

## SEO - No Longer an Optional Endeavor

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### Abstract

*In this age of digital saturation, it has become crucial to make your content and brand stand out. One of the best ways to do that is through Search Engine Optimization (SEO). Because of this, SEO is no longer an optional endeavor but one that has become absolutely necessary. This article details what SEO is, why it's important, and some basics of how it works.*

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A simple Google search will show that there are approximately 1.5 billion websites in existence. Most websites have at least a few webpages each (with some have hundreds and thousands of webpages). It's easy to understand why there are so many, creating your own website has never been easier and in addition to all the bloggers, vloggers, and entertainment producers, any business worth its salt will also have their own website. These facts demonstrate that simply having a website is no longer an accomplishment or enough. Now SEO (Search Engine Optimization) has become imperative in addition to having a website. Where SEO used to be considered somewhat optional and a just a way to get more traffic to your website, now it's crucial in order for a website not to get lost in the digital sea.

Unfortunately, paying someone to do SEO for your website can be expensive and the idea of doing it yourself will send many people into a cold sweat. SEO can be

overwhelming to newcomers, but the truth is almost anyone can learn SEO. Most people just need a place to get started on their SEO journey. That's why I've compiled some of my notes from Distilled.net's SEO course and wrote a short guide to some of the basics of SEO for those looking to learn.

To learn about SEO, it's first important to understand the principles of how the internet and search engines operate. That's we'll start off with how the internet and search engines operate. The World Wide Web is accurately named as it operates similarly to a web. Each website and page contains links (think strands) that connect to other pages and websites. Each page can contain several items or files such as images, videos, PDFs, etc. All of these links, called hyperlinks, connect all of these billions of pages together in one big convoluted web, hence the necessity of search engines.

Search engines then take this web and attempt to make sense of it for everyday web

users. The search engines do this through three different actions: crawling, indexing, and ranking. Below is a short explanation of what each one of these actions means.

- **Crawling** - Search engines have programs called spiders which basically “crawl” across different links on webpages by following them to discover new pages. These programs will go from link to link as they add to the database of known webpages.
- **Indexing** - Search engines essentially have a giant database or index that lists all of the web pages that the spiders have crawled. Once a page is indexed within a Search engines system, it can be found by users.
- **Ranking** - Once a web page has been discovered (crawled) and then stored in a database (indexed) it can be ranked. Ranking is just search engines deciding which web pages are most relevant to a searcher’s query. This is where SEO comes in because search engines will use a variety of criteria to rank web pages for users when they search.

While search engines used to offer users just pages of links to different websites, now they use a slightly different approach. Instead of offering just pages of links, search engines now use blended search results. Blended search results will now offer images, links, news articles etc. as results to search queries. Depending on key words used and data on user behavior, the search engines will decide what to show. Users can also restrict searches to only show one type of result. For instance, only performing an image search or searching videos.

It is important to keep these blended search results in mind when performing SEO. While the blended results can sometimes hurt a website’s ranking, because things like relevant news stories can bump your websites

ranking down, businesses can take advantage of these blended results. One way to take advantage of the blended results is by making various types of accounts such as a Google Business or Google Merchant account to utilize different types of search results.

With all of the billions of websites and thousands of results for any given search, finding something specific can seem like a daunting task. Fortunately, most search engines have incorporated something called a search operator. A search operator acts like an advanced search or filter equivalent for a website like amazon. It allows users to specify in detail what they are looking for. One example of this would be using the search term “site: www.amazon.com.” This term would specify that the searcher only wants to see pages from this domain. A search operator is useful for SEO because it allows users to get a lot of data on how search engines have indexed websites they are working on.

### **Crawling Further Explained:**

Search engines employ programs that are usually called crawlers or spiders in order to do two things: discover new web pages, and discover updates to web pages. An important note to remember in regards to SEO is that crawlers don’t continually crawl web pages unless they have a reason to recrawl a page (for instance in the case of a webpage update). As they are crawling a page, they will make a list of all URLs on the page and crawl those URLs later.

Some things that can cause Crawlers problems are JavaScript, AJAX, and Flash. These can be used to enhance a webpage but these technologies can cause issues for crawlers. Images and videos can also confuse crawlers sometimes. For SEO purposes, web developers should always make sure to have a lot of written content around images and videos to make them more search engine friendly.

### **Indexing Further Explained:**

After a page has been crawled, all of the content and information that the crawler picked up from a page is stored and indexed. The information is organized and stored in databases where algorithms can categorize the pages and pull them as needed.

While a common idea is that whenever web users perform a search they are searching the internet, that is not actually true. Searches are actually searching an index of the web that stores and categorizes pages. Search engines will then pull pages from their index based on relevance to keywords and other factors. The other factors that algorithms use when picking which pages to display are: Simple keyword usage, Term Frequency \* Inverse Document Frequency (Tf\*idf), Co-occurrence, Topic modeling. semester along with a Creative Nonfiction Workshop."

### **Ranking Further Explained:**

This is the step in the Search Engine process that people are most familiar with because this is the step that we can see most easily. Ranking is the process by which search engines will take a search query and rank their results by order of perceived relevance to the user. There are a number of factors that all affect how Google will rank the results for each search query and some of those factors can change based upon the information that Google has about the user.

While content detailed above is only the tip of the iceberg when it comes to SEO, it is a great starting point and will help anyone interested in learning more about the subject to understand some of the initial concepts. While SEO can sometimes be a tedious endeavor, it can also be an extremely rewarding one. SEO is also a field that is not going anywhere anytime soon. As long as the internet is around, it's fair to assume that the practice of SEO will also be around.

## References

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