Hello!

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● Websites need to be machine-friendly
● Add meta elements and markup to your page templates
● Test your site’s SEO, and iterate
Our favorite SEO sites

webmasters.googleblog.com
developers.google.com/search/docs/guides/

moz.com/blog
searchenginejournal.com
searchengineланд.com
searchenginewatch.com
yoast.com
“Can search engines easily get around your site?”
- Commercial services crawl to populate their indexes
- They display results based on their crawling
- Bad or incomplete crawling can be influenced by...
- A text file read by search engine spiders
  - Placed on the root of your domain: https://www.agency.gov/robots.txt

- Tells the spiders where they can and can’t go on your site

- Also should tell spiders where to find the official list of your site’s URLs (aka your sitemap)
User-Agent: *
Disallow: /tagged/
Disallow: /post/
Sitemap: https://search.digitalgov.gov/sitemap.xml
● A file that lists the URLs of your site
  ○ Also placed on the root of your domain:
    https://www.agency.gov/sitemap.xml

● Tells crawlers about your site, its content and its organization

● Maximum file size: 50 MB
This XML file does not appear to have any style information associated with it. The document tree is shown below.

```xml
<url>
  <loc>https://search.digitalgov.gov/</loc>
  <changefreq>daily</changefreq>
  <priority>1</priority>
</url>

<url>
  <loc>https://search.digitalgov.gov/manual/training.html</loc>
  <lastmod>2017-02-23</lastmod>
  <changefreq>monthly</changefreq>
</url>

<url>
  <lastmod>2017-02-22</lastmod>
  <changefreq>monthly</changefreq>
</url>

<url>
  <loc>https://search.digitalgov.gov/releases/november-2016.html</loc>
  <lastmod>2017-02-22</lastmod>
  <changefreq>monthly</changefreq>
</url>
```
“The Fetch as Google tool enables you to test how Google crawls or renders a URL on your site.

You can use Fetch as Google to see whether Googlebot can access a page on your site, how it renders the page, and whether any page resources (such as images or scripts) are blocked to Googlebot.”
● Same concept as Google’s :)
“Does your site manage duplicate content issues well?”
● If a single link is being served multiple ways, search engines have to "guess" which version is the right one.

● Multiple URLs for same content, depending on folder
  ○ http://agency.gov/similar-content
  ○ http://www.agency.gov/similar-content
  ○ https://agency.gov/similar-content
  ○ https://www.agency.gov/similar-content
  ○ https://agency.gov/content/similar-content
  ○ https://content.agency.gov/similar-content
• A rel=canonical link in the <head> tells search engines which version is the version of record

• Google’s rel=canonical on their page about rel=canonicals
- Use 301 redirects when permanently moving content

- The redirect will tell search engines that a page has permanently moved to a new location
• Be consistent when linking within your website

• I.e., make sure all your page links are
  https://agency.gov/page/ or www.agency.gov/page/
  or /page/
- For Google, set your preferred domain (www or non-www)
  - Search Console -> Choose the site you want to set it for -> Gear Icon -> Site Settings -> Preferred Domain section

- Can use 301s to redirect traffic from your non-preferred domain
“Does your site work well for mobile devices?”
• In spring 2016, Google increased the impact of mobile-friendliness as a ranking signal

• Also:

<table>
<thead>
<tr>
<th>Devices</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>desktop</td>
<td>56.9%</td>
</tr>
<tr>
<td>mobile</td>
<td>37.2%</td>
</tr>
<tr>
<td>tablet</td>
<td>5.9%</td>
</tr>
</tbody>
</table>
Mobile-Friendly Test

http://usa.gov/

- Alert: 2 blocked resources

Tested on: Feb 26, 2017 at 5:53 PM

Page is mobile-friendly
This page is easy to use on a mobile device

- Submit to Google

Additional resources
- Open site-wide mobile usability report
- Learn more about mobile-friendly pages
- Post comments or questions to our discussion group
“Does your site load quickly?”
- Users will abandon your site if it does not load fast enough

- Impact on relevancy ranking not as great as other factors (Google noted this back in 2010) but it is critical to overall UX
PageSpeed Insights

http://search.digitalgov.gov/

Mobile

69 / 100 Suggestions Summary

1 Should Fix:
Eliminate render-blocking Javascript and CSS in above-the-fold content
- Show how to fix

1 Consider Fixing:
Leverage browser caching
- Show how to fix
Mindify Javascript
- Show how to fix

4 Passed Rules
- Show details

Download optimized image, Javascript, and CSS resources for this page.

