SEARCH ENGINE OPTIMIZATION

University *of* Wisconsin-Eau Claire

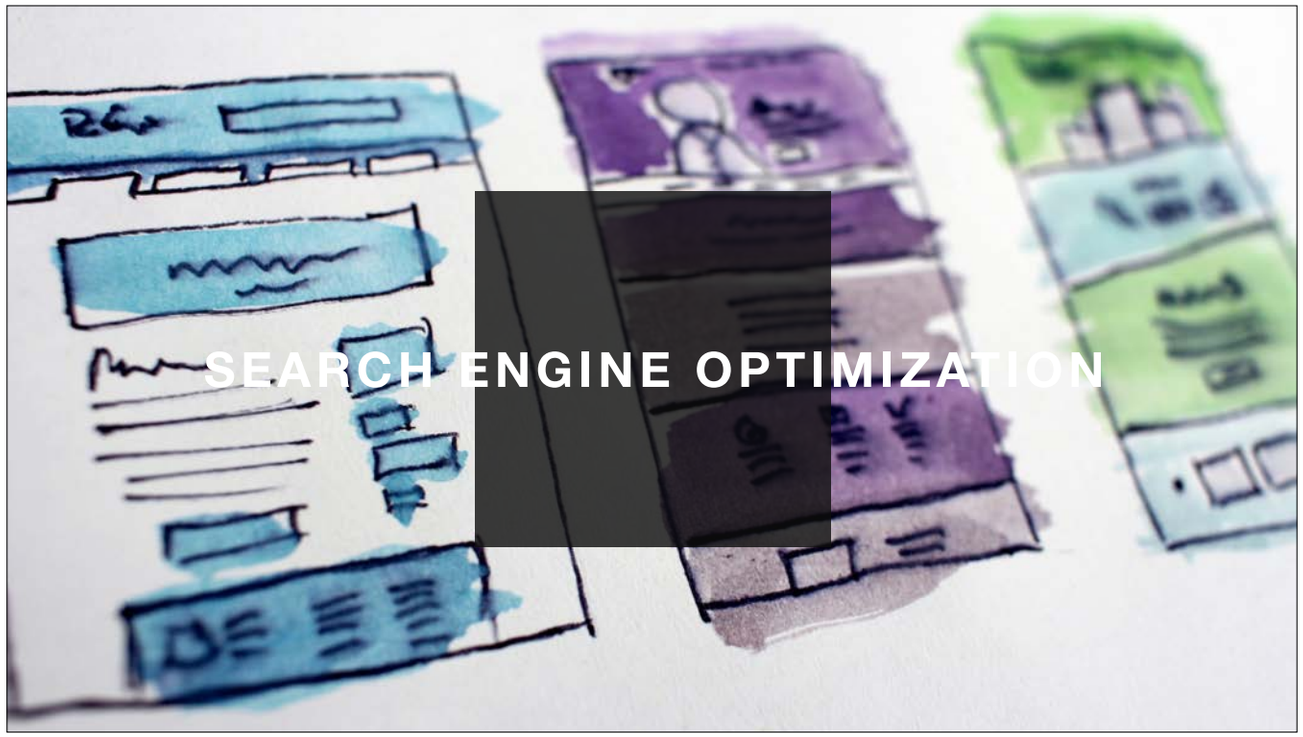
Search Engine Optimization for the Technologically Inclined

Tyler Schroeder / schroetj@uwec.edu

University Web Coordinator / Digital Strategist
University of Wisconsin-Eau Claire

Overview

1. Search Engine Optimization
2. Security
3. Accessibility
4. Mobile First
5. URLs & Redirects
6. Stuff for Robots
7. Structured Data
8. Odds & Ends


SEARCH ENGINE OPTIMIZATION

Search Engine Optimization

Strategy

Make a plan that includes a solid content and keyword strategy.

Information Architecture

Determine how your content will be structured, and be sure to have a comprehensive taxonomy to back it.

Technical

Cover your bases on the technical side to give your content optimizations the best foundation possible.

Content

Help your content shine! Focused on-page optimizations will amplify your content's reach and impact.

