

Search Engine Optimisation (SEO)

About SEO, Need of an SEO friendly website, Importance of Internet and Search Engines; Role of Keywords in SEO. [CO2]

What is search engine optimization?

- **Search engine optimization (SEO)** is the art and science of getting pages to rank higher in search engines such as Google. Because search is one of the main ways in which people discover content online, ranking higher in search engines can lead to an increase in traffic to a website.
- SEO stands for **Search Engine Optimization**. It is the process of getting traffic from the free, organic, editorial, or natural search results on the search engines. Simply put, it's the name given to the activity that attempts to improve search engine rankings. In many respects, it's simply quality control for websites.
- SEO may target different kinds of search, including image search, local search, video search, and news search engines. Employing a sound SEO strategy will help you position your website properly to be found at the most critical points in the buying process or when people need your site.

How do search engines work?

Algorithms

- Search engines use algorithms to calculate how worthy a page is to a relevant search query. There are hundreds of factors (Google uses over 200 ranking factors) that are used to calculate the authority of a webpage, and PageRank (based on a scale of 0 – 10) is one of them.
- Google assigns PageRank to every webpage it crawls. When another website links to your website, some of its PageRank is passed on to you. The more sites there are out there linking to you, the higher your PageRank will be and the more trustworthy your site will look to search engines.

Crawling

- Search engines use bots or “spiders” to crawl billions of pages across the web by following links they find from billions of pages around the web.

How do search engines work?

Indexing

- Search engines then store the information it collects into its index.

Ranking

- When a search query is entered, a search engine digs into its index for pages matching the user's search query, then sorts and displays the most relevant results to the user.
- The order in which the pages are displayed are calculated by search engine algorithms, taking into account hundreds of ranking factors. Each page is then given a ranking score.
- In order to rank highly on the search engines, your site needs to score higher than all the other sites that are eligible to show up for a relevant search query.

Google Major Algorithm Updates: Panda, Penguin, Hummingbird

- Panda (2011)
 - Lower the rankings of low-quality sites.
- Penguin (2012)
 - Decrease rankings of sites that engage in black-hat SEO.
- Hummingbird (2013)
 - Relevancy and knowledge graph update (Semantic search).
- RankBrain (2016)
 - Machine learning to improve search result quality.
- BERT (2019)
 - A revolutionary natural language processing model to better understand the meaning and intent of user search queries.

What are some Black-Hat SEO techniques?

- Cloaking – Displaying different results to search engines and users with the intent of manipulating SE rankings.
- Mass acquisition of low quality links in a very short period of time.
- Overuse of keywords in article title and/or content body in a weak attempt to boost rankings for relevant target keywords or key phrases.

How do you do White-Hat SEO?

- Well, just avoid doing Black-Hat SEO and you'll be doing White-Hat SEO!
- We will cover essential on-page SEO such as image optimisation, good internal linking structure, quality and uniqueness/originality of the content, and more later on.

Need of an SEO Friendly Website

1. Increase in organic traffic (that is traffic from search engines)

- A SEO friendly website will get you more traffic from search engines as it is likely to run higher in the SERPS (search engine results pages).

2. It will make your website user friendly

- SEO is not only for search engines but good SEO is for users as well. Applying the principles of SEO to your website, will make it easier to use and this will enhance the user experience.

3. It gives you brand credibility

- Users are more likely to trust websites (businesses) that are found in the first pages of Google, Bing or Yahoo. This is good for both brand awareness and brand credibility.

Need of an SEO Friendly Website

4. It is cost effective

- A SEO website will drive targeted traffic 24×7 without needed to spend money on PPC or other forms of online advertising. While there is a cost to reach that point, the long term benefits are bigger.

5. It helps you understand what your most important customers want

- SEO drives quality traffic and by analyzing the behavior of those users (how they enter your website, what they click, how they leave, what they like etc) is a great way to understand what your customers want and adjust your website or products to match their needs.

