QUICKSPROUT

The Beginner's Guide to Technical SEO

Here are the important aspects of technical SEO from a beginner's perspective as well as give you a few specific tactics and next steps to fix common problems in each area.

To get fast rankings, you need a fast site

- While it isn't a strictly SEO point, consider that just a one-second delay in loading time can cause conversions to drop by 7%. Even if site speed didn't affect search rankings, you'd still want to optimize it.

- **Not all site speed problems are of equal importance:** While there are hundreds of factors that affect site speed, some are much more common than others.

- Zoompf analyzed the top 1,000 Alexa-ranked sites for site speed and found that the following four problems were the most common (in order from most to least):

  1. unoptimized images

  2. content served without HTTP compression

  3. too many CSS image requests (not using sprites)

  4. no caching information (expires header)

- Keep in mind that the sites in that analysis were some of the best on the web. They fixed many basic problems that may affect you, especially if you use WordPress:

  - excessive plugin use

  - not using a CDN for static files

  - a slow web host

- **Don't guess your site speed problems; diagnose:** There are a lot of great tools out there, but we always recommend starting with Google's PageSpeed Insights tool. If you'd like a second opinion, use a tool such as GTmetrix.

- Once you know what your problems are, fix them.

- **Start with your images:** If you do nothing else, compress them. Most types of images have unnecessary metadata that take up space, which can be deleted without causing any harm. Use a tool such as Optimizilla to compress pictures beforehand, or use a plugin such as WP Smush to compress any pictures you upload to WordPress automatically. Keep your image format in JPEG.

- **Next up:** Combine images into sprites. Here is a complete guide to CSS sprites if you'd like to do it manually. An easier way to accomplish this is to use an online sprite creator.

- Here is how to use it: create a new sprite, then drag as many appropriate pictures as you can onto the canvas. Next, download your sprite (button at the top), and upload it to your site. It's much easier than coding it from scratch.

- I've also collected some of the best guides to other common problems:

  - Enable HTTP compression:https://zoompf.com/blog/2012/02/lose-the-wait-http-compression

  - Set expires header: https://gtmetrix.com/add-expires-headers.html OR use a simple expires header plugin:https://wordpress.org/plugins/far-future-expiry-header/

  - How to use W3 Total Cache for WordPress:http://www.wpbeginner.com/plugins/how-to-install-and-setup-w3-total-cache-for-beginners/

  - A simple guide to speeding up WordPress:http://www.sparringmind.com/speed-up-wordpress/

  - One more WordPress guide for good measure:http://www.metacdn.com/speed-up-wordpress/

How do mobile visitors see your site?

- Test your website's mobile friendliness: The first and last place you need to test your site is on Google's mobile friendly checker tool.

- If your site is not currently mobile-friendly, you are not alone. But, it's something you should fix as soon as possible.

- To start with, you can choose from three different approaches to mobile-friendly design.

- **Approach #1 – Responsive design:** This is the best option in the vast majority of cases. A responsive design shrinks and expands according to the visitor's device. Instead of setting widths for elements, you set a percentage. For example, this is non-responsive CSS:

```
#body {

width: 600px;

}
It could be rewritten for a responsive site as:
#body {

width: 50%;

}
```

- With this responsive code, the body section will always take up half of the visitor's screen, regardless whether they use a phone or laptop.

- **Approach #2 – Separate URLs for desktop and mobile visitors:** This method has mostly died out in favor of responsive design. This approach involves creating at least two different versions of each page of your website: a mobile one and a non-mobile one.

- If the functionality of your website changes a lot depending on the size of the screen, this can be a good option.

- **Approach # 3 – Serve different content based on the visitor's device:** Finally, you can have a single URL for each page, but first check for a mobile user agent. If a visitor is on a mobile device, you can load a specific page, but if they aren't, you can load the default page. It's similar to Approach #2 in that you'll have to code for two different pages. The one upside is that all backlinks will point to a single URL, which will help content rank better.

- **Common mobile design mistakes:** Making a site mobile-friendly really isn't that hard. In most cases, it's much easier than optimizing page load speed. That being said, there are seven fairly common mistakes to keep an eye out for:

  1. **Blocked JavaScript, CSS, and image files:** access is controlled by your robots.txt file (more on that later).