Resources:
- https://moz.com/beginners-guide-to-seo
- https://moz.com/blog/modern-seo-requires-technical-creative-and-strategic-thinking-whiteboard-friday
- https://support.google.com/webmasters/answer/35769?hl=en
- https://moz.com/blog/seo-cheat-sheet
- https://moz.com/google-algorithm-change
- https://webmasters.googleblog.com

SECURITY

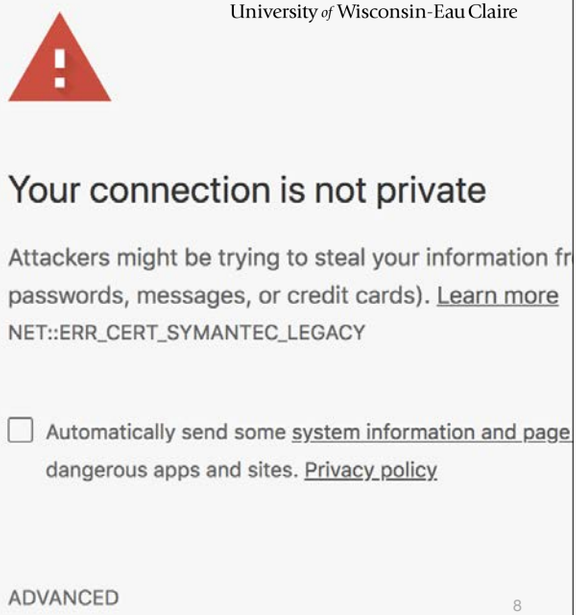
HTTPS, always

- Starting July 2018, Chrome will identify non-https sites as “not secure”
- Ranking boost for HTTPS sites
- If you haven’t made the switch, make a plan now
- Be cautious since switching to HTTPS can have negative impact if not done properly
- Avoid mixed content

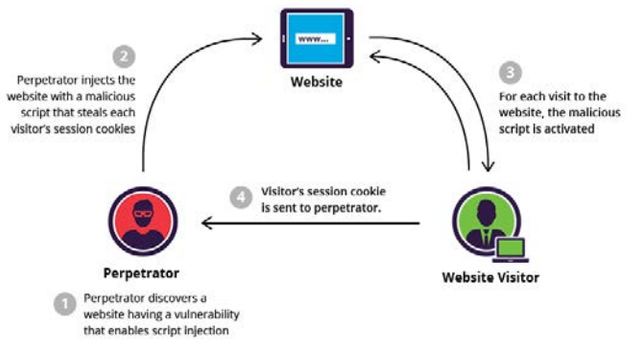
Resources:
- https://security.googleblog.com/2018/02/a-secure-web-is-here-to-stay.html
- https://developers.google.com/web/fundamentals/security/encrypt-in-transit/why-https
- https://searchengineland.com/effective-july-2018-googles-chrome-browser-will-mark-non-https-sites-as-not-secure-291623
- https://searchengineland.com/http-https-seos-guide-securing-website-246940

SSL: Certificate Trust

- Symantec certificate authority was distrusted starting March 2018
- Affected certs include Thawte, VeriSign, Equifax, GeoTrust, and RapidSSL
- April and October releases of stable Chrome will bring more visibility



Resources:
- https://webmasters.googleblog.com/2018/04/distrust-of-symantec-pki-immediate.html



Malware, XSS exploits, etc.

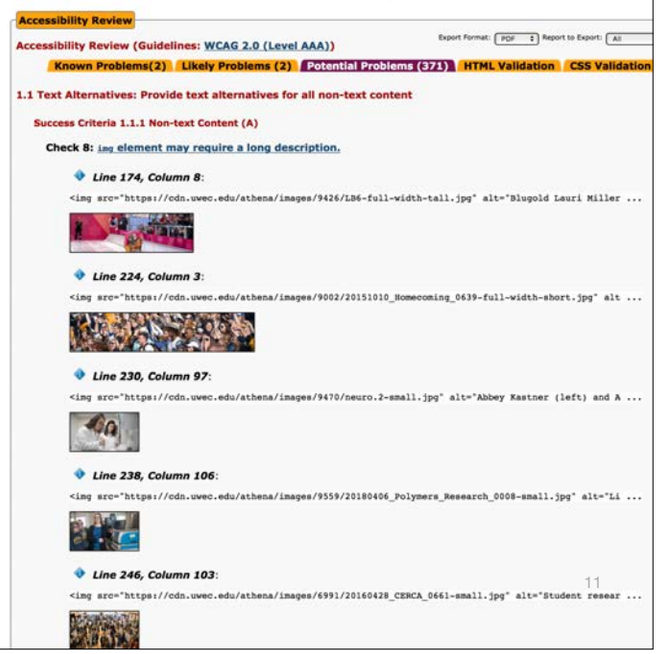
- Site security impacts SEO!
- Regularly scan for malware
- Properly cleanse user inputs (i.e. contact forms)
- Keep up with CMS and other security updates
- Lockdown scripts and limit iFrames

