

# AN EFFECTUAL INCLUSIVE REVIEW ON SEO (SEARCH ENGINE OPTIMIZATION)

<sup>[1]</sup>Anchal, <sup>[2]</sup>Raman Maini

<sup>[1]</sup> M.Tech Student, Dept. of Computer Engineering, Punjabi University, Patiala

<sup>[2]</sup> Professor, Dept. of Computer Engineering, Punjabi University, Patiala

**Abstract:** Now days the life of the human being is easy with internet. But day by day development in the web, proper information and databased on search query of the user is now difficult. Operator search certain data or information using internet on the web pages, search engines outcomes in a huge volume of web sheets from their record in response of related user queries. It's not possible for the user to access all types of web pages which is very big constraint in the real world. So there is a need of various search engines and their optimizations that deliver related data to a user query. The well-known technique is known as search engine optimization. SEO is a technique that practices search ethics for search locomotives to deliver the higher position to the more appropriate webpage which can be achieved by using various ranking procedures. So this paper deals with a comprehensive review on various SEO methods that are cooperative for various users to achieve available valued data.

**Keywords:** Search engine optimization, page rankings, web, search engines.

## I. INTRODUCTION

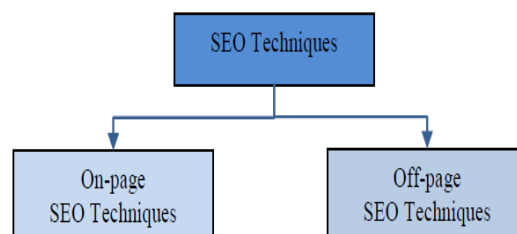
In real world scenario internet services are increasing day by day and are based on user search queries which are a procedure that deals with a search opinion for SE to obtain higher position for various web pages to improve the likelihood of website contacts [1]. Due to various search engines availability now days such as Yahoo, Bing, Google, the search engine process and their principles which are based on various innovations are in the development phase. Engine optimization is a process which is influenced on numerous methods using a computer database to gather information and statistics from web, and establishing and handling the searched data for showing the search grades to the operators in a orderly way [2]. The search

engine contains mainly four occupied areas such as explorer, indexer, tracker, and operator. These processes are not only the essential purpose of the website to deliver suitability for workers, but also an actual tool of appreciative user's performance on the web. Effective searching allows operators to determine the target data speedily and correctly. In existing scenario, the main engines which are well known by the humans are Google, Yahoo, and Bing and many more which are according to the performances [3].

Search engines search websites matters to gather statistics about various websites. So, there should be essential procedures to improve a website to create a skilled search apparatus user friendly which will help users to take a website in top explored outcomes. The various search engine based programs are known as web crawlers or web spiders [4].

The term Crawler is mainly used for recovering the web sheets and web matters. Web crawler initiates visiting of a list of various URLs which are called as seeds. Firstly crawler go to the URLs, it distinguishes hyperlinks present in the web page and improves to the visit list which is called as crawl border.

The term spider contains various links of other web pages. When spider gets a link of another sheet, it drives off and fetches it. The function of the spider is that it visits various websites and generates indexes of the search queries on the bases of which the user read their information or data on the web page [5].



**Fig 1: Two phase of SEO [3]**

With SEO prototype or tool with any type of search engine we can achieve the objectives which are given below

1. Ranking of tracks
2. Ranking of pages
3. Approximation of the traffics
4. Submissions of directories
5. Analysis of data
6. Various types of referrers [8]

We can also do promotions of our website to increase the performance of the traffics

1. Submissions of the sites for the process of searching
2. Submissions of the forums
3. Using enhanced search engines
4. Various advertisements submissions [12]

## II. SEO Generalized Flow

**Fig 2: Generalized flow of SEO [3]**

### 1. Keyword Searching

It is one of the basic steps in SEO. The keyword search is a procedure of recognizing the most significant keywords for the required website of the user. Keyword searching deals with the keyword exploration process which can support the user to find supreme appropriate keywords from the website.

