

Blog 2: Semantic Markup

One of the fundamental goals of web development is to attract traffic to your website. This can be challenging due to the vast number of websites that have similar content. Luckily, there is a design structure that allows your website to stand out amongst the crowd. **Semantic markup** is a key design attribute that enables web crawlers to find your website more efficiently. Let's first discuss what goes on when someone uses a search engine.

Search engines (such as Bing or Google) work by crawling billions of pages using their own web-crawlers. The search engine algorithm uses these crawlers to present the most relevant set of specific and high-quality results. The algorithm can be broken down into three main steps. The first step is called '*Crawling*'. This is the discovery process in which search engines send out a team of robots (known as crawlers or bots) to find new and updated content. Indexing is the next step. Indexing is the storage and organization of the content found during the crawling process. The final step is ranking. Ranking uses an algorithm to provide the most relevant content that is best suited to answer a searcher's query. You may ask what this has to do with semantic markup. The simple answer is EVERYTHING.

Semantic Markup is a convention of writing and structuring your HTML so that it reinforces the meaning of the content. This reinforcement of meaning is important to both the browser and the developer. **Search Engine Optimization (SEO)** is the process of improving the quality and quantity of website traffic to a website from search engines. Using Semantic Markup is a form of SEO. In order to make your website stand out for the web-crawlers, certain key words or phrases need to stand out. This emphasis is achieved using Semantic Markup. For example, the <h> tag (for headings) ranks the most important headings with <h1> being the main heading. This gives the web crawlers a clear view of the importance of certain content. Other tags such as <article> are more effective compared to the <p> tag in describing the content to the web-crawlers. The tag looks exactly the same as the <i> tag on the web page (both will render a word or sentence in italics). However, the tag gives the web crawler more clarification because it essentially emphasises the word or sentence. Similarly, the tag and tag both render a word or phrase in bold, however the tag marks the word or phrase as important for the web crawler.

This clarification becomes extremely important when someone uses the browser by searching for key words or phrases. These key words can be matched efficiently with your website content by simply dictating it to the web crawlers using semantic tags. The whole idea is to be noticed by someone searching for content that your website may contain. Semantic Markup is the bright red flag that allows your website to stand out. Structuring your code using semantic markup is also useful when working in a team. Other developers should be able to read and understand your code clearly. This can be achieved using the usual comments, however semantic markup is an efficient way of structuring your code so that there is no need for long descriptions. As developers we learn that **optimization** is a key aspect in building high-quality and enduring products. Semantic Markup allows for optimization between developers, search engines and ultimately the user.

References:

Muller, B., 2022. How Search Engines Work: Crawling, Indexing, and Ranking - Beginner's Guide to SEO. [online] Moz. Available at: <https://moz.com/beginners-guide-to-seo/how-search-engines-operate> [Accessed 25 March 2022].

Brevity Digital Design & Branding. 2017. Semantic HTML for Meaningful Webpages. [online] Available at: <https://seekbrevity.com/semantic-markup-important-web-design> [Accessed 25 March 2022].

Developer.mozilla.org. 2021. Semantics - MDN Web Docs Glossary: Definitions of Web-related terms | MDN. [online] Available at: <https://developer.mozilla.org/en-US/docs/Glossary/Semantics> [Accessed 26 March 2022].

Developer.mozilla.org. 2021. SEO - MDN Web Docs Glossary: Definitions of Web-related terms | MDN. [online] Available at: <https://developer.mozilla.org/en-US/docs/Glossary/SEO> [Accessed 26 March 2022].