SEO Basics

What is SEO?
SEO stands for "search engine optimization." The term may sound like optimizing an actual search engine such as Google, however this professional service focuses on tweaking a *website* to do well – to appear among the top listings on search engine results pages (SERPs). SERPs are web pages returned by search engines like Google or Yahoo! after a user performs a search. These pages contain links to web sites and documents that the search engine deems relevant to the word or phrase. These words or phrases are also known as "keywords."
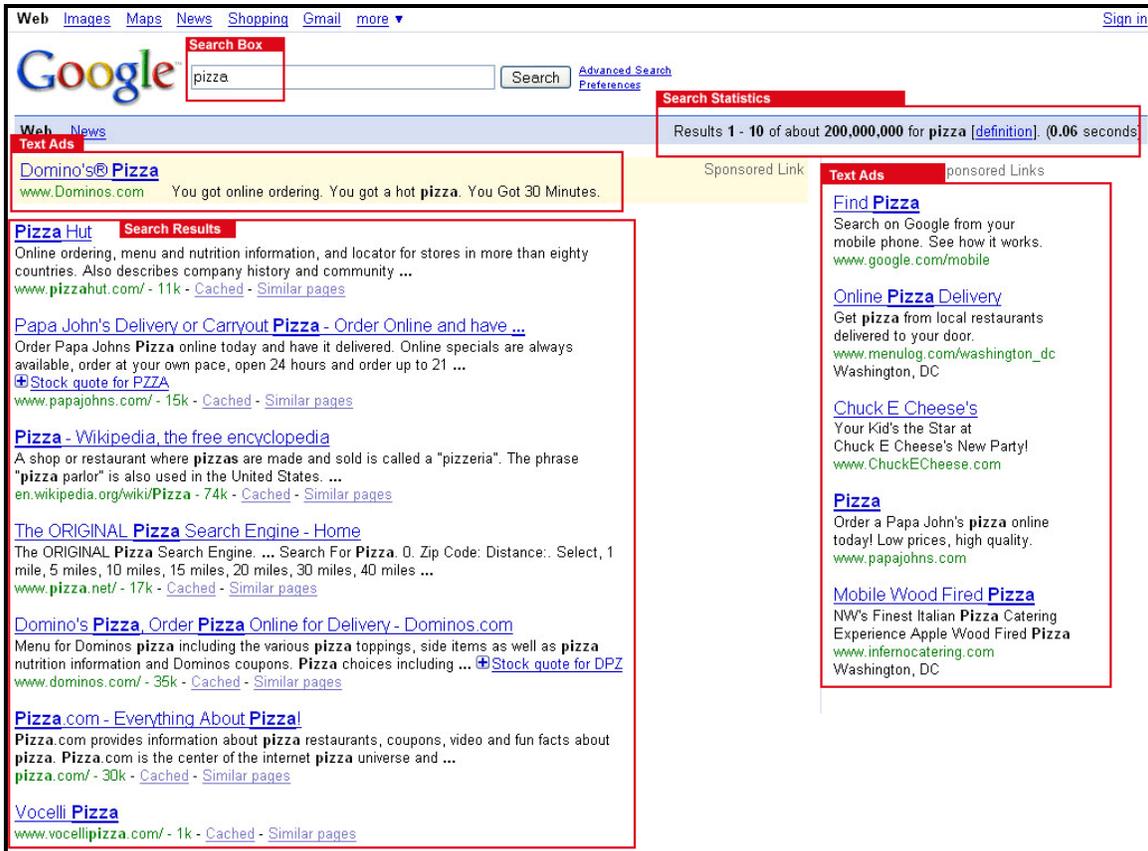

Figure 1: SERP for Pizza

Using complex and proprietary algorithms, search engines consider hundreds of factors when gauging the relevance of a certain site or webpage. Search engines are constantly changing their proprietary algorithms – sometimes significantly – in an attempt to list only the most relevant results.