### 2. Completion Explorations

This process deals with the identifying the competitors using various competition exploration. We can have this competition exploration by using different SEO software and tools.

### 3. SEO Review

Reviewing existing website and position of present website for designated keywords will contribute user a straightforward knowledge around what can be enhanced on the website which is a process of the SEO optimization and a very critical part is Search Optimization.

### 4. On-Page SEO Optimization

This deals with the total structure of the website such as important keywords in extracting the hyperlinks etc.

### 5. Off-Page Optimization

This deals with the promotions of the links and website structures which deals with the template matching and template designing for the website.

## III. RELATED WORK

This section covers the valuable works done for the enhancement of the search engine optimization by the various researchers. Subodh Gupta, Neha Agrawal, Sandeep Gupta et al. [6] have presented an effectual review on SEM methods that are cooperative for web users to make obtainable valued information. For the user not conceivable to deal with all type of web pages in the world of internet, so there is a heavy demand of the search engines and their optimizations that deliver applicable material to a user explored query. The system is well known as search engine optimization. This process is used that deals with various search philosophies for search machines to deliver the higher position to the new appropriate webpage. Khanna Samrat Vivekan and Omprakash et al. [7] had represented on how the problem of the optimization deals with theminimizing the loss function by methodically selecting input standards from the set and figuring out the function values which can be resolved. They have also explained that the program that explores the documents with various keywords which are specifically available and yields information lists where the specific keywords were initiated. It deals with the exclusive procedure to generate its directories like meaningful outcomes returned for all the queries. A code or program that deals with automatically fetching process from the web pages which are recycled to

feed web pages to engines are basically a process of search engine optimization.

webpage visibility. Due to high growth of Internet exponentially, various search engines are having numerous complex jobs of categorization using billions of webpages and exhibiting the relevant sheets for the user's search information. Google has achieved the vital link to explore the data online using internet. Because of this reason, various optimizers which are based on search processes should vigorously learn the methods that deal with people to their web site.



Fig 3: Structure of SEO

A. S. Hussien et al. [9] presented that the position is a significant module of any data retrieval scheme. As the quick development of web which is a simple keyword search process which could resemble to thousands of website links using internet. An individual can frequently confirm that more or small amount of URL resumed using search engines methodology or lifecycle. In their research they have identified the very popular procedures used to exuberant a web sheet extremely in Google type of search engines. Lalit Kumar, Naresh Kumar et al. [10] deals with the study of Optimization methods that are used to recover the status of website and to become more viewers and also to upsurge the



Fig 4: Search engines types

Meenakshi Bansal, Deepak Sharma et al. [11] has presented all the factors are controlled by the Website developer or by code present on the webpage. Highlighting in this paper the on-page optimization include actual code merged with various languages, keyword placement and keyword density.

Table 1: Related works

Author	Description	Technique
D. Jha, S. S. Singh, V. M. Jaiswal et al. [13]	They have discussed optimization procedure based on some daily traffic even it is implemented and also discussed process in SEO process which is applied. Beginning with various search engines processes, they have presented the performance analysis of the search engine	Rank Enhancement
V. K. Gunjan, M. Kumari, A.	They have worked on the tweaks which is to take on top of the position using increasing ranking of	Increased rank page process

Kumar, A. Rao et al. [14]	the page and also perform the results Inbetterreflectivityfriendly investigation engine for the performance analysis.	
G. S. Spais et al. [15]	They have presented the valuable datawith respect to potentiality of actionphilosophy, in use of the application to contemporary online advancementslike SEO which is more emerging scenario these days.	Online promotion approach
Harsha Sharma et al.[16]	They have analyzed various techniques for the Search Engine Optimization which deals with the scrutiny concerning their feasibility and decent reception in community of the web. Since internet promotion and analytics is the key mechanisms of promotion of a commercial business which deals with the higher ranking using search pages	Back links and keywords searchings

#### IV. CONCLUSION

As it can be notices from the existing literatures that SEO is one of the most important scenarios in the web community and also the one of the emerging technology for the online promotions of the websites and links or pages which is a vital role in the implementation of the website domains. Traditional processes like keywords, backlinks are relevant but their position in SEO processes. The various processes of the Google have guaranteed the extermination of outdated black hat methods like keyword padding, and invisible process. As the difficulty of search algorithm increases, the various findings of the error probabilities will make some processes harder. Thenovel SEO plans have also happened incontrolling the SEO advertisements like mobile and various social systems.

