



## On Page and Technical SEO

### Video: How to Optimize Content for SEO

On-page SEO is the process of optimizing various front-end and back-end components of your website so that it ranks in search engines and brings in new traffic. Just creating and publishing your website isn't enough. You need to optimize it for Google in order to rank and attract new traffic. It's called "on-page" SEO because the tweaks and changes you make to optimize your website can be seen by visitors on your page, whereas off-page and technical SEO elements aren't always visible. Every part of on-page SEO is completely up to you; that's why it's critical that you do it correctly.

On-page SEO is important for both search engines and people. It helps search engines understand your website and its content. Google is increasingly focused on relevance in order to better understand what users are actually searching for when they type a query and deliver results that meet user intent.

Google's "How Search Works" Report

"The most basic signal that information is relevant is when a webpage contains the same keywords as your search query. If those keywords appear on the page, or if they appear in the headings or body of the text, the information is more likely to be relevant." Source: Google's "How Search Works" report

This means you need to be selective with the keywords you use.

While it might be tempting to use a lot of keywords on your pages in hopes of matching as many queries as possible, this won't help you rank. You need to think about what would be helpful to people searching and create content to answer their questions. Focus your efforts on optimizing for just one keyword or key phrase per page.

In this video, we'll cover the basics of optimizing your content for search engines. This is the foundation for creating search-friendly content. There are many more aspects of on-page SEO to consider as well, which you can learn about in the resources section.

In this video, we're going to cover these elements of on-page SEO:

- Heading tags
- Title tags
- External links

What is a page heading tag?

An HTML element that provides a hierarchical structure to a web page.

In the early days of search engines, heading tags were direct ranking factors. Today, headings don't directly impact your SEO. However, they do have indirect benefits. Well-written headings make your page easier to read and navigate. This creates a better experience for the user and helps your SEO.

If your page lacks structure and visitors can't find what they need, they'll leave your site and search for their answer somewhere else. This increases your bounce rate, which search engines pay attention to.

Just like most aspects of SEO, always put your users first. Use headings to add structure to your content. Describe what each section is about so that visitors can quickly find what they're looking for.

Best Practices for Page Headings

- Your page title should have an H1 tag.
- Subsequent headings on the page should have an H2 or H3 tag, and so on.



- Use your primary keyword in your page title.

First, you're limited to one H1 heading per page.

This should be your page's name. Think of the H1 heading like the name of a book. Some CMS platforms will tag your title automatically, but it's a good idea to make sure your page heading is an H1.

As you continue down the page, use H2 or H3 headings to break out different sections. Heading tags have levels corresponding to their importance on the page. An H1 is more important than an H2, which is more important than an H3, and so on. Search engine crawlers use these tags to scan through your content, so make sure that your section headings use this format. It's unlikely that you'll need to go any further than an H3, but if you're writing a very long piece of content with many sub-categories, you can use subsequent tags.

Here's an example of how heading tags appear on a blog post.

H1: A Quick Primer on Google's Search Engine Results Page (SERP)

H2: What Does SERP Stand For?

H2: SERP Features

H3: Rich Snippets

H3: Paid Results

H3: Universal Results

Finally, make sure you include your target keyword in your page heading.

This is less about having your heading exactly match the keyword and more about accurately describing your page's contents. For example, if you're writing a blog post about the top 10 cities to live in North America, a good heading for that post could be, "The Top 10 Cities to Live in North America." If you're a wedding planner creating your website's services page, the heading of that page might be, "Wedding Planning Services."

What is a title tag?

An HTML element that specifies a web page's title (also known as the "SEO title").

The title tag and the heading tag are two different things, but they're often written in the same way.

Your heading tag is meant for people who are already on your site to tell them what a given page is about. Your title tag, on the other hand, is meant for people who aren't yet on your website. It's what displayed in the search engine results pages (or SERPs), and its purpose is to entice people to click through onto your website.

In most CMSes, the title tag defaults to match the page heading, and often, this is fine. If you've written an effective page heading that accurately describes your page's contents, this will usually function just as well in search engines.

This title in SERPs is the same as the page heading.

Sometimes, it helps to have a different title tag than your heading tag.

For instance, if your page heading is very long, it may benefit you to write a shorter version for your title. This is because after a certain number of characters (about 60), your title will get cut off in Google. Let's look at this example.



This title tag is too long. It gets cut off in search engine results, so searchers can't read the entire thing.

Pro Tip: Preview Your Title Before Publishing

Moz's Title Tag Preview tool lets you preview how your title will appear in SERPs and whether it might get cut off.

Best Practices for Title Tags

Include your primary keyword in your title tag.