Resources:
- https://moz.com/blog/how-to-make-your-website-more-secure
- https://www.incapsula.com/web-application-security/cross-site-scripting-xss-attacks.html

ACCESSIBILITY
STUNNING CSS
JON DUCKETT
WILEY

Accessibility and SEO

- Making an accessible site is good for SEO! (Not to mention it's just the right thing to do.)
- Valid semantic markup benefits users AND bots
- The list is long: Video transcription, image captions and alt attributes, title and header tags, meaningful link anchor text, sitemaps, breadcrumbs, content hierarchy, hidden text (when executed properly), etc.



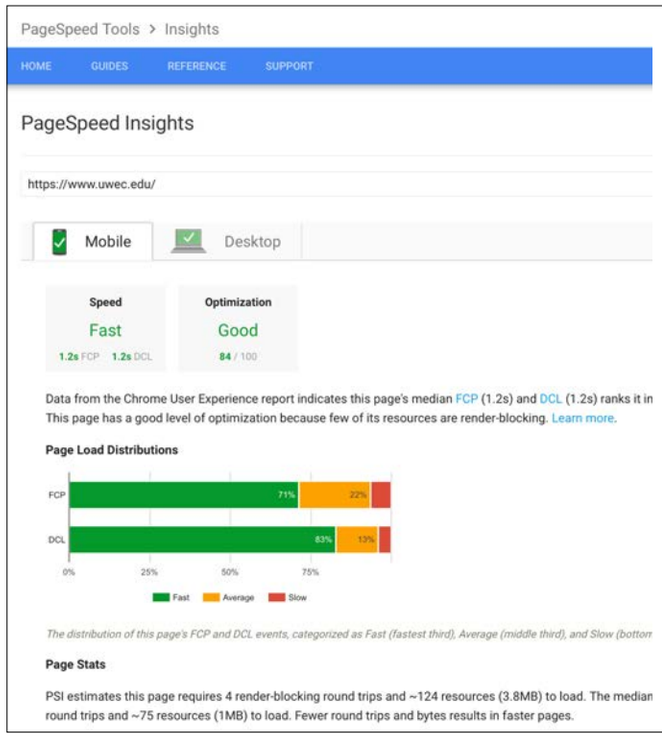
Resources:
- https://moz.com/blog/accessibility-seo-1
- https://moz.com/blog/seo-accessibility-images-video
- https://moz.com/blog/seo-accessibility-formatting-and-links
- https://achecker.ca

MOBILE FIRST

Mobile First

- Mobile-first indexing on Google began March 2018
- Responsive sites preferred
- Avoid separate, pared-down mobile sites
- Rock-solid canonical URLs
- Verify your site fully renders for bots

Resources:
- https://moz.com/blog/mobile-first-indexing-seo
- https://webmasters.googleblog.com/2016/11/mobile-first-indexing.html
- https://searchengineland.com/faq-google-mobile-first-index-262751
- https://webmasters.googleblog.com/2018/03/rolling-out-mobile-first-indexing.html
- https://developers.google.com/search/mobile-sites/mobile-first-indexing



Page speed

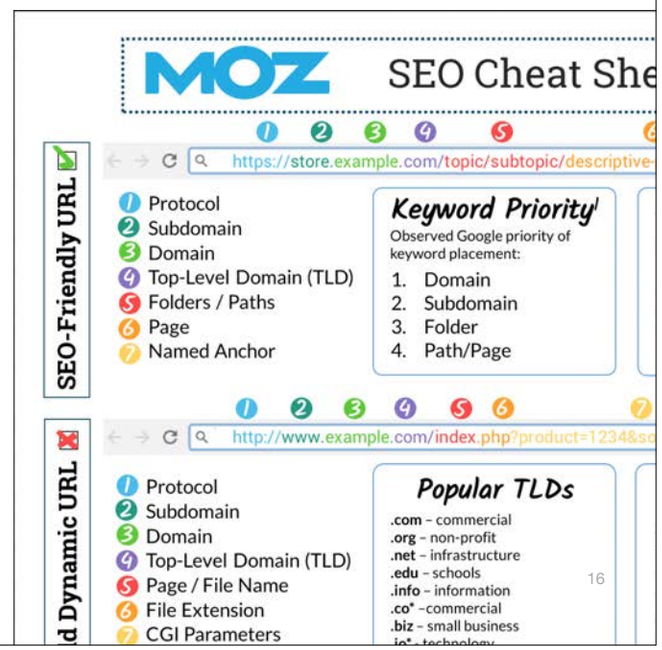
- Impact as a ranking signal amplified with mobile-first indexing
- Compress and minify
- Avoid render-blocking JS
- Caching, caching, caching!

