Web Development SEO Guide

Tools:
Screaming Frog SEO Spider for total pages and architecture analysis
Google Keyword Planner for Identifying what people are searching with search volume
https://websiteseochecker.com/ for Domain Authority Check

1. Hidden Content & Overlay Abuse

Negative Impact: Search engines may devalue or ignore content tucked behind toggles/overlays, as they view it differently than human visitors.

Developer Solution: Use progressive disclosure patterns that keep primary content visible, with interactive elements enhancing supporting information rather than hiding it.

2. Poor Content Structure

Negative Impact: Unbroken text walls, inconsistent heading hierarchies, and disconnected sections make content difficult for users and search engines to understand.

Developer Solution: Implement clear content hierarchies (H1→H2→H3), break long content into scannable sections, use bullet points, and ensure headings accurately describe content.

3. Hamburger Menus On Desktop

Negative Impact: Hides navigation options, reducing discoverability, engagement, and increasing bounce rates on desktop devices

Developer Solution:.Prioritize important navigation items in a visible desktop menu, using dropdowns for secondary pages. Reserve hamburger menus for mobile.

4. Slow-Loading Hero Sections

Negative Impact: Large media or complex animations can significantly increase load times, negatively impacting Core Web Vitals (LCP) and risking user abandonment.

Developer Solution: Optimize images (compress, lazy load), consider lightweight animations over videos, and ensure text content loads immediately while heavier elements load progressively.

5. Auto-Playing Media Content

Negative Impact: Startles users, consumes mobile data, creates accessibility issues, and negatively impacts page performance and Core Web Vitals.

Developer Solution: Give users control with clear play buttons and optimized preview images. If auto-play is necessary, mute by default and provide obvious controls.

6. Too Many Animations

Negative Impact: Creates visual noise, slows page performance, can cause motion sickness, and negatively impacts Cumulative Layout Shift (CLS).

Developer Solution: Use purposeful, subtle animations to highlight actions or guide users. Keep them consistent and performance-optimized, and consider users who prefer reduced motion.

7. Infinite Scroll Without Pagination

Negative Impact: Users can lose their place, search engines struggle to index content effectively, and the browser's back button often breaks.

Developer Solution: Combine infinite scroll with clear URL updates and pagination markers. Add "Back to Top" buttons or scroll position markers for long content.

❖ Staging and Backup

It's essential to create a staging site for testing and development purposes before making changes to the live website.

You'll need to make a backup of the live website's files and databases before changing anything on the live website.

Make staging sites uncrawlable from search engines.

It's crucial to make it uncrawlable from search engines. This can be achieved by adding a robots.txt file to the root directory of the staging site and adding the following code:

```
User-agent: *
Disallow: /
```

This code tells search engine crawlers not to index any pages on the staging site.

Make sure the live website is crawlable.

It's important to make sure that the live website is crawlable by search engines to ensure that it appears in search results.
This can be achieved by removing any noindex tags or robots.txt disallow rules that may be preventing search engines from crawling the live site.

❖ SSL - HTTPS

Use a secure browsing server setting.

Implementing SSL (Secure Sockets Layer) is crucial to ensure that your website is secure and trusted by users. SSL is a protocol that encrypts data transmitted between a website and its users, preventing unauthorized access and ensuring the confidentiality of sensitive information.

To implement SSL on your website, you'll need to purchase an SSL certificate from a trusted certificate authority (CA) and install it on your web server. This will enable HTTPS (HyperText Transfer Protocol Secure) on your website, which is the secure version of HTTP.

Once you've installed the SSL certificate, it's important to use a secure browsing server setting to ensure that your website is fully secure. This can be achieved by configuring your web server to use HTTPS by default and redirecting all HTTP requests to HTTPS.

Additionally, you should ensure that all resources on your website, including images, scripts, and stylesheets, are also loaded over HTTPS to prevent any "mixed content" warnings from the browser.

- **Duplicate Version**

  We will have different versions of the website.
  http://domain.com
  https://domain.com
  http://www.domain.com
  https://www.domain.com
  https://domain.com/

  Point to preferred version: https://www.domain.com

  It's important to ensure that your website is accessible via different versions of its URL, such as with or without the www prefix, and with or without the HTTPS protocol. However, having multiple versions of your website can cause issues with duplicate content and affect your website's search engine rankings.

