

How Technology Impacts SEO



SEO

A large, 3D orange gear is positioned on the right side of the image. Inside the large gear, there are three smaller white gears of different sizes, all interlocking. The gears are resting on a light brown wooden surface. The background is a solid light blue color.



Developers may initially believe that SEO revolves around inserting keywords in strategic locations or placing links in the footer, or they might dismiss it as a mere fabrication. Regrettably, neither perspective holds true. The realm of technology, spanning from infrastructure to HTML code, wields more influence on search engine rankings than any other singular factor.

Surprising, right?

If you're an SEO professional, you're likely reading this and contemplating a trip to Seattle to express your disagreement. While doing so, you might be muttering, "Ian, you're mistaken. Links are paramount! Title tags are critical! Technology? Doubtful."

Feel free to build as many links as you desire. However, if your site takes an eternity to load or search engines struggle to locate half of your content, achieving a favorable ranking remains elusive. Likewise, crafting content laden with keywords is futile if search engines grapple with convoluted URLs and duplicate content.

I'm not stating this as a tech enthusiast. I was a writer long before donning my propeller hat. SEO primarily revolves around technology, followed by architecture, links, and content.

VISIBILITY

Can search engines effectively find, crawl, and index your site? Redirects can signal a search spider to overlook you. A javascript framework might conceal content or induce duplication. An erroneous robots.txt file can bring your operations to a standstill. Ensuring visibility necessitates getting the infrastructure right, and technology facilitates that process.

Correct implementation of javascript frameworks

Response codes

Canonicalization

Appropriate utilization of subdomains and subfolders

Sitemaps

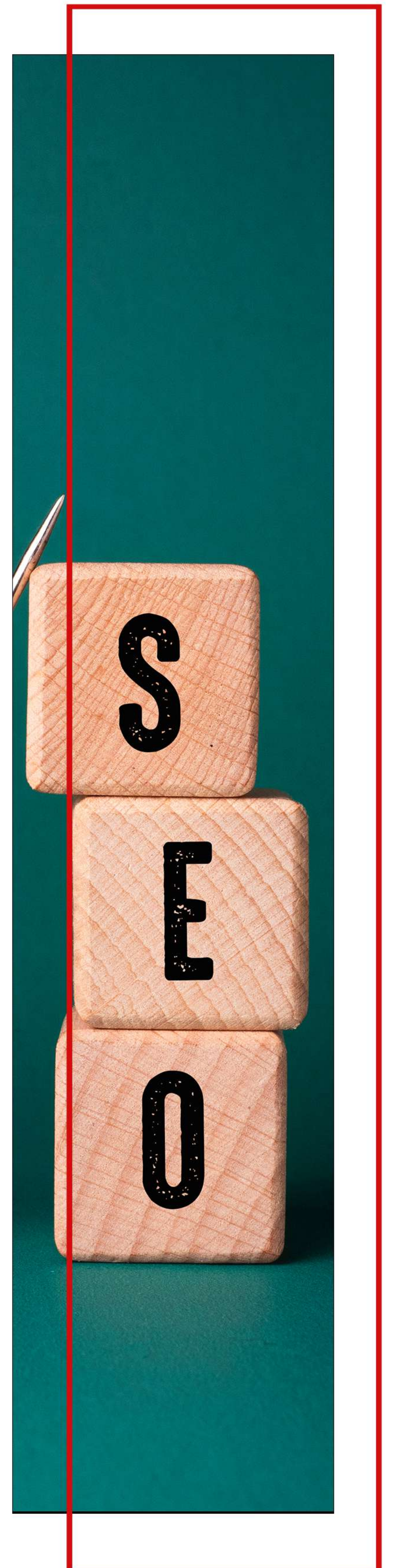
USER EXPERIENCE

Both Google and Bing scrutinize site speed, user interface, mobile usability, and myriad elements indicative of a superior user experience. Technology plays a pivotal role in influencing these aspects. Additionally, search engines may consider user behavior, such as bounce-back rates to search results pages. This guide addresses technical details impacting user experience, including:

Site performance

Page rendering

Content visibility on the page



RELEVANCE

Keywords undeniably matter, as long as communication involves talking and writing. Optimal placement of the right words establishes relevance. The setup of a site and its server makes this linguistic alignment possible. Technology aids content creators in ensuring relevance, covering aspects such as:

Editable and non-editable content

Structured data and markup

Linking and site structure

Page structure and elements

AUTHORITY

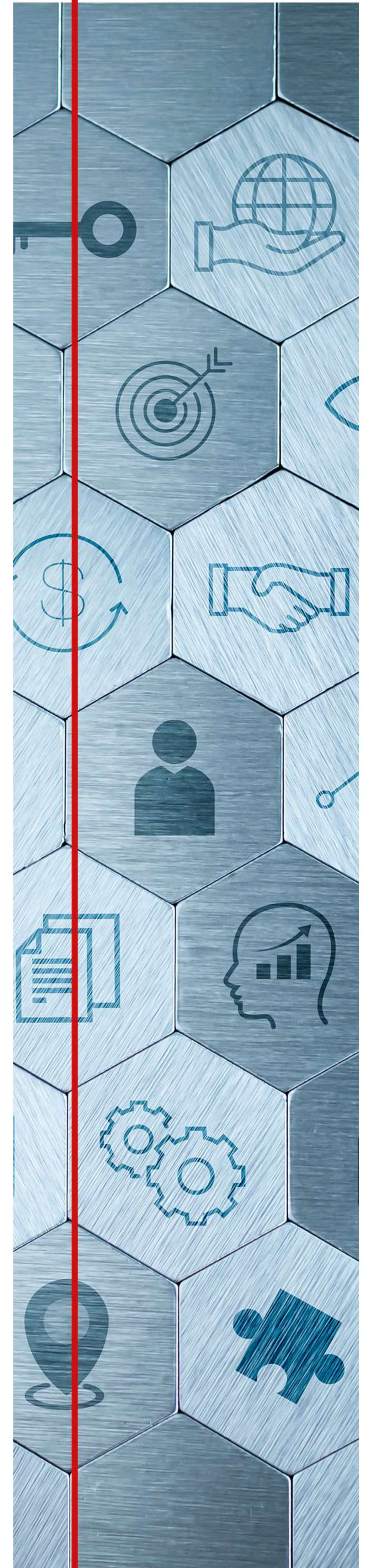
Undoubtedly, links carry substantial weight. As a developer, your responsibility extends to ensuring that the site's implementation doesn't compromise authority by diminishing link value and validity. Considerations include:

Management of new and old URLs

Redirection

Response codes

Canonicalization



FOUNDATIONAL ELEMENTS

Several pivotal factors don't neatly fit into the prominent categories but addressing them preemptively translates to less effort later on. These factors include:

- Server logging
- Analytics
- Tag manager

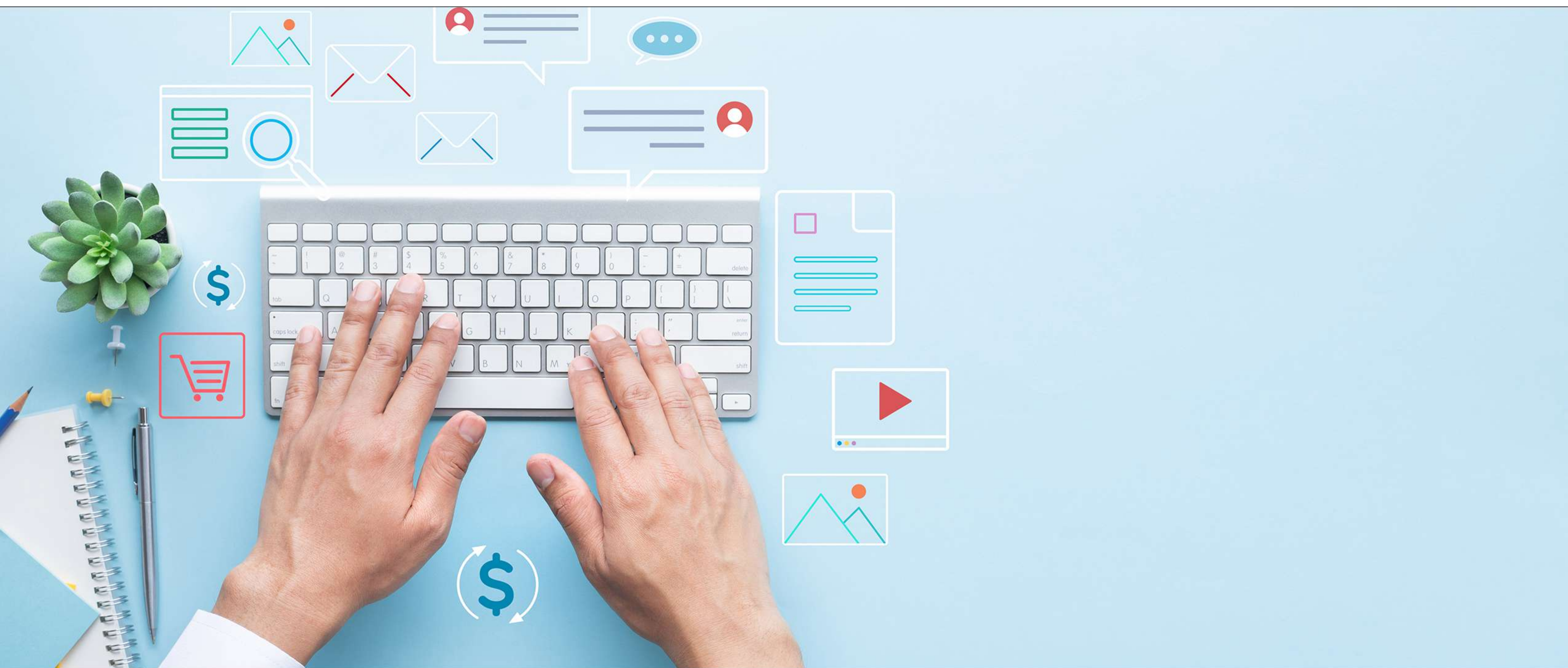
Ensure that the appropriate analytics tags are present on every page and throughout any checkout or other funnels. I get it: This might seem like one of those obvious points authors include to boost keyword count. Not in this case. It's crucial to consider:

- **Cross-domain and subdomain tracking**
- **Multiple accounts**
- **IP filtering**
- **Funnel tracking**
- **Page event tracking**
- **On-page tag location:**
Placing tags at the top of the page can slow things down, while the bottom of the page may result in missed bounces
- **Onsite search logging**

TAG MANAGERS

I have mixed feelings about tag managers. On one hand, they're fantastic because they empower marketing teams to add and modify third-party widgets, JSON-LD for structured markup, and analytics code. On the other hand, they can be problematic because they give marketing teams the power to introduce changes that may ruin the site or impact performance.

My recommendation: Understand precisely what they intend to accomplish. Determine if their actions may disrupt the site or degrade performance. Provide explicit guidelines and be prepared to address issues when changes lead to site disruptions or performance problems.



"THIN" CONTENT

While I'm uncertain if this qualifies as a foundational issue, addressing it later can be challenging, so it's wise to consider it now.

Google and Bing express disfavor towards sites with a significant proportion of pages (or a substantial number) featuring minimal content. If the content is identical across these pages, it's even worse, as they categorize it as "thin" content.

A common example is a site featuring member profile pages. If you have numerous members, and none of them complete their profiles, you end up with many nearly identical pages containing little or no content.

Conclusion - SEO is not just about inserting keywords and placing links. It is a complex and ever-evolving field that encompasses a wide range of factors, including the technical aspects of a website.

