# Search Engine Optimization
## Susan Kaltenbach, May 9, 2002

## Introduction

Search engine optimization means designing your Web site so that search engines such as Google or Yahoo can easily "find" the pages. The "easier" it is for search engines to find your pages, the more highly placed your Web site will be on the list of search results returned to the searcher.

This paper will discuss the most basic methods available for you to optimize your web site. More advanced methods for search engine optimization will be touched on in this article, and details will be provided in the Appendix.

There are several search engine optimization service companies that provide very sophisticated products such as server log file analysis, keyword analysis, and benchmark position reports, There are also automated search engine submission services such as Submit-It that charge a minimum fee of $49 for basic services.

But many of us have no budget to draw from. For us, doing search engine optimization ourselves is the only choice. I recommend that you save this article in case you want to optimize your Web site for search engines yourself.

**NOTE**:  For the remainder of this paper, I'll use the phrase "optimize" to mean "search engine optimization."

## Search Engine Optimization:  HTML tags and tips

There are several methods you can use to optimize your Web site, ranging from simple HTML changes to more complex tasks such optimizing dynamic Web content.

### TITLE tag

The TITLE tag is used in HTML to specify the title of the Web site. When the site is open, the TITLE tag dictates what is shown in the title bar of the browser window. As a general rule, you want a title that makes sense on its own.

The TITLE tag can be used to optimize your site. It should be short (less than 40 characters is one rule of thumb), and it needs to match what people will enter in their search queries.

The following TITLE tag examples are used to demonstrate a good, poor, and bad TITLE tag for the search "wombat habitat:"[1]

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[1] Much of this content is borrowed from "Animal Info – Northern Hairy-nosed Wombat" at http://www.animalinfo.org/species/lasikref.htm.

```
<!-- good TITLE tag -->
<TITLE>Wombat Habitat – just the facts</TITLE>
<!-- poor TITLE tag -->
<TITLE>Animal Info - Northern Hairy-nosed Wombat</TITLE>
<!—bad TITLE tag -->
<TITLE>Oh, those cute hairy-nosed nocturnal marsupials!</TITLE>
```

## META NAME="Keywords"

In HTML, the META tag provides information about a document. It has no effect on the way your Web site looks. The META tag is used by search engines or web browsers to get information about your Web site.

META keywords can be a powerful tool for optimizing your Web site. In order to attract your audience, you need to focus on keywords your audience might search for.

The following example can be used if you wanted to attract an audience looking for information on "wombat habitat:"

```
<META NAME="keywords" content="wombat, marsupial, nocturnal, Northern hairy-
nosed, backwards opening pouch, Barnard's, Moonie River, Oso marsupial del
Río Moonie, Wombat à nez poilu de Queensland, Soft-furred, Yaminon,
latifrons, Lasiorhinus krefftii, barnardi, gillespiei, Wombatula, Australia,
Epping Forest National Park, animals, biodiversity, biology, conservation,
ecology, ecosystem, endangered, environment, habitat, mammals, population,
rare, species, threatened, wildlife">
```

In META tags, there is no difference between using uppercase or lowercase letters.

How do you find out what keywords people are searching for? There are many resources on the web that help you find out the top keywords people are using to find their information. At the Search Engine World Keyword Resources page, you'll find many keyword resources to help you optimize to connect with your audience.

## META NAME="Description"

The META description is another source of information for search engines. Some search engines use the description for the page summary when results are listed, so it's important to make sure that the META description is fairly clear and relevant to the topic.

The following example, once again, comes from a Web site trying to attract wombat habitat-seekers:

```
<meta name="description" content="Biology, ecology, habitat, and status of
rare, threatened and endangered species of mammals and information on their
native countries: biodiversity, ecosystems, population, and land use">
```

## Page Text

Another method to try to optimize your Web site is to include search terms near the top of the page. If you want to attract people interested in wombat habitats, then it would be a good idea to refer to it in the beginning of your page. For example:

*The Northern Hairy-nosed Wombat: A study of cute, hairy-nosed little critters that run around the ground in Australia and look very comical! Here's some information about the majestic and cheerful wombat.*

- *Profile*
- *Habitat*
- *Images*
- *Reference*

# Search Engine Optimization:  Submitting your site

Now that you've finished editing your Web site to optimize content for searchers, it's time to send it to search engines. There are two methods to doing this:  submitting to the search engine, and adding your site to the search engine's directories.

According to results gathered by Jacob Nielsen, overall search-engine-driven traffic to his useit.com site increased by 95% during the last year.[2] This means that more people are using search engines (such as Google) to find the site, rather than finding it in a directory or linking to it from another site.

