

(Almost) Everything You Need To Know About Crawling, Indexing, and Rendering in Google

Barry Adams
June 2022

What does Google do?

Google Processes



Crawler



Indexer



Ranker

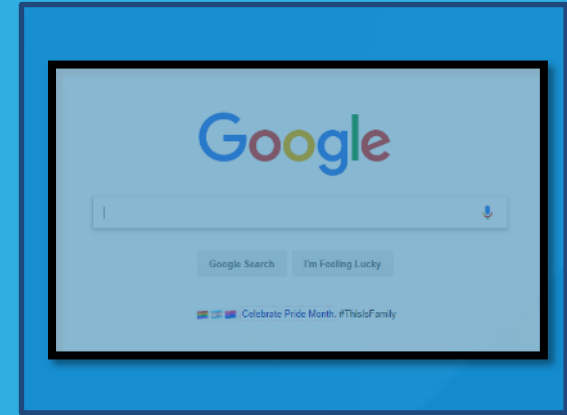
1. Crawler (Googlebot)



Crawler



Indexer

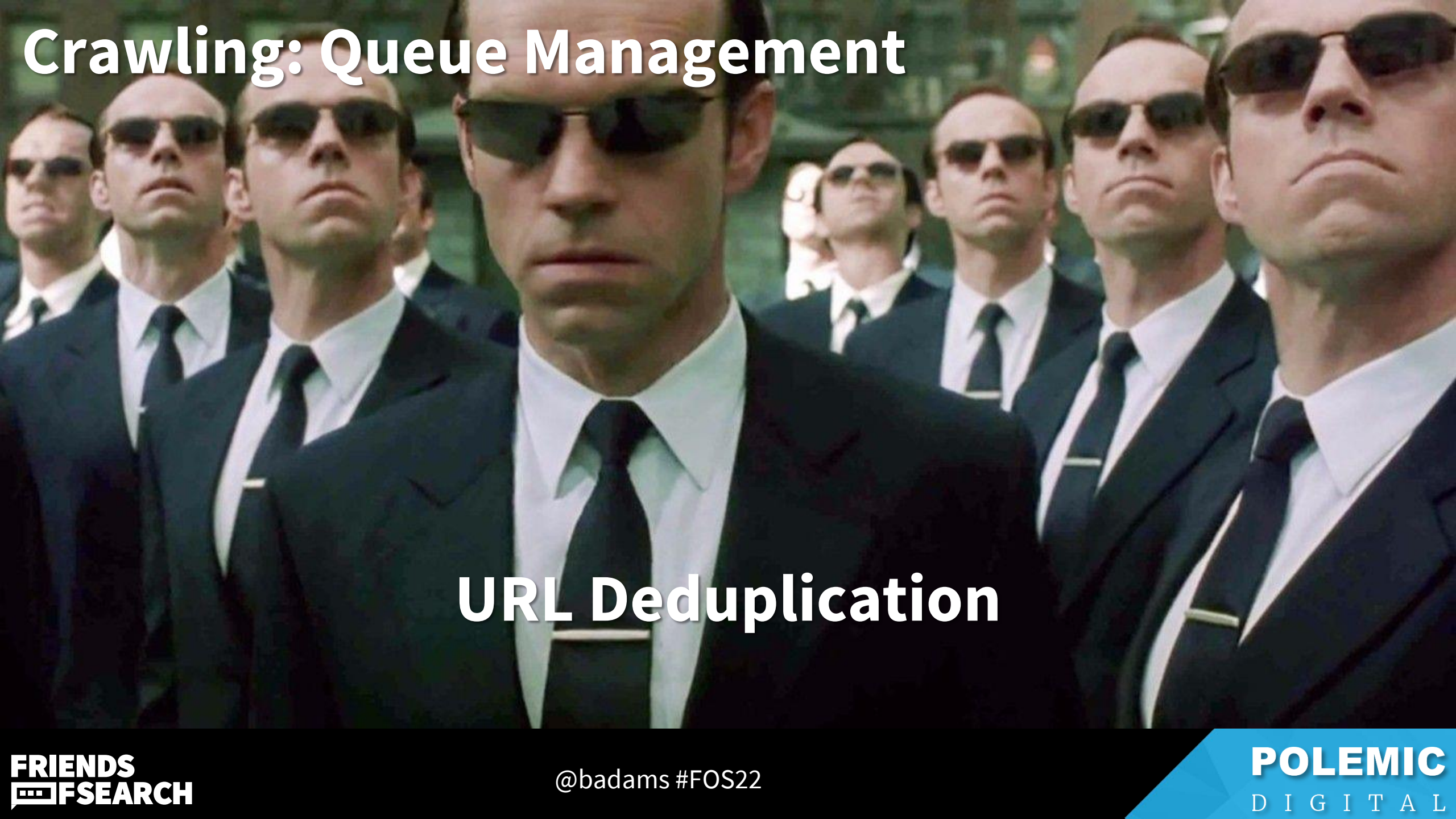


Ranker

Crawling: Discovery

```
<a href="...">
```

```
<urlset>  
  <url>  
    <loc>https://friendsofsearch.com/</loc>  
    <lastmod>2022-06-09T11:42:50+00:00</lastmod>  
  </url>  
</urlset>
```



Crawling: Queue Management

URL Deduplication

Crawling: Queue Management



Crawling: Fetch & Parse

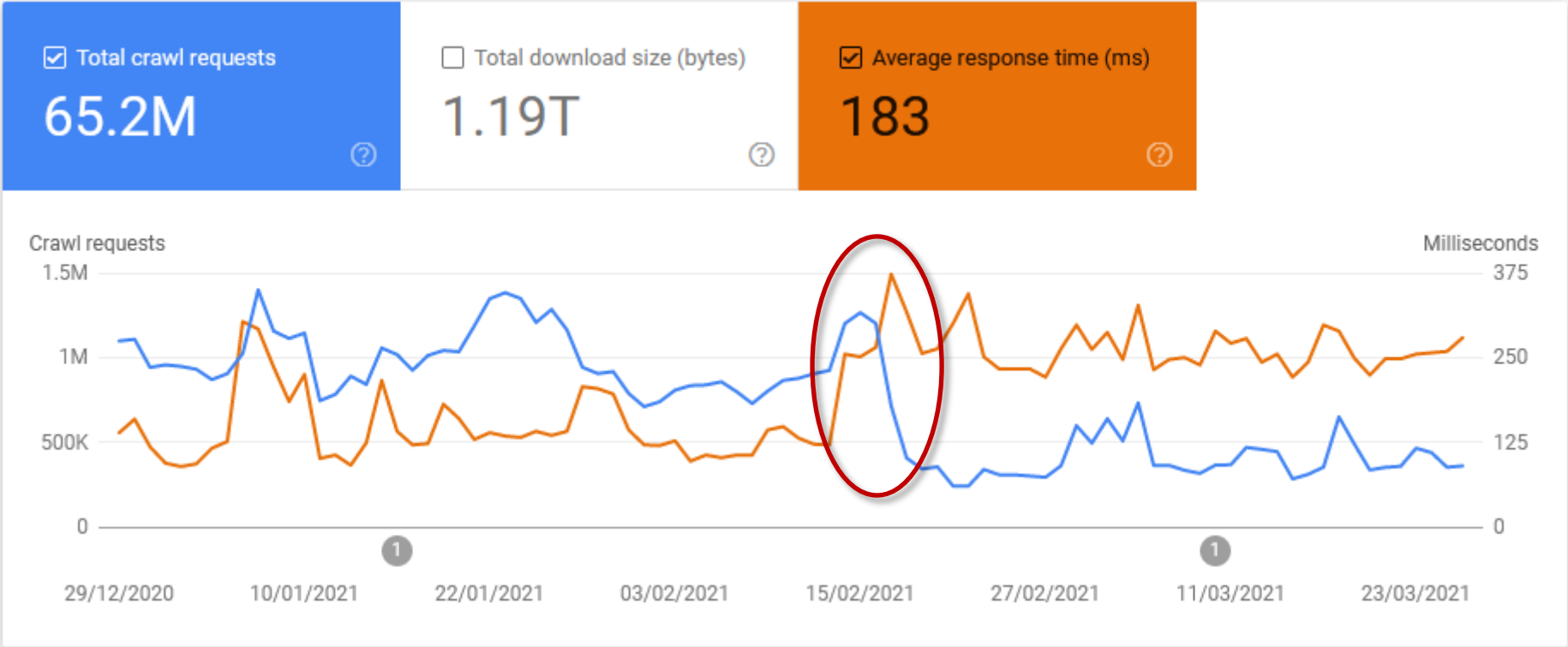
```
<div class="card card-person card-hover no-image" data-equalizer-watch="person"> <a class="link-full" href="https://friendsofsearch.com/be/speakers/program/how-to-reach-the-post-pandemic-workday-consumer/" target="_self"><span class="screen-reader-text">Mareike Zöllner</span></a></div><div class="card-content"><h3>Mareike Zöllner</h3> <p><span class="person-title">Sr. Marketing Lead</span><span class="person-company">Microsoft</span>Mareike Zöllner is International Marketing Lead - Startups &#038; SMBs. Based in Paris, she is part of the International Marketing team at Microsoft Advertising. Previo&#8230;</p></div><div class="card-link"> <span class="card-meta person"> <a href="https://www.linkedin.com/in/mareike-z%C3%B6llner-42939059/" target="_self"> LinkedIn </a> </span> <span class="card-url">Read more</span> </div><div class="card-link card-name"> <div class="border"> <span >Mareike Zöllner</span> </div></div></div></div><div class="column small-12 medium-6 large-4" > <div class="card card-person card-hover no-image" data-equalizer-watch="person"> <a class="link-full" href="https://friendsofsearch.com/be/speakers/program/the-importance-of-1st-party-data-and-how-just-eat-takeaway-com-brings-it-to-life/" target="_self"><span class="screen-reader-text">Heleen Blom</span></a> <div class="img-container"> <div class="image" style="background-image:url(https://friendsofsearch.com/be/wp-content/uploads/sites/5/2022/06/Heleen-Blom.jpg)"></div></div><div class="card-content"> <h3>Heleen Blom</h3> <p><span class="person-title">Global Account Lead Food Tech | Strategic platforms partnerships</span><span class="person-company">Google</span>Heleen Blom, 10+ years of experience in online marketing, passionate about guiding companies in their digital transforma&#8230;</p></div><div class="card-link"> <span class="card-meta person"> <a href="https://www.linkedin.com/in/heleen-blom-8bbb503/" target="_self"> LinkedIn </a> </span> <span class="card-url">Read more</span> </div><div class="card-link card-name"> <div class="border"> <span >Heleen Blom</span> </div></div></div></div><div class="column small-12 medium-6 large-4" > <div class="card card-person card-hover no-image" data-equalizer-watch="person"> <a class="link-full" href="https://friendsofsearch.com/be/speakers/program/the-importance-of-1st-party-data-and-how-just-eat-takeaway-com-brings-it-to-life/" target="_self"><span class="screen-reader-text">Christoph Liefelaender</span></a> <div class="img-container"> <div class="image" style="background-image:url(https://friendsofsearch.com/be/wp-content/uploads/sites/5/2022/06/Christoph-Liefelaender.jpg)"></div></div><div class="card-content"> <h3>Christoph Liefelaender</h3> <p><span class="person-title">Sr. Director Global Performance Marketing</span><span class="person-company">Just Eat Takeaway.com</span>Christoph Liefelaender, Heading up all paid digital strategy and operations at Just Eat Takeaway.com. My team drives customer and &#8230;</p></div><div class="card-link"> <span class="card-meta person"> <a href="https://www.linkedin.com/in/cliefelaender/" target="_self"> LinkedIn </a> </span> <span class="card-url">Read more</span> </div><div class="card-link card-name"> <div class="border"> <span >Christoph Liefelaender</span> </div></div></div></div><div class="column small-12 medium-6 large-4" > <div class="card card-person card-hover no-image" data-equalizer-watch="person"> <a class="link-full" href="https://friendsofsearch.com/be/speakers/program/case-otrium-a-multi-market-strategy-to-sell-excess-stock-for-over-400-fashion-brands/" target="_self"><span class="screen-reader-text">Marcel Smal</span></a> <div class="img-container"> <div class="image" style="background-image:url(https://friendsofsearch.com/be/wp-content/uploads/sites/5/2022/06/Marcel-Smal.jpg)"></div></div><div class="card-content"> <h3>Marcel Smal</h3> <p><span class="person-title">Co-founder</span><span class="person-company">Roots Network</span>Marcel Smal has worked in Paid Search for over 9 years, on a number of big retailers and travel clients, with a passion for automation and creating new approaches to i&#8230;</p></div><div class="card-link"> <span class="card-meta person"> <a href="http://linkedin.com/in/marcel-smal-b2235538/" target="_self"> LinkedIn </a> </span> <span class="card-url">Read more</span> </div><div class="card-link card-name"> <div class="border"> <span >Marcel Smal</span> </div></div></div></div><div class="column small-12 medium-6 large-4" > <div class="card card-person card-hover no-image" data-equalizer-watch="person"> <a class="link-full" href="https://friendsofsearch.com/be/speakers/program/performance-max-the-good-the-bad-and-the-ugly/" target="_self"><span class="screen-reader-text">Daniel Lilliendahl</span></a> <div class="img-container"> <div class="image" style="background-image:url(https://friendsofsearch.com/be/wp-content/uploads/sites/5/2022/05/Daniel-Lilliendahl.jpg)"></div></div><div class="card-content"> <h3>Daniel Lilliendahl</h3> <p><span class="person-title">Lead PPC Specialist</span><span class="person-company">SavvyRevenue</span><span data-contrast="none">Daniel is the Lead PPC Specialist at SavvyRevenue; an agency focused on scaling Paid Search for B2C eCommerce stores across Europe. &#8230;</p></div><div class="card-link"> <span class="card-meta person"> <a href="https://www.linkedin.com/in/dlilliendahl/" target="_self"> LinkedIn </a> </span> <span class="card-url">Read more</span> </div><div class="card-link card-name"> <div class="border"> <span >Daniel Lilliendahl</span> </div></div></div></div><div class="column small-12 medium-6 large-4" > <div class="card card-person card-hover no-image" data-equalizer-watch="person"> <a class="link-full" href="https://friendsofsearch.com/be/speakers/program/case-colruyt-from-nutri-score-a-to-seo-score-a/" target="_self"><span class="screen-reader-text">Daan
```