6. SEO is even more important on mobile

- A website that is mobile friendly and has good rankings on mobile search can get more customers and traffic that websites that are not mobile SEO friendly.

What do we mean by a Search Engine Friendly Website?

1. It has Unique titles and Descriptions for all pages

- Each page of the website (including the home page) has a unique title and description.
- The titles are between 60-65 characters and the descriptions are aprx 150 characters. Titles and descriptions accurately describe what the page is about without being keyword stuffed.

2. Well formatted URLs – URLS

- Permanent links or **slugs** (that's the url of a webpage) are descriptive, all lower case and separated by dashes.

3. Fast loading web pages

- Neither people nor search engines want websites that are slow to load. On the contrary fast loading websites are SEO friendly (meaning they have an advantage in ranking algorithms over websites that are slower) and generate more user interactions (sales, newsletter signups, contact forms submissions etc).

What do we mean by a Search Engine Friendly Website?

4. It has unique content

- Content on the website is not found anywhere else on the web, all pages have unique and useful content. This means a website cannot be SEO friendly if it has content copied from other web sites.

5. Includes images that are optimized for search engines

- Search engines prefer text that's the truth, but you also need to have images to your pages because people like it, it makes your content more interesting, easier to read, sharable etc.
- When you do so, make sure that the images are optimized for size and also that you set a meaningful image filename and ALT text.

What do we mean by a Search Engine Friendly Website?

6. Pages have a meaningful structure

- A web page usually has the following elements:
- Header
- Breadcrumb menu
- Page Title (that's the [H1 tag](#) – there is only one per page)
- Well formatted text – text is separated into a number of short paragraphs with subheadings
- Author information
- Footer

Importance of Internet and Search Engine

Internet -What Actually It Is?

- **The Internet is an information and communication network technology consisting of computer devices, united by communication channels to receive and transmit information by connected users.**
- **Why Internet is Important ➡ “The Internet has now become a significant part of the daily life of a modern person.” The considerable importance of the Internet is Unlimited Knowledge that you can on the Internet, whatever you need, video calling, paying for various services, and buying your favorite products at any time.**

Importance of the Internet in the Modern World



Communication



**Unlimited
Knowledge**



**Speed up
Tasks**



E Learning



Online Business



Shopping



**Economy
Growth**



**Personal
Development**

Importance of the Internet in the Modern World

- **1. Digital growth**

- **Social networks have become a decisive nail in the coffin of live communication between people. Everything turned digital. Now we have stopped enjoying real communication; everything happens in the digitally growing world.**
- **There was a time when youngers were busy in studies for building careers. But nowadays, teenagers use their time effectively to play games like a pro and earns money by live streaming. You can find many on Youtube or Twitch.**
- **The Internet in the modern world is the largest mass media as it conveys trends in fashion, culture, and festivals behavior cultivated in the Internet environment that is most actively introduced into our daily lives.**
- **The rapid growth in the number of Internet users worldwide made possible the full functioning of the virtual space, repeating the real spheres of human life.**
- **Internet technologies have penetrated into science, culture, technology, production, medicine, education, economics, politics, and nothing but everywhere.**

Importance of the Internet in the Modern World

2. Communication

- **As we all live on the same planet, but it was the Internet that gave us the feeling of unity, communication without regard to residence, and the distance between people.**
- **Today it will take only a few seconds to send info from one end to another end of the world. Create joint projects and meetings, conferences, live entire virtual lives on gaming platforms, and use all kinds of means (images, video, text, sound) to demonstrate their lifestyle, their identity.**
- **Personal Instagram stories are made public, local problems become global. This makes it easier to resolve issues faster and more efficiently to find like-minded people, friends, liberals, and acquaintances.**

