

A Survey on Search Engine Optimization Techniques

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Abstract

This paper is a finished study of various tools and strategies utilized for SEO. Search Engines which are utilized to discover any data crosswise over web. The primary goal of any site is to list at the top of all the links. Search Engine Optimization is the specialty of enhancing a site's perceivability in the fundamental assemblage of search engine results. This craft of enhancing a sites perceivability in the assemblage of search engines result is conceivable utilizing the methods and apparatuses accessible in the market.

Keywords: Search Engine Optimization, SEO.

I. INTRODUCTION

Search Engine Optimization (SEO) is the action of improving website pages so as to make them search engine amicable, along these lines getting higher positions in search results. Structuring and building up a site to rank well in search engine results and enhancing the volume and nature of traffic to a site from search engines. Advertising by realizing how search calculations work, and what human users may search. Search engine optimization is a subset of search engine advertising. Search engine optimization has likewise alluded as search engine optimization copyrighting, on the grounds that the vast majority of the procedures that are utilized to advance locales in search engines, manage content.

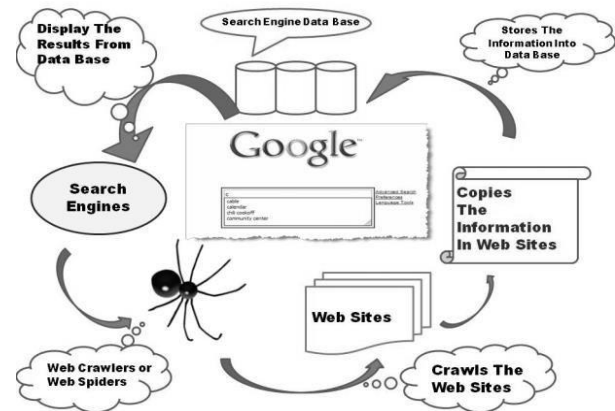
II. HOW SEARCH ENGINE WORKS

Search engines complete various exercises in request to convey search results.

- **Crawling** - Process of getting all the site pages connected to a site. This undertaking is performed by programming, called a crawler or a creepy crawly or Googlebot, if there should be an occurrence of Google.
- **Indexing** - Process of making list for all the brought website pages and keeping them into a huge database from where it can later be recovered.
- **Processing** - When a search request comes, the search engine goes into process of that request, for

example it analyzes the search string in the search request with the listed pages in the database.

- **Calculating Relevancy** - It is likely that more than one page contains the search string, so the search engine begins ascertaining the pertinence of every one of the pages in its file to the search string.
- **Recovering Results** - The last advance in the activities of search engine is recovering the best coordinated results. Essentially, it is just basically showing them in the browser or application.



III. VARIETY OF SEARCH ENGINE

Search Engine is distributed into following types:

A. Full Text Search Engine

Full Text Search Engine recovers data from web, build up database and recover the records as per queries of clients. It very well may be isolated into two sections: initial one has its very own crawler. Another one is to enlist other search engine's database.

B. Directory Search Engine

We can't consider it a genuine search engine. It recovers every record of directory register or listing.

C. META Search Engine

It gives search results from different search engines all the while as indicated by client's query.

D. Vertical Search Engine

Vertical Search Engine centers around explicit search field and search request.

IV. WHAT IS ON-PAGE AND OFF-PAGE SEO?

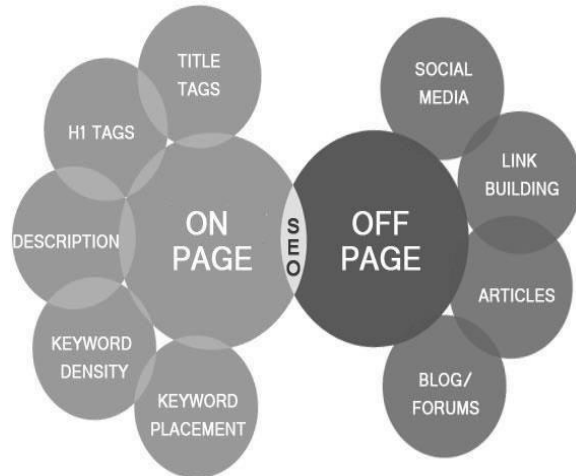
There are two different and theoretical ways of optimization:

A. On-Page SEO

It incorporates giving great content, incredible keywords choice, putting keywords on exact spots, giving fitting title to each website page.