Crawl Politeness

Optimise Crawling

- Server Response Time



GSC Crawl Stats

By response

OK (200)	77%	
Not modified (304)	21%	
Moved permanently (301)	1%	
Not found (404)	< 1%	
Moved (other)	< 1%	

Rows per page: 5 ▼ 1-5 of 11 < >

By file type

JavaScript	60%	
HTML	16%	
JSON	1%	
CSS	< 1%	
Image	< 1%	

Rows per page: 5 ▼ 1-5 of 10 < >

By purpose

Refresh	99%	
Discovery	< 1%	

Rows per page: 5 ▼ 1-2 of 2 < >






By Googlebot type

Page resource load	63%	
Smartphone	35%	
Desktop	3%	
Image	< 1%	
AdsBot	< 1%	

Rows per page: 5 ▼ 1-5 of 7 < >

Page Resource Load

By Googlebot type

Page resource load	63%	
Smartphone	35%	
Desktop	3%	
Image	< 1%	
AdsBot	< 1%	

Rows per page: 5 ▼ 1-5 of 7 < >

Googlebot & AdsBot

By Googlebot type

AdsBot	66%	
Smartphone	22%	
Desktop	11%	
Page resource load	< 1%	
Image	< 1%	

Rows per page: 5 ▼ 1-5 of 6 < >

Optimise Crawling

- Serve correct HTTP status codes;
 - 200 OK
 - 301 / 302 Redirects
 - 304 Not Modified
 - 401 / 403 Permission Issues
 - 404 / 410 Not Found/Gone
 - 5xx Error



Optimise Crawling

- ALL resources consume crawl budget;
 - Not just HTML pages
 - Reduce HTTP requests per page

Optimise Crawling

- ALL resources consume crawl budget;
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- AdsBot can consume crawl budget;
 - Double-check your Google Ads campaigns

Optimise Crawling

- ALL resources consume crawl budget;
 - Not just HTML pages
 - Reduce HTTP requests per page
- AdsBot can consume crawl budget;
 - Double-check your Google Ads campaigns
- Link equity (PageRank) impacts crawl budget;
 - More link equity = more crawl budget