Major search engines vary their results by geographic region and language. For example, Google's German page will place more emphasis on German websites. Search engines use various pieces of information; among these is language, the physical location of a website's server, etc. Thus, the results from Google.de may differ from the results of Google.com.

SEO is "keyword centric." A major emphasis for professionals is to figure out what words or phrases a website's target audience is likely to use when searching for a site's content. Using this information, they strive to have the website appear within the first page of search results. SEO is strongly related to search engine marketing (SEM), which focuses on delivering advertisements that are relevant to an executed search. It is critical to the success of any SEO or website marketing campaign to have specific keywords in mind from the onset of the project. *See Figure 1 to see where text ads appear on search results pages.*

A website's search engine "rank" refers to its position in the search engine's results. There are factors that influence the rank of a website on SERPs that website administrators can control; others they cannot. Controllable factors include page title tags, page content, the website's architecture, and the ease at which a web "spider" can examine a site. A web spider is a website discovery program deployed by search engines that scans the Internet looking for new pages and content changes on pages it has already discovered. There is little control over what competing websites can do to increase their search engine ranking; these actions may result in the down-ranking of other sites. Furthermore, website administrators sometimes can influence which other websites will link to their own site and how they will do so. ***In this document we'll focus on what website administrators can control to increase their website's ranking in search engines. There are many other tactics that a website administrator has little control over (like how to get other sites – and which ones are most valuable – to link to his or her site) that are also important which are not discussed in this document.***

This guide will touch upon the basics of SEO. There are many great resources on the Internet that cover SEO in more detail. We highly recommend two from an SEO firm in Seattle, SEOmoz. SEOmoz published two articles, "[Beginner's Guide to Search Engine Optimization](#)" and "[Search Engine Ranking Factors](#)," that do an excellent job of explaining fundamental SEO techniques. Further, please learn more about our online marketing work at http://www.bivings.com/what/online_marketing.html.

The Keyword
At the heart of successful SEO is determining what keyword or keywords to use when optimizing a website. The prevalence of a specific word or phrase on a webpage is critical to influencing SERP ranking. In most cases websites should be optimized for multiple keywords, and a simple way to do this is to optimize different sections or pages with different keywords. Of course, there are exceptions to this approach.

Below are some basic questions to ask when considering keywords to focus on. Once a keyword(s) is selected it should serve as the focus of a site's SEO efforts.

1. Does anyone search for the word on search engines?
If the site is about an eating establishment, what words would people use to search for the site? Restaurant, café, diner… Does anyone use the word "eatery"?

2. Which words does the site's target audience use?
Regional diction complicates keyword selection if a site is aimed at a large geographical area. For example, a housing site for the English-speaking world can use "apartment" and do well in the United States, but it wouldn't do as well in other countries like the United Kingdom where "flat" is much more commonplace.

One must consider more than just geography when selecting a keyword. There are many factors that influence how an audience might search for a website. If the target audience of a website about a specific chemical consists of people with a science background, it would be best to focus SEO on scientific keywords that this audience is likely to use. A different website may be marketing a medical drug made up of the exact same chemical. In this case the target audience would be the general public, and it is unlikely that this audience will use scientific words or phrases when using a search engine to learn about the pharmaceutical.

3. How competitive is it to rank well with a specific keyword?
Ranking well on results pages for "restaurant" is very tough, since there are millions of sites for restaurants. While other words like "diner", "café", and "eatery" are still very common on websites, they are far less common than the word "restaurant." It is therefore easier to influence the search engine rank of a restaurant website using these less-common words instead. Due to the difficulty of ranking high in search engine results for an extremely competitive keyword such as "restaurant", SEO professionals will usually focus on more specific words or phrases. For instance, a local pizza restaurant does not want or need to appear in search engine results for everyone around the world who searches for the term "pizzeria". If the local pizza restaurant is in the Georgetown neighborhood of Washington, DC, it would make a lot more sense to focus SEO efforts on phrases such as "Washington DC pizzeria" or "Georgetown pizzeria."