- Keep your title under 60 characters, if possible.
- Make sure both your page heading and title answer the searcher's primary question.
- It also helps your on-page SEO to include external links on your pages.

These are links to other website's content. If you link to authoritative websites to support your claims, this can help your site's SEO. Just like you might not trust a paper or a news story that didn't cite any sources, when you link to quality external content, it shows your readers and search engines that you've done your research. You should write first and foremost for your readers, and to be informative and trustworthy, you need to link to your sources.

Tools to Help Optimize Your Content

These tools offer suggestions to improve your content as you write it:

- Yoast SEO plugin for WordPress
- Built-in SEO Wiz in Wix
- Optimizations in HubSpot page and blog editor

The most important part of creating SEO-friendly content is creating user-friendly content.

If your content is high-quality and seeks to thoroughly and accurately answer the user's search query, you have a much better chance of ranking than if you were to stuff the same keywords into lower-quality content.

### **Video: Allowing Google to Index Your Pages**

The most important part of on-page SEO allows search engines to crawl and index your pages. On-page SEO is all about increasing your discoverability in search engines. You can't do this without allowing these search engines to access your pages. This is where crawling, indexing, and ranking comes into play.

Let's take a look at how this process works and learn how to enable it on your webpages. Search engines have 3 primary functions. Crawl, or search webpages and look over the code and content for each URL. Index, or store and organize the information it finds from crawling. And rank, which allows search engines to provide the pieces of content that best match a person's search query. And how does Google find your content? Basically, Google uses a huge set of computers to crawl billions of pages on the web. This crawler essentially begins with a list of webpage URLs generated from previous crawls and then augments those pages with the sitemap data that's provided.

During the crawling process, the Googlebot looks for new sites, updates to existing pages, and any broken links. Once the crawling process is complete, all of the results are fed into Google's index, and any new sites or updated content will be listed accordingly. While it processes the results, Google looks at information on your page such as title tags, meta description, alt tags, and more. Think of this process like a library. Books need to be identified, categorized, and placed in the right order on shelves. Crawlers are performing similar tasks as a librarian. They are organizing all of the contents on the internet into ways that make them easily accessible.

Can your pages already be found by Google? The best place to start is to understand which pages on your website are already being indexed. If your page is being indexed, that means that Google is able to crawl your



page and store its contents. The best way to do this is by using an advanced search operator. An advanced search operator sounds complicated, but it's actually pretty simple. In the search engine, type "site:yourdomain.com" replacing the domain with your own. Example of an advanced search operator. So if we're doing this for HubSpot, we'd type "site:hubspot.com" into Google. We see that HubSpot has 217,000 pages currently being indexed by Google. This isn't going to be an exact number, but it will at least give you an idea of how many of your own pages are currently being indexed. If no content is indexed yet for a site, Google will let you know that your search did not match any results. If no content is found, your next step should be to create a sitemap that you can submit to Google.

A sitemap is a file of code that lives on your web server and lists all of the relevant URLs your website is carrying. Your sitemap helps search engine web crawlers understand how your website is built so they can evaluate and rank it more easily. XML sitemaps are designed specifically for search engines like Google. Google needs to be able to find webpages anchored within a website no matter how old or deeply nested they might be in that website's domain. For this reason, an XML sitemap is a crucial component of a blog, where article pages are constantly bumped further back into the website's archive as new content is published. Here's an example of what a sitemap file might look like.

An XML sitemap includes 4 key elements. The URL location is the full URL to the webpage. The last modified date is when the page was last updated. Change frequency can be set to: Never, Yearly, Monthly, Weekly, Daily, Hourly, or Always. And page priority is a number between zero and one which indicates the relative priority of pages within your website.

To create a sitemap, you'll need to work with multiple teams. Depending on the size of your organization, there may be many people involved in creating a sitemap. If you're a small company or a team of one, keep what I'm about to say in mind too. It will give you context on what to think about when setting up your own sitemap.

Whether you are a business of one or one thousand, there are a few perspectives you'll want to keep in mind when setting up a sitemap: Marketing, Development, IT, and Legal. Let's start with the marketing team's role in creating your sitemap. Marketing is usually responsible for defining the structure of the site. Which pages need to link to one another? Should site visitors be able to get from the "About Us" page directly to the product page, for example? Whether they define the structure using a visual site map in PowerPoint or some other tool is up to them. Then you need to consider your developer. A developer will then build an XML sitemap file based on the website's structure. Your IT team or agency usually gets involved, too, assuming you're using your own servers or some servers that IT controls. The sitemap lives on a server – an IT expert will be able to get it there. Lastly, be sure you check with your legal team. Legal will make sure the site doesn't have outstanding copyright restrictions.

