

Improve your Website's Traffic with Search Engine Optimization

Welcome to HP's Search Engine Optimization Podcast. We would love to hear what you think of this format. Let us know at www.hp.com/go/feedback_pod1.

[Lesson 1]

Most people's knowledge of search engines is limited to typing in text and clicking the search button. You usually don't care where the information is coming from, or how it's presented. Your only concern is that the search engine leads you to the right place.

But if you have a Web site you're wanting to promote, search engines take on a whole new meaning. Studies show that 84% of Internet users who are online four or more hours each day reported they use search engines frequently to discover Web sites. An Eyetracking study by Enquiro showed that over 75% of all clicks on a search engine results page were on natural search listings. Customers are more likely to visit Web pages found by searching, rather than finding results via banner ads. Suddenly, it's essential that you understand how search engines work.

Natural Search Engines

There are two major types of search engines: paid search and natural search. *Paid search* can refer to a number of ways you pay every time your site or page is included in the search engines, or drives leads, or is clicked on or listed. In this podcast, you're going to hear about *natural search* — also referred to as organic search— since paid search works in a very different way and requires a completely different strategy. Natural search results are listed in a page-by-page list format in the center of the screen, while paid search links appear at the top and side of the results page.

Natural search engines deliver results that are unbiased and chosen solely based on how relevant those results are to the original query. The category of natural search engines can be broken down further, depending on how the search engine obtains its data. In this category you'll find crawler-based engines, meta-crawlers, and directories.

Crawlers

Let's start with crawler-based search engines. They're called "crawlers" for short, and by far they're the most commonly used type. Google is probably the best-known example. It and other crawlers — like MSN, Yahoo!, and Ask.com — send out an automated "crawler" or "spider" to scour the Internet, link by link, and gather information about the pages and sites they visit. Then they *index* the sites, recording information such as content, images, and inbound and outbound links. They also record meta data — that is, data about data, such as page title, description, keywords, and language.

A crawler is completely automated and runs twenty-four-seven, reporting back to the search engine what it finds online. All the collected information is written into a database, so that the next time you search for, say, "partitioning a hard drive," the crawler already knows which pages have this information. In other words, it doesn't have to search the entire Web just for your particular search. What it's really searching is its own database, which is updated fairly often.

Crawlers vary in how frequently they visit your Web site — anywhere from daily to monthly. But they all check back with your site on a regular basis to see if you've added new pages or content.

Setting up your site to be friendly to crawlers is vitally important, and much of your search engine optimization efforts will follow from this.

Metacrawlers

The second type of natural search engine is meta search engines, also known as "metacrawlers." They're an interesting group of search engines in that they don't actually crawl the Web themselves, but instead show results from other crawlers.

Examples of metacrawlers include Mamma.com, Dogpile, and Vivisimo. A site like Dogpile will allow you to customize which search engines to query, and show you those results in separate groups. This allows you to perform several searches at once. Vivisimo will group results by subject. Other metacrawlers — Kartoo.com, for instance — will display your results visually with sites interconnected by keywords.

Since metacrawlers are getting their results from other search engines, you can't really optimize your site for them. But if you optimize for the main crawlers, you *are*, in effect, optimizing for the metacrawlers too.

Directories

Directory sites — called "directories," for short — are the third type of natural search engine. Unlike automated crawlers, directories are almost completely organized by hand and by real people. Because of this, it will sometimes cost money to submit your Web site to certain directories. Yahoo! began as a directory and still maintains one today. Google uses the Open Directory Project, which is a volunteer-edited directory.

Aside from the major directories already mentioned, thousands of smaller, more focused directories exist for virtually every topic that's out there. These directories can sometimes bring you more visitors than a larger directory like Yahoo! Why? Because they're so focused on one particular topic, and they're so well known. A prime example is the directory "CitySearch" for the topic of "local restaurants."

The only way to get your Web site listed in a directory is for you to submit it, along with the description that will be used in the listing. Though the particulars depend on which directory you might be using, every directory generally uses words in the site name and description to match results with queries. Since you have only one chance to submit a description, you'll want it to be very, very good. A little later you'll hear a few strategies for writing an effective description.