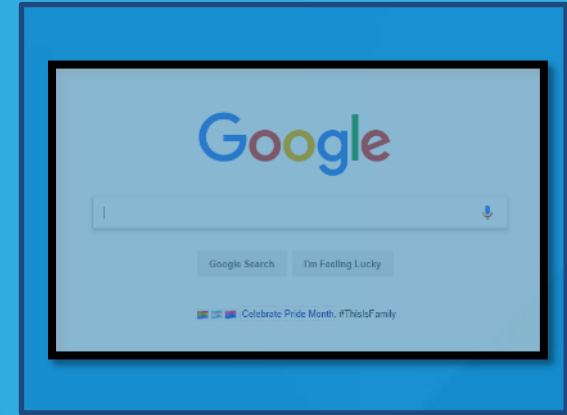
2. Indexer



Crawler



Indexer

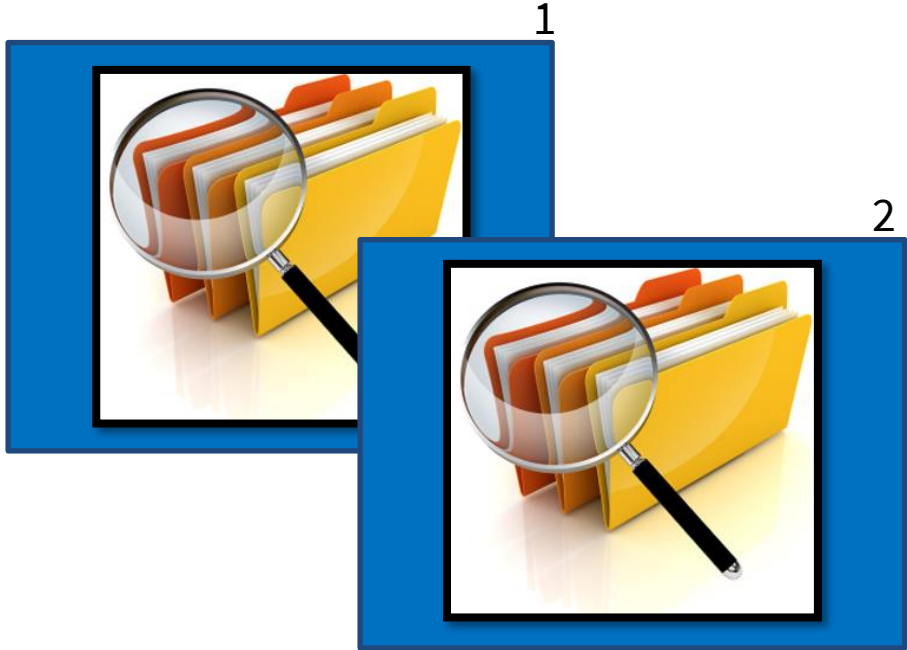


Ranker

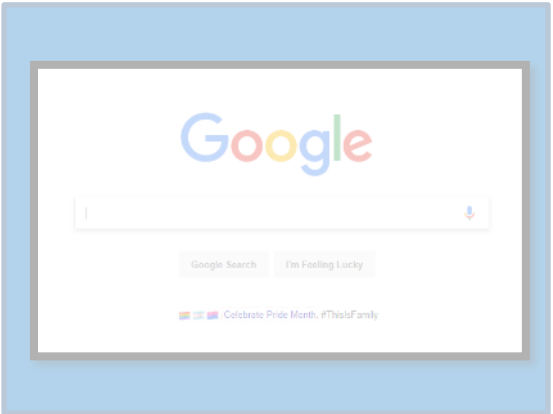
Two Stages* of Indexing



Crawler



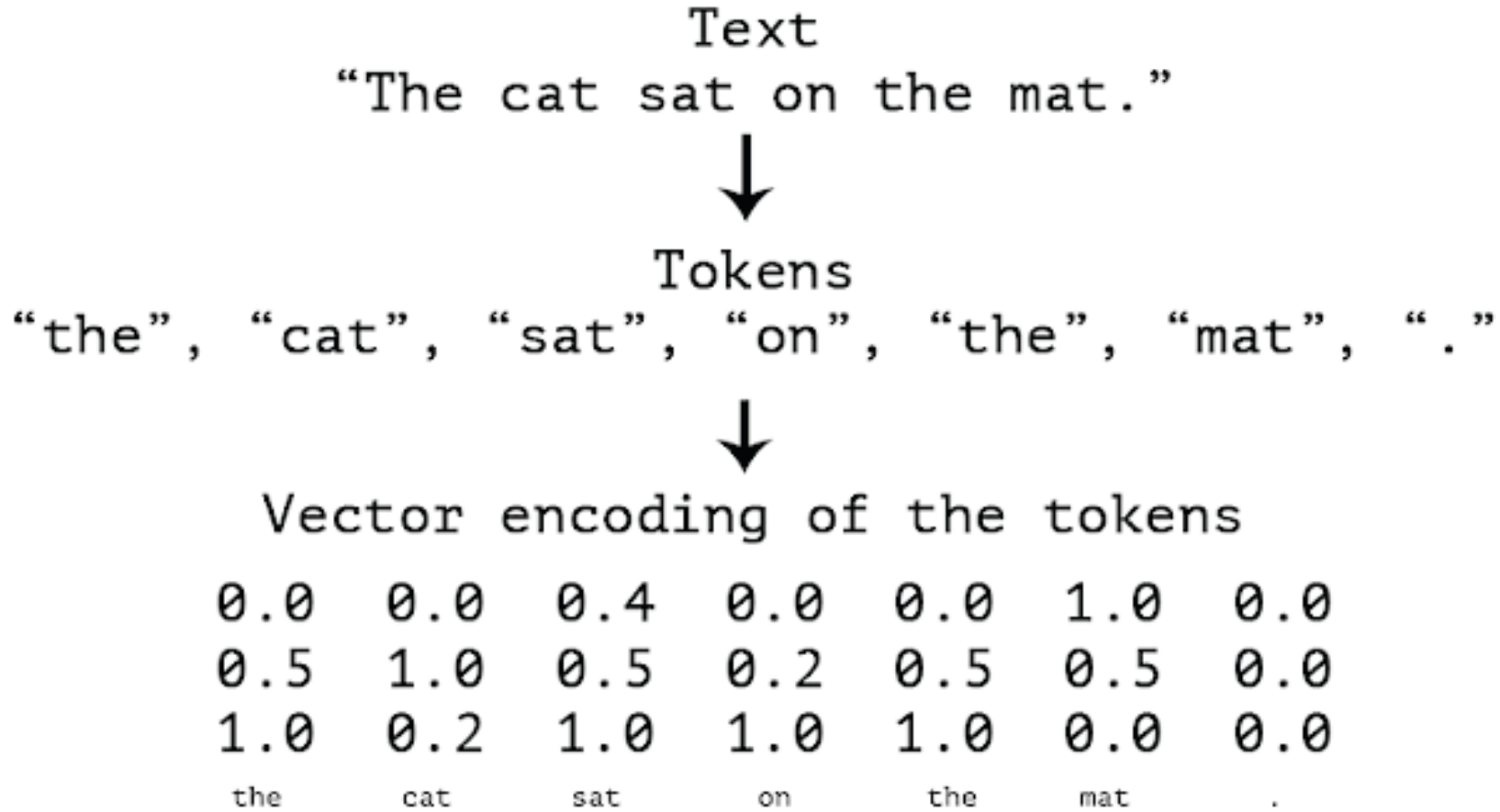
Indexer



Ranker

*At least – indexing is a collection of interconnected processes

Indexing: HTML Lexer & Tokenizer



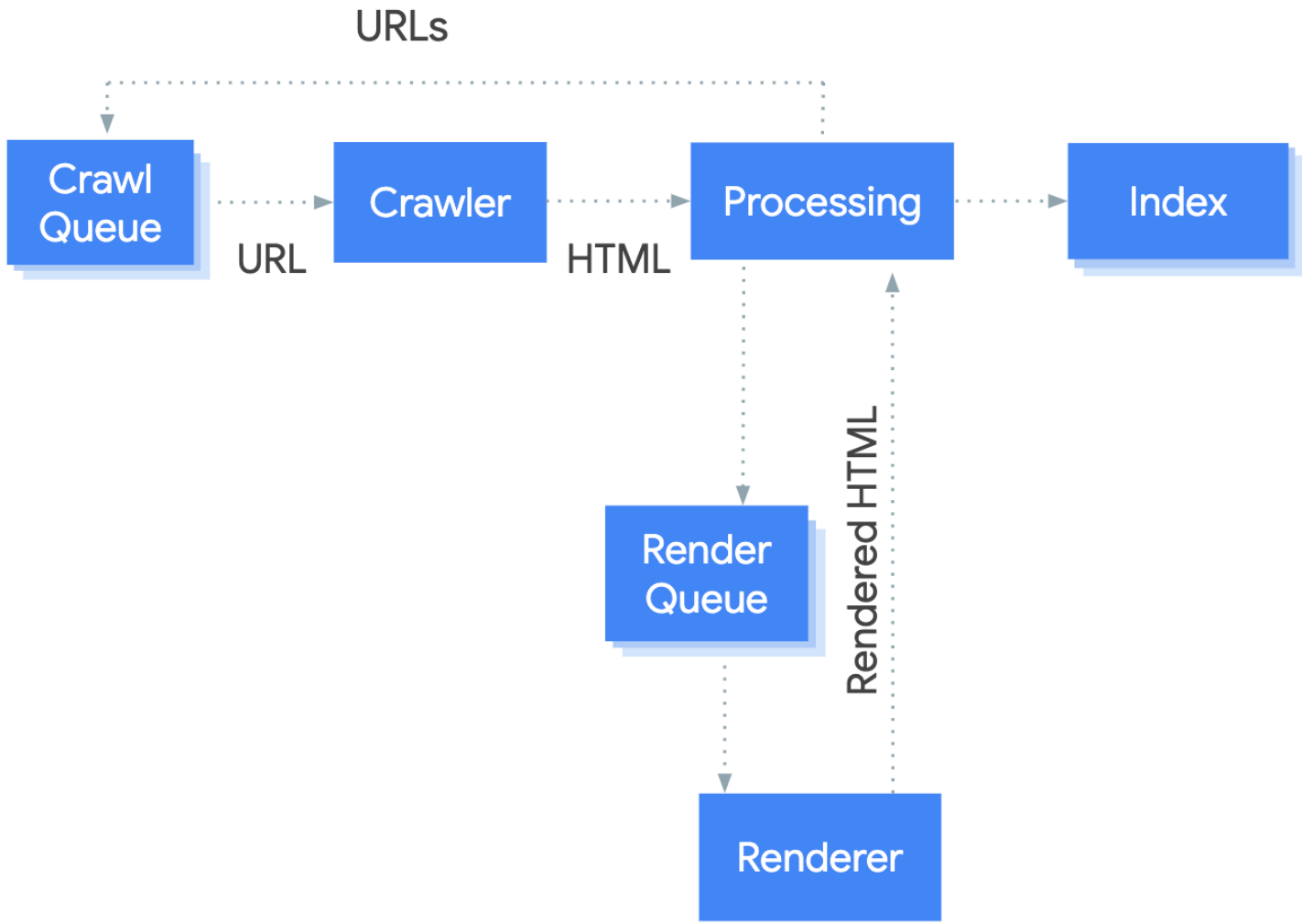
Indexing: Selection



Indexing: HTML Source

```
<div class="row">
  <div class="column">
    <div class="card card-news card-hover no-image" data-equalizer-watch="news">
      <a class="link-full"
href="https://friendsofsearch.com/be/blog/interview/lily-ray-amsive-digital-any-seo-who-hasnt-jumped-onto-the-e-a-t-wave-is-not-playi
ng-close-enough-attention/" target="_self"><span class="screen-reader-text">Lily Ray (Amsive Digital): 'Any SEO who hasn't jumped
onto the E-A-T wave is not playing close enough attention'</span></a>
      <div class="img-container">
        <div class="image-label">
          Interview
        </div>
        <div class="image"
style="background-image:url(https://friendsofsearch.com/be/wp-content/uploads/sites/5/2022/06/Lily-Ray-Amsive-Digital.jpg)"></div>
      </div>
      <div class="card-content">
        <h3>Lily Ray (Amsive Digital): 'Any SEO who hasn't jumped onto the E-A-T wave is not playing close enough attention'</h3>
        <p>According to Lily Ray (Amsive Digital) 'any SEO who hasn't jumped onto the E-A-T wave is not paying close enough attention to
what Google has been up to in recent years.' A bold a bold statement, but true if you believe 'E-A-T should serve as the backbone
to a&#8230;</p>
      </div>
      <div class="card-link">
        <span class="card-meta date">7 June 2022</span> <span class="card-url">Read more</span>
      </div>
    </div>
  </div>
  <div class="column small-12 medium-6">
    <div class="card card-news card-hover no-image" data-equalizer-watch="news">
      <a class="link-full"
href="https://friendsofsearch.com/be/blog/interview/rodney-ip-google-performance-max-helps-our-advertisers-stay-ahead-of-ongoing-chan
ges-in-consumer-behaviour/" target="_self"><span class="screen-reader-text">Rodney Ip (Google): 'Performance Max helps our
advertisers stay ahead of ongoing changes in consumer behaviour'</span></a>
      <div class="card-content">
        <h3>Rodney Ip (Google): 'Performance Max helps our advertisers stay ahead of ongoing changes in consumer behaviour'</h3>
        <p>According to Rodney Ip (Google), Performance Max Campaigns are the next big thing in PPC. 'It brings together the best of
Google's automation to help our advertisers grow conversions across our full range of ad inventory'. We are thrilled that he will
be speak&#8230;</p>
      </div>
      <div class="card-link">
        <span class="card-meta date">3 June 2022</span> <span class="card-url">Read more</span>
      </div>
    </div>
  </div>
</div>
```

Indexing: Rendering



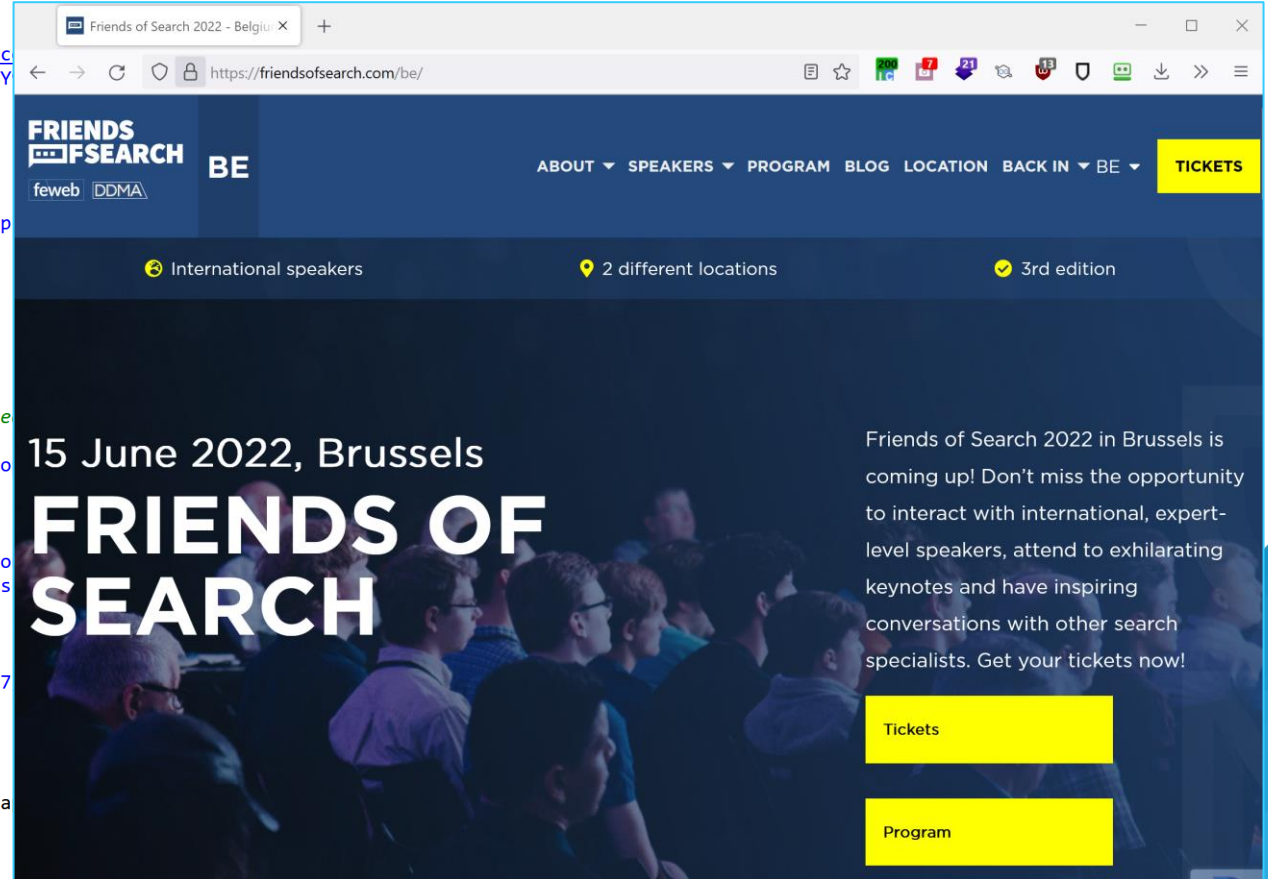
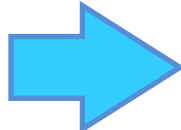
Indexing: Index Integrity