Resources:
- https://moz.com/learn/seo/page-speed
- https://developers.google.com/speed/docs/insights/about
- https://webmasters.googleblog.com/2018/01/using-page-speed-in-mobile-search.html
- https://developers.google.com/speed/pagespeed/insights/

URLs AND REDIRECTS

URL Structure

- Keep it simple and relevant (avoid overly-dynamic URLs)
- User-readable (lowercase, hyphens as separators, avoid special characters, etc.)
- Should reflect site's information architecture
- Keywords okay, but avoid stuffing



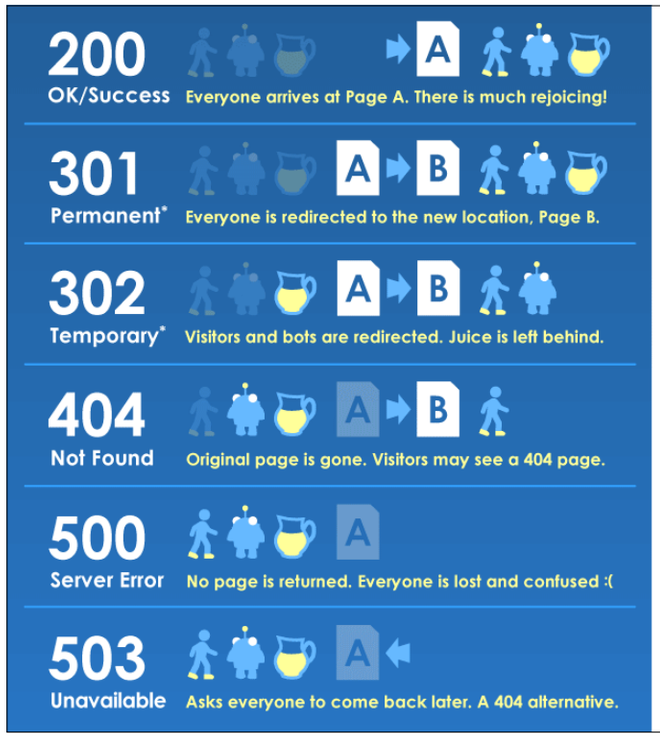
Resources:
- https://moz.com/learn/seo/url
- https://moz.com/blog/15-seo-best-practices-for-structuring-urls

```
        <link rel="apple-touch-icon" sizes="72x72" href="https://cdn.uwec.edu/uwec16/img/favicon/apple-touch-icon-7
        <link rel="apple-touch-icon" href="https://cdn.uwec.edu/uwec16/img/favicon/apple-touch-icon.png" />

        <link rel="canonical" href="https://www.uwec.edu/admissions/"/>
        <link type="text/css" rel="stylesheet" media="all" href="/assets/www/styles.min.css?m=1523012755" />
        <script src="//use.typekit.net/dch4gaq.js"></script>
        <script>Typekit.load({async:true});</script>
    </head>
    <body>
                <a href="#main-content" class="visually-hidden focusable">Skip to main content</a>

          <div class="dialog-off-canvas-main-canvas" data-off-canvas-main-canvas>

<header id="site-header">
    <!-- Search -->
```

Canonical URL

- Prevents duplicate content, ensuring the “correct” page gets indexed
- Every page, every time (except in non-production environments)
- Don’t rely solely on 301 redirects
- Protocol-specific
- Subdomain-specific

Resources:
- https://moz.com/learn/seo/canonicalization
- https://moz.com/blog/canonical-url-tag-the-most-important-advancement-in-seo-practices-since-sitemaps
- https://moz.com/blog/cross-domain-rel-canonical-seo-value-cross-posted-content