[Lesson 2]

Identifying and Targeting the Best Search Terms

Before you can even begin to optimize your Web site for the search engines, you need to have a good idea of how and what people are searching for. Knowing how people are searching, combined with understanding how the search engines work, allows you to get in between the those two processes and use that information to your advantage.

Let's take a common type of search — people looking for a new place to live. What might be the most common search terms? *Houses, homes, real estate, and property* are a few words that quickly come to mind. In reality, though, other words are also used. *Vacation, investment, second, and new* are just a few popular words that describe the word *house*. And then people are looking to *buy, sell, invest in, time share, rent, remodel, and renovate* that place to live. The combinations are almost endless. But that doesn't mean your efforts have to be.

Developing Your Keyword List

Fortunately, several tools are available for free — or for a relatively small fee — that will help you write your copy and optimize other aspects of your site.

The effort you put into researching and creating a keyword list will be well rewarded. Here are some of the outcomes of that effort:

- **Keyword consistency:** You'll know the best words to use most often.
- **New site content:** Let's suppose you have a computer hardware store specializing in hard drives. Your keyword research will reveal to you that you may want to include content on your Web site that explains how to format a drive, options for backing up disks, and a list of drive recovery tools. This content is great for three reasons: It attracts new searches. It keeps your current customers educated. And it gets links to your site from other sites that find this information useful.
- **Synonyms:** Knowing that different searchers use different terms, you'll want to pepper as many of these as possible throughout your site.
- **Uncommon keywords:** You'll discover many terms that you may not have thought about. This will give you a leg up on your competition.

- **Misspellings:** While you don't want to misspell words in your site copy, there are other places on your site where you can include misspelled words.
- **Low-hanging fruit:** Your research will uncover terms many people are searching for, but fewer site owners are marketing.

Two Keyword Tools

Let's explore two keyword tools: Overture and Wordtracker.

Overture was the original Pay Per Click search engine. It survived despite almost everyone inside and outside the industry predicting its failure. One of Overture's greatest legacies to anyone optimizing for the search engines is its free Keyword Selector Tool. This tool can be found by going to inventory.overture.com.

The two greatest strengths of the Overture tool are that it provides you with the number of searches — use these numbers relatively — and the related searches for your term. Its weaknesses include displaying only the previous month's searches, inflating the actual number of searches, and showing inexact terms. For example, word order, tense, and plurals are not reported individually.

Let's take a look at Overture in action by applying it to our make-believe Web site for our make-believe computer hardware store specializing in hard drives. The best way to start researching keywords in Overture would be to simply type in "hard drive" and look at the results. List only those terms that are related to your business and focus on what you legitimately have to offer. That's not saying you may not get some new ideas from these terms. But there's no need to add unrelated terms to your list.

When you're done with this list, try typing in other related terms — maybe "disk drive" and "HDD." Pay close attention to the results, and look for terms you may not have thought about.

The Overture list is a great one to start out with. And if you're in a fairly noncompetitive business, or you're just beginning your optimization efforts, this could be all the research you do. It will provide you with a good base of key terms and give you a general idea of how popular certain terms are in relation to others.

Note that because the results you will see are aggregated — for example, word tense and plurals — you don't know *exactly* what people are typing into the search engines. And that can mean a big difference in your optimization efforts.

Now, a few words about Wordtracker. This keyword tool is a must-have for anyone who is serious about keyword research. What are its pros and cons? Wordtracker is comprehensive and exact. It offers related terms, saves multiple projects online, and yields actionable lists. However, it costs money and is more time-consuming than Overture.

Wordtracker is a subscription-based service that gives you access to a database of three hundred million search terms from the last ninety days. These terms are compiled from actual searches performed on metacrawler.com and dogpile.com. For a full explanation of the tools available, you'll need to read the online documentation.

When you've finished compiling your list, Wordtracker provides you with what they call KEI, or Keyword Effectiveness Index. KEI is calculated by comparing the number of times a keyword appears in the data with the number of competing Web pages. This table will also show you the estimated number of times a phrase will be searched for on a daily basis. This number can help you analyze your search engine market share down to the phrase level.

Assuming you've generated some keywords at this point, let's take a closer look at the benefits your keyword research can yield.

