

Search Engine Optimization (SEO): Key Components for Findability

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The sheer amount of information on the internet is overwhelming and constantly growing. As of early 2018, the indexed world wide web is made up of nearly 5 billion web pages (worldwidewebsite.com, 2018). The United States is averaging 2.6 million gigabytes of data every day added to the internet (Hale, 2017). To find anything in this vast array of information requires the use of sophisticated search engines capable of crawling and indexing these billions of web pages. Additionally, the search engine then has to query that index and return relevant results to the end user quickly. One of the most popular search engines, Google, is used for 3.6 million searches each minute of each day (Schultz, 2017). Search engines have been around since the early 1990s, starting with Archie, which was only a downloadable directory of web page listings rather than connecting the users to the web pages themselves (searchenginehistory.com, Unknown date). With the advent of modern web browsers such as Google and Bing, finding information has become easier and quicker. The search engines can crawl and index websites, infographics and other data, which has been specifically optimized for that indexing. These so-called web crawlers or “spiders” crawl the web and attempt to make sense of the information they encounter, parse through it for keywords, titles, content, meta data and links and send this information back to a search index (google.com, Unknown date). The search you perform using the search engine then analyzes your words, matches your search to the index and returns search results according to a page ranking based on an algorithm which ranks pages according to several criteria like page freshness, number and quality of links to that page from other sources (called backlinks), matches to your specific search keywords and other usefulness categories (google.com, Unknown date). For the algorithm to find and return the best results, content on the internet needs to have several pieces of information included to increase

that content's findability and page rank in the search results. This "findable" content used by the search engine algorithm is generally called Search Engine Optimization (SEO) (Ward, 2016).

This paper will detail how SEO strategies are implemented on web content.

For web-based content to be found, that content requires key components used by the search engines in their indexing and search ranking algorithms. Many of these components are controllable by the author, designer and/or web developer of the web-based content. These are generally referred to as on-page SEO strategies which include appropriate keyword usage, image optimization, and mobile optimization. First, finding and including the appropriate keywords to use within the body copy, web page title, web page meta description, URL, and heading elements such as <h1> or <h2> tags improve the ease with which pages are crawled and indexed. Web crawlers will look at these web page elements for keywords and index the page accordingly. Secondly, optimizing images can result in higher page rank. These techniques include renaming image files to appropriately descriptive names instead of naming the images something like "IMG1234.jpg" which gives no semantic or descriptive meaning to that image. Images files on web pages should also include the alternative text attribute (or ALT text) within the <img> element with well written, concise text describing the image. Additionally, images should be compressed to improve the overall web page load time (Warren, 2018). Other on-page SEO components include making sure that the website is optimized for use on a mobile device. In October 2016, internet connected mobile devices passed desktop/laptop style computers in terms of internet usage for the first time in the web's history (Heisler, 2016). With this data in mind, it is important that web-based content can be viewed and used on mobile and tablet devices as these devices become an increasingly popular avenue for obtaining web-based information (Warren, 2017).

Off-page SEO strategies are a bit more difficult than the discussed on-page SEO strategies listed above. These off-page strategies are used to determine the relevance, authority, trustworthiness and overall rank of a web page. Essentially one off-page strategy involves backlinks which are links to your content from other sources. The quantity of the links and more importantly the quality, relevance and reputation of the source linking back to your content are keys to increasing page rank (moz.com, Unknown date). I like to think of “backlinking” and trustworthiness as analogous to a job applicant using a colleague or supervisor as a reference. A good reference from a quality supervisor (i.e., the trusted source) can go a long way to earning trust during a job interview or applicant screening process. Similarly, quality, relevant backlinks provided by a trusted source can increase the worthiness of a higher page rank.

The ultimate goal for any web-based content would be to achieve the coveted number one slot in the search result. According to research, a number 1 ranking brings about 33% of the traffic share for that content using the Google search engine. The number falls to approximately 15% for the number 2 ranking and falls below 10% for each of the remaining search result rankings getting lower and lower as the page ranking decreases (Murray, 2017). Implementing effective SEO using the on-page and off-page strategies from above vastly improve the chances of content being found and read by the audience.

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