Nielsen reports that "Google now dominates Internet search" and "accounted for 66% of the search referrals directly in 2002." Yahoo now uses the Google search engine if satisfactory results are not found within Yahoo directories.[3]

What does this mean to you? It means that you need to submit your site to Google, and that you need to get your site into Yahoo's directory.

## Submitting your Web site to a search engine

Although tedious, this process can be done manually and is vitally important to ranking your Web site higher in search engine results. The process involves going to each web site and submitting your site via a submission page or interface.

The **Appendix for Search Engine Optimization** provides several tables that give you references on where, how, and what to submit to search engines to in order to meet each engine's standards. The submittal process itself can be made easier by using these resources. Another resource is Iris Communications, Inc. Web site "Submit Your Site to the Top Search Engines" which will help expedite your connecting to the right area.

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[2] "Statistics for Traffic Referred by Search Engines and Navigation Directories to useit," Jakob Nielsen, April 15, 2002.

[3] MSN.com is also increasing in use as a search engine, but AOL, Excite and Overture (f/k/a GoTo) have decreased in use.

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**Figure 1.  Submitting a site to a Search Engine (Google.com)**

## Submitting your Web site to a directory

The crucial element in submitting your site to a directory is to *find the appropriate category* for your Web site. Yahoo offers a helpful page titled "Finding an Appropriate Category" to guide you in determining the correct Yahoo category. Many directories will only allow you one chance to submit the site, so be very careful about your choices. Apparently, directory editors often reject Web sites they consider to be of poor quality. Some claim that Yahoo only accepts about 5% of all submissions, so it's important to make sure your site has been checked for any errors before you submit it to a directory.



**Figure 2.  An illustration of Yahoo directory categories relevant to a web site for Wombats.**

### Links from Other Domains

The ranking your Web site receives on search engine results can also be affected by any links to your site from outside domains. This "cross-referencing" of sites helps the search engine determines how relevant your site is to the search topic.

How do you get other sites to link to you? One method is to search for web sites similar to yours and then contact those webmasters, asking them to link to your site. One motivation for them to do so is that you can "return the favor" by listing them, thus increasing their own ranking in the search engine results.

## Conclusion

This paper has focused on the simpler methods Web site owners can use to increase their ranking in a search engine result list. There are, of course, many more resources you can take advantage of to optimize your Web site, including more technical resources that refer to areas such as converting dynamic web site content, creating a crawler page, etc. These resources are listed below.

## Acknowledgements and further references

**NOTE**: This paper drew heavily from the following sources:

Paul Boutin's article "Search Engine Optimization FREE!," from WEBMONKEY, updated August 6, 2001. Although his article sometimes has a very technical focus, it is very helpful in covering the basics of web site optimization. In fact, a search of the phrase "search engine optimization" on Google.com ranks his web site first among others. I guess he knows what he's talking about.

Although Searchengines.com is a company that offers search engine optimization purposes, they offer an amazing number of free references for individuals who want to learn more about the process. The Appendix has several of their helpful tables for those people doing optimization on their own.

### Additional references:

Search Engine Watch is another Web site that was created to help Web site creators optimize their sites. The various departments include search engine submission tips, web searching tips, and search engine listings.

The Microsoft Submit It! Page offers "Search Engine Optimization Tips" that provide more information on the process. Submit It! of course offers a search engine optimization service for those who don't want to take the time to do all of this.

The RankWrite Roundtable offers free advice at "A Virtual Treasure Trove of Search Engine Optimization Information and Advice."

## Appendix for Search Engine Optimization

The following resources from Searchengines.com provide you with information and tips to submit your Web site to search engines and directories. All information ©Searchengines.com.

| Search Engine | Submission Page |
|---|---|
| **AOL Search** | Find an appropriate category and submit to it |
| **AltaVista** | http://addurl.altavista.com/sites/addurl/newurl |
| **AskJeeves** | E-mail URL and description to url@askjeeves.com |

| Search Engine | Submission Page |
|---|---|
| **Google** | http://www.google.com/addurl.html |
| **Hotbot** | http://hotbot.lycos.com/addurl.asp |
| **Inktomi** | submit via **one** of their partners. |
| **Lycos/Fast** | http://www.lycos.com/addasite.html or http://www.alltheweb.com/add_url.php |
| **MSN Search** | Submit to Inktomi through one of its partners |
| **Open Directory Project (ODP)** | Find an appropriate category and submit to it |
| **Teoma** | http://static.wc.ask.com/docs/addjeeves/Submit.html (Paid program only) |
| **WiseNut** | http://www.wisenut.com/submitsite.html |
| **Yahoo!** | Find an appropriate category and submit to it |