Keyword Research and Site Content

Your keyword list will be divided into product and content keywords. Each set of keywords serves an important purpose. Soon you'll learn how to use your product keywords. But for now it's worth mentioning that new content addressing popular informational searches can add value to your site and increase your traffic at the same time. Here are the benefits you can reap:

- You'll attract new visitors who are searching for information now, but may want to buy a product later.
- Your site will be more helpful and complete. People wanting to buy a hard drive, for instance, may not know how to format that new drive — and your site can tell them how.
- Your site will be better. Plain and simple, a site that offers information is more trustworthy than a site that simply sells products.
- You'll get more links to your site. Aside from straight traffic, your site will benefit in the search rankings from having more inbound links.

While the Wordtracker KEI analysis will show you which of the content-based searches are the best to target, include a variety of content that makes the most sense for your site. If you're not a writer, consider hiring a free-lance writer to produce a five-hundred-word article on each of the topics you're including.

[Lesson 3]

Elements of Page Optimization

You've taken the time to research your keywords and related terms. Now it's time to actually use them to tweak your pages and optimize them for the search engines.

Almost everything on your site can potentially help or hurt your efforts. At this point we'll look at the major pieces of an individual Web page. A little later we'll focus on site-wide optimization.

The areas of your page we'll focus on optimizing with your keyword list are content, meta tags, header tags, alt text, link text, and file name.

Optimizing Your Content

While no optimization technique stands completely on its own, content has always been king. If you did nothing else but create a Web site filled with great content, you would do fairly well for two reasons. One: It's hard to fake content, and the search engines value it above most everything else. And, two: Other sites will value your content, and you'll benefit from link traffic and link popularity. In fact, link popularity is one of the measures used by the search engines to judge your site.

Why is content so important? It's what the search engines "read" when they crawl your site. Your graphics, tables, style sheets, and everything else mean very little to the search engines. They want to know what your page and your site are about.

Here are a few tips to attract both search engines and customers to your site:

- Tip Number One: If you're selling a product on your site, do more than simply show a picture and a price. Describe the product. Post reviews, charts, specs, and comparisons.
- Tip Number Two: Use your keyword list when creating or modifying your content. Try to use as many of the words and phrases in the same order that people are using when they do a search. But don't simply add words and phrases for the sake of doing it. Be sure they're in context and make sense.
- Tip Number Three: A great way to get extra content on your site is by publishing informational or instructional content. In the course of your research, you'll see how many searchers are looking for "how-to" information. Including informational or instructional content is not only good for your current customers. It's equally as important for getting new visitors to your site through the search engines. It's very difficult to squeeze the phrase "how to partition a hard drive" into a page that sells hard drives. It's a lot easier to sell hard drives from a page that explains how to perform certain tasks with that hard drive.
- Tip Number Four: When you create your content, keep it focused. It's better to have three shorter pages about three separate topics than to have one page that covers them all.

Here's something to keep in mind as you create content: Never try to trick the search engines by hiding words. Using white text on a white background is *not* clever. But it *is* very risky, and it could easily get your site banned.

Meta Tags

Now let's turn our attention to the behind-the-scenes portion of search engine optimization. You may need to get assistance from your IT staffmembers for some of these tasks. However, it's well worth the time it will take you to work with them.

Meta tags are HTML tags that reside in the *head* section of your Web page. They include information about your page, and many of them go beyond search engine optimization. We'll limit our focus to three types of meta tags: title, description, and keyword.

Your Web programmers will be able to properly insert and code these tags into your own site. But they might not be the best ones to actually craft them. The reason these tags are *crafted* is that you have a very short space to get in as many key phrases as possible. This also applies to other content on your site, although to a lesser degree.

The Title Tag

The title tag is the most important of the three meta tags. Since it appears at the top of the browser window, and will most likely be displayed in the search engine results pages, it needs to satisfy the search engines and the user.

Here's a tip: Limit the title tag to a short one-line description of what the particular page is about. The title for your home page will be very general. Then, as you move down to more detailed pages, it will get increasingly focused in its description.