#### REFERENCES

- [1] Baye, Michael R., Babur De los Santos, and Matthijs R. Wildenbeest. "Search engine optimization: what drives organic traffic to retail sites?." *Journal of Economics & Management Strategy* 25, no. 1 (2016): 6-31.
- [2] Shih, Bih-Yaw, Chen-Yuan Chen, and Zih-Siang Chen. "Retracted: an empirical study of an internet marketing strategy for search engine optimization." *Human Factors and Ergonomics in Manufacturing & Service Industries* 23, no. 6 (2013): 528-540.
- [3] Park, Lemuel S., Jimmy Yu, Sammy Yu, and Lennon Liao. "Search engine optimization for category specific search results." U.S. Patent 9,116,994, issued August 25, 2015.
- [4] Kim, Larry. "Integrated web analytics and actionable workbench tools for search engine optimization and marketing." U.S. Patent Application 12/412,856, filed November 26, 2009.
- [5] Grieselhuber, Ray, Brian Bartell, DemaZlotin, and Russ Mann. "Centralized web-based software solutions for search engine optimization." U.S. Patent 7,877,392, issued January 25, 2011.

- [6] Gupta, Subodh, Neha Agrawal, and Sandeep Gupta. "A Review on Search Engine Optimization: Basics." *International Journal of Hybrid Information Technology* 9, no. 5 (2016): 381-390.
- [7] Omprakash, Khanna Samrat Vivekanand. "Concept of search engine optimization in web search engine." *International Journal of Advanced Engineering Research and Studies* 1, no. 1 (2011): 235-237.
- [8] Londhe, Shraddha, and Hemant Deshmukh. "Review Paper on Search-Engine Optimization." *International Journal of Engineering Science* 10524 (2017).
- [9] Hussien, A. S. "Factors Affect Search Engine Optimization." *International Journal of Computer Science and Network Security* 14, no. 9 (2014): 28-33.
- [10] Kumar, Lalit, and Naresh Kumar. "SEO Technique for a website and its effectiveness in context of Google Search Engine." *International Journal of Computer Science and Engineering (IJCSSE)* Vol 2 (2014): 113-118.
- [11] Bansal, Meenakshi, and Deepak Sharma. "Improving Webpage Visibility in Search Engines by Enhancing Keyword Density Using Improved On-Page Optimization Technique." *International Journal of Computer Science and Information Technologies* 6, no. 6 (2015): 5347-5352.
- [12] Patil Swati, P., B. V. Pawar, and S. Patil Ajay. "Search Engine Optimization: A Study." *Research Journal of Computer and Information Technology Sciences* 1, no. 1 (2013): 10-13.
- [13] Jha, Mr Divakar, Miss Shalini Shivpujan Singh, and Mr Vipeen Maniram Jaiswal. "Detailed Review on techniques of Search Engine Optimization (SEO).
- [14] Gunjan, Vinit Kumar, Monika Kumari, Amit Kumar, and Allam Appa Rao. "Search engine optimization with Google." *International Journal of Computer Science Issues (IJCSI)* 9, no. 1 (2012): 206.
- [15] Spais, George. "Search Engine Optimization (SEO) as a dynamic online promotion technique: The implications of activity theory for promotion managers." *Innovative Marketing* 6, no. 1 (2010): 7-24.
- [16] Malaga, Ross A. "Search engine optimization—black and white hat approaches." In *Advances in Computers*, vol. 78, pp. 1-39. Elsevier, 2010.