Then you'll want to define the navigation structure. The structure of your website plays a big role in your site's SEO, so it's important to plan your top-level navigation structure carefully. Pay attention to your website's depth. The further away a page is from the original homepage URL of your site, the worse it is for that page's SEO. What are best practices for top-level navigation, you might be asking? Unfortunately, it's hard to give general advice here as best practices can vary significantly by industry and company type. But, you can take inspiration from other successful businesses and apply what works for them to your site.

For inspiration from companies similar to yours, then take a look at Crayon. Crayon offers competitive intelligence software. It has a huge library of guides and case studies that are easily filterable by industry. This keeps all of their resources close to their top-level homepage while also allowing pages to be easily navigated throughout their site. Check out high-traffic homepages in your industry to get a sense of their structure and get some ideas for yours. Once you've defined your homepage's navigation structure, you'll want to brainstorm and map out the pages that are two or three levels deeper into your website. This might be your "About Us" page, your team management page, your hiring page, your blog, and so on. Depending on the complexity of your website, you



may only need two levels, or you may need up to four. And as you think out the deeper parts of your website, you may find you need to tweak the top-level navigation – that's okay.

Now you're ready to write the XML sitemap and submit it to search engines. Once you've planned out how your website will be organized, you'll create the XML sitemap, put it on your web server, and submit it to each individual search engine. Again, doing these steps depends on your technical ability and size of your organization. You can either do this yourself or work with a developer or agency.

So why submit your sitemap. When you first publish your website, and each time you go through a significant site redesign, someone on your team will have to submit the sitemap to each search engine so that they can tell your homepage from your "About Us" page or your team management page. Unless you're using a platform that automatically updates your sitemap, you'll need to update the sitemap yourself and resubmit any time you make significant changes to your website. Otherwise, you'll have to wait for search engines to identify, crawl, and index your new pages itself. That means if you've made a really significant change to your site's structure, you might want to manually submit it.

Using the HubSpot CMS Hub makes this easier. HubSpot will automatically generate your XML sitemap file when you publish new pages and make changes to your site. Those of you using another CMS might be looking for an easy solution to create your XML sitemap.

There are a few free solutions, including Screaming Frog and XML-Sitemaps.com. Screaming Frog is a web crawler that allows you to assess your website's on-page SEO. The company offers a tool to develop your own XML sitemap and strengthen your website's on-page SEO in the process. To use Screaming Frog's sitemap generator, you'll first download the company's SEO web crawler, which is free for crawling your first 500 URLs. Once your website is crawled, you can create an XML sitemap from it including every webpage that scores a "200" in the initial crawl. This ensures only your strongest pages are included in your new XML sitemap. The tool XML-Sitemaps.com requires no registration or initial download to create a sitemap for your website. This tool is free to websites that carry up to 500 URLs. Once your sitemap has been created, you can either download it as an XML file or receive it via email if you need to transport it to a new computer or coworker. The paid version of XML-Sitemaps.com allows you to crawl up to 1.5 million pages and create other forms of XML sitemaps – such as news, video, and image sitemaps – and submit your sitemap directly to a search engine from the sitemap generator.

First, sign into Google Search Console. Search Console will be your dashboard for testing and submitting updated sitemaps to Google, so you can ensure Google is always aware of the latest pages published to your site.

To get started, add in your domain into the blank field. This website should just be the domain name – the parent URL to which all of your other webpages belong.

Then, click "continue." Once your ownership is verified, click "go to property." If your ownership isn't verified, double check that you are logged into your correct Google account.

Now that you have your domain added to your Search Console account, the next step will be to add your sitemap. In the left-hand bar, under "index" click "sitemaps." To submit a new sitemap, you'll simply need to type in the URL where your sitemap lives.

Adding a new sitemap requires you to add a string of text to the end of your website's domain. Think of it like a tracking tag, allowing Google to examine all the activity that takes place inside your website. This sitemap tag is "sitemap.xml," and you'll want to add it to the end of your domain name. For example, if your domain is [www.yourcompany.com](http://www.yourcompany.com), you'll tag it like this: [www.yourcompany.com/sitemap.xml](http://www.yourcompany.com/sitemap.xml).

Submit your sitemap and you're all set. Depending on how much page authority you have already accumulated on Google, it might take some time to see the status of your submitted sitemap. Give it time – Google will



eventually accept it.

Now let's walk through how to submit a sitemap to Bing or Yahoo. Sign in to Bing Webmaster Tools. On the My Sites page, enter the URL for your company. Click "Add." In the "Add a sitemap" field, enter `http://www.yourdomain.com/sitemap.xml`. Replace "yourdomain" with your company's URL. Complete the rest of the required fields on the page, and click "Save." Then you're all set.