Let's create a title tag for the home page of our make-believe computer hardware store. A good general title tag might be something like:

Computer hard disk drives, USB and external
hard drives, portable, laptop and notebook hard
drives

Why is this a good title? We've incorporated several key phrases without sounding silly, and they all fit in one line! Plus, we've made it easy for anyone scanning the result pages to know that this could very well be the page for them if they're shopping for any type of hard drive.

Notice how the title uses the slightly awkward phrase "hard disk drives." Fewer people search for the longer phrase "hard disk drives" than the shortened "hard drive." But, then again, far more sites are optimizing for the phrase "hard drive."

Here's a title that would work well for one of the content pages of our Web site:

How to format a hard drive: Completely erase and reformat a hard drive and start clean

This title also contains many highly searched terms. And it's a title that is easily scanned by users, too.

The Description Tag

If you found the constraints of the title tag burdensome, you'll be happy to know that you have a lot more room in the description tag. You safely have two to three lines to work with, and it doesn't have to read as nicely as the title tag. The search engines will usually display only a snippet of the description tag — and only when that snippet actually matches the user's query.

The description tag should be specific to the page you're describing. Keep it as broad or as narrow as that page.

The description tag is a good place to use similar terms from your list with different cases or tenses. This will help you cover the widest range of the most searched terms.

Here's a description tag for a page on our Web site for hard drives:

Computer hard drives, laptop hard drives,
and portable hard drives. All hard disk drive formats
-- SCSI, SATA, ATA, IDE -- and the best brands of
hard drives including Maxtor, Seagate, Western
Digital, Hitachi, Toshiba, Quantum, and more.

The first sentence covers the most popular general searches. The second one covers drive formats. And the third sentence includes popular brand searches, as well as a good extra term: "best brands of hard drives."

Note that this hypothetical description would be best suited for a more general page like a home page. It's very broad, and any page that is more focused than this should have an equally focused description tag.

The Keyword Tag

The keyword tag has even fewer constraints than the description tag. *But* it comes with fewer promises. In other words, it's read and indexed by the search engines, but it's not weighted as heavily as the title or description tag. Nonetheless, you should spend at least thirty seconds to a minute composing each one.

The keyword tag is a great place to put all the awkward words and phrases from your keyword list that you couldn't fit anywhere else — for instance, misspellings, weird phrases that don't read well, and other semi-related words.

There's no need to use commas to separate these words. In fact, not having commas could help you, if you put words together that can make a phrase by the way you group them.

A Few Warnings

Now that we've covered title, description, and keyword tags, pay heed to a few general warnings about meta tags:

- Don't unnecessarily repeat keywords. Including "computer computer computer" in your meta tags will *not* make you rank number one for the word "computer."
- There's no reason to list every word you can think of in your meta tags. Search engines will read up to a certain number of characters and then simply stop. So keep your meta tags to a reasonable length, and use your more important words first.

Header Tags

Header tags look like headlines on a Web page. They come in a few different sizes, but they all use the `<h>` tag: `<h1>` through `<h5>`, with `<h1>` being the largest font size. The reason these tags are important is that they're hard to fake for the search engines.

If possible, use the header tag to display the name of the product, important sections of your content, and other keyword-rich terms. The header will stand out for both your users and the search engines. So, instead of something like "Chapter 1," as a header tag, use your keywords and change it to something more meaningful, like "Chapter 1: How Hard Drives Work." The search engines will see the header and the matching content below it and know your page is actually about how hard drives work.

Matching headers to your title tags is a great strategy. And it also keeps things simple for you.

Alt Text

Alt text, or alternative text, is utilized by the browsers if you have images turned off, or by vision-impaired Internet users. You can see the alt text for an image by hovering your mouse over a graphic on any Web page.

Aside from being good Internet etiquette toward people who can't see your images, the use of alt text in your pages is important because search engines index these words. It takes only a few extra seconds per image to add alt text. But the result is that the search engine crawlers and vision-impaired users can now "read" your images.

By itself, alt text doesn't provide you with much of an edge. But it's one more thing that your competition might not do — and it's something you can feel good about, too.

Optimizing Link Text

Your link text — the part that is blue and clickable — is very important to the search engines. By means of link text they can see what the next page is about and make a relational connection between the current page and the linked page.