  2. **Unplayable content:** don't use flash videos, which aren't playable on many mobile devices. HTML5 videos are a better option.

  3. **Faulty redirects:** don't just redirect mobile users to your home page. Redirect them to an equivalent page they were looking for.

  4. **Mobile-only 404s:** if you're serving dynamic (separate) URLs, make sure they both work.

  5. **Avoid interstitials and pop-ups:** Pop-ups are always a controversial subject. While they're annoying to some on desktops/laptops, they are much more annoying and often difficult to close on mobile. If you can, don't have anything that blocks your content on a mobile device:

  6. **Irrelevant cross-links:** If you have a separate mobile version of your site, always link within that. Don't make the mistake of linking to a desktop site page from the mobile site.

  7. **Slow mobile pages:** Remember that most mobile users are on a slower connection than desktop users. This makes optimizing your load speed crucial (see above section).

A strong site architecture will get you noticed

There are four main components to creating a site that Google loves to crawl:

- **Step 1 – Create HTML and XML sitemaps:** There are two types of sitemaps: HTML and XML.

  1. HTML sitemaps are designed for humans, but search spiders can also use them to find pages on your site. These are typically linked to in the footer of your website, so the links don't have to be prominent.

  2. An XML sitemap, on the other hand, is essentially a text file with one URL per link. Humans shouldn't see this—only search spiders. If you have an especially large site, you'll need more than one XML sitemap. A single sitemap can't be more than 50,000 URLs of 50MB.

  3. You have a few options to create your sitemap. First, you can use the Bing plugin to generate a server side sitemap.

  4. The most popular option is to use a WordPress plugin to automatically create and update your sitemap. You can either use a specialized plugin like Google XML sitemap or use Yoast's all-in-one SEO plugin, which has the option to create a sitemap.

  5. Next, submit your sitemap in both Google Search Console and Bing Webmaster Tools.

  6. In Google Search Console, go to "Crawl > Sitemaps," and add all your sitemaps (one at a time), using the "Add/Test Sitemap" button in the top right.

  7. Similarly, in Bing, go to the "Sitemaps" navigation section, and enter your sitemap(s).

  8. Here's the part that most site owners forget: you also have to add sitemap locations to your **robots.txt** file. This tells other spiders where to check.

- **Step 2 – Silo content as much as possible:** Another major way Google uses to crawl sites is to follow internal links. In addition, this is partly how it assigns relevance to a page and website.

1. One of Google's main goals is to provide the most relevant results. The easier it can determine the topics you write about, the more search traffic you will get.

- **Step 3 – Get rid of crawl errors:** The final part of optimizing your site for crawling is to get rid of anything that prevents Google from identifying or crawling your website.

  1. Head over to Search Console, and navigate to "Crawl > Crawl errors".

2. If you have a large site, you might see thousands of errors if you haven't addressed them. That's okay—you can often fix large batches at the same time. Here is a complete guide to fixing common crawl errors.

Stop confusing search engines

● Redirects are necessary to keep any site up to date, but you need to do it the right way. Use the wrong codes, and it will not only hurt your visitors but also affect your search engine rankings.

● There are two popular types of redirects:

■ 301: a permanent redirect- When you tell a search engine that a page has permanently been moved to a new URL (301), it will transfer most of the old page's authority to the new one (90-99%).

■ 302: a temporary redirect- If you do a 302 redirect, the search engine knows that the redirect will be gone soon and won't transfer the authority of the original page over. If the redirect stays in place long enough, you will lose at least part of your traffic (usually).

● Simple rule: If you no longer need a page, create a 301 redirect to an updated page.

● **The file not found page (404 error):** Another common browser code is the 404 code, which means the page could not be found.

  ● Most visitors will obviously close the page or return back to where they were, if they see a 404 error page. Instead, creating a custom 404 page, you can invite a lost visitor in.

● There are a few different situations where a 404 error will come up:

■ **You moved a page:** You should 301 redirect the old page to the new one (it's easy to forget).

■ **Someone linked to an incorrect URL:** Either 301 redirect that URL to the correct one (if the link is strong), or create a custom 404 page.