Once you define and submit your sitemap the first time, chances are you'll want to tweak and add pages to your website – and that's completely fine. But keep in mind that if your website isn't built on a platform that automatically generates a new sitemap and updates it on your web server when new pages are added, then every time you add a page – any page – to your website, that page will be missing from the sitemap that search engines see. Google crawls pages frequently, which means that you could get by without resubmitting your sitemap manually. Although the problem with this approach is that you're reliant on Google's timeframe to crawl and index your site content. Google might not crawl and index your new page as quickly as you'd like. To index your content the fastest way possible, you should resubmit your sitemap after publishing a new page. Having and maintaining your sitemap is crucial to being discoverable in search engines. Your sitemap will help search engines understand your content and get it served to the people you are trying to reach.

### **Video: Writing and Editing Meta Descriptions**

When you conduct a search, how do you decide which result to click on? The page title and the meta description probably play huge roles in deciding that a resource is helpful to you. In this video, we're going to learn how to write and edit your meta descriptions.

A meta description is an HTML attribute that provides a brief summary of a webpage. This brief snippet of text that appears below the blue link in a search engine result. This description summarizes the content of the webpage linked above it, and although it is not an official ranking factor in Google search results, it can be edited to help people understand what the webpage is about and encourage them to click through.

Take a look at this meta description example. Best Buy sells appliances and electronics. In this example, the meta description reads "Shop for washers and dryers at BestBuy.com and find deals on the top brands, from stacked units and front loaders to traditional washers & dryers." This meta description describes exactly what you'll see when clicking their link – washers and dryers available for purchase.

There are three reasons why you need a meta description. A meta description increases clickthrough rates and visits from organic search. A meta description gives the right people the right information at the right time. A meta description increases visits from social. Let's dig into each of these.

There might be 10 blue links per search engine results page, but they don't all get clicked by an equal number of people. People are more likely to click results that are higher up on the page. The #1 organic result is 10x more likely to receive a click compared to a page in #10 spot. To get your result to rank well, however, you need people to start clicking on it. Meta descriptions entice people to click on your link instead of someone else's. Great meta descriptions can be powerful enough to get people to click on your link even if you are below them in search results.

Although meta descriptions don't directly influence your website's rank on Google, they can benefit you when people conduct an Advanced Search. An advanced search allows people to specify or exclude terms in the search results. There are a ton of advanced search options. In explicit phrase, you use quotes around the word that you want to appear. To exclude words, add a minus sign before the word that you want to exclude. You can also add OR in all caps to view results for multiple search terms. This is why you want to get specific when writing your meta



description. If your page content has specific words or phrases that people are searching for, you'll want to make sure that they're included in your meta description so that people conducting advanced searches can easily find it.

Google isn't the only website that displays your meta description when you publish a piece of content. Social networks like Facebook use what's called an "open graph" to present the most important data on your webpage when you share it with your followers. The open graph includes a meta description. People on social media can see your meta description. This example shows the meta description for post sharing a link to the Only In Your State website on Facebook. The meta description for this page is "These 5 Trails In Massachusetts Will Lead You To Extraordinary Ancient Ruins" and it appears at the bottom of the Facebook post. Your meta description doesn't just drive search engine traffic. It drives social media traffic, too.

Now that you know why you should write a meta description, here's how to write an effective one.

- Write compelling content.
- Include one or two keywords.
- Aim for 155-160 characters.
- Avoid non-alphanumeric characters.

First, you want to spend some time writing compelling content. This should be a short sentence previewing the content or telling the searcher why they should read your post. Give them a clear benefit of clicking through and reading your post, if necessary. When writing your meta description, be informative and add value. The meta description is your chance to convey the value of your page to the viewers. You might already include keywords in a webpage's body copy and title. But the meta description should also include keywords that help describe the content of the webpage.

Keywords in your meta description optimize your content to match with related search queries. Focus on one or two unique keywords in the meta description of each page. Don't stuff keywords anywhere you can. Make sure they fit naturally and help explain what people can expect to see if they click on your link.

Aim for 155-160 characters in your meta description. The number of characters that make up your meta description is important. But when actually displaying this metadata, Google doesn't measure by characters – it measures by pixels. Your meta description will be cut off if it becomes too long. Aim for 155-160 characters in your meta description as a benchmark.

Special characters might appear just fine on your computer screen, but search engines can't read these symbols as easily. These are known as "non-alphanumeric" characters. Avoid using special characters like plus signs and em-dashes in your meta descriptions. Special characters often don't appear in the search results as you intended, and they may be removed all together.