Redirects and HTTP Status Codes

- Leverage redirects to normalize URLs and clean up crawl issues (www vs no www, trailing slash, etc.)
- 301 redirect to HTTPS
- 301s pass all PageRank (aka “link juice”)
- Use vanity URLs to prevent cannibalization
- Use in combination with canonical URLs
- 503 for maintenance

Resources:
- https://moz.com/blog/an-seos-guide-to-http-status-codes
- https://moz.com/blog/301-redirection-rules-for-seo
- https://moz.com/blog/vanity-urls-and-avoiding-self-canibalization

STUFF FOR ROBOTS

```
26        <link rel="shortcut icon" href="https://cdn.uwec.edu/uwec16/img/favicon/favicon.ico" type="image/x-icon"
27        <link rel="apple-touch-icon" sizes="152x152" href="https://cdn.uwec.edu/uwec16/img/favicon/apple-touch-i
28        <link rel="apple-touch-icon" sizes="144x144" href="https://cdn.uwec.edu/uwec16/img/favicon/apple-touch-i
29        <link rel="apple-touch-icon" sizes="120x120" href="https://cdn.uwec.edu/uwec16/img/favicon/apple-touch-i
30        <link rel="apple-touch-icon" sizes="114x114" href="https://cdn.uwec.edu/uwec16/img/favicon/apple-touch-i
31        <link rel="apple-touch-icon" sizes="76x76" href="https://cdn.uwec.edu/uwec16/img/favicon/apple-touch-ico
32        <link rel="apple-touch-icon" sizes="72x72" href="https://cdn.uwec.edu/uwec16/img/favicon/apple-touch-ico
33        <link rel="apple-touch-icon" href="https://cdn.uwec.edu/uwec16/img/favicon/apple-touch-icon.png" />
34
35        <meta name="robots" content="noindex"/>
36        <link type="text/css" rel="stylesheet" media="all" href="/assets/www/styles.min.css?m=1522963758" />
37        <script src="//use.typekit.net/dch4gaq.js"></script>
38        <script>Typekit.load({async:true});</script>
39    </head>
```

Meta Robots Directives

- Use “noindex, nofollow” in non-production environments
  - Don’t use canonical URL in these environments (or if you do, be VERY careful!)
- Use in conjunction with robots.txt
- Can set directives for specific bots (but not all respect them)

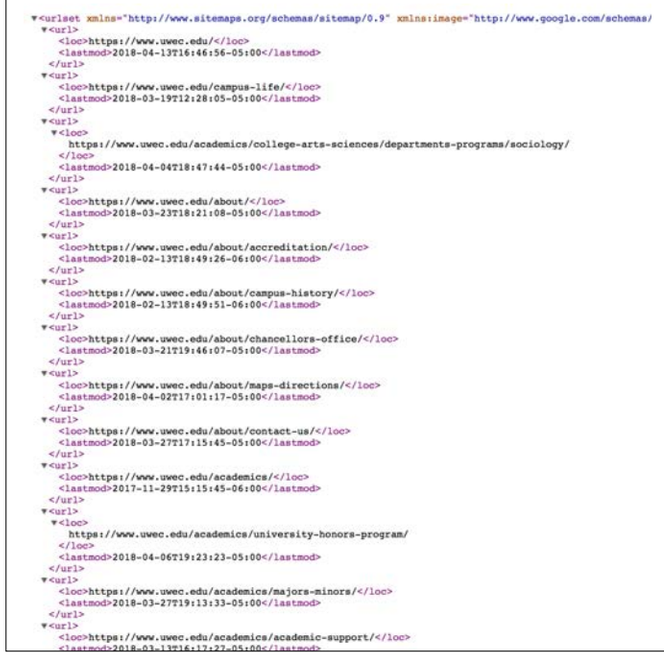
Resources:
- http://www.robotstxt.org/meta.html
- http://noarchive.net/meta/
- http://noarchive.net/xrobots/

