure, hyperlinks, images, etc.

VI. ELEMENTS OF ON-PAGE SEO:

Title Tag: Title tag of any website plays a vital role in increasing a site's rank. It is the first thing that a Search Engine looks at while searching for the requested query. Search Engine while crawling, crawls the content of title tag on the priority basis. This means that while using title tags, a webmaster should follow the proper order.

Meta Tag: Keywords and meta description tags are the two key Meta tags that are used in Search Engine Optimization.

Alt Attribute: Alt attributes are used in optimizing an image. While crawling, only the alt attribute tag of the image tag is read by the Search Engine.

Header Tags: These tags are equally important from the Search Engine point of view. A webmaster must

follow the proper sequencing order of a header tag while using it, i.e., h1, h2, h3, h4, h5 and then h6.

Keyword Density: We all know that we have a particular defined keyword for our website and there is a fixed ratio in which a keyword should appear on a webpage. The ratio of a keyword is defined as 10% of the words written in a paragraph. For eg: If a paragraph contains 100 words then, 10% of 100 words in a paragraph must be a keyword.

Sitemap: Whenever a Search Engine crawls the web pages then, it crawls the sitemap links according to their priority. A sitemap contains all the essential website links with date and updated information about the page.

URL Structure: A webmaster should use URL's that are friendly to Search Engine. One should use hyphens in place of underscores. The keyword of a website should have priority while developing a URL structure of a site.

VII. OFF-PAGE OPTIMIZATION:

Off-Page Optimization is the methodology of making back links. Basically, back link means to link back from another site to our own website. Back links are crucial in SEO because of two reasons:

- 1) Credits are given only to those websites that has a huge number of relevant back links.
- 2) As the number of back link increases, the popularity of a website also increases.

VIII. SEO IN TODAY'S ERA:

Living in a new generation of this hi-tech world, most of the people spend their online time on social network sites. Presently, these social sites are also used as a medium of increasing user traffic to a particular website. One of the best technique to increase the number of visitors on a site is Updating a Website's Content on a regular basis so that if the Search Engine changes its working algorithm then also the site appears updated to them and they index the updated sites quickly. This will also lead a site to rank higher than any other non-updated sites. Now the question arises that how social media or social network contributes to Search Engine Optimization? The answer to this question is: to make a new site popular, one needs to

promote it. Promotion of a site can be done in many ways such as linking informative blogs to a site, organizing contests for users, making a social media page for a website so that more and more people gets connected to it, etc.

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IX. BEST PRACTICES WHILE PERFORMING SEO:

High-Quality Content: Again the most important thing in a site is its Content. Content is the King of the website.

Attractive Homage: Visibility of a site affects the user traffic visiting that site. So to increase the user traffic on a site, a website must have an alluring look. Outside Links: It plays a vital role in optimization. As the number of outside links increases, the popularity and authority of a site.

X. THE EMINENCE OF SEARCH ENGINE OPTIMIZATION:

Adoration of site: The optimization of the site increases its adoration among the public.

Superb Return of Investment: Effective SEO campaign results in great ROI as all new and prolific techniques are used in making a website get ranked in a Search Engine.

Better Visibility: After a website gets optimized, the visibility of a website increases in a search engine. More people start visiting the website.

Free Targeted Traffic: If SEO is done correctly then the number of visitors for the targeted keywords in the website increases.

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