Choose your link text carefully when creating your Web page. Make sure it's descriptive. Also, when possible, try to make it match the header text on the linked page. That will reinforce the overall theme of the page just a little more for the search engines.

Optimizing File Names

Like other minor elements of search optimization, the efficacy of file names is hotly debated in the search industry. Will the file name *external-hard-drives.html* give your page a boost in the rankings? The short answer is: It helps your rankings a little. But, just as importantly, it helps your site visitors, since the file name in the search results will be bolded when it matches a query.

[Lesson 4]

Dealing with Trouble Pages

We've been focusing on optimizing individual pages within a site. Now we'll consider issues that can affect an entire site.

Let's start with what we'll call trouble pages and some strategies for dealing with them. Many types of pages or page structures can affect a site's performance in the search engines. As advanced as some search engines are, most of them still use fairly rudimentary methods for reading a page. What we see visually on a page is not the way the search engines see it.

Trouble pages include image-heavy pages, Flash, dynamic pages, session IDs, and frames.

Image-Heavy Pages

Search engines can't "see" your graphics. They know they're there. And if you've used alt text, they'll know what you say each graphic is. But alt text isn't the same as content. The search engines need to read your text to know what the page is about. If you turn your

graphics off in your browser, you'll see what your page looks like to the search engines. If *you* don't see very much, the search engines won't either.

Be judicious in your choice and use of graphics. While it would be ideal not to use any graphics in place of text, the realities of modern Web design don't allow for that.

Flash

Flash-based sites and sites with Flash-based navigation present a real problem to the search engines. It's best either to avoid Flash, or else have an HTML-based companion site.

Dynamic Pages

Now let's look at two types of dynamic pages: form pages and pages with dynamic URLs.

Database-driven Web sites can be real trouble if you don't supply a workaround. The worst example is a site that relies on drop-down menus for user navigation. Search engines can't fill out forms or choose variables. If your site is database-driven, provide an alternative category-based, static navigation.

Problems related to dynamic URLs include question marks, ampersands, and a lot of variables. Let's consider the problem of question marks in detail.

Some search engines may simply stop at the question mark to avoid any dynamic elements. Other search engines may go to a certain point and then stop. Aside from the issues with search engines, static URLs with real words in them look better to your visitors, and they can see where those words are within the site.

A few solutions to the problem of dynamic URLs exist. But they're not easy solutions, and your Web programmers will need to play a major role. You can either rewrite your URLs to look like they're static. Or you can generate static pages from your dynamic content. Depending on your database and platform, your programmers will be able to choose the best solution.

Session IDs

The topic of Session IDs can technically fall under the previous category of dynamic URLs. However, session IDs present their own unique problem. Search engines try to avoid session IDs because they wind up indexing the same pages over and over. There's another problem associated with them: Google PageRank can become seriously skewed because the search engine's picture of your site is not correct.

Discuss the problem of session IDs with your programmers, and try to find an alternative such as cookies, which aren't URL-based.

Frames

Frame-based sites have always been an enormous challenge to the search engines. When a link in one frame opens a page in another frame, the search engines can't follow it. Avoid using frames entirely.

Internal Link Structure and Site Maps

Question: What is essential to ranking well for your keywords? Answer: Providing the search engines an easy way to navigate through your site and to infer its structure and focus. Fortunately, this isn't difficult. However, it does take some forward planning.

Your home page should guide users along the best possible path. This same idea holds true for the search engines. On our make-believe site that sells hard drives, there would be clear links on the home page to the next level: external hard drives, internal hard drives, and portables. The internal hard drive section would break down further into, say, SCSI and IDE drives, and so on. By clearly labeling every page and link — for example, as **Internal Hard Drives: IDE drives: 250 GB** — the search engines are able to build a clear picture of your site. In addition, you should have clearly labeled links going back a level.

On every page you should also have text links toward the bottom or top so that the search engines, as well as users, can find important pages. This indicates to the search engines that these main links are so important that you're putting them on every page of your site. If your site has a limited number of main options, such as three main types of products or services, use those. The point is for you to tell the search engines which pages are most important to you.