*The results are cached for 20s. If you have made changes to your page, please wait for 20s before re-running the test.
“Do URLs contain meaningful keywords to page topics?”
● Use simple, human-friendly URLs

● Use punctuation
  ○ “The URL

      is much more useful to us than

  ○ We recommend that you use hyphens (-) instead of underscores (\_\_)”
“Does your site use HTTPS to provide a secure connection for visitors?”
● Since 2014, Google has been advocating “HTTPS Everywhere”

● It is a lightweight ranking signal

● Also, we make it easy with DigitalGov Search!
Secure HTTP (HTTPS)
Last updated February 24, 2017

This data measures whether federal domains support the HTTPS protocol but passthrough, and the strength of that support. HTTPS provides a secure connection across the internet between websites and their visitors, and is becoming the norm for both public and private services. As part of this shift, the U.S. federal government is in the process of transitioning entirely to HTTPS.

Note that HTTPS generally does not affect whether a website is vulnerable to hacking. For more information on what HTTPS does and doesn't do, visit the HTTPS FAQ.

HTTPS and TLS data was last collected through a scan of the public internet on February 24, 2017.

By Agency
“Do HTML title tags contain keywords relevant to page topics?”
Key Attributes of Excellent Titles

- Unique to the page
  - Only include site or agency name following a pipe
  - `<title>API documentation for Commerce.gov | Department of Commerce</title>`

- Descriptive and short ( <70 characters)

- Relevant to queries
“Do meta descriptions describe what pages are about?”
<meta name="Description" content="Description text goes here.">

- Unique to page
- ~155 characters including spaces
- Keywords at beginning
“Do headlines & subheads use header tags with keywords?”
● Use `<h#>` tags!

● Page title should be in the `<h1>`

● Tags needs to be in order
  ○ `<h1>`
  ○ `<h2>`
  ○ `<h3>`
  ○ etc.
<meta>

Positive commands:
<title>
<meta name="description" content="blah blah">
<meta name="google-site-verification" content="...">
<meta http-equiv="Content-Type" content="...; charset=...">
<meta charset="...">

Negative commands:
<meta name="robots" content="various_commands_see_help_page">
<meta name="googlebot" content="various_commands_see_help_page">
<meta name="google" content="nositelinkssearchbox">
<meta name="google" content="notranslate">

https://support.google.com/webmasters/answer/79812
“Do pages use structured data to enhance listings?”
- Informs rich snippets and “cards” in search results

- Allows computers to interpret what the text means
  - “Semantic markup”
Entities & Attributes

Nouns & Adjectives

What is it, and what’s it like?
Apple
Color: red
Variety: Gala
Background: white
Quantity: 1
Schema.org
• itemprop

Open Graph Protocol
• og:

Dublin Core
• dc:

...and more!
We invite you to use our content API to enhance the value, accessibility and usability of Commerce data for government and the public.
Recommended entity type: CreativeWork

Subtypes:
- articles
  - news
  - reports
- blog posts
- datasets
- maps
- webpages
- entire websites
Other useful entity types

- **Organization**
  - GovernmentOrganization
  - NOTE! Google’s org cards are managed through Google My Business