Want to test out how your meta descriptions will look before setting them live? Check out the snippet optimizer tool in the resources.

Depending on the CMS that you're using, there will be different methods for editing your CMS, and some solutions are more technical than others. If you're using WordPress, the Yoast SEO is the go-to SEO solution. All you'll have to do is log into your WordPress dashboard, click on your posts, and edit your description. Other CMS including Wix, Squarespace, and the HubSpot CMS Hub have an easy solution within the CMS itself, no plugin required. In your CMS, look for a page or post setting that allows you to edit the meta description. And for the technical marketers out there, your meta description can also be edited within the HTML of your individual page by editing the "meta name=description" field. Regardless of the solution that works for you, having a well-written



meta description will help improve your rankings in search engines and drive traffic to your website.

### **Video: Writing Descriptive Link Text**

On a webpage, descriptive link text is important for your SEO performance. A link description is the clickable word or words in a hyperlink. Link descriptions help users and search engines better understand your content. Search engines will be better able to understand the purpose of your links and the hierarchy of the post. And people will be more inclined to click a link that directly explains what the destination is.

What does a bad link look like? Generic words like "click here" or "learn more" is not an effective link description. Google suggests these link description best practices. Stay on topic. Don't use text that has no relation to the page's content. Don't use the page's URL as the link description, unless you have a good reason to do so, such as referencing a site's new address. Keep descriptions concise. Aim for a few words or a short phrase. Format links so that they're easy to spot.

Let's take a look at some link descriptions and the page's HTML. On the left you see a bad link description. The link description "click here" is not specific to the blog post on website optimization. On the right, there's a good link description. Using the keyword "website optimization" as the link description makes it clear that the link is about that topic. In this example, replacing the "click here" link description with the keyword "website optimization" is a better experience. It's a small change, but this effort really impacts your page's ranking and experience.

How do you edit link descriptions? This one's pretty easy. This can be edited directly in your HTML, like in the examples we just covered. But no matter which CMS you are using to publish content online, it is as simple as hyperlinking keywords by pressing "command + k" or by clicking the hyperlink icon. With meta descriptions and link descriptions in place, you'll see better performance on search engines and deliver a better experience to your website visitors.

### **Video: Internal Linking**

What's an internal link?

Any link from one page on your website to another page on your website.

Internal links are important because they help users *and* search engine crawlers navigate your site. When used strategically, internal links can significantly boost a site's performance in search engines.

Google uses internal links to discover your new site content.

Google is constantly searching for new pages to add to its index of known pages.

Some pages are known because Google has crawled them in the past. Other pages are discovered when Google follows a link from a known page to a new page. As it recrawls your site pages, the crawler will follow newly added links, leading it to your new web pages.

Internal linking is also important because these links pass authority from one page to another.

When you link to another page on your site, you send link authority (or "link juice") to that page, which can help that linked page rank better. This is based on a Google algorithm called PageRank, which you can learn more about in the resources section below.

Internal links aren't nearly as powerful in passing authority to a page as backlinks (that is, links from other websites to your site). But they can still help.





## Benefits of Internal Links

The right internal links help Google learn the following about your page:

- Relevance
- Relationship to your other pages
- Value

Think about your website architecture like a pyramid.

The most important content is at the top and the least important is at the bottom. Most websites have the same page at the top of their pyramid: the homepage. Under that are your next most important pages, such as your services and products. Under those are slightly less important pages such as individual product or service pages, blog posts, and so on.

By linking the pages within your site to one another, you send signals about each page's relevancy, its importance, and its relationship with your other pages. Your homepage, being the most important page on the site, will link to many different pages. Your services page, which is slightly less important but still very important, will link to several pages (maybe to each page describing your individual services). Your blog posts, being less important, will have fewer internal links, perhaps only linking to a few other related blog posts.

But how do you determine which pages should link to each other?

One way is by grouping the pages of your site into topic clusters. In a topic cluster strategy, you arrange your website architecture by grouping content around specific topics related to your business.

To learn more about how to implement topic clusters on your website, check out the resources section.

### Pro Tip: Audit Your Site's Internal Links

You can use a tool like Ahrefs Site Audit to scan your website for broken links that need fixing and find any orphan pages that no other pages link to.

You can use tools to help bolster your internal linking strategy.

Some suggest pages to link to. Or, you might add a "related posts" section to your blog. If you use WordPress as your CMS, the Yoast SEO plugin is a good option.

Make sure your internal links are "follow" links.

Ensure that search engines can follow the links between your pages. Make sure they're not "nofollow."

The most important part of internal linking is providing valuable content.