Deduplication & Canonicalisation



Rendering

```
1 <!doctype html>
2 <html class="no-js" lang="en-US" >
3 <head>
4 <meta charset="utf-8" />
5 <script type="text/javascript">
6 var gform;gform||(document.addEventListener("gform_main_scripts_loaded",function(){gform.scriptsLoaded=!0}),window.addEventListener("DOMContentLoadedLoade
7 </script>
8
9 <meta name="viewport" content="width=device-width, initial-scale=1.0" />
10 <link rel="shortcut icon" type="image/png" href="https://friendsofsearch.com/be/wp-c
11 <script src="https://code.jquery.com/jquery-2.2.4.min.js" integrity="sha256-Bbhd1vQf/xTY
12 <link rel="canonical" href="https://friendsofsearch.com/be/" />
13 <link rel="alternate" hreflang="x-default" href="https://friendsofsearch.com/nl/" />
14 <link rel="alternate" hreflang="en" href="https://friendsofsearch.com/nl/" />
15 <link rel="alternate" hreflang="en-be" href="https://friendsofsearch.com/be/" />
16
17 <meta name='robots' content='index, follow, max-image-preview:large, max-snippet:-1, max-video-p
18
19 <!-- Google Tag Manager for WordPress by gtm4wp.com -->
20 <script data-cfasync="false" data-pagespeed-no-defer>
21 var gtm4wp_dataLayer_name = "dataLayer";
22 var dataLayer = dataLayer || [];
23 </script>
24 <!-- End Google Tag Manager for WordPress by gtm4wp.com -->
25 <!-- This site is optimized with the Yoast SEO plugin v19.0 - https://yoast.com/wordpress/plugins/se
26 <title>Friends of Search 2022 - Belgium: Europe's largest Search conference</title>
27 <meta name="description" content="Friends of Search Belgium 2022 is coming up! Don't miss the o
28 <link rel="canonical" href="https://friendsofsearch.com/be/" />
29 <meta property="og:locale" content="en_US" />
30 <meta property="og:type" content="website" />
31 <meta property="og:title" content="Friends of Search 2022 - Belgium: Europe's largest Search co
32 <meta property="og:description" content="Friends of Search Belgium 2022 is coming up! Don't mis
33 <meta property="og:url" content="https://friendsofsearch.com/be/" />
34 <meta property="og:site_name" content="Friends of search BE" />
35 <meta property="article:modified_time" content="2022-06-07T09:05:58+00:00" />
36 <meta property="og:image" content="https://friendsofsearch.com/be/wp-content/uploads/sites/5/2020/07
37 <meta property="og:image:width" content="1920" />
38 <meta property="og:image:height" content="1080" />
39 <meta property="og:image:type" content="image/jpeg" />
40 <meta name="twitter:card" content="summary_large_image" />
41 <script type="application/ld+json" class="yoast-schema-graph">{"@context":"https://schema.org", "@gra
42 <!-- / Yoast SEO plugin. -->
43
```



Evergreen Chrome

Home > Search Central > Google Search Central Blog

Was this helpful?  

The new evergreen Googlebot

[Send feedback](#)

Tuesday, May 07, 2019

Googlebot is the crawler that visits web pages to include them within Google Search index. The number one question we got from the community at events and social media was if we could make Googlebot evergreen with the latest Chromium. Today, we are happy to announce that Googlebot now runs the latest Chromium rendering engine (74 at the time of this post) when rendering pages for Search. Moving forward, Googlebot will regularly update its rendering engine to ensure support for latest web platform features.

What that means for you

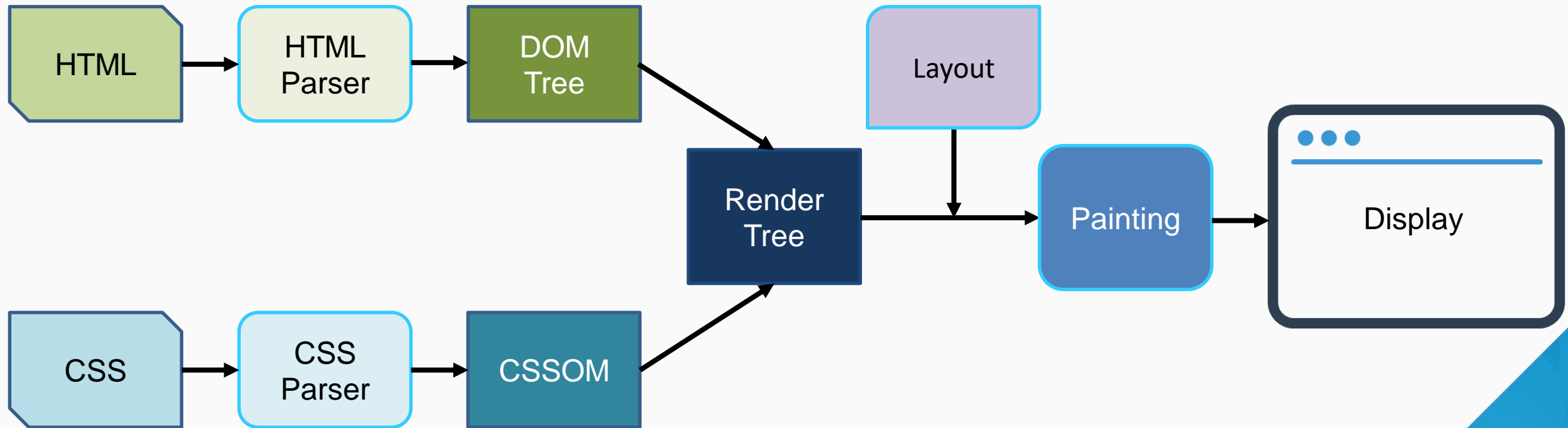
Compared to the previous version, Googlebot now supports 1000+ new features, like:

- ES6 and newer JavaScript features
- [IntersectionObserver for lazy-loading](#)
- [Web Components v1 APIs](#)

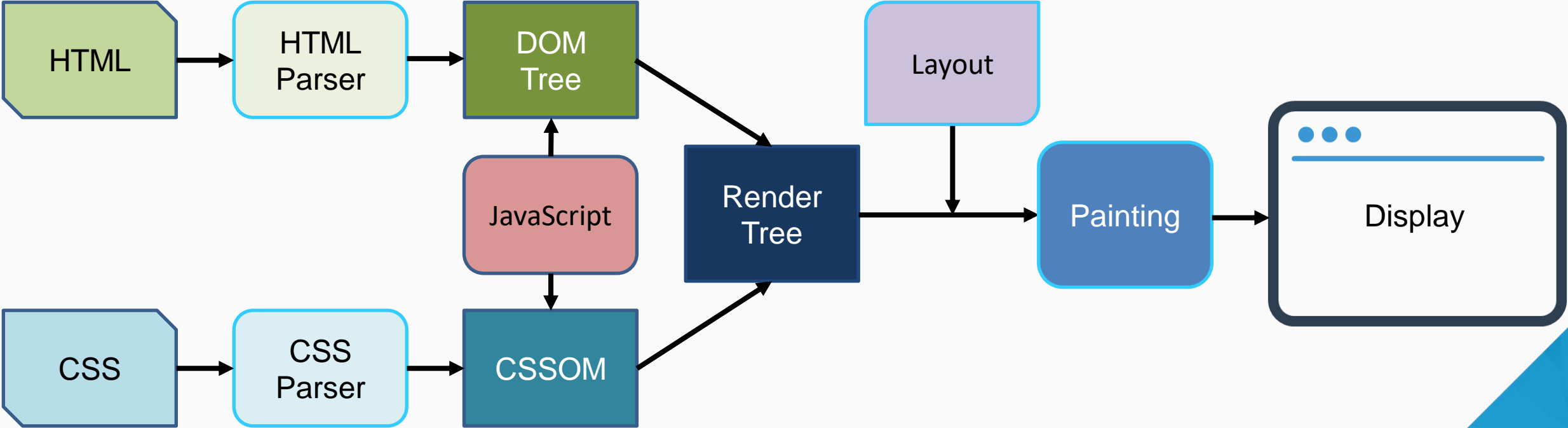
You should check if you're transpiling or use polyfills specifically for Googlebot and if so, evaluate if this is still necessary. There are still some limitations, so check our [troubleshooter for JavaScript-related issues](#) and the [video series on JavaScript SEO](#).



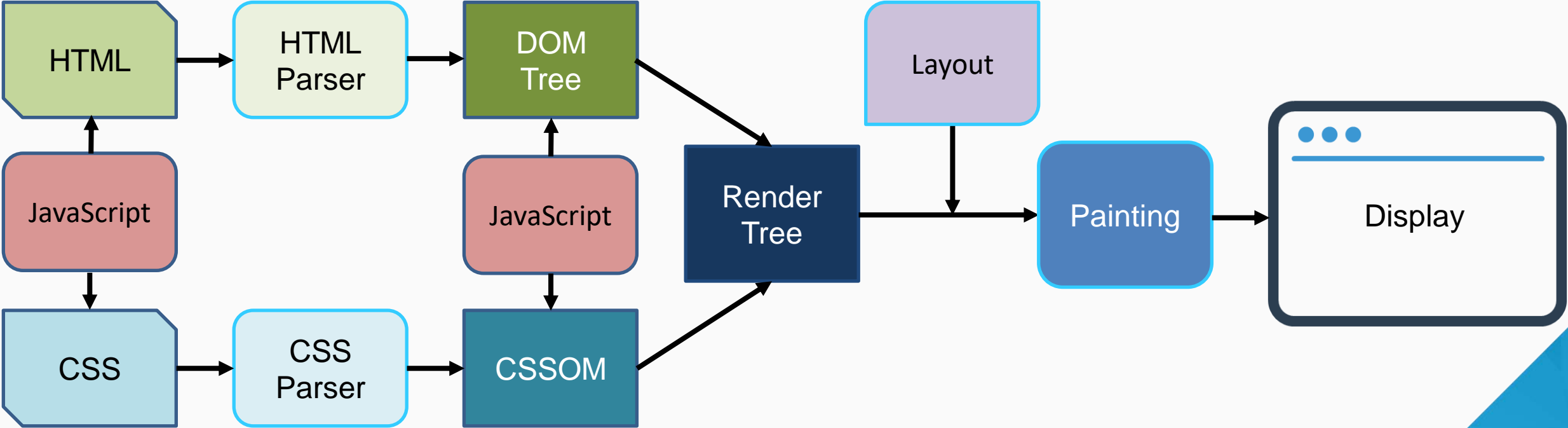
What happens during Rendering in your Browser?