4. How does one find out words that are commonly used by a specific audience?
There are several ways to answer this question. For highly specialized sites, the SEO professional's clients are often the best resource since they will know best what words are used in their specialized field.

One useful tool is Google Suggest (http://www.google.com/webhp?complete=1&hl=en). Google Suggest lists the number of results that the search engine presents for a specific keyword. This can be helpful in determining the relative popularity of different keywords you think your target audience may use to find your site.

Other tools include keyword selector tools that will read the pages on a website and suggest keywords to the SEO professional based on their prevalence and the presence of synonyms on the site's other pages. There are plenty of interesting tools at www.seochat.com/seo-tools. The Keyword Cloud tool will analyze the text on a site and produce a word cloud to show which words are used the most.

A website's traffic analytics program is a great resource for revealing what keywords people already use in search engines to locate your website.

Some other useful free keyword research tools include:

- Google: Adwords' Keyword Traffic Estimator Tool and Trends Feature
- Microsoft: AdCenter Keyword Forecast Tool
- WordTracker: Basic Keyword Suggestion Tool
- KeywordDiscovery: Basic Search Term Suggestion Tool

These tools typically give estimates and projections so you should expect varying results from each of them. Although they're far from perfect, used collectively they can help provide a fairly good idea of what words or phrases a target audience may use to search for a specific website.

Examining a similar or competing site that ranks highly in the search engines is also a good way to help establish an SEO strategy. What keywords do they use in their title tags, throughout their content, in their pay-per-click campaigns, etc.?

Even though fewer people may seem to use a keyword compared to a more searched for variant, that doesn't mean the keyword isn't worth using since a highly specialized website may not have many (or any) similar or competing websites. A mainstream example of this is optimizing a site for "BBQ", "barbecue", and "barbeque." Google Trends indicates that more people use "BBQ" than the other two variants of the keyword. The competition for top rankings for "barbecue" and "barbeque" may or may not be as competitive as with "BBQ." These two less popular keywords provide ample opportunity to perform well. See Figure 2.
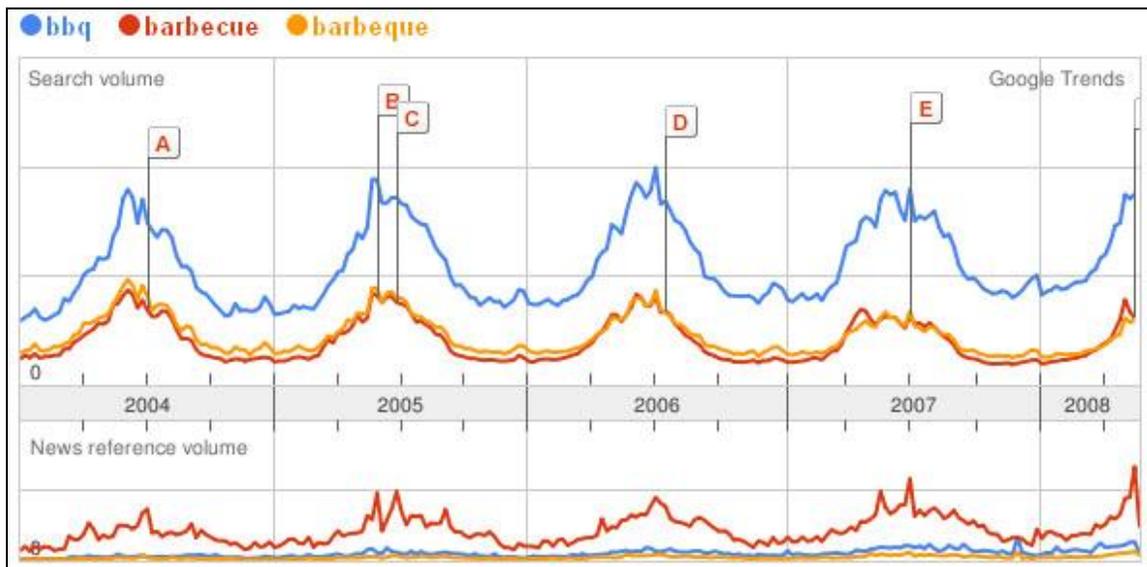

Figure 2: Search Data for "bbq," "barbecue," and "barbeque" from Google Trends

Title and Description Tags

Keyword usage in <TITLE> tags is perhaps the most important factor that a website administrator can control when it comes to SEO. The search engines weigh this factor heavily. It is very important to place keywords in title tags!