Link to content that will help guide users through your website, provide relevant information, or otherwise be of interest. Don't just add links to random pages on your site. Put yourself in your users' shoes and ask yourself, if I was on this web page, where is the next logical place to go? What additional information would be useful after reading this? This will improve the user experience on your website because you're serving relevant, valuable content without making visitors look for it themselves. And by improving the user experience, you'll also improve your SEO.

### **Video: URL Structure**

What is a URL?



A URL (Uniform Resource Locator) specifies the location of a resource on the web.

A URL is like an address.

Just like you can find a building with its address, you can find a page on the internet through its URL. URLs were designed to replace the IP addresses, which are just long strings of numbers, that computers use to communicate with servers. It makes the web easier to browse for humans.

### The Anatomy of a URL

What do a URL's elements mean?

First is the protocol. The protocol indicates how a browser should retrieve information about a web page. The standard is "http" or "https" (the S stands for "secure"). You might also have seen "mailto:" which opens the user's default mail client.

After the protocol is the subdomain, which help organize different sections of your website. You don't always need a subdomain, depending on your CMS and your website's structure. The most standard subdomain is "www." You might also see subdomains like "blog" or "store" or "help", but a subdomain can be almost anything. For example, the HubSpot Academy website lives on the subdomain "academy" so its URL is "academy.hubspot.com."

After the subdomain (if you have one) is the most important part of the URL: the domain name. This is the human-readable version of a website's location on the Internet. Your domain name should be the same as your business name if you're running a business website. So, HubSpot's domain name is "hubspot." Your domain name is up to you, but it should describe the contents of your site. Keep in mind that you need to purchase your domain name from a registrar, so you are going to be constrained by what domain names are currently available.

The next piece of the URL is the top level domain or TLD. This is the suffix that appears at the end of your domain name. The most common is ".com" but you'll see hundreds of other options, including ".net," ".org," ".edu," and so on. The domain name and top-level domain together form the root domain.

The final piece of a URL is the path. This refers to where an asset, such as a page, a blog post, or a file, is stored on a website. It can also include organizational elements of your website such as subfolders or dates. Not all URLs will have a path. Your homepage is an example of a URL without one.

### The Impact of URLs on SEO

URLs affect your SEO in a few ways:

- They improve the user experience.
- They're a ranking factor in search engines.
- They help users and search engines understand what your content is about.

### Best Practices for Writing URLs

- Include your primary keyword.
- Use hyphens between words.
- Keep them short and simple.
- Describe the page contents.
- Make sure they're descriptive
- Include your target keyword in your URL.

This isn't absolutely necessary, but it's a good practice to follow if you can. It's less about stuffing keywords wherever they can go, and more about demonstrating that your page covers a given topic and communicating that to both readers and search engines. For example, if you have a page about the best organic dog treats, it's a



good idea to include the words "organic," "dog," and "treats" in your URL. This will help your page appear in search engine results because it accurately describes what people will find when they land on your site.

### **Use hyphens between words in your URL.**

When writing your URLs, use hyphens between words. This is better than having a long, unintelligible string of words or using underscores. You should also avoid using spaces in your URL, since they are translated to a series of three characters (%20) and this extra length could eventually cause your link to break. Google's developer documentation specifically recommends using hyphens between words, so it's advice you want to follow. Most CMSes today default the URL structure to include hyphens as word separators. But if yours doesn't, make sure to add them to your URL before publishing your page.

### **Keep your URLs short and simple.**

This advice comes straight from Google as well. Readable words are better than long strings of numbers. The key is making your URL straightforward and easy for humans to read and search engines to understand. A shorter URL is also easier for users to share on social media.

### **Finally, make sure your URL describes the page that users will be landing on.**

This ties back to the point about using keywords in your URL. By reading a URL, a user and a search engine should be able to form a good idea of what's on the page. Writing URLs is a balancing act between making them descriptive, and ensuring they're concise.

For more guidelines on writing search-friendly URLs, check out the resources for this video.

### **Video: Technical SEO Basics**

What is technical SEO?

The practice of improving technical aspects of a website to help search engines crawl and index it more effectively.

These practices impact search engines' ability to crawl, index, and rank your content.

At the end of the day, your content is what will boost you to the top of search results. But in order to rank in the first place, you need strong technical SEO. This will also help you avoid inadvertent penalties from Google.

Technical SEO is a broad field encompassing many different optimization tactics.

We're only going to cover some of the basics in this video, but know that you can do a lot more with technical SEO if you have the time and resources for it.

#### Basic Technical SEO Elements

You should consider these:

- Robots.txt
- Canonicalization
- Protocols
- Redirect codes
- Site speed

What is robots.txt?

A text file that instructs search engine bots on how to crawl a website's pages.