  To avoid these issues, it's essential to choose a preferred version of your website and set up redirects to ensure that all other versions point to the preferred one. In this case, the preferred version is https://www.domain.com.

  To set up redirects, you'll need to modify your website's .htaccess file (if you're using an Apache server) or configure redirects in your web server's control panel. Here's an example of the code you would need to add to your .htaccess file:

  ```
  RewriteEngine On
  RewriteCond %{HTTPS} off [OR]
  RewriteCond %{HTTP_HOST} !^www. [NC]
  RewriteRule ^(.*)$ https://www.domain.com/$1 [L,R=301]
  ```

  This code redirects all HTTP requests to the preferred version of the website (https://www.domain.com) and adds the www prefix if it's not already present. It also ensures that all requests are redirected with a 301 status code, which tells search engines that the redirect is permanent.

❖ Redirection

Proper redirection if applicable.

Omit Chain redirection - A To B To C. It should be A to C.
Omit Loop redirection - A To B and B To A. It should be either A To B or B to A.

It's important to ensure that any redirects on your website are set up correctly to avoid issues with chain and loop redirections.

Chain redirection occurs when a user is redirected through multiple URLs before reaching their intended destination. This can slow down page load times and affect the user experience. To avoid chain redirection, it's essential to set up redirects directly from the original URL to the final destination. For example, if you're redirecting from URL A to URL B, and then from URL B to URL C, you should instead set up a direct redirect from URL A to URL C.

Loop redirection occurs when two URLs redirect to each other, creating an infinite loop. This can cause the browser to crash and make the website inaccessible. To avoid loop redirection, you should ensure that your redirects are set up in a linear, one-directional flow. For example, if you're redirecting from URL A to URL B, you should not redirect from URL B back to URL A.

❖ Canonical

There should be a canonical tag in each page.

A canonical tag is an HTML element that tells search engines which URL is the preferred or canonical version of a particular page, especially if there are multiple versions of the same page. This helps search engines avoid indexing duplicate content, which can harm your website's search engine rankings.

To add a canonical tag to each page, you'll need to modify the HTML code for each page and include the following tag in the head section:

<link rel="canonical" href="https://www.yourwebsite.com/pageurl">
Replace "https://www.yourwebsite.com/pageurl" with the URL of the preferred or canonical version of the page. It's important to ensure that the canonical URL is the same across all versions of the page, including HTTP and HTTPS versions and versions with and without the www prefix.

❖ **Mobile Friendly**

Responsive web design is mandatory.
Mobile friendly tests can be done with Google tools.
https://search.google.com/test/mobile-friendly

It's essential to ensure that your website is mobile-friendly to provide a positive user experience for mobile device users. This can be achieved through responsive web design, which allows your website to adjust its layout and content to fit different screen sizes and resolutions.

❖ **Website Page Speed**

Page speed score for mobile devices should be above 60.
Page speed score for desktop devices should be above 80.

Page speed check for:
Home Page
Product/Service Page
Blog/Article Page

Please Fix or minimize Core Web Vitals errors. I.e. LCP, FCP, CLS.
Tools to check pagespeed https://page speed.web.dev/.

It's essential to address any Core Web Vitals errors, such as LCP (largest contentful paint), FCP (first contentful paint), and CLS (cumulative layout shift), which can negatively impact your website's user experience and search engine rankings.

To fix these errors, you'll need to optimize your website's images, reduce the number of HTTP requests, and improve server response time. You can also use caching and compression techniques to speed up your website's loading time.

For developers, improving these metrics requires targeted strategies:

- **Optimize Images**: This involves compressing images to reduce file size, utilizing next-generation formats like WebP or AVIF, and implementing lazy loading so images only load when they are about to enter the viewport.

- **Minimize JavaScript & CSS**: Developers should defer non-critical JavaScript, remove unused code, minify and combine CSS and JavaScript files, and inline critical CSS to ensure faster initial rendering.
- **Improve Server Response Time**: This can be achieved through effective caching strategies, optimizing server configurations, and utilizing Content Delivery Networks (CDNs) to distribute assets globally.
- **Reserve Space for Dynamic Elements**: To prevent unexpected layout shifts (CLS), developers should explicitly set dimensions for images, advertisements, and embedded content, allowing the browser to reserve space before these elements fully load.
- **Testing & Monitoring**: Continuous testing and monitoring are crucial. Tools like Google's PageSpeed Insights, Lighthouse (built into Chrome DevTools), and the Core Web Vitals report in Google Search Console are invaluable for diagnosing issues and tracking improvements. Developers should prioritize fixing issues labeled "Poor" first, as these represent the most critical performance bottlenecks.