Importance of the Internet in the Modern World

3. Business and Marketing

- **The Internet is currently a source of information, a social and political platform, mass media, and a business network at the same time. With access to Internet connections, you can sell the product and services, even yours or others.**
- **You can promote and advertise your product on the Web as well. The Internet is a great place where businessmen promote their products and services and find new customers.**
- **The Internet is an opportunity for new startups to develop their own business with their unique idea, regardless of boundaries as digital platforms.**

Importance of the Internet in the Modern World

4. Internet Education

- **The Internet with computers has penetrated many areas of human activity, and the education sector is no exception.**
- **Internet access allows you to upgrade any skills as per your choice by receiving information from specialists or even from different countries. Many educational institutions practice lessons over the Internet.**
- **Of course, online education is a lot for responsible students, but the choice is evident in the face of such high competition.**
- **The Internet is an excellent source of information. Each person can turn to his knowledge of resources for others and find the answer to his question. Encyclopedias and reference books are in the distant past. Now, for each question, you can find the answer to the digital encyclopedias.**
- **Information on the Internet can be updated or changed at any point in time, which helps to improve the quality of the learning process and understanding. Through the World Wide Web, you can contact other students in the group and teachers.**

Importance of the Internet in the Modern World

5. Travelling And Shopping

- **The Internet is the largest source of information to inspire, find, and plan vacations for leisure and business trips. Youtube, online articles, and social networks today do the function that did the almost non-existent destination catalogs in their day.**
- **The ease of access to a different location of information allows users to be more demanding. They spend less time searching but use more sources of information about particular tourist places.**
- **More than 70% of travelers book their vacations through online channels, regardless of their digital knowledge. However, there is still 26% of the population that consults the traditional agencies.**

Importance of the Internet in the Modern World

6. Earnings and Jobs

- Today, the Internet becomes the best and easiest way to find a job. Its significant advantage is the regular updating of the **database of vacancies** posted on the Web for a particular post field or a company.
- This makes it possible for an employer to send a resume immediately after a vacancy opens, which significantly increases the chances of successful employment recruitment and saves time.
- *As a job search, social networks, blogs, thematic forums are popular today.* Also, to quickly respond to a vacant position, they make it possible to leave a comment, feedback and communicate directly with the employer.

Top 5 Importance of Internet.

Below points are the only reason for the existence of the Internet.

1.Rapid Communication.

2.Mass Information.

3.Instant News and Updates.

4.Unlimited Entertainment.

5.Passive Income.

What is a search engine?

- Search Engine is a software system that helps users find items and content on the world wide web.
- The world wide web is a big network, there are more than 1 billion websites across the web. to access these websites and pages of these websites easily and fast you will need to use a search engines.

Importance of search engines

1. Accessing the world wide web

- Search engines help users access the world wide web, the world wide web is a big network, consists of billions of websites.
- Each website has many pages some have thousands of pages if you try to search the web by yourself without search engines you will spend all your day without finding anything and even if you find anything who knows if this information is right or wrong what if there is a virus on that website or not.

2 Filtering the world wide web content

- There are a lot of websites on the web and some of them want to spread hateful content and some want to spread bad things and illegal content and stuff.
- Search engines filter all the websites on the web and any website have illegal content or promotes illegal content it will get removed, that's why you can't find any illegal content on the web that shows how good the search engines algorithm are.
- If you have a child and don't want them to see any adult content on the web, while searching for things, most search engines have options to remove any adult content from the search so that your child can surf the web safely.

3. Ease of use

- Search engines are very easy to use, in order to search the web all you have to do is type whatever you want in the search bar and then hit the search button then you will find all pages related to that keyword, that is all you need to do to search and find what you are looking for.

Importance of search engines

4- Shows you the best results

- Most of the time when you search for something you will find what you are looking whether looking for an answer to a specific question or other things, and that is because search engines have very clever algorithms, that can search and find pages related to the keyword you are searching for.
- Search engines save users queries when they search, and when you type something in any search engine it shows you suggestions and these suggestions are what most people are searching for on this topic.
- Search engines use AI and that will make search engines smarter every day, it is like it understands what you looking for.
- For example, when you search for something it will immediately know which page is more relevant to that topic or keyword you searched.