Why is your robots.txt file important for search engines?

If you have any web pages that you don't want search engines to crawl and add to their index of known pages, a robots.txt file allows you to tell the crawlers that. To crawl sites, search engines follow links from one site to another. After arriving on a website, the crawler will look for a robots.txt file. If it finds one, it will read it first before continuing to crawl the site, and will follow any directives on how it should (or should not) crawl certain pages.

So what would you want to put in your robots.txt file for search engines not to crawl? Common examples are customer profiles, staging sites, internal search results, certain files like images or PDFs, or duplicate content. This is content that you wouldn't want to appear in search engine results.

If there are no areas on your website that you wouldn't want a search engine to crawl, then you might not need a robots.txt file at all. But if you do need one, here's how it works.

Basic Format of Robots.txt

- User-agent: [user-agent name]
- Disallow: [URL string not to be crawled]

There are resources online that will help you create and test your robots.txt.

Google has documentation on how to create a robots.txt file and a tool for testing it, which are linked in the resources for this video. Creating a robots.txt file from scratch is more on the advanced side of technical SEO, so you might need to work with a developer to implement it. Luckily, most CMSes have the ability to edit your robots.txt built in so you can edit it if you need to.

What is a canonical tag?

An HTML element search engines use to handle duplicate content.

Here's an example of a canonical tag.

```
<link rel="canonical" href="http://www.example.com">
```

Why is canonicalization important for SEO?

Search engines prefer websites with unique, valuable content. If you have several URLs with identical, or nearly identical, content, it can dilute your ranking potential and cause other SEO problems. Canonicalization helps solve this problem. If you've published the same content in multiple locations, a canonical tag signals to search engines which version is preferred and should appear in search results.

This doesn't just apply to copying and pasting the same content across multiple pages. For search engines, every unique URL is a separate page. While to a human the URLs "example.com" and "www.example.com" might seem like the same thing, to a search crawler those are two unique pages. So how can you avoid these duplicate content issues on your website?

Follow these canonicalization best practices:

- Use self-referential canonical tags.
- Canonicalize your website's homepage.
- Audit your canonical tags.

First, you should use self-referential canonical tags.

In other words, if URLs A, B, and C are duplicates, and version A is the one you want to drive traffic to, you can put the canonical tag pointing to A on URL A. Most CMSes are set up to do this by default, but it's a good idea to



double-check your settings.

Next, be proactive about canonicalizing your homepage, since this is a common issue you can solve easily. For example, the canonical version of HubSpot's homepage is "https://www.hubspot.com."

Finally, it's a good idea to spot-check your pages to make sure you're canonicalizing the right versions. If your CMS doesn't have a field for canonical URL, you can check by inspecting the web page in your browser: simply right-click on the page and select "View source."

What is protocol?

A URL's protocol indicates how a browser should retrieve information about the web page.

Why is protocol important for SEO?

The standard protocols you'll see for websites are "http" and "https." HTTP stands for Hypertext Transfer Protocol, and HTTPS adds "Secure." HTTPS is secure because it's encrypted, which is especially important when users are submitting sensitive data such as logging into an account using their email and password or submitting credit card information on an ecommerce site.

All websites should use HTTPS, not only for data security but for user experience. Some browsers, like Google Chrome, will mark websites without HTTPS as "not secure," which significantly decreases users' trust in that site. If your website visitors don't trust your site, they probably won't spend much time there or be inclined to give you their personal details. This will negatively impact your SEO.

SSL, which stands for Secure Sockets Layer, is what allows you to create that secure, encrypted experience. There's also TLS, which stands for Transport Layer Security. This is an evolution of SSL, though the two are sometimes used interchangeably. For most websites, SSL is just fine, but if you're in a regulated industry like finance or healthcare, you should consult your IT team to see what's best for your organization.

SSL Certificate

To ensure your site is served securely over HTTPS, make sure your website has a valid SSL certificate. HubSpot provides SSL certificates for all CMS Hub customers.

If you use WordPress, several WordPress hosting companies offer free SSL certificates as well. If you use a different CMS, you can purchase an SSL certificate from your domain registrar. Or, if you're able to code or have a developer to help you, you can get a free certificate from LetsEncrypt.org. Research your options based on your website platform and your resources.

What is a redirect?

A way to send users and search engines to a different URL from the one originally requested.

The most common redirect codes are:

- 301, or "Moved Permanently"
- 302, or "Moved Temporarily"

Why are redirect codes important for SEO?

A 301 redirect is a permanent redirect from one URL to another. In most cases, this is the best method to use for redirecting pages because it passes ranking power, or link equity, from one page to another. Use this redirect when you're replacing an old page with a new one, when you want to permanently change the URL of a page, or when you're migrating to a new domain.



