

**Why we need SEO and how it can make a big impact**

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# Purpose

The purpose of this document is to outline the Methods on how to attract quality web traffic, the client’s website needs to appear on the first page of the search results. This document is a proof of concept, to show why and how we need to implement SEO in each of our client’s websites.

# Introduction

Search Engine Optimization (SEO) is the process of affecting the visibility of a website or a web page. In a Search Engine’s “natural” or un-paid (“organic”) search results.

# Crawlers (Web Crawlers)

A Web Crawler is an “Internal Bot” that systematically browsers the World Wide Web, Typically for the purpose of Web Indexing. Another word for a Web Crawler may also be called a “Web Spider”, an “An”, an “Automatic Indexer”.

*Crawlers can validate Hyperlinks and HTML code. They can also be used for web scrapping.*

## List of Crawler Architectures for General-Purpose Crawlers

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Pro’s | Con’s | Description |
| Google Bot | Google Bot follows HREF links and SRC links  Google Bot discovers pages by harvesting all of the links on every page it finds.  Google provides “Web Master Tools” that allow website owners to throttle the crawl rate. | Google takes up an enormous amount of bandwidth. This can cause websites to exceed their bandwidth limit. And be taken down temporarily.  This is especially troublesome for minor sites, which may host many gigabytes of data. | Is the Search Bot software used by Google, which collects documents from the web to build a searchable index for Google Search Engine |
| WebCrawler | Provides users the option to search images, audio, video, news, white pages, and yellow pages. | It went live on April 20, 1994  (It could be outdated)? | Is a “Meta Search Engine” that blends the top search results from Google Search and Yahoo Search? |

## List of Open Source Crawlers

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Pro’s | Con’s | Description |
| PHP-Crawler | Is Open Source  Full Text Search  Crawling is limited by depth setting or amount  Following “HREF” links on web page, in HTML or JavaScript’s | Allows running crawler manually from browser, requires no SSH access to hosting | is an open source crawling script based on PHP and MYSQL. Created to implement simple as possible local website search. |

# Methods that will increase the websites visibility to Search Engine Results

## Getting indexed

The leading search engines, such as Google, Bing and Yahoo, use [crawlers](#_Crawlers_(Web_Crawlers)) to find pages for their algorithmic search results.

Pages that are linked from other search engine indexed pages do not need to be submitted because they are found automatically.

Two major directories, the Yahoo directory and DMOZ both require manual submission and human editorial review.

But Google offers “Google Webmaster Tools”, for which an XML Sitemap feed can be created and submitted for free to ensure all pages are found.

* *This is handy for pages that are not discoverable by automatically following links.*

## Preventing unwanted Crawling

The way to prevent undesirable content in the search indexes, web developers can instruct spiders not to crawl certain files or directories through the standard robots.txt file in the root directory of the domain.

Additionally, a page can be explicitly excluded from a search engine’s database by using a Meta Tag specific to robots.

When a search engine visits a site, the robots.txt located in the root directory is the first file crawled. The robots.txt file is then parsed. And will instruct the robot as to which pages are not to be crawled.

* *In March 2007, Google warned Web Developers that they should prevent indexing of internal search results because those pages are considered search spam.*

## Increasing Prominence

A variety of methods can increase the prominence of a webpage within the search results.

* *Cross Linking Between pages of the same website to provide more links to most important page to improve its visibility.*
* *Writing Content that includes frequently searched keyword phrase, so as to be more relevant to a wide variety of search queries will tend to increase traffic.*
* *Updating Content so as to keep search engines crawling back frequently can give additional weight to the site. – This will need to be at least monthly*
* *Adding relevant keywords to a web page’s Meta Data, including the Title, Meta Description, will tend to improve relevancy of a sites search listings, thus increasing traffic.*

## Meta Data

Search Engine Spiders use this information to determine what your website is about.

### Title Tag

The Title Tag appears at the top of the browser window when looking at the page and is also the click-able link on a search engine results page. Its indexed by the search engines. The title tag is what persuades the user to click on the page so it must grab their attention and include relevant keywords so that they know that your website will have the content that they are looking for.

### Description Tag

Google doesn’t use the description Meta Tag in ranking. That doesn’t mean that it’s not important. The user sometimes wants the a little more information that what the title provides.

### Key Words

Is used to keep track of the keywords that you are targeting on each page.

Meta Tags certainly wont make or break an SEO campaign, but it fits in with everything else. Along with good high quality content, clean code, and a good URL structure, its SEO best practice to include Meta Tags.

## What is Text to HTML Ratio?

Every Website has a certain amount of backend code and a certain amount of regular text in the front-end. The text to HTML ratio refers to the amount of text on a web page versus the HTML code on the same page.

### What is the ideal Text to HTML ratio?

A good text to HTML ratio is anywhere from 25 to 70 percent. This percentage refers to the visible text ratio, as opposed to HTML elements, image tags and other non-visible information.

You may notice that many high-ranking websites in search results have visible text. This has become especially apparent since search engines, such as Google, released the Panda Update, which place importance on content-driven sites.

### How does it affect SEO?

The text to HTML ratio is not a direct ranking factor for search engines but there are many factors related to the ratio that indicates best SEO practices and thus may identify result in higher search rankings.