5- Fast results

- As soon as you hit search you will find results within 1 second, which is extremely fast, considering search engines need to search the database to find what you are looking for and they are terabytes of data in the database, and billions of pages to search and crawl.

Popular search engines

Google

- Is the most popular search engine, with around 69.80% search market share, it was founded by Larry Page and Sergey Brin.
- Most Businesses try to rank on google because of how large google traffic is, more traffic means more money.

Bing

- Bing is a google competitor with a search market share of 13.31%, bing is the second biggest search engine and looks very similar to google and but with less traffic than Google, that is why most people use google instead of bing but still a good alternative to google.

Baidu

- Is china largest search engine with over 12.53% search market share, and it looks very similar to google if you want to compete in the china market try Baidu.

DuckDuckGo

- Is another popular search engine with a search market share of 0.43% it is not as big as the other three but it is gaining more traffic and popularity each year.
- DuckDuckGo doesn't track users and save your search data if you hate tracking then DuckDuckGo is the perfect search engine for you.
- DuckDuckgo interface is very clean and beautiful and it has one page that means as you scroll down more results will appear.

Yahoo

- A recent report on netmarketshare.com tells us that Yahoo have a market share of 7.68 percent. Although a leader as a free email provider, this is declining significantly though with their recent acknowledgement that User Details & Passwords were hacked last year.

Role of Keywords in SEO

What are keywords?

- Keywords are ideas and topics that define what your content is about. In terms of SEO, they're the words and phrases that searchers enter into search engines, also called "search queries." If you boil everything on your page — all the images, video, copy, etc. — down to simple words and phrases, those are your primary keywords.
- As a website owner and content creator, you want the keywords on your page to be relevant to what people are searching for so they have a better chance of finding your content among the results.

Why are keywords important?

- Keywords are important because they are the linchpin between what people are searching for and the content you are providing to fill that need. Your goal in ranking on search engines is to drive organic traffic to your site from the search engine result pages (SERPs), and the keywords you choose to target (meaning, among other things, the ones you choose to include in your content) will determine what kind of traffic you get. If you own a golf shop, for example, you might want to rank for "new clubs" — but if you're not careful, you might end up attracting traffic that's interested in finding a new place to dance after dark.
- Keywords are as much about your audience as they are about your content, because you might describe what you offer in a slightly different way than some people ask for it. To create content that ranks well organically *and* drives visitors to your site, you need to understand the needs of those visitors — the language they use and the type of content they seek.

Keywords are what drives traffic to specific URLs.

- In SEO terms, keywords are the words that businesses will specifically “target.” That’s why you may have also heard the term “target keywords.” The ranking of which keywords are sorted in Google Search will determine which words and phrases are most often searched. This will help when it comes time to optimize your content.
- So now that we’ve covered the basis of keywords, let’s cover their importance to search engine optimization.
- Search engine algorithms are pretty smart. They can now auto-detect keywords and rank pages automatically based on their keyword optimization. The more keywords that you sprinkle throughout your web content and blogs, the more likely it is that people will find your site via search engines.
- Basically, what this means is that when a website is optimized, it “speaks the same language” as its potential visitor base.

Keywords are the bridge between SEO and consumers that help connect these searchers directly to your site.

- Developing a thorough list of keywords should be the very first (and most important) step in your SEO initiative. Though oftentimes tedious, it's well worth the time and effort to ensure that your keywords are as relevant as possible.
- And now it's time for you to put these keywords to use.
- One strategy for utilizing these keywords is to include the top keywords in your most visited pages/areas on your site. This could range anywhere from body text, titles, tags or blog content. Keywords are important, but they'll only make a difference if you're actually putting them to work.
- **When you're optimizing your content keep in mind that the**