Search engines only examine a certain amount of data, and when it comes to title tags it is our experience that spiders will probably only check the first 60 to 70 characters – including spaces. It is therefore best to keep title tags short and specific.

It is helpful to have unique title tags for each page on a site. This is also very useful when a site wants to do well in searches for multiple keywords.

There is some debate within the SEO community about whether it is better to put a website's name, organization name, or product name before or after a target keyword. Consider for example "Nike – Running Shoes" versus "Running Shoes – Nike." The important thing to consider is keeping the tags short and ensuring that the keyword for which the page is optimized is included in the web page's title.

If a keyword is in a web page's title tag, make sure that the page is actually about the keyword. Search engines will check the content of the page and expect it to match the <TITLE> tags.

When separating terms within a tag, avoiding symbols such as "&" and other code-like characters is advisable. The presence of such characters may confuse the search engine into thinking that it is not looking at code instead of a keyword.

The page title is what search engine presents people in results pages. That's another reason why it is important to make these tags descriptive. Does the tag accurately describe the page?

In addition to a <TITLE> tag, web pages can also contain a <META> description tag. While the description tag is not as heavily weighted as the <TITLE> tag, search engines sometimes use the content of this tag to provide a summary of that webpage on results pages. Other times they'll just pull some text from the webpage that seems relevant to the search term and provide that to users as a description on the result page. It is important to use the description tag to clearly explain the purpose of the page or site and invite a person to literally "click here."

Web site developers can also use <META> keyword tags within the code of a web page. However, these aren't considered to be very important anymore as overuse and abuse over the years has led search engines to simply ignore this tag for the most part.

Figures 3 through 5 are for the homepage of http://www.eatyourpizza.com/ as viewed on May 14, 2008.

```
<HTML>
<HEAD>
<TITLE>Pizzeria Paradiso, Washington, DC</TITLE>
<META HTTP-EQUIV="Content-Type" CONTENT="text/html; charset=iso-8859-1">
<meta name="description" content="Pizzeria Paradiso - voted best in Zagat's Survey for the freshest ingredients atop crispy, smoky
<meta name="keywords" content="pizzeria paradiso, Zagat's, homemade, wood-burning oven, organic ingredients, local produce, fresh,
<style type="text/css">
<!--
.style3 {color: #E6E6E6}
-->
</style>
</HEAD>
```

Figure 3: <TITLE> and <META> Tags in HTML

The <TITLE> tag data is within <TITLE> and </TITLE> while the <META> description tag data is begins with <meta name="description"> and ends with </meta> off of the image.
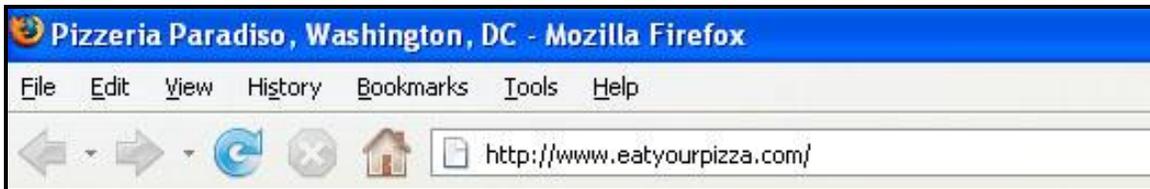

Figure 4: <TITLE> Tag as it appears in the browser bar

Figure 5: <TITLE> and <META> Description Tag Data on SERP

The <TITLE> tag data is on the top of this information in blue; it's the link that you would click on. The <META> description tag is the text in black under the <TITLE> tag data.