Robots.txt

- Use to fix crawl errors and avoid unwanted assets being indexed
- Should always be located at subdomain.yourdomain/robots.txt
- Separate subdomains = separate sitemaps
- Always verify after modifying

```
#
# robots.txt
#
# This file is to prevent the crawling and indexing of certain
# of your site by web crawlers and spiders run by sites like Ya
# and Google. By telling these "robots" where not to go on your
# you save bandwidth and server resources.
#
# This file will be ignored unless it is at the root of your ho
# Used:    http://example.com/robots.txt
# Ignored: http://example.com/site/robots.txt
#
# For more information about the robots.txt standard, see:
# http://www.robotstxt.org/robotstxt.html

User-agent: *
# Directories
Disallow: /core/
# Files
Disallow: /README.txt
Disallow: /web.config
# Paths (clean URLs)
Disallow: /admin/
Disallow: /comment/reply/
Disallow: /filter/tips/
Disallow: /node/add/
Disallow: /search/
Disallow: /user/register/
Disallow: /user/password/
Disallow: /user/login/
Disallow: /user/logout/
# Paths (no clean URLs)
Disallow: /index.php/admin/
Disallow: /index.php/comment/reply/
Disallow: /index.php/filter/tips/
Disallow: /index.php/node/add/
```


Resources:
- http://www.robotstxt.org/robotstxt.html
- https://support.google.com/webmasters/answer/6062608?hl=en&ref_topic=6061961
- https://support.google.com/webmasters/answer/6062598?hl=en



XML Sitemaps

- Help search engines find all your content
- Follow proper format (and validate it!)
- 50,000 URL limit per sitemap
- If using more than one, include a sitemap_index.xml at the root directory
- Separate subdomains = separate sitemaps

Resources:
- https://www.sitemaps.org/protocol.html
- https://moz.com/blog/xml-sitemaps
- https://support.google.com/webmasters/answer/156184?hl=en

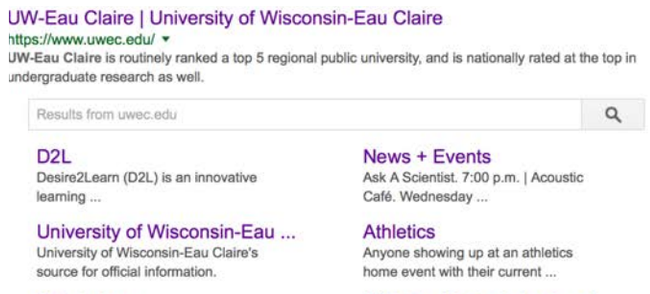
```
<meta property="og:locale" content="en_US" />
<meta property="og:type" content="website" />
<meta property="og:title" content="Admissions" />
<meta property="og:url" content="https://www.uwec.edu/admissions/" />
<meta property="og:site_name" content="University of Wisconsin-Eau Claire" />
<meta property="og:image" content="https://cdn.uwec.edu/athena/images/6543/LAS_StudyAbroad-2-homepage.jpg"
<meta property="twitter:card" content="summary" />
<meta property="twitter:site" content="@uweauclaire" />
<meta property="twitter:title" content="Admissions" />
<meta property="twitter:creator" content="@uweauclaire" />
<meta property="twitter:image:src" content="https://cdn.uwec.edu/athena/images/6543/LAS_StudyAbroad-2-homep

<!-- Favicons -->
<link rel="shortcut icon" href="https://cdn.uwec.edu/uwec16/img/favicon/favicon.ico" type="image/x-icon" />
<link rel="apple-touch-icon" sizes="152x152" href="https://cdn.uwec.edu/uwec16/img/favicon/apple-touch-icon
<link rel="apple-touch-icon" sizes="144x144" href="https://cdn.uwec.edu/uwec16/img/favicon/apple-touch-icon
```

Metadata

- Use social metadata when appropriate
- Schema.org
- Helps search engines more easily understand your content
- Improves likelihood of inclusion in search features (aka featured snippets) on SERPs
- Be sure to validate!

Resources:
- https://moz.com/blog/meta-data-templates-123
- https://blog.kissmetrics.com/open-graph-meta-tags/
- https://developer.twitter.com/en/docs/tweets/optimize-with-cards/guides/getting-started
- http://ogp.me