■ **You deleted a page:** Redirect it if it has links pointing to it (or significant traffic) and you have another highly relevant page to redirect to. Or just have it go to your custom 404 page.

● The easiest way to find 404 pages on your site is with Search Console. Once in your Search Console, navigate to "Crawl > Crawl Errors." This time, we're specifically looking for "not found" pages:

- The most useful thing here is that you can click any of these individual URLs. When you do, a pop-up will appear with more details. There's also a "linked from" tab so you can see which pages link to it (you could correct any incorrect internal links).

- Fix the link on those pages, and then mark the problem as fixed. Another option is to use Ahrefs to find broken links. This is probably the best tool you can use for this in order to correct off-page links (controlled by someone else).

- Type in your site in the search bar, then highlight the "Inbound Links" drop down menu, and click on "Broken Backlinks."

- You'll get a list of all the sites linking to your main domain, but with links that result in a 404 error. Usually this is because the other party made a typo.

- If the link is strong enough, you can go to the linking page, find contact information, and give them the correct URL to replace it with, or you can 301 redirect the broken URL to the right one, which will preserve some link juice.

Get rid of thin or duplicate content

- Pandas aren't just adorable animals—they are also one of Google's most famous algorithm updates. The Panda update was targeting low quality or duplicate content. Sites that had big issues were punished severely.

- Google is getting better and better at detecting duplicate content, and you will lose search traffic if you have a significant amount of it.

- Duplicate content is bad for visitors, which is why search engines don't like it. In addition, it can confuse search engines because they don't know which page is most relevant.

- Luckily, it's pretty easy to take action to protect yourself against being penalized for duplicate content.

  - **Step 1 – Find duplicate content:** Google Search Console is the best place to start. Alternatively, you can use a tool such as Siteliner.

  - **Step 2 – Get rid of duplicate content issues:** There are three main ways in which you can solve your problems:

    1. Delete the duplicate content

    2. Add a canonical URL to each version

    3. Reduce the amount of duplicate content

- The first solution is trivial—implement it if you can. Mostly, duplicate content issues are caused by URL parameters. For example, visitors could get to the exact same page with the following URLs:

  - http://www.quicksprout.com/2015/07/06/the-100000-challenge-june-update/

  - http://www.quicksprout.com/2015/07/06/the-100000-challenge-june-update?source=organic/

  - http://www.quicksprout.com/2015/07/06/the-100000-challenge-june-update?ref=email/

- If all pages are indexed, they will be considered duplicate content. Your only option here is to include a canonical link on the page, if you haven't already.

- Finally, if you're getting duplicate content errors because of your "read more" descriptions, you can reduce the number of words you show on your blog and category pages. Alternatively, write a custom description for each.

Describe your content like a pro with structured data

- Structured data isn't new, but it's still heavily underutilized. Usually, it's because an SEO hears the term and gets squeamish, just like with "technical" SEO. Here is how you can use this structure in your site:

- **What schema is – the simple version:** The schema vocabulary is just a way of describing content to search engines. You can insert schema terms into your existing HTML.

- You can add schema terms to existing HTML code to describe a section of content. For example, the following common term—"itemscope"—tells search engines that the entire "div" section is about the same topic:

```
<div itemscope>

<h1>Avatar</h1>

<span>Director: James Cameron (born August 16, 1954) </span>

<span>Science fiction</span>

<a href="../movies/avatar-theatrical-trailer.html">Trailer</a>

</div>
```

- But there are thousands of other terms you can use. Here's the full list. You can also use Google's markup helper. It takes you through the process step-by-step for the URL

you enter. You simply highlight text on the page, which will automatically open a small menu, and then pick which attribute the text describes.

- There are only a few steps to the process. At the end, you can view the structured data incorporated into your page's source code with the changes highlighted.

- From there, you can either manually copy and paste the changes onto your page or click the download button to download the entire page code.

- If you're using WordPress, you could also use the Schema Creator plugin by Raven.

- It allows you to type in a limited number of important schema values into the WordPress page editor.

- Whether or not your code is generated by Google, it's still a good idea to test the code. Copy the entire code into the structured data testing tool, and click "validate" to see if there are any errors.