Content
Search engines obviously place a lot emphasis on a site's content when assessing its relevance to a particular topic. There are many ways that they evaluate the content. Many years ago, search engines figured if a word was mentioned a lot on a page or site, then that site must be relevant to that topic. However, it became far too common for people to stuff a site full of keywords; many times the wording was unnatural, and people hid text by making it color of the background, etc. Search engines realized that this did not help provide their users with truly relevant results and have since lessened the emphasis they place on keyword density. While it is important to use a target keyword on a page or site, the search engines are aiming for relevance, and density isn't the only measure. Therefore, it is very important to use target keyword(s) found in the target audience's natural vocabulary.

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When looking at content, a small way that search engines determine the importance of a word is its characteristics on the web page. Is it linked to another page? Is it in bold? These are hints that search engines can use since it makes sense that a word that is somehow made to stand out has some importance.

A common content issue for websites is duplicate content (both on the same site and amongst many websites). There are many reasons why content may be duplicated throughout a site (like browser and printer friendly versions of the same page). Search engines feel it is important to direct their users to the most relevant and original version of the content. Further, it can confuse the engines when identical content appears on a site in more than one place. There are a few ways to deal with this situation. One is redirecting from one version of the page to the main version of the page using what site administrators refer to as a 301 redirect. The other is to use the robots.txt file, a simple text file housed in the root directory of a website's file structure that instructs web spiders to ignore a particular web page.

It is also important to note that search engine spiders cannot read all types of content. They cannot read the text within Flash; they cannot interpret the words in an audio file; and they are unable to determine the words used within a video. However, site designers can use tags (such as <ALT> tags with images) to help the web spiders know what a piece of media is about. The Flash, audio, or video can also be surrounded by regular HTML text content that is descriptive of the content. Using <ALT> tags is only really crucial when the majority of a website's content is unreadable to web spiders.

Site Structure
Structure is an important aspect of a website's search engine ranking. Search engines aim to find sites that are logically constructed since they want to provide their users with relevant sources of information, and it makes sense to expect a valuable source of information to have a logical structure.

Ideally, any visitor to a website should be able to access every page on the site within three clicks from the homepage. Search engine spiders don't usually burrow deep into a site and instead try to capture main sections. Obviously, not all sites are able to position pages that close to the homepage, but there are some strategies to help spiders see more of a large site. One solution is to create a site map containing links to all the pages on the site. Another strategy is intra-site linking; for instance, link from a major page to a deeper page. Keep in mind that it is far better to use a keyword that relates to the destination page than something generic like "click here." Search engine spiders can then use that link to find the deeper page.

The site's directory URL structure is also important. While placing keywords in URLs is not essential, it's helpful. One way to get keywords into the URL – even if www.[desiredkeyword].com is not available – is naming site directories using the keywords. If a section of the site is about a particular aspect of the overall site topic, use a keyword to name the section. Using a keyword to name a specific page (topic.html) is

also helpful. Search engines do use directory and pages names when determining a site's relevance.

A great way to see this principle in action is to examine a search friendly URL like http://www.cnn.com/2008/TECH/ptech/06/02/blueray.sales.ap/index.html. Search friendly URLs contain information – including relevant keywords – that can help both search engines and people understand what a page is about by simply looking at them. See Figure 6 on the next page to see how the URL above is search friendly as one can see that the webpage is about technology and Blu-ray technology. It further also reveals when this news story was published.

Links
Links help people navigate the web, and search engine spiders use them to determine how the Internet is tied together.

Search engines weigh the prevalence of links a particular website has pointing to it quite significantly. Websites with lots of links pointing to it are considered important sources of reference, and will therefore be ranked higher in search results pages than websites with fewer in-bound links.

Beyond using links to navigate a site and the Internet, links are valuable to search engines as they can help the engines understand what a site is about. The text in these links is a great clue to the search engines in determining what a site is about. They reckon if a there's a link with "whales" in the text points to a site that probably has something to do about whales (imagine how many sites are about "click here…"). Site owners can use this to their advantage by placing relevant keywords in the text of links within a site. Doing this helps search engines determine what various pages on the site are about. When doing intra-site linking, it is helpful to use words for the link that explain what the destination is about.