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Searchengines.com also offers suggestions on "what the high-traffic search engines and directory sites say influence their relevancy rankings: "

| Search Engine | What's not indexed | Slow Pages play a role? | Content and location | HTML Title | Meta tags | Keyword Frequency | Link popularity | What it likes |
|---|---|---|---|---|---|---|---|---|
| **AltaVista Search Engine** | Registration pages, text in graphics and multimedia files (use Alt tags), XML, Java applets, comment tags, Acrobat files, spammers | Yes | Very important, Top of the page | Very important, should be unique for every page | Not important, but should be included just in case | Not mentioned0, but the best location is title and top of page | Important | Uncommon words, good navigation, plain HTML pages with text only , themes, inbound links and keywords in link text. |
| **DMOZ Users: AOL, Netscape; AltaVista, HotBot, Google and Lycos directories** | Spammers | Yes, considered poor design | Worthy of indexing as determined by editors, and in appropriate category | No, but the title filled in plays a role. | No, but the description and keywords filled in play a role. | No | Not important for DMOZ, but is Important, for some of its partners, who use Inktomi | Concise and accurate descriptions and keywords, choice of appropriate category |

| Search Engine | What's not indexed | Slow Pages play a role? | Content and location | HTML Title | Meta tags | Keyword Frequency | Link popularity | What it likes |
|---|---|---|---|---|---|---|---|---|
| **Google Search Engine** | Not mentioned, see AltaVista for approximate guidelines; spammers | Not mentioned | Keywords should be **close** to each other. Content should include keywords in text or links | Not mentioned, but seems to be a factor | No | Not mentioned | Very important, especially from relevant pages | Link popularity, keywords near each other, keywords in URLs and link text, themes |
| **HotBot Search Engine** | Frames, pages with cookie requirements, URLs with special characters (unless submitted through Inktomi's paid program) , spammers. | Yes, pages can be dropped if a server is too slow | Ranks on the length of the document and frequency of keywords. | Most important | Very important, both description (150 characters) and keywords (75 characters) | Very important (standard requirements are 3-7%) | Important, uses Inktomi | Lack of stop words, meta tags, HTML titles, lots of keywords, link popularity, and click popularity (HotBot uses DirectHit) |
| **Lycos Search Engine** | Spammers, URLs with special characters | Not mentioned | Not mentioned | Not mentioned, but seems to be a factor | Not mentioned | Not mentioned | Not mentioned, but seems to be a factor | Themes |
| **MSN Search Engine** | Spammers, frames - <noframes> tag needed | No | Not mentioned | Important, should contain keywords | Both are supported; description limited to 250, keywords to 1017 | Important, 4-12 times | Important, uses Inktomi | Theme present throughout the site, site popularity |
| **Yahoo Directory** | Spammers | Yes, may be excluded | Worthy of indexing as determined by editors, and in appropriate category | No, but the title filled in plays a role. It should be concise | No, but the description and keywords filled in play a role. | No | Very important, uses Google | Concise and accurate descriptions and keywords, choice of appropriate category |

## Specific requirements for top search engines

| Search Engine | Keywords | Location of Keywords | Document Length | HTML Title | Meta tags | Themes | What's spam? | Other info |
|---|---|---|---|---|---|---|---|---|
| AltaVista Search Engine | Only the first two occurrences are indexed, use in <title> and top of | Top of the page, <h> tags | Longer pages favored, 600-900 words | Most important keywords here, 300 characters, short titles | Not very important, but use them just in case | Yes, consistent keywords throughout the site | Repetition of keywords one after the other, meta refresh tags, | Repeat keywords in files names. Use keywords |

| Search Engine | Keywords | Location of Keywords | Document Length | HTML Title | Meta tags | Themes | What's spam? | Other info |
|---|---|---|---|---|---|---|---|---|
| | the page | | | preferred | | | invisible text, identical pages, excessive submissions. | in text links. |
| Google Search Engine | Weight and proximity matter most | <h> tags, bold text | Wide range, from 50-600 words. | Keywords here, up to 90 characters | No | Yes, consistent keywords throughout the site | Use of link farms, cloaking, excessive repetition | Link popularity is the most important factor |
| HotBot Search Engine | Frequency and weight in the body are most important | URL text and title | Short, 100-250 words | Most important, keywords here, up to 105 characters | Very important, both description (150 characters) and keywords (75 characters) | Yes, consistent keywords throughout the site. | Repetition of keywords one after the other, meta refresh tags, nearly identical pages, invisible text, irrelevant keywords, too many submissions | Use keywords when describing links, and naming files |
| Lycos Search Engine | Keywords spread throughout the page and in the title | Top of the page, <h> tags | Short, 100-250 words | Keywords here, second word, up to 1129 characters | Not indexed by Fast, but shows up in top rankings | Yes, consistent keywords throughout the site | Repetition of keywords one after the other, nearly identical pages, invisible text | Not recommended Use ALT tags |

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