These related factors are:

* **Built for people**: Web pages with higher text content to HTML tend to be more readable and understandable for people. It gives the impression that the site is built for people rather than search engines and so seems important in the eyes of the search engines.
* **Better User Experience**: Higher text to code ratio indicates better user experience, and better user experience has become a prime search ranking factor according to Google and other search engines.
* **Better Page Load Speed**: Less code indicates that any unnecessary HTML elements are not present in the code of a web page. This increases the loading speed of a page, which indicates better user experience and again is a significant search engine-ranking factor.
* **Better Index of Pages**: A cleaner code and higher ratio of plain text makes it easier for search engines to crawl and index the site.

### How do you create a Page with a High Text to HTML ratio?

The key to optimizing your web page is to build it focusing on User-experience:

* [Check](http://validator.w3.org/) if your HTML code is valid.
* Remove any unnecessary code.
* Remove huge white spaces.
* Avoid lots of tabs.
* Remove comments in the code.
* Avoid tables. Use tables in your layout only if absolutely necessary.
* Use CSS for styling and formatting.
* Resize your images.
* Remove any unnecessary images.
* Only use JavaScript and flash if required.
* Keep the size of your page under 300kb.
* Remove any hidden text that is not visible to people.
* Your page must always have some amount of plain text. Include easily readable text with quality user information.

### Tools to check your Text to HTML Ratio

Here are some simple online tools that allow for a quick review of the text to HTML ratio of your site.

* [WooRank Website Review](http://www.woorank.com/)
* [Maierwalter](http://www.maierwalter.com/text-to-html-ratio-calculator/)
* [SEOChat](http://www.seochat.com/seo-tools/code-to-text-ratio/)

## Google Penguin

Bring the high quality and content sites on the top of search engine rankings.

Bring down websites that violate Google’s Webmaster Guidelines and use black-hat SEO techniques.

### Surviving the Algorithm change

Black hat SEO techniques need to be abolished because Penguin is smart enough to deal with all websites indulging in these practices.

Avoid excessive link building, doorway pages, keyword stuffing, and meaningless and irrelevant content.

Creating content for other blogs and websites and socializing content.

## Google Analytics

Is a service offered by Google that generates detailed statistics about websites traffic and traffic sources and measures conversions and sales? The product is aimed at marketers.

### Features

Google Analytics' approach is to show high-level, [dashboard](http://en.wikipedia.org/wiki/Dashboard_(business))-type data for the casual user, and more in-depth data further into the report set. Google Analytics analysis can identify poorly performing pages with techniques such as funnel visualization, where visitors came from ([referrers](http://en.wikipedia.org/wiki/Referrer)), how long they stayed and their geographical position. It also provides more advanced features, including custom visitor segmentation.

Google Analytics [e-commerce](http://en.wikipedia.org/wiki/E-commerce) reporting can track sales activity and performance. The e-commerce reports show a site's transactions, revenue, and many other commerce-related metrics.

### Technology

Google Analytics is implemented with “Page Tags”. A Page Tag, in this case is called the Google Analytics Tracking Code is a snippet of JavaScript code that the developer adds to every page of the website. The Tracking Code runs in the client browser when the client browses the page (if JavaScript is enabled in the browser) and collects visitor data and sends it to a Google data collection server as part of a request for a web beacon.

### Limitations

In addition, Google Analytics for Mobile Package allows Google Analytics to be applied to mobile websites. The Mobile Package contains server-side tracking codes that use [PHP](http://en.wikipedia.org/wiki/PHP), [JavaServer Pages](http://en.wikipedia.org/wiki/JavaServer_Pages), [ASP.NET](http://en.wikipedia.org/wiki/ASP.NET), or [Perl](http://en.wikipedia.org/wiki/Perl) for its server-side language.

However, many [ad filtering](http://en.wikipedia.org/wiki/Ad_filtering) programs and extensions (such as Firefox's [Adblock](http://en.wikipedia.org/wiki/Adblock) and [NoScript](http://en.wikipedia.org/wiki/NoScript)) can block the Google Analytics Tracking Code.

This prevents some traffic and users from being tracked, and leads to holes in the collected data. Also, privacy networks like [Tor](http://en.wikipedia.org/wiki/Tor_(anonymity_network)) will mask the user's actual location and present inaccurate geographical data.

Some users do not have JavaScript-enabled/capable browsers or turn this feature off. However, these limitations are considered small—affecting only a small percentage of visits

<https://www.google.com/analytics/web/provision?et=&authuser=#provision/SignUp/>

# Conclusion

The SEO methods explained above will help each client’s website to be more visible. These methods will help create a great, seamless user experience, With great communication to the Search Engines your intentions so they can recommend your website for relevant searches.

Keyword strategy is not only important to implement on-site, but should extend to other off-site platforms, which is why you should think about using multi-channel optimization. These multi-channel platforms include:

* Facebook
* Twitter
* LinkedIn
* Email
* Offline, such as radio and TV ads

SEO should be in the forefront of building the clients online presence. It is always best to follow the best practices for SEO. Skipping the basis of SEO will only leave the client’s site foundation a mess and prevent the client from fully maximizing revenue opportunities, thus building a stronger ongoing service with the client.

### Social Media Marketing

We should consider Social media marketing because it is vitally important to every business. This is the process of gaining [website traffic](http://en.wikipedia.org/wiki/Web_traffic) or attention through social media sites.

Social media marketing programs usually center on efforts to create content that attracts attention and encourages readers to share it with their [social networks](http://en.wikipedia.org/wiki/Social_network).

What are your thoughts on Social Media Marketing?

The question is how and what we can provide in our packages, and will we provide Social Media Marketing.