B. Off-Page SEO

It incorporates third party referencing, expanding link acknowledgment by submitting link exchange, search engines and open directories.



1.4 Techniques

C. White Hat SEO

A SEO strategy is considered as White Hat in the event that it has the accompanying highlights:

- It fits in with the search engine's rules.
- It doesn't include in any duplicity.
- It guarantees that the substance a search engine records, and in this manner positions, is the equivalent content a client will see.
- It guarantees that page substance ought to have been made for the clients and not only for the search engines.
- It guarantees great nature of the website pages.
- It guarantees accessibility of valuable substance on the website pages.

D. Black Hat SEO or Spamdexing

A SEO is considered as Black Hat or Spamdexing on the off chance that it has the accompanying highlights:

- Attempting positioning enhancements that are not accepted by the search engines as well as include trickiness.
- Redirecting clients from a page that is worked for search engines to one that is progressively human inviting.
- Redirecting clients to a page that was extraordinary from the page the search engine ranked.
- Serving one adaptation of a page to search engine spiders and bots and another variant to human visitors. This is called Cloaking SEO strategy.
- Using covered up or undetectable text or with the page background color inside the files, utilizing a little text size or stowing away them inside the HTML code, for example, "no frame" sections.
- Repetitive adding of keywords in the metatags, and utilizing keywords that are irrelevant to the site content. This is called metatag stuffing.
- Calculated position of keywords inside a page to raise the keyword density, count and variety of the page. This is called keyword stuffing.
- Creating low-quality site pages that contain very minimal substance however are rather loaded down with very comparative keywords and expressions. These pages are called Doorway or Gateway Pages.
- Mirror sites by facilitating different sites - all with reasonably comparative substance yet utilizing different URLs.
- Creating a rogue duplicate of a well known site which indicates substance like the original ones to a web crawler, yet diverts web surfers to inconsequential or then again vindictive sites. This is called page capturing.

E. Gray Hat SEO

On the off chance that the website admin utilizes some immaterial methods to enhance their site is known as GRAY HAT. Website design enhancement strategy, just we can say if the analyzer may purchase or trade joins with different sites to show signs of improvement search engine positioning however it will be most certainly not acknowledged by the search engines. This procedure is not long haul for search engine positioning.

F. SERP

Short for search engine results page, the Web page that a search engine comes back with the consequences of its search. The real search engines normally show three sorts of lists on their SERPs. Postings that have been listed by the search engine's spider, lists that have been listed into the search engine's directory by a human, and lists that are paid to be recorded by the search engine.

V. GOOGLE SEO TOOLS

For SEO inquire about, Google tools that fill in as center in SEO battle; these tools incorporate Google Webmaster tools, Google Ad Words, Google Trends and Google Ad Planner

A. Google Webmaster Tool

Google's Webmaster Tools enable website admins to more readily control how Google collaborates with their sites and get helpful data from Google about their webpage. Utilizing Webmaster Tools won't enable you to recognize issues that can enable your webpage to perform better in indexed lists. With the administration, website admins can

- See which parts of a webpage Googlebot had issues slithering.
- Upload a XML Sitemap document.
- Analyze and create robots.txt documents.
- Remove URLs previously crept by Googlebot.
- Specify the favored area.
- Identify issues with title and depiction Meta labels

B. Google Analytics Tool

In the wake of enhancing the crawling and indexing by utilizing Google webmaster tools you are presently searching for checking the incoming traffic to your webpage. Google analytics is a tool for this. Google Analytics will give deep insight about

- How clients reach and carry on your site.
- Helps in finding the most prevalent substance on your site.
- Helps in estimating the effect of advancements you make to your site.