❖ SEO Friendly URL Structure

Shorter is better.
Use hyphen -.
Never use underscore _.
Never use numbers like /2 or any values like SKU for product /343234.

It's important to ensure that your website's URL structure is SEO-friendly to improve your website's search engine rankings and make it easier for users to navigate. Here are some guidelines to follow when creating an SEO-friendly URL structure:

- Keep the URL as short as possible while still describing the content accurately.
- Use hyphens (-) to separate words in the URL instead of underscores (_) or spaces.
- Avoid using numbers or any other values like SKU for products in the URL, as this can make it difficult for users to remember or share the URL.
- Use lowercase letters in the URL to avoid confusion and ensure consistency.

❖ Create a Sitemap

Sitemap file, domain.com/sitemap.xml file must contain the latest updated all important page URLs from the website.

It's important to create a sitemap for your website to help search engines crawl and index your pages more efficiently. Here are some guidelines to follow when creating a sitemap:

- Create a sitemap file at domain.com/sitemap.xml that contains all the latest updated URLs of your website's important pages.
- Include all important pages of your website in the sitemap, such as the homepage, product/service pages, blog/articles, and any other pages that you want search engines to index.
- Update your sitemap regularly to ensure that it contains the latest URLs of your website's pages.

❖ Create a robots.txt file

A robots.txt file must be created in the server for search engine bot to crawl the website.

It's important to create a robots.txt file for your website to control how search engine bots crawl and index your pages. Here are some guidelines to follow when creating a robots.txt file:

- Create a plain text file called "robots.txt" in the root directory of your website.
- Use the robots.txt file to specify which pages and directories of your website should be crawled and indexed by search engines.
- Use the "User-agent" directive to specify which search engine bots should be allowed or disallowed from crawling your website.
- Use the "Disallow" directive to specify which pages or directories of your website should not be crawled by search engines.
- Test your robots.txt file using Google's robots.txt testing tool to ensure that it's working correctly.

For example:

```
User-agent: *
Disallow: /admin/
Disallow: /login/
Disallow: /checkout/
Disallow: /cart/
Disallow: /search/

Sitemap: https://www.example.com/sitemap.xml
```

❖ Fix css/js error

Make css/js external.

It's important to fix any CSS and JS errors that may be causing issues on your website. One way to do this is by making sure that your CSS and JS files are external. Here are some guidelines to follow when fixing CSS and JS errors:

Move all CSS and JS code to external files instead of embedding it directly in the HTML code.
Use the "link" tag to link to external CSS files, and the "script" tag to link to external JS files.
Place the link and script tags in the head section of your HTML document for optimal performance.
Use tools like the browser's console or Lighthouse to identify and fix any errors in your CSS and JS code.

❖ Broken Links

Remove broken links from the website. i.e 404 error page.
Fix any internal broken link.
Fix any external broken link.

It's important to regularly check your website for broken links, which can negatively impact user experience and SEO. Here are some steps you can take to fix broken links on your website:

Use a broken link checker tool to identify any broken links on your website, both internal and external.
Remove any broken links that lead to a 404 error page by updating or deleting the URL.
Fix any internal broken links by updating the URL to the correct location or removing the link if it is no longer needed.
For external broken links, try to find an alternative resource to link to, or remove the link altogether if it cannot be fixed.

❖ Custom 404 Error Page

Create a custom 404 Error Page which contains links to easy access to the Home page or relevant page.

It's important to create a custom 404 error page for your website. A 404 error page is what a user sees when they try to access a page that doesn't exist on your website. Here are some guidelines to follow when creating a custom 404 error page:

Design the page to match the look and feel of your website, so it doesn't confuse the user or make them think they've landed on a different website.
Provide a clear and concise error message that explains what happened and why the page couldn't be found.
Include links to the homepage or relevant pages to help the user find what they're looking for quickly and easily.
Make sure the page is easy to navigate and user-friendly.

❖ Crawl Depth

The pages in the website should be up to 3 clicks max.