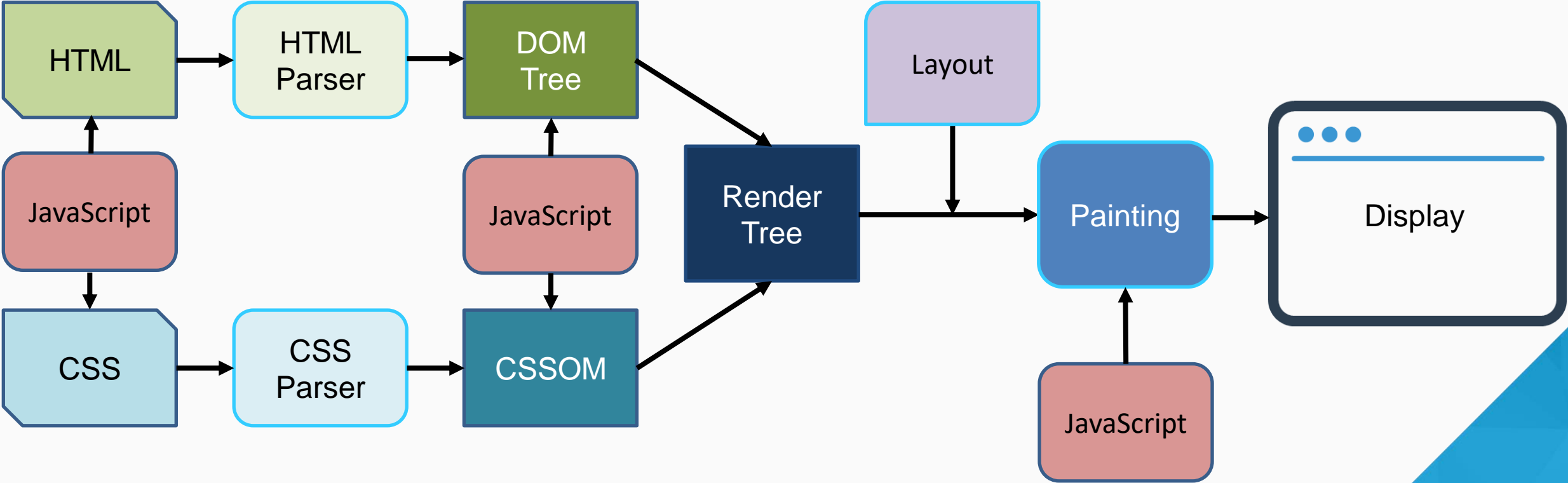
JavaScript



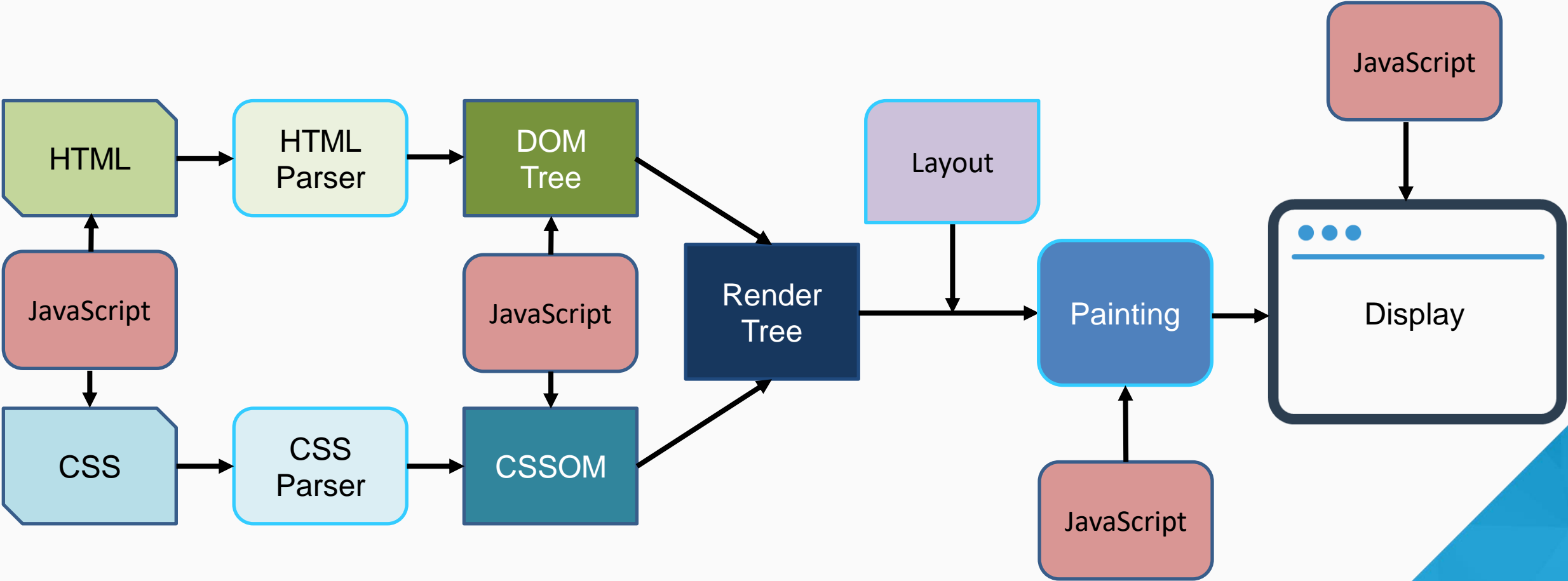
JavaScript...



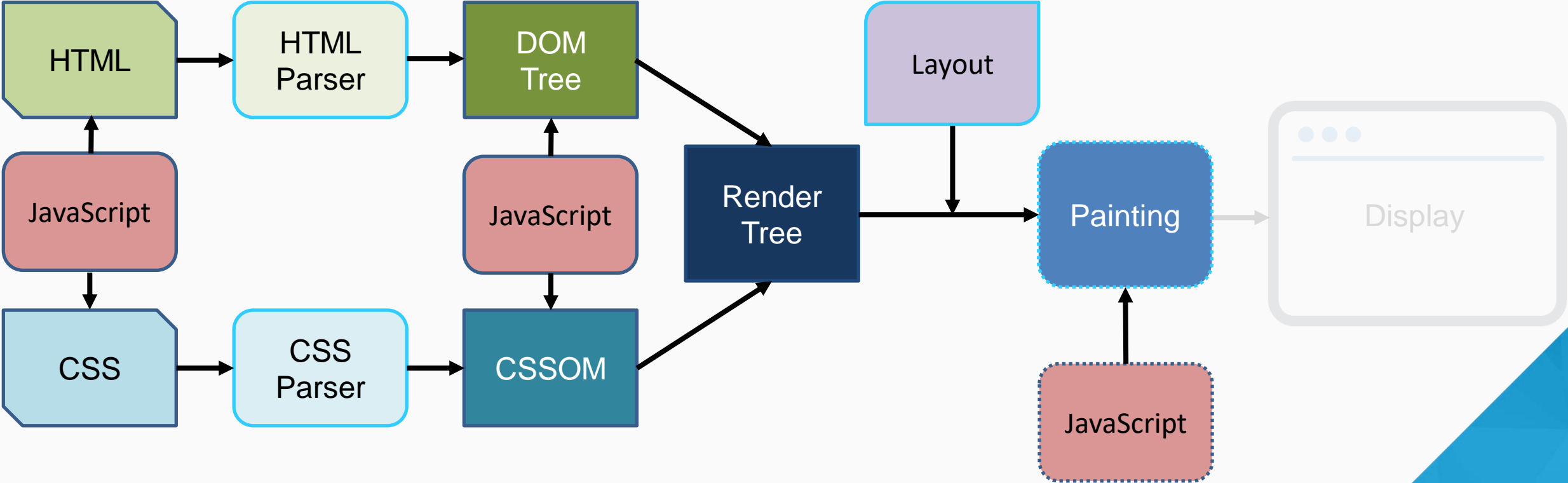
JavaScript...



JavaScript...



Google's Rendering as part of Indexing




Google does not perform actions

```
<button onclick="myFunction()">Click me</button>
```



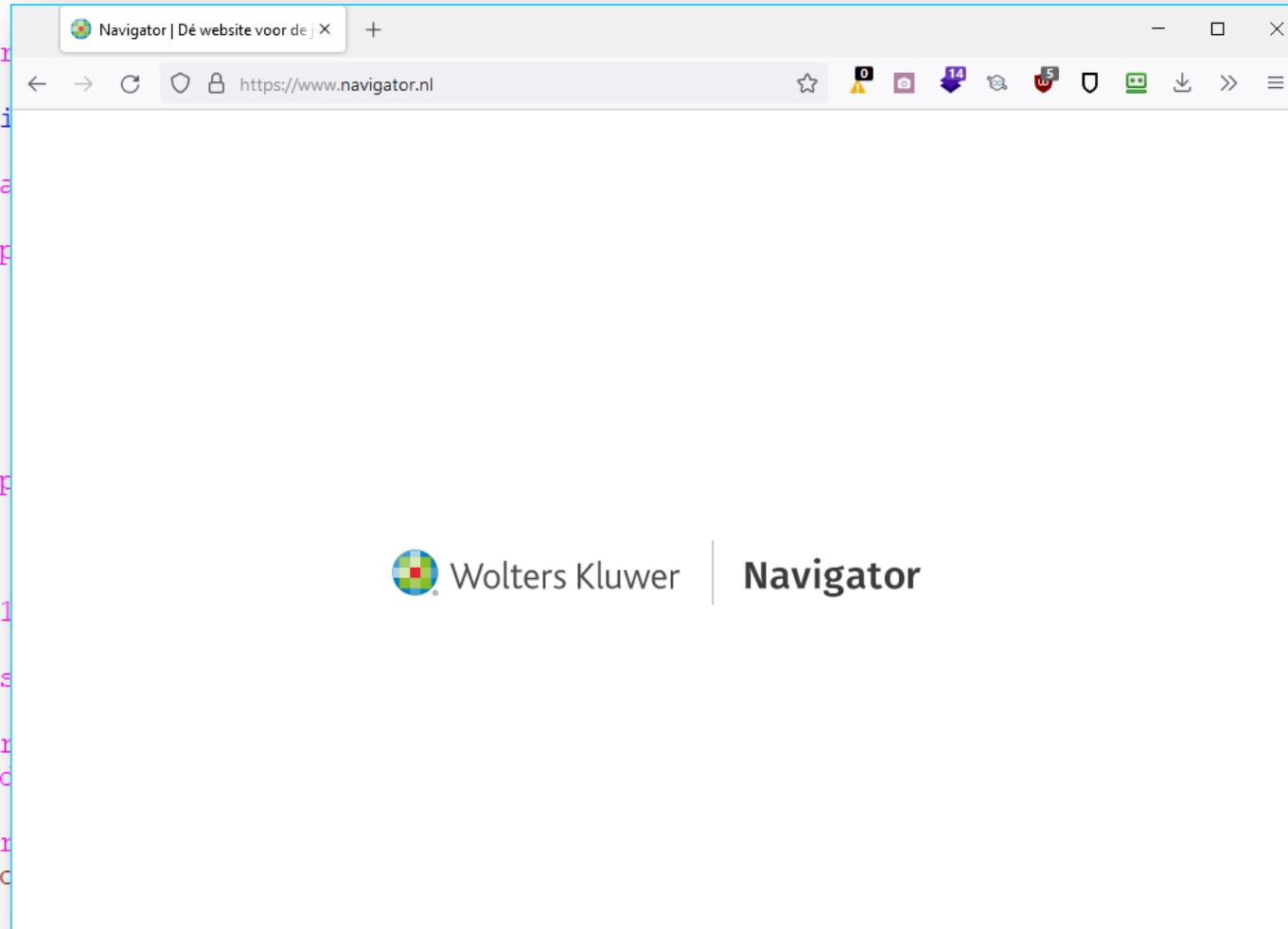
```
<div onscroll="myFunction()">
```



Why Rendering?

Raw HTML:

```
<body>
  <form>
    <input id="ios-keyboard" type="text" value="" />
  </form>
  <div id="orientation"></div>
  <div id="size"></div>
  <div class="loading-indicator">
    <img alt="Navigator | Dé website voor de" />
    <div class="loading-spinner">
      <div></div>
      <div></div>
      <div></div>
    </div>
  </div>
</div>
<div class="universal-dropdown">
</div>
</div>
</div>
</div>
<script src="/vars.js?v=1" />
</script>
<script src="/tesla.all.js" />
</script>
<script type="text/javascript">
  setTimeout(function() {"unc
</script>
<script type="text/javascript">
  window.angular&&angular.m
</script>
</body>
```