However, in some cases, you might want to use a 302 redirect to change the URL of a page only temporarily. A good use case for a 302 redirect is if you want to send users elsewhere while a page is under construction.

How you create your URL redirects depends on your CMS, so check out your chosen platform's documentation for details.

Site speed is another important aspect of technical SEO.

How fast your website loads can have a huge impact on your ranking in search results and the user experience on your site. This is even more important for mobile. If Google can find comparable web pages with faster load times, it will show those to searchers instead of your page. A slow load time can also lead to a higher bounce rate for your site, as visitors get frustrated and leave to go someplace else.

Use a tool to test your site speed.

Google's PageSpeed Insights is a free tool you can use to test how fast your website loads.

You can speed up your website by optimizing images.

This involves compressing the images on your page so that they take up less space and can load faster. The bigger an image's file size, the longer it takes for a browser to load it. This increases your website's loading time, and it can be significant if your site has many images.

Another way you can optimize your images to load faster is to make sure you're uploading images at the exact dimensions you're going to display them. For example, if you're using a 2000 by 2000 pixel image but it's only going to be displayed at 200 by 200 pixels, this size adds unnecessary load time.

A general rule is that you should strike a balance between the lowest file size possible and acceptable image quality. To learn more about resizing and compressing images, check out the resources for this video.

You can improve your website's speed in many other ways.

We're not going to cover them in this video, but if you want to learn more head over to the resources section.

### Mobile Optimization Is Important

Over 50% of internet activity across the world occurs on mobile devices. (Source: Statista)

Mobile search is only growing.

More searches happen on mobile than on desktop, voice search is on the rise, and Google is starting to take a "mobile-first" approach to indexing. So it's incredibly important to optimize your site for mobile performance. But what exactly does this mean?

Check if your site is mobile-friendly.

Use Google's Mobile-Friendly Test to determine if a page is optimized for mobile.

Focus on the mobile user experience.

It's critical to optimize the mobile experience of your website.

If people have a clunky and frustrating experience on your site, they'll leave and won't return. The biggest factors in mobile user experience are site speed and responsive design.



You also want to provide a seamless, consistent experience between your desktop site and your mobile site. If your mobile site looks completely different from the desktop version, people may not recognize it. This jeopardizes trust in your company and dilutes your brand. So make sure that your site is consistent in both design and functionality across all devices.

What is responsive design?

The method of designing web pages that appear optimally on all devices.

Responsive design will automatically reformat your website for all screen sizes.

This helps your website visitors interact with your site easily, no matter what device they're using.

How does responsive design work?

A website targets the size of the browser to match how much space is available and display the website appropriately. If you've ever been browsing a website on your phone and noticed an image that's way too large, or text that gets weirdly crunched up on the side of the screen, or buttons that don't appear where they should, you've seen the results of non-responsive design.

When you design a website with the mobile experience in mind, the site responds to the size of each viewer's screen. Most of the time, this is done using fluid, proportion-based grids. But if you're not a developer, don't worry. In most CMSes you can find both free and paid website themes and templates that are mobile-responsive right out of the box.

All themes and templates in HubSpot CMS Hub are responsive by default.

If you're working with a designer and developer to build a custom site design, you can work with them to ensure your website is mobile-responsive.

To learn more about responsive design, check out the resources for this video.

Be aware of pop-ups on mobile

If your mobile site has a pop-up that interferes with a user's ability to navigate the page, this will negatively impact the user experience and your SEO.

Just like image optimization is important for your desktop site, it's crucial for your mobile site.

Make sure you're following image optimization best practices by compressing your images and using the correct file size and dimensions. This will speed up the load time of your site on mobile, which will help improve your rankings.

### **Video: (Optional) Resizing and Compressing Images**

Images are essential to the visual experience of your website, but you need to be sure they load fast. Resizing and compressing are two techniques to accomplish this.

First, ensure your images are properly sized. In this case, we have a 4000 by 6000 pixel image that is going to be displayed on the page at 400 by 600 pixels. We need to resize it to the proper dimensions before adding it to the site.

Use photo editing software, such as Adobe Photoshop, or a free tool like Squoosh. Upload your image to your tool of choice.



Type in the width and height dimensions that you'll be displaying the image at. Save your changes, then download your photo.

Next, it's time to compress your image. This reduces your image's file size, which will further reduce its load time so your page loads lightning fast.

You can compress images using the same photo editing software. To compress images in bulk, use a tool like Tiny PNG.

Aim to have images less than 100 KB. This strikes a nice balance between image size and image quality. To learn more, head to the resources section for this video.