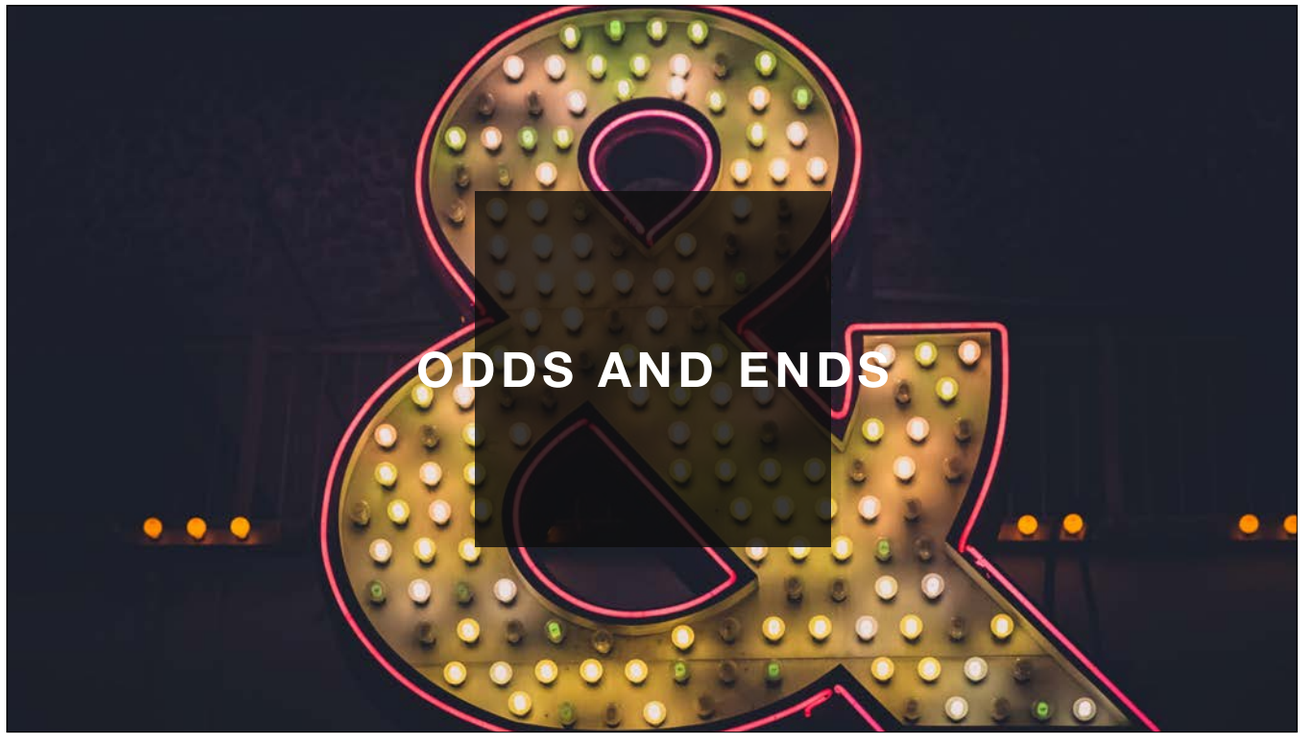
STRUCTURED DATA

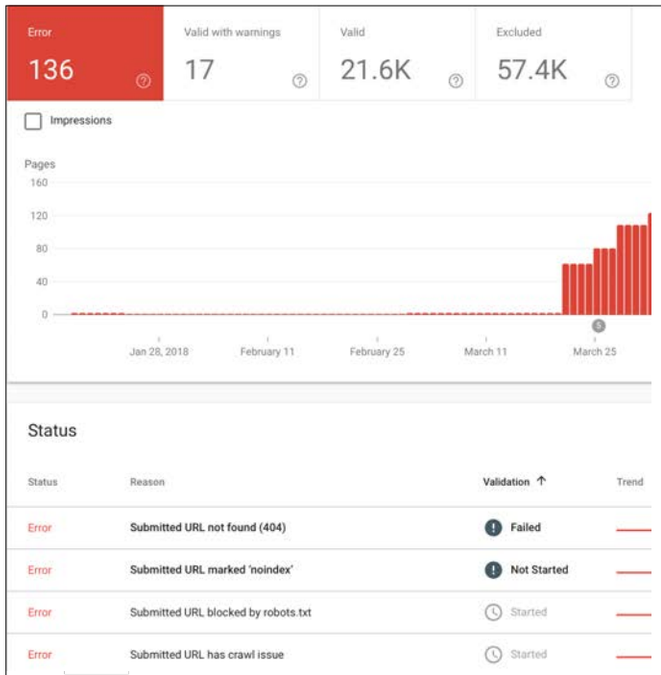


Structured Data

- Fancy term for well-organized data
- Enhances likelihood of being displayed on SERPs:
  - Rich Cards
  - Knowledge Graph
  - Breadcrumbs
  - Image Carousels