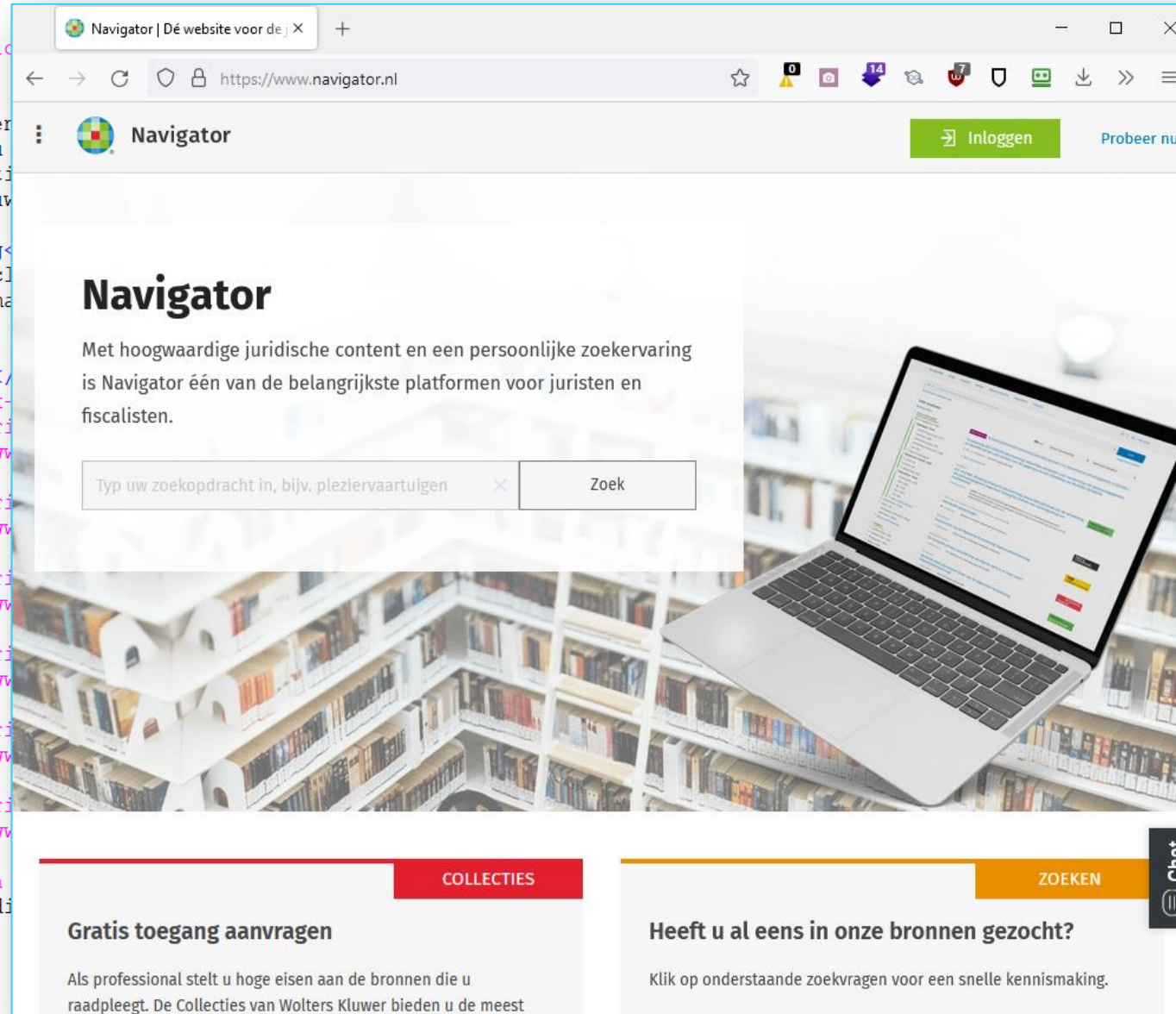


script'>

templateC

Rendered DOM:

```
<div class="landing-section">
  <section class="collections">
    <header class="landing-article">
      <h2>Collecties</h2>
    </header>
    <h4>Gratis toegang aanvragen</h4>
    <p>Als professional stelt u
    meest complete informatie
    Collecties zijn opgebouwd
    <ul class="dashed">
      <li>wet- en regelgeving</li>
      <li>jurisprudentie (incl.
      <li>artikelsgewijs/thema
      <li>vakliteratuur</li>
    </ul>
    <p>Er zijn Collecties voor</p>
    <ul class="links tesla-link">
      <li class="icon-arrow-right">
        <a href="https://www.
      </li>
      <li class="icon-arrow-right">
        <a href="https://www.
      </li>
      <li class="icon-arrow-right">
        <a href="https://www.
      </li>
      <li class="icon-arrow-right">
        <a href="https://www.
      </li>
      <li class="icon-arrow-right">
        <a href="https://www.
      </li>
      <li class="icon-arrow-right">
        <a href="https://www.
      </li>
      <li class="icon-arrow-right">
        <a href="https://www.
      </li>
    </ul><a class="tesla-button">
      Vind de Collectie die
    </a>
  </section>
```



Gratis toegang aanvragen

Als professional stelt u hoge eisen aan de bronnen die u raadpleegt. De Collecties van Wolters Kluwer bieden u de meest

Heeft u al eens in onze bronnen gezocht?

Klik op onderstaande zoekvragen voor een snelle kennismaking.

@daanis #FOSZZ

Rendering allows Google to...

- ... load all meta data, content, and links on a webpage
- ... understand the page's layout and content hierarchy
- ... evaluate the usability and quality of the webpage

Rendering Issues

Possible Rendering Issues in GSC

Coverage > Soft 404

EXPORT SHARE

All known pages

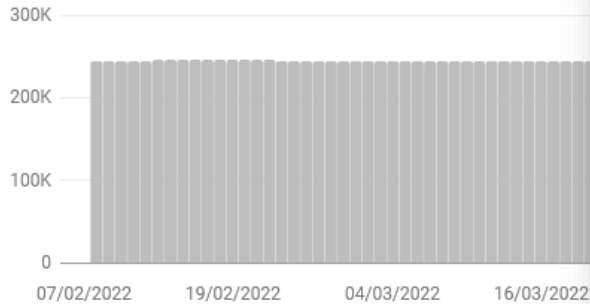
Soft 404

Status: Excluded

LEARN MORE

Affected pages

242K



Coverage > Submitted URL seems to be a Soft 404

EXPORT SHARE

All known pages

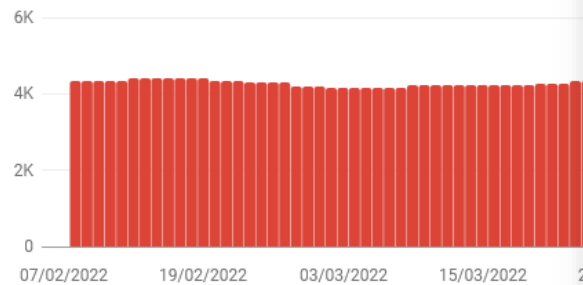
Submitted URL seems to be a Soft 404

First detected: 20/12/2017 Status: Error

LEARN MORE

Affected pages

4.61K



Coverage > Page indexed without content

EXPORT SHARE

All known pages

Source: Smartphone ? Last updated: 07/05/2022

Page indexed without content

First detected: 27/02/2021 Status: Warning

LEARN MORE

Finished fixing? VALIDATE FIX

Affected pages

1



Rendering Issues

- Inaccessible Resources;
 - Make sure all page resources can be crawled

The image shows a screenshot of the Google Search Console URL Inspection tool. The main panel displays the results of a 'LIVE TEST' performed on 8 May 2022 at 14:27. The test status is 'URL is available to Google', indicating the page is indexed and can appear in search results. Below this, there are two sections for 'Enhancements': 'Availability' (URL can be indexed) and 'Mobile Usability' (Page is mobile friendly). To the right, a 'Tested page' sidebar is open, showing a list of 'Page resources' that failed to load. The resources include a redirection error for an image, two 'Other error' messages for video player stats and test impressions, a 'Googlebot blocked by robots.txt' error for a LinkedIn tracking script, and another 'Other error' for a Vimeo video player.

Resource	Error Type
https://c.clarity.ms/c.gif	Redirection error (Image)
https://fresnel.vimeocdn.com/add/player-stats?beacon=1&session-id=70268d771aa51f438d423e3034cc942a1ac831521652016423	Other error (Other)
https://fresnel.vimeocdn.com/add/player-test-impression?beacon=1	Other error (Other)
https://px.ads.linkedin.com/collect?v=2&fmt=js&pid=1076164&time=1652016421103&url=https%3A%2F%2Fwww.crexi.com%2Fintelligence	Googlebot blocked by robots.txt (Image)
https://vimeo.com/ablincoln/vuid?pid=70268d771aa51f438d423e3034cc942a1ac831521652016423	Other error (Other)

Rendering Issues

- JavaScript inserts invalid HTML in the <head>;
 - <body> tags in the <head> break Google's processing of meta tags

```
<!doctype html>
<html lang="en">

<head>
  <meta name="description" content="ACME Anvils are great for all your skull crushing
  needs. From annoying road runners to opinionated rabbits, our anvils are guaranteed
  to hit you in the face.">
  <title>ACME Anvils</title>
  <script>
    Some JavaScript
  </script>
  <link href="https://www.acme.com/skull-crushing/anvils/" hreflang="en-us" rel="alternate" />
  <link href="https://www.acme.com/uk/skull-crushing/anvils/" hreflang="en-gb" rel="alternate" />
  <link href="https://www.acme.com/ie/skull-crushing/anvils/" hreflang="en-ie" rel="alternate" />
  <link href="https://www.acme.com/skull-crushing/anvils/" hreflang="x-default" rel="alternate" />
</head>

<body>
  ...
</body>
</html>
```

Rendering Issues

- JavaScript inserts invalid HTML in the <head>;
 - <body> tags in the <head> break Google's processing of meta tags

```
<!doctype html>
<html lang="en">

<head>
  <meta name="description" content="ACME Anvils are great for all your skull crushing
  needs. From annoying road runners to opinionated rabbits, our anvils are guaranteed
  to hit you in the face.">
  <title>ACME Anvils</title>
  <iframe src="...">
  <link href="https://www.acme.com/skull-crushing/anvils/" hreflang="en-us" rel="alternate" />
  <link href="https://www.acme.com/uk/skull-crushing/anvils/" hreflang="en-gb" rel="alternate" />
  <link href="https://www.acme.com/ie/skull-crushing/anvils/" hreflang="en-ie" rel="alternate" />
  <link href="https://www.acme.com/skull-crushing/anvils/" hreflang="x-default" rel="alternate" />
</head>

<body>
  ...
</body>
</html>
```

Get started

[How Google Search works](#)[Developer's guide to Search](#)[Advanced guide to Search Console](#)

Guidelines ^

[Overview of guidelines](#)[Webmaster guidelines](#)

▾ General guidelines

[Keep a simple URL structure](#)[Qualify your outbound links to Google](#)[Interstitials and dialogs](#)[Tag site for child-directed treatment](#)[Browser compatibility](#)[Avoid creating duplicate content](#)[Use valid page metadata](#)[Make your links crawlable](#)[Make sure Googlebot is not blocked](#)

Don't use invalid elements in the <head>

The following elements are invalid when used in the `<head>`, and therefore aren't supported by Google Search when placed in the `<head>`:

- `iframe`
- `img`
- Any other HTML element

We strongly recommend that you don't use these invalid elements in the `<head>`, but if you must, place these invalid elements after the ones you want Google to see. Once Google detects one of these invalid elements, it assumes the end of the `<head>` and stops reading any further elements in the `<head>`.

Was this helpful?