For cutting edge clients, the data an examination bundle gives, joined with information from your server log records, can give considerably progressively complete data about how guests are cooperating with your reports. Google likewise offers another device called Google Website Optimizer that enables you to run analyses to discover what on-page - 15 - changes will deliver the best transformation rates with guests. This, in mix with Google Analytics and Google Webmaster Tools is an amazing method to start enhancing your website

C. Google Ad Words

Google AdWords enables you to purchase publicizing on Google's list items pages. Your promotion will show up in one of the shaded boxes arranged along the correct edge of the page under "Sponsored Links". It's critical to observe the way that your advertisement seems just on quests performed on Google's landing page, not in results from Yahoo! or then again locales partnered with Google. Following are some vital focal points of the AdWords program: Firstly, your promotion pursues very quickly after it's submitted. You don't need to hold up well before you see your posting in Google. Besides, you can make

changes to your advertisement as the crusade advances, which enables you to change your promotions and watchword choices to take full advantage of your cash. Google AdWords has a catchphrase device which is in beta stage now. It is utilized to discover catchphrase for your battle. For instance, on the off chance that you run a spending inn, the Keyword Tool can propose accommodating related catchphrases like "inn discounts" or "motels." Adding these substitute terms to your advertisement gather watchword records can enable you to discover new clients that you may somehow or another have missed. You can give the URL of your site or a few catchphrases and for the two cases it will restore a few watchwords that may be helpful for your advertisement crusade

D. Google Trends

Google Trends is a tool from Google that gives the measurements in regards to the volume of keyword searches over different time frames. Information are accessible returning to 2004. - 16 - The Google Trends administration gives you a chance to segment information by language and locale and plot various key expressions on one chart. This can be utilized to follow and foresee traffic for a specific period.

E. Google Recommendations

Following are some significant rules given by Google to build positioning and making your page more improved

- Submit your site page to Google at <http://www.google.com/addurl.html>.
- Submit your site page and its sitemap in a XML structure utilizing Google Webmaster Tools. Google utilizes your Sitemap to find out about the structure of your website and to expand our inclusion of your Webpages. Remember to confirm your site first.
- Make beyond any doubt every one of the destinations that should think about your pages know your website is on the web.



Fig 1.4 Google SEO Tools

VI. MOBILE Vs DESKTOP SEO

Significance of SEO in the present internet marketing field. Be that as it may, while conventional or work area SEO is incredibly essential, likewise

should enhance for mobile SEO. Every one of those procedures utilized for conventional or work area SEO will work for mobile SEO, yet that isn't the situation. These are two extraordinary and separate elements, and they should be treated in that capacity. Mobile SEO is still SEO, yet it is extremely specific. Three different ways that versatile SEO varies from customary SEO and how you can improve for mobile searches

A. Search Behavior

Mobile searchers are using their cell phones to look at unexpected occasions in comparison to those on a desktop, and by and large have diverse settings for their pursuit. Mobile search is for those in a hurry. They don't go to their home screen and type in their search, any longer. This totally changes their search intent and context

B. Engagement

Engagement makes a colossal effect between a mobile client and a desktop client. While a mobile searcher will be exceedingly connected with, they are not keen on looking down the list items. They are in a hurry — they need their data quick. They are not going to burrow through pages of results to discover an answer. In this way, being in the best spot is considerably more alluring in mobile SEO than it is in desktop SEO.

C. Ranking Algorithm

The biggest contrast among desktop and mobile SEO — they have diverse ranking algorithms inside and out. For what reason does Google discover the need for separate algorithms? Since that they have given a surprisingly better versatile client experience. Google has expressed that they are resolved to give mobile clients the equivalent, if not, experience that they give to their desktop searchers. Truly, how might they do that without real changes to their algorithm? One of the greatest elements that were changed for mobile was the location

VII. CONCLUSION

Search Engine is extremely valuable apparatus in present time of web. There are a considerable lot of search engines accessible in market, yet most prevalent search engine is Google. So to get highest outcomes in web, we need to utilize search engine optimization technique. Both on page and off page search engine optimization techniques are vital for better search result. In the three kinds of SEO, White Hat SEO technique is the best and long haul too. the process involves a search engine spider downloading a page and storing it on the search engine's own server, where a second program, known as an indexer, extracts various information about the page, for example, the words it

contains and where these are situated, just as any load for explicit words, and all connections the page contains, which are then set into a scheduler for crawling at a later date. Site proprietors began to perceive the benefit of having their sites exceptionally positioned and noticeable in search engine results, making an open door for both white hat and black hat SEO practitioners.

The Complete SEO Process – Ten Steps:



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