A site owner can also place a disclaimer for search engine spiders on a link. For instance, if a site feels it is important to link somewhere but doesn't want the link to count as a vote as to the quality of the destination, there is a "nofollow" syntax that can be used for this purpose. This practice is useful when linking to a competitor; this is a way to do without boosting their ranking. Using "nofollow" is useful for intra-site links to pages that are not important to a site's ranking. For instance, the site probably does not need to have its contact or privacy policy page highly ranked, and this will help preserve the intra-site linking value to pages that really should get ranked.

There is some conjecture that if a site links to a "bad" site (for instance, a spam site set up to lure people to click on text ads), that search engines will penalize a website for such a link. That's one reason to use "nofollow," but it is better to stay away from those "bad" sites altogether while at the same time avoiding linking to websites that don't appear useful to the website's target audience. The external websites that the links on a website point to can help reveal what a site is about. For example, if a site about animals has
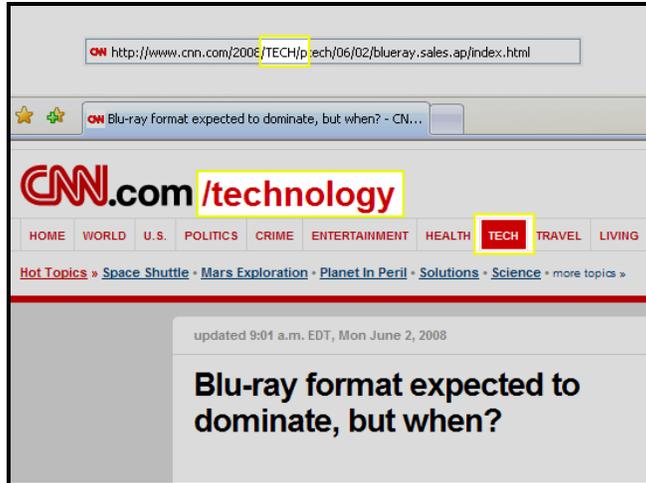
Figure 6: The Search Friendly URL

links to a zoo, that can help search engines determine that the linking site covers a similar topic as the zoo site.

Another interesting idea to consider when creating links on a website is using universal links ("http://www…") instead of relative links ("../topic/blah.html"). If universal links are used in text that is scraped by a spammer, the link will point back to the scraped site. So at the very least, the site gets another link (likely not a very valuable one), and anyone who comes across the link may in this way find your website.

It is very important to note that there are many strategies to collect links (which is commonly known as "link building") from other sites. Since this document focuses on what site administrators can control, this topic is not covered here. Please see SEOmoz's article "Beginner's Guide to Search Engine Optimization" for more information about this topic.

SEO and the CMS
Content management systems (CMSs) are very useful tools for building sites. However, they can also pose problems for designing an optimized site. When selecting a CMS to construct a site, it is important to consider the items mentioned above.

Can one create their own <TITLE> and <META> description tags for each page in the CMS? Does the CMS allow for customized site structure? How about customized URLs? Can one easily modify CSS in the CMS?

Rand Fishkin, who wrote the two SEO articles referenced earlier, has also written a valuable blog post about how to select a CMS while considering SEO. It's titled "Choosing the Right CMS Platform for Your Website (from an SEO perspective)."

Focus on Humans, not Arachnids
When optimizing a site, it is important to ultimately focus on the end user's needs and not the needs of web spiders. While the search engines play a large role in determining a site's relevance, it is important to remember that Google and Yahoo!'s main goal is to provide their users with quality results. So, a truly optimized site should aim to accomodate a site's target audience, not the search engines. One cannot ignore how a search engine spider views the world, but websites are not targeted toward web spiders. True optimization is trying to make a site as relevant and easy to navigate as possible to a specific target audience – that's what both humans and spiders are looking for.