To make it even easier for the search engines to crawl your site, include a site map and link to it from the bottom of every page. A site map is a clear list of the categories, sub-categories, and even *products* that make up your site. But here's a useful tip: Don't let your site map get out of control. Keep it to about one hundred links per page.

Inbound Links and Page Rank

While search engines like to see which pages of your site are important by studying its link structure, they don't trust you quite as much as they trust outside sources.

If you own a bad restaurant, you may be able to convince a friend working at *one* newspaper to write a glowing recommendation of your business. But you can't get similar critiques from twenty *other* newspapers. Word-of-mouth can't be fooled either.

In a similar vein, the search engines look at who is linking to your site and then base their ranking partially on that information. Google pioneered this method and called it PageRank. Most of the major search engines employ this tactic because it's not easy to fool.

You can't really know exactly what your PageRank is. However, Google will show you a general approximation of it if you use the Google Toolbar, available for download at Google.com.

Every notch up in PageRank is exponentially more difficult than the previous one. For example, moving from a PR0 to a PR2 isn't a very big deal — simply get a few decent links to your Web site. Moving from a PR5 to a PR6 is much, much more difficult.

Simply put, the more inbound links your site has, the higher its PageRank. In the early days of Google, site owners would join "link farms" — that is, a large number of sites all linking to each other — to artificially increase their PageRank. It's extremely easy for the search engines to recognize this type of trickery, and their penalty comes quickly — your site simply drops out of the results completely.

What you *should* do is build your inbound links slowly and carefully. This is not something you can do overnight — or even in a couple of weeks. You should approach this as a long-term strategy, not a short-term goal.

The best advice on how to build your link popularity? Simply have good content on your site that other sites will link to.

A Few More Optimization Issues

The last topics we'll address are text size and color, URLs and domain names, and moved pages.

Text Size and Color

Using white text — or even a very light gray — on a white background will get you banned from the search engines. Using super-tiny text will do the same thing. Don't do any of them. Ever.

URLs and Domain Names

Aside from the dynamic URL issues we talked about earlier, if you have some control over your URL form and structure, by all means, take advantage of it. A URL with keywords in it is good for users as well as the search engines. Here's an example:

www.hard-drive-store.com/external/usb/maxtor/120gb.html

This kind of link is packed with great keywords. It also gives your users a sense of where they are within the site.

The same idea holds true for your domain name. A clever domain name may be memorable for some people. But using keywords in your domain will help your rankings.

Moved Pages

Suppose your site is doing well in the search engines, but you want to make it even better. You've decided to make your site structure more hierarchical, change your file names, or simply move pages around. But you don't want to start over with the search engines. Fortunately there's a way to tell the search engines that you've moved certain pages, or even a site, to a new location.

Depending on your Web server, there are ways to tell the search engine that a page has permanently moved. An Apache server can be configured to send out a Three-oh-one Redirect command. This shouldn't be confused with a Three-oh-two Redirect, which tells the search engines that the page has temporarily moved. Recently, there have been exploits against the search engines using the Three-oh-two command, and they have become increasingly wary of such redirects.

Ask your programmers to research and implement a solution that addresses this problem.

What Comes After the Optimization?

We're down to our last topic: what to do after you've completed the optimization.

Submitting Your Site

You don't need to do much to get your Web site into the crawler-based search engines. As long as your site is linked from another site, the crawlers should be able to find it and then crawl it.

If your site is new, start by adding it to a directory like Yahoo! or Open Directory. As we said earlier, crafting your description for the directories should be done carefully and deliberately. Try to use all your best keywords in a short sentence to describe your site. You should take your time on this step because you have only one chance to submit your site. A human reviewer will be looking at your description. If it isn't high-quality, that reviewer will simply rewrite it.

Checking Your Ranking

Some great programs are available that let you track your rankings and monitor their progress. One highly recommended program is Advanced Web Ranking. This program allows you to track your keyword research lists on any search engine — as well as against your competitors.

The End of the Basics

We've covered the basics of search engine optimization. Check out the HP Learning center on HP's Small and Medium Business website for the enhanced "Search Engines 101" class. Simply visit www.hp.com/go/learningcenter to take this class, plus many more free online classes.

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