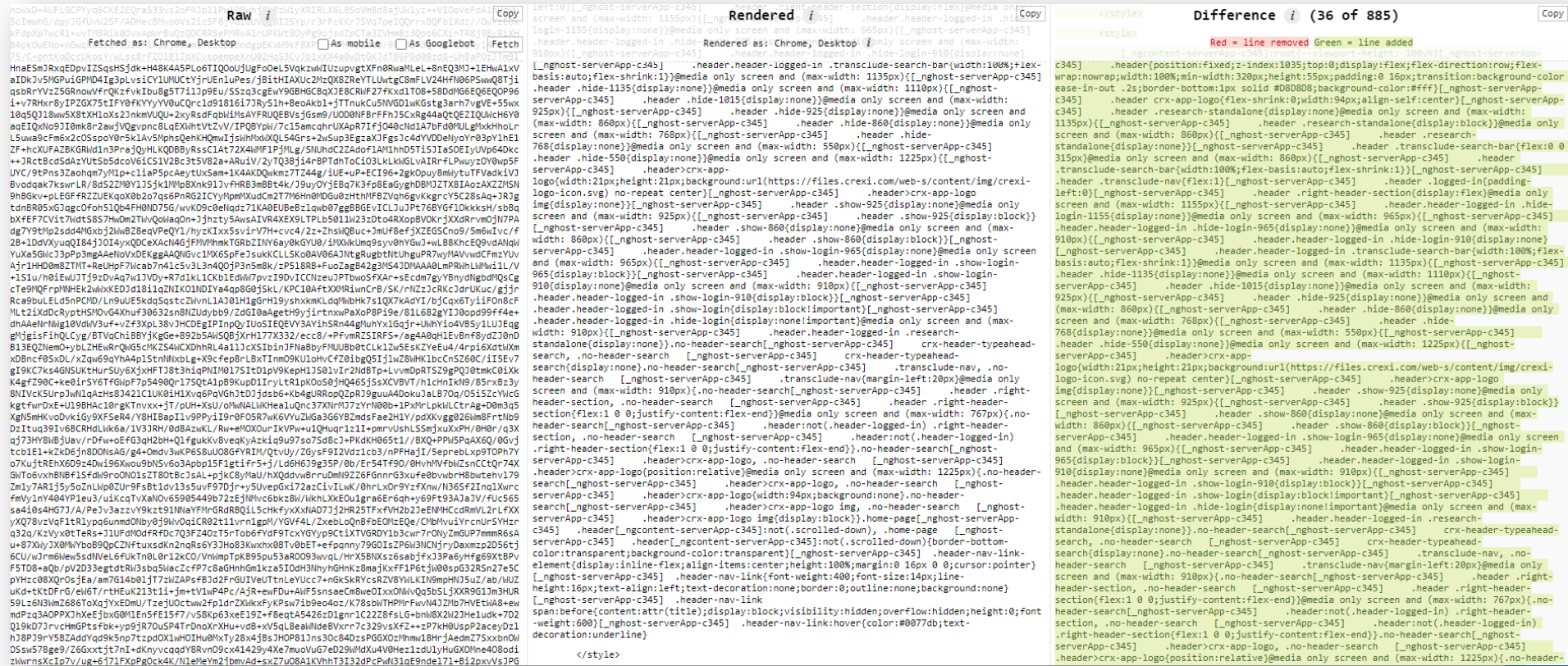
[Send feedback](#)

<https://developers.google.com/search/docs/advanced/guidelines/valid-html>

Rendering Issues

• HTML vs Render mismatch;

➤ Different content in raw HTML vs fully rendered page





View Rendered Source

Remove from Chrome

www.jonhogg.com Featured

★★★★★ 24 | Developer Tools | 10,000+ users

Overview

Privacy practices

Reviews

Support

Related

The screenshot displays the 'View Rendered Source' interface. On the left, the 'Rendered' tab shows the HTML code for the page. On the right, the 'Difference' tab shows a comparison of the rendered HTML with the original source code. The difference view highlights changes with red lines for removed content and green lines for added content. The code includes script tags for 'walkme-config-constants', 'walkme-errors-logger', and 'Auto-saving scratchpad', as well as a header and body section with a logo and a download button.

<https://chrome.google.com/webstore/detail/view-rendered-source/ejngngohbdedoabanmclafpkoogegdpob>

SEO Crawlers Can Also Render

The screenshot shows a web crawler interface with a sidebar on the left containing categories like All Hints (58), SEO, Internal, Links, Indexability, Redirects, On Page, Duplicate Content, XML Sitemaps, Response vs Render (selected), Security, Performance, Mobile Friendly, Code Coverage, Page Resources, Structured Data, and XML Sitemap Generator. The main content area is titled 'Response vs Render' and features a 'Printable PDF' button and a search bar. Two panels are visible: 'Meta Robots' and 'Canonical'. Each panel contains a pie chart and a table. The pie charts are 100% green, indicating 'No Change'. The tables show the following data:

Status	URLs
No Change	105,799
Created	0
Modified	0
Duplicated	0
Deleted	0

Status	URLs
No Change	105,799
Created	0
Modified	0
Duplicated	0
Deleted	0

Google Tools *ALWAYS* Render

Mobile-Friendly Test

Test results

- Page is mobile friendly**
This page is easy to use on a mobile device. [Learn more](#)

VIEW TESTED PAGE

Details

Crawl

- Crawled successfully on 8 Jun 2022, 11:17:49**

Additional resources

PageSpeed Insights

https://www.friendsofsearch.com/ Analyze

Mobile Desktop

- Discover what your real users are experiencing
- Diagnose performance issues

90

Performance

Values are estimated and may vary. The performance score is calculated directly from these metrics. [See calculator.](#)

▲ 0-49 ■ 50-89 ● 90-100

Rich Results Test

Test results

- 2 valid items detected**
Valid items are eligible for Google Search's rich results. [Learn more](#)

VIEW TESTED PAGE PREVIEW RESULTS

Details

Crawl

- Crawled successfully on 8 Jun 2022, 11:17:59**

Detected structured data

- Breadcrumbs** 1 valid item detected

Optimise Rendering

- Don't rely on Google's rendering;
 - Use SSR & CDN caching
- Minimise page weight;
 - Fewer page resources = better use of crawl budget
faster load speed & CWV
less chance of rendering issues
- Optimise your HTML source;
 - Think about where `<script>` tags exist and what they do when their code is executed

Optimise Indexing

- Optimise your page layouts;
 - Prominent content & links are more valuable for users & Google
- Improve internal linking;
 - More PageRank = higher chance of indexing
- Improve your content;
 - Google has **no obligation** to index all your pages
 - Make it worth Google's while...