- **ContactPoint**
  - PostalAddress
JSON-LD
- `<script> in the <head>`

RDFa
- `inline properties in the <body>`

Microdata
- `inline properties in the <body>`
<script type="application/ld+json">
{
  "@context": "http://schema.org",
  "@type": "BreadcrumbList",
  "itemListElement": [{
    "@type": "ListItem",
    "position": 1,
    "item": {
      "@id": "https://example.com/books",
      "name": "Books",
      "image": "http://example.com/images/icon-book.png"
    }
  }, {
    "@type": "ListItem",
    "position": 2,
    "item": {
      "@id": "https://example.com/books/authors",
      "name": "Authors",
      "image": "http://example.com/images/icon-author.png"
    }
  }, {
    "@type": "ListItem",
    "position": 3,
    "item": {
      "@id": "https://example.com/books/authors/annleckie",
      "name": "Ann Leckie",
      "image": "http://example.com/images/author-leckie-ann.png"
    }
  }, {
    "@type": "ListItem",
    "position": 4,
    "item": {
      "@id": "https://example.com/books/authors/ancillaryjustice",
      "name": "Ancillary Justice",
      "image": "http://example.com/images/cover-ancillary-justice.png"
    }
  }
}]
</script>
<ol vocab="http://schema.org/" typeof="BreadcrumbList">
  <li property="itemListElement" typeof="ListItem">
    <a property="item" typeof="WebPage"
       href="https://example.com/books">
      <span property="name">Books</span>
      <img property="image" src="http://example.com/images/icon-bookicon.png" alt="Books"/>
    </a>
    <meta property="position" content="1"/>
  </li>
  <li property="itemListElement" typeof="ListItem">
    <a property="item" typeof="WebPage"
       href="https://example.com/books/sciencefiction">
      <span property="name">Science Fiction</span>
      <img property="image" src="http://example.com/images/icon-sciencefiction.png" alt="Genre: Science Fiction"/>
    </a>
    <meta property="position" content="2"/>
  </li>
  <li property="itemListElement" typeof="ListItem">
    <a property="item" typeof="WebPage"
       href="https://example.com/books/sciencefiction/awardwinners">
      <span property="name">Award Winners</span>
      <img property="image" src="http://example.com/images/cover-ancillaryjustice.png" alt="Ancillary Justice"/>
    </a>
    <meta property="position" content="3"/>
  </li>
</ol>
<ol itemscope itemtype="http://schema.org/BreadcrumbList">
  <li itemscope itemtype="http://schema.org/ListItem">
    <a itemscope itemtype="http://schema.org/Thing" itemprop="item" href="https://example.com/books">
      <span itemprop="name">Books</span>
      <img itemprop="image" src="http://example.com/images/icon-bookicon.png" alt="Books"/></a>
    <meta itemprop="position" content="1" />
  </li>
  <li itemscope itemtype="http://schema.org/ListItem">
    <a itemscope itemtype="http://schema.org/Thing" itemprop="item" href="https://example.com/books/sciencefiction">
      <span itemprop="name">Science Fiction</span>
      <img itemprop="image" src="http://example.com/images/icon-sciencefiction.png" alt="Genre: Science Fiction"/></a>
    <meta itemprop="position" content="2" />
  </li>
  <li itemscope itemtype="http://schema.org/ListItem">
    <a itemscope itemtype="http://schema.org/Thing" itemprop="item" href="https://example.com/books/sciencefiction/ancillaryjustice">
      <span itemprop="name">Ancillary Justice</span>
      <img itemprop="image" src="http://example.com/images/cover-ancillaryjustice.png" alt="Ancillary Justice"/></a>
    <meta itemprop="position" content="3" />
  </li>
</ol>
Essential schema.org properties

Author
dateModified
datePublished
Headline
Name
Url
Description

Breadcrumb (WebPage)

http://www.w3resource.com/schema.org/introduction.php
Control your site name

```html
1 <head itemscope itemtype="http://schema.org/WebSite">
2   <title itemprop="name">Your WebSite Name</title>
3   <link rel="canonical" href="https://example.com/" itemprop="url">
</head>
```

Enable site search within Google results

```html
1 <div itemscope itemtype="http://schema.org/WebSite">
2   <meta itemprop="url" content="https://www.example.com/"/>
3   <form itemprop="potentialAction" itemscope
4       itemtype="http://schema.org/SearchAction">
5     <meta itemprop="target" content="https://query.example.com/search?q=
6       {search_term_string}"/>
7     <input itemprop="query-input" type="text" name="search_term_string"
8        required/>
9     <input type="submit"/>
10   </form>
11 </div>
```
Stuffing
- Meta keywords
- Meta description

Hidden
- Text on page

Cloaking
- Showing different pages to engines than to humans
● Websites need to be machine-friendly
● Add meta elements and markup to your page templates
● Test your site’s SEO, and iterate
Upcoming Sessions

- DigitalGov Search Basics:
  - Thursday, March 30, 2017, 2:00 PM - 3:00 PM EST
  - Held Bimonthly

- April - Indexing your content directly with DigitalGov Search
- June - Data driven search design
- October - TBD

- Video recordings available on our website
Thank you!