The crawl depth refers to the number of clicks it takes for a user or search engine crawler to reach a specific page on your website. Ideally, you want to keep the crawl depth to a minimum to ensure that your pages are easy to find and index.

A good rule of thumb is to make sure that all pages on your website are accessible within three clicks. This means that users or crawlers should be able to navigate to any page on your website by clicking no more than three links.

To achieve this, you can use a clear and organized website structure with a well-planned navigation menu. This will make it easier for users to find what they're looking for and for search engines to crawl and index your pages. By keeping the crawl depth to a minimum, you can improve the overall user experience and SEO of your website.

❖ Add Structure Data

Implement dynamic schema script for:
Product/Service
BlogPost/Article
FAQ
Video

To add structured data to your website, you can implement dynamic schema scripts for different types of content, such as products/services, blog posts/articles, FAQs, and videos. These scripts should include relevant information, such as the title, description, author, and date of publication, as well as any additional details specific to the content type.

❖ OG Tags

Implement Open Graph code for social media posting.

Open Graph (OG) tags are metadata that provide social media platforms with information about a website's content. Implementing OG tags can improve the appearance of links shared on social media platforms such as Facebook, Twitter, and LinkedIn. The OG tags should include the title, description, and image of the page, which should be optimized to attract user engagement.

```
<meta property="og:title" content="Example Title">
<meta property="og:description" content="This is an example description">
<meta property="og:image" content="http://example.com/image.jpg">
<meta property="og:url" content="http://example.com">
<meta property="og:type" content="website">
```

❖ Minified Code

For security purposes and minimizing website code size, implement html/js/css code minification.

To improve website performance and reduce load times, it is recommended to minify HTML, CSS, and JavaScript code. This involves removing unnecessary characters, white spaces, and comments from the code to reduce its size. Minified code is also useful for improving website security, as it can make it more difficult for attackers to analyze the code and find vulnerabilities.

❖ Meta

Meta - Title Tag

Each page must have a title tag.
Page title same as h1 should be omitted, add website name in the title except home page. But remember it should not exceed 60 characters including space.

Meta Description

Add meta description tag/field for SEO.

h1 Tag

The first heading should be h1, then h2 and h3 respectively. It is mandatory to have one h1 tag in each page of the website.

H1
H2
H3
H3
H2

Multiple h1 tags are strictly prohibited unless an SEO requirement.

Ensure that each page has a title tag with a unique and concise title that doesn't exceed 60 characters. Avoid duplicating the h1 tag as the page title, and include the website name in the title except on the homepage.

Additionally, add a meta description tag that accurately summarizes the content of the page. Use h1, h2, and h3 tags in the correct hierarchical order, starting with h1 as the first heading on the page. Multiple h1 tags are not recommended unless there is an SEO requirement.

❖ Image Optimisation

Image file name
Image alt attribute
WEBP
Image size optimization.
Dimension should be what we will show to users.

Make sure to use descriptive and relevant file names for your images. Also, add alt attributes to your images for accessibility and SEO purposes.

Additionally, consider converting your images to the WEBP format to reduce file size and improve page load speed.

Finally, optimize your image size and dimensions to ensure fast loading times while still maintaining high quality.

❖ Video Optimisation

Use embedded code if applicable.
Include Video Title.
Include Video Description.

Consider embedding the video instead of hosting it on the server. Include the video title and description to make it more search engine friendly. Use a video hosting platform if required to optimize load times and playback quality.

❖ Thank You Page

Create a thank you page for form submission.

A thank you page should be created for users who submit a form on the website. This page should contain a message thanking the user for their submission and provide any relevant information such as next steps or what to expect. It's also a good idea to include links to relevant pages or resources on the website.

❖ Upload Content

Upload verified content from the SEO team.

It is important to ensure that only verified content from the SEO team is uploaded to the website. This can help to ensure that the website's content is optimized for search engine rankings and user experience.

Helpful Resources:
PageSpeed Insights:
https://developers.google.com/speed/pagespeed/insights/

Web.dev (Core Web Vitals & Performance Guides):
https://web.dev/explore/fast/

Google Search Central Blog:
https://developers.google.com/search/blog

Google Search Quality Rater Guidelines (PDF):
https://static.googleusercontent.com/media/guidelines.raterhub.com/en//searchqualityevaluatorguidelines.pdf