Resources:
- https://builtvisible.com/micro-data-schema-org-guide-generating-rich-snippets/
- https://moz.com/blog/structured-data-for-seo-1
- https://moz.com/blog/structured-data-for-seo-2
- http://schema.org


ODDS AND ENDS



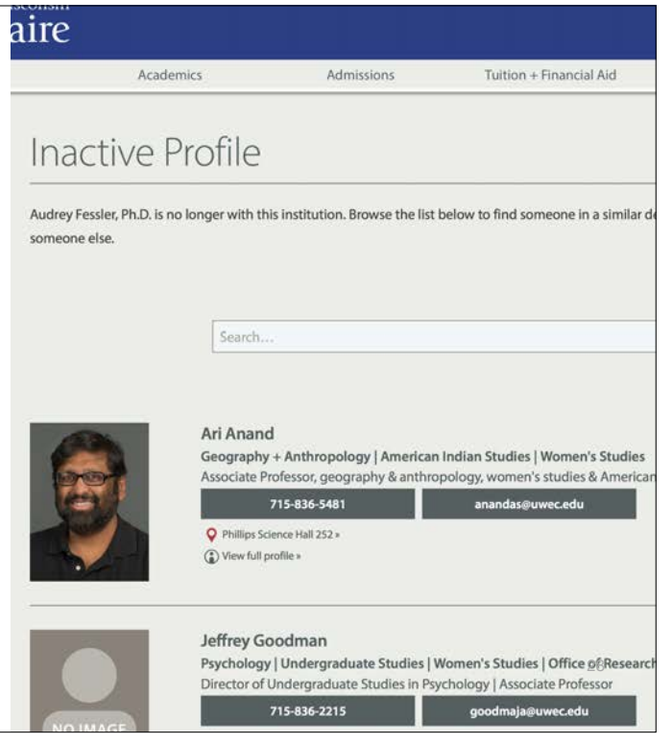
Crawl Errors

- Actively monitor for crawl errors (and fix them!)
- Monitor both HTTP and HTTPS if applicable
- Prioritize your efforts
- Useful tools:
  - Google Search Console (formerly Google Webmaster Tools)
  - Moz Pro

Resources:
- https://blog.kissmetrics.com/google-webmaster-tools/
- https://search.google.com/search-console
- https://analytics.moz.com/pro/

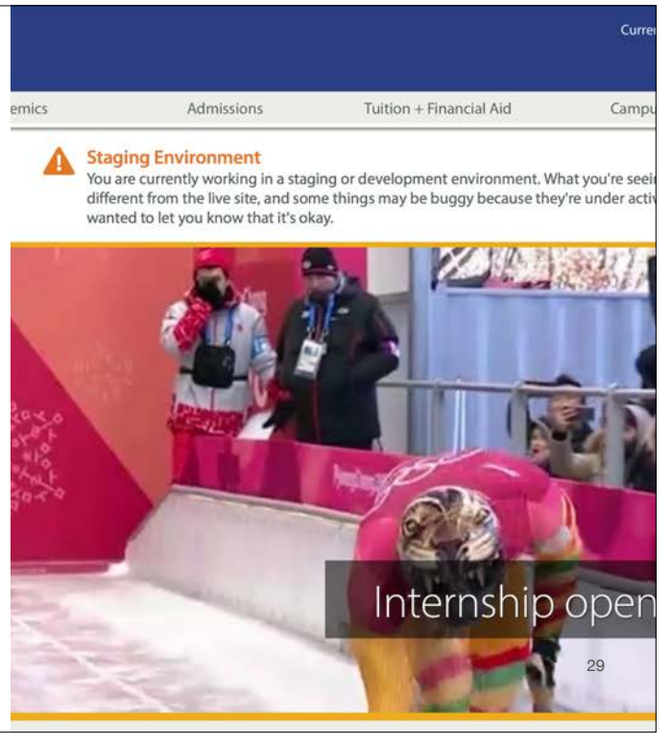
Enhancing the Error Experience

- What happens when a user encounters an issue on your site?
- Provide clear error message
- Give suggestions on next steps or alternative content



Non-Production Environment Considerations

- Prevent SEO issues by taking a few precautions
- Robots.txt and no-index for bots
- Be careful with canonical URLs (or don't use them here)
- Warnings for users



QUESTIONS
Tyler Schroeder / schroetj@uwec.edu
University Web Coordinator / Digital Strategist
University of Wisconsin-Eau Claire