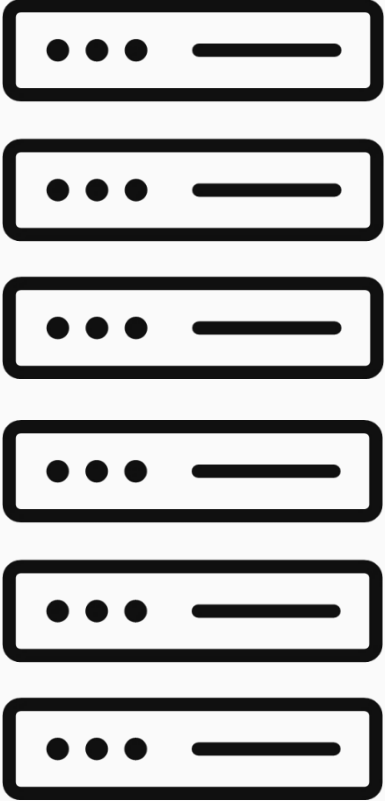
Bypassing Rendering* with Edge SEO

*sort of

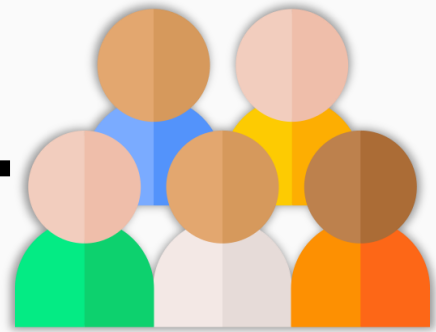
Edge SEO



Your Webserver

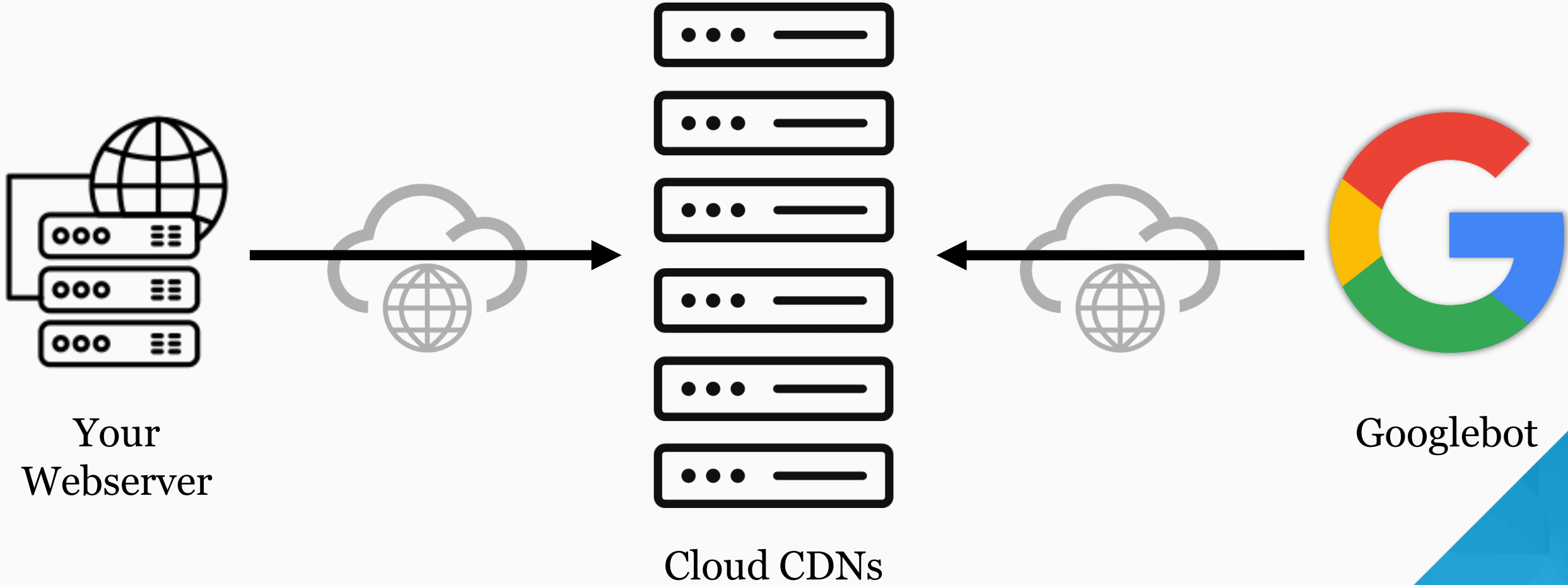


Cloud CDNs



Users

Edge SEO



Your Webserver

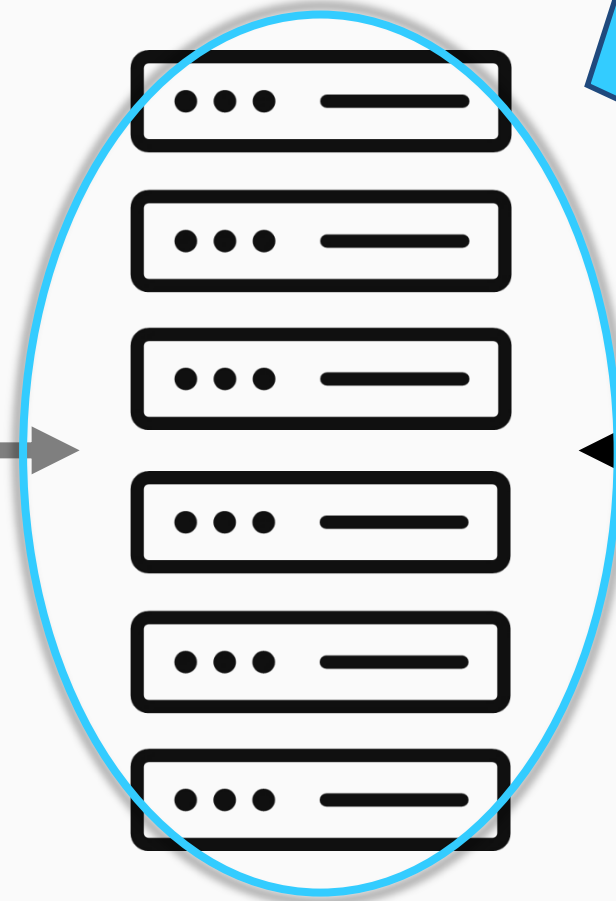
Cloud CDNs

Googlebot

Edge SEO



Your Webserver



Cloud CDNs



Change your webpages here



Googlebot

Edge SEO



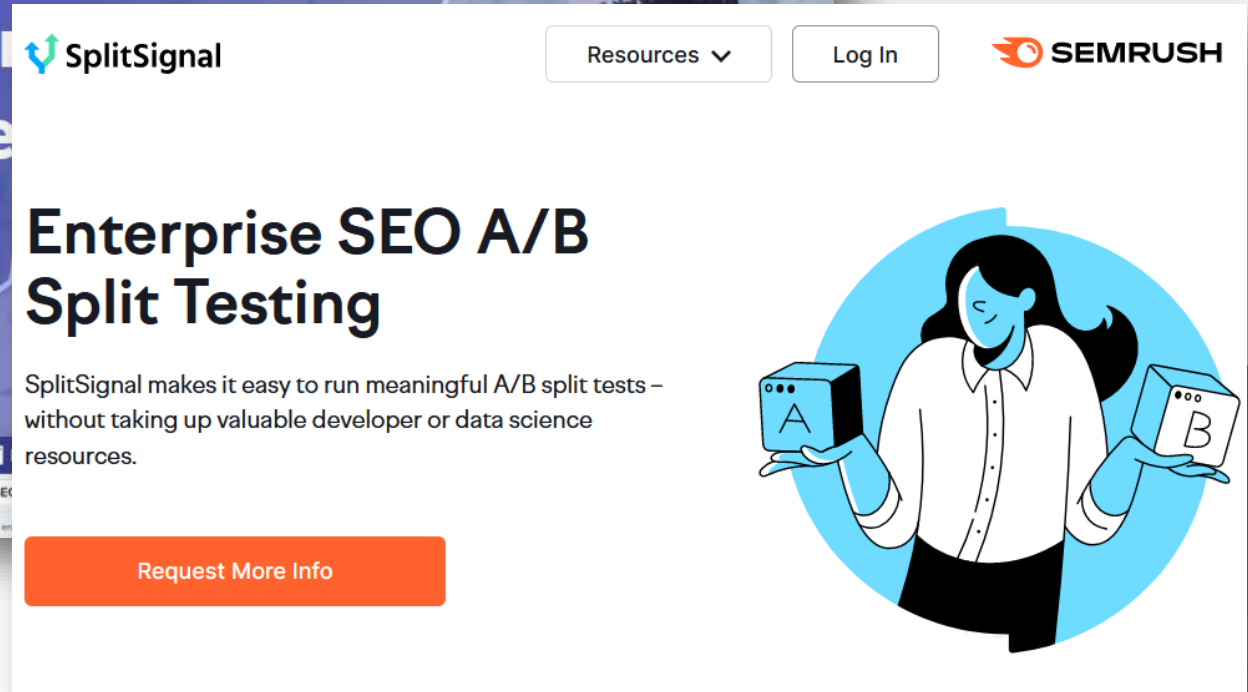
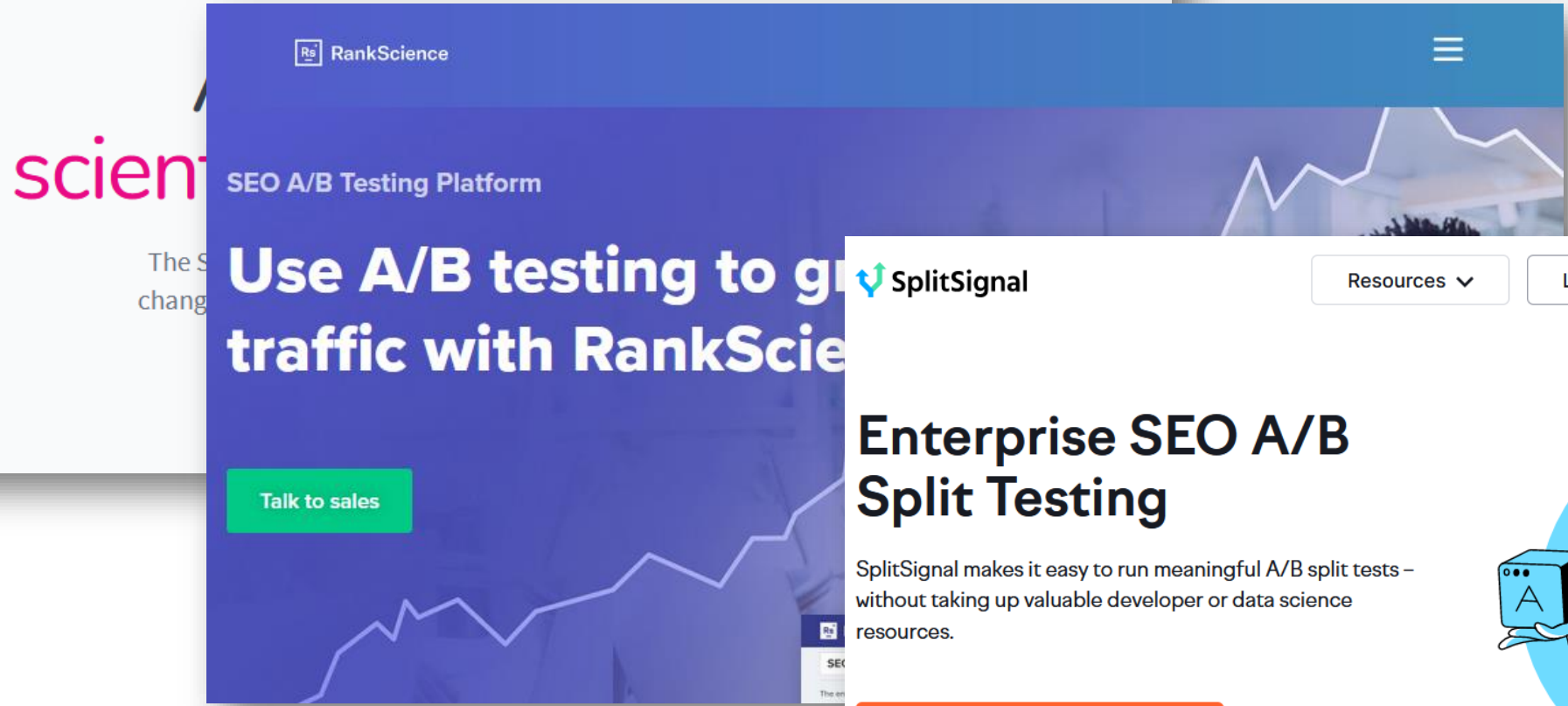
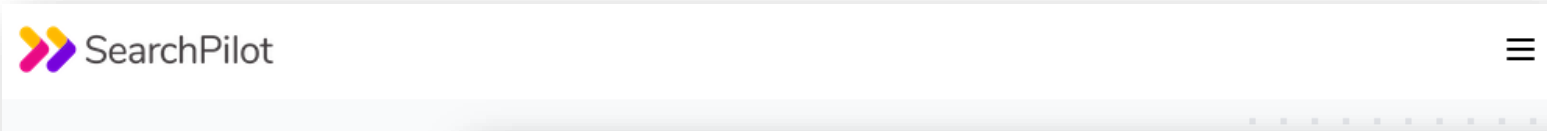
- CDNs store cached versions of your webpages;
 - Global coverage with edge nodes worldwide
 - Usually also results in faster crawling and better CWV
- You manipulate your CDN cached pages;
 - Cloud Workers enable a range of functionality
- Googlebot crawls & indexes the changed CDN-cached pages;
 - Your 'original' website remains unchanged
 - Google only sees the changed CDN webpages

Why Edge SEO?




- Faster deployment;
 - Bypass your developers' lengthy queues
 - 'Ask forgiveness, not permission'
 - No reliance on client-side JavaScript
- No CMS constraints;
 - Change pages directly regardless of your CMS capabilities
- Testing;
 - Perform narrow tests on specific site sections
 - A/B testing for SEO

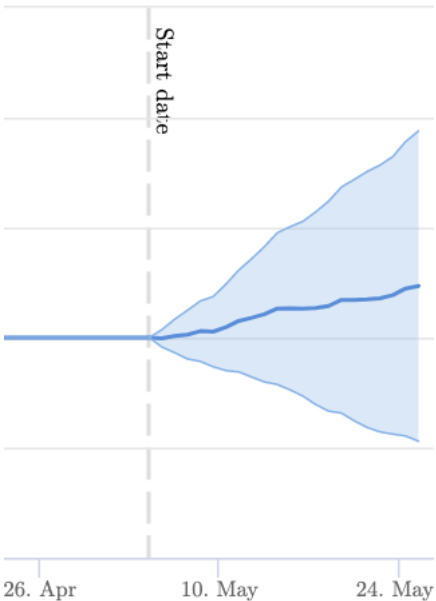
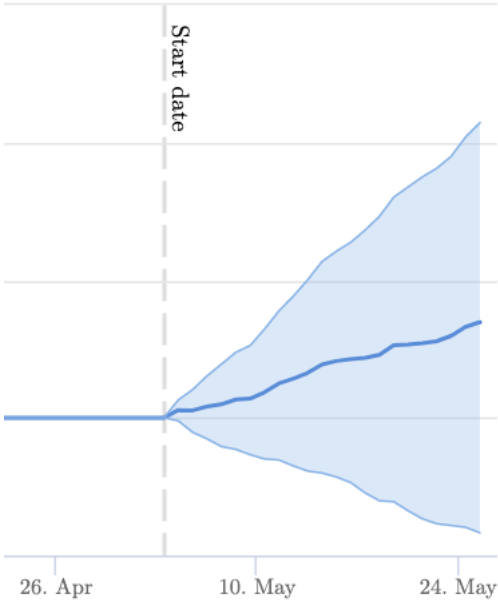
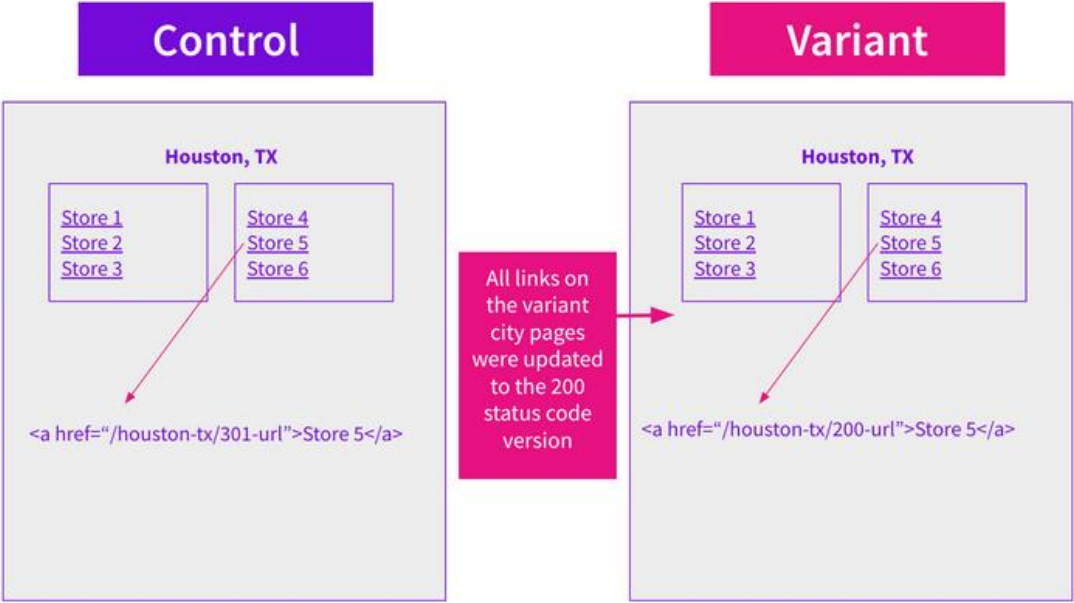
SEO A/B Split Testing



SEO Split Testing Case Studies

Do 301 Internal Links Harm SEO?

 **Siena Sara**
Thu, 05 May 2022 4 min read



<https://www.searchpilot.com/resources/newsletter/>

@badams #FOS22

Barry Adams

- Doing SEO since 1998
- Specialist in Technical SEO & News SEO
- Newsletter: SEOforGoogleNews.com



@badams #FOS22



Thank You

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 @badams