Structuring Your Site for Better SEO

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Hello!

Learning Goals

- 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

searchengineland.com

searchenginewatch.com

yoast.com

http://searchengineland.com/seotable

Crawl

"Can search engines easily get around your site?"
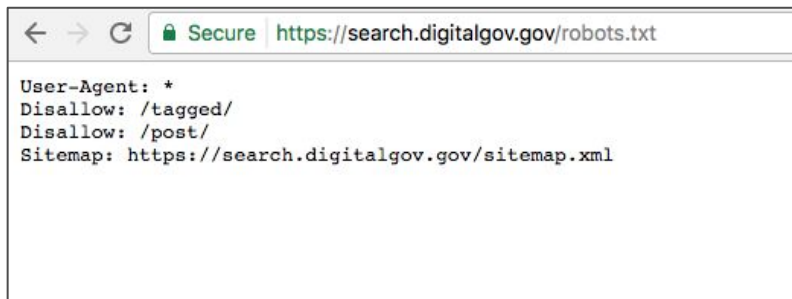
Crawl

- Commercial services crawl to populate their indexes

- They display results based on their crawling

- Bad or incomplete crawling can be influenced by...

Robots.txt

- 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)

Robots.txt

Sitemap

- 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

Sitemap

Fetch as Google

- "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."

Fetch as Bingbot

- Same concept as Google's :)

Site ▼
search.digitalgov.gov

Fetch as Bingbot (Beta) ⓘ

Submit a URL to see how the page's code appears to Bing.

[Enter a URL] **FETCH**

☐   REFETCH   DELETE   **EXPORT**

URL	Status
☐ https://search.digitalgov.gov/manual/collections.html ⤢	Completed
☐ http://search.digitalgov.gov/ ⤢	Completed

URL: https://search.digitalgov.gov/manual/collections.html
Status: Completed

HTTP/1.1 200 OK
Cache-Control: max-age=600
Connection: keep-alive
Date: Wed, 01 Mar 2017 13:57:29 GMT
Via: 1.1 varnish
Via: 1.1 search.digitalgov.gov
Content-Length: 4150
Content-Type: text/html; charset=utf-8
Content-Encoding: gzip
Expires: Wed, 01 Mar 2017 14:06:43 GMT
Last-Modified: Mon, 27 Feb 2017 19:27:18 GMT
Accept-Ranges: bytes
Age: 0
Server: GitHub.com
Vary: Accept-Encoding
Access-Control-Allow-Origin: *
Strict-Transport-Security: max-age=31536000; includeSubdomains; preload
X-Cache: MISS
X-Cache-Hits: 0
X-Fastly-Request-ID: 2285f075d5842732ad6bf397e3df8b1acc5abff9
X-GitHub-Request-Id: DAEA:68AF:31A53F6:433FA39:58B6D31B
X-Served-By: cache-iad2620-IAD
X-Timer: S1488376649.789104,VS0,VE2

<!DOCTYPE html>
<html lang="en">
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <meta charset="utf-8">
  <title>How to Create Collections Within Our Index</title>
  <meta name="description" content="">
  <meta name="author" content="">
  <link href="https://fonts.googleapis.com/css?family=Maven+Pro:400,700" media="screen" rel="stylesheet" type="text/css" />
  <link href="/bootstrap/css/bootstrap.css" rel="stylesheet">
  <link rel="stylesheet" href="/stylesheets/font-awesome.min.css">
  <!--[if IE 7]>
  <link rel="stylesheet" href="/stylesheets/font-awesome-ie7.min.css">
  <![endif]-->

  <!--<link href="../assets/css/bootstrap-responsive.css" rel="stylesheet">-->
  <link href="/stylesheets/custom.css" rel="stylesheet">

  <!-- HTML5 shim, for IE6-8 support of HTML5 elements -->

Duplicate

"Does your site manage duplicate content issues well?"

Duplicate

- 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

Canonical URLs

- 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

301 Redirects

- Use 301 redirects when permanently moving content

- The redirect will tell search engines that a page has permanently moved to a new location

Internal Linking

- 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/

Preferred Domain

- 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

Mobile

"Does your site work well for mobile devices?"

Mobile

- In spring 2016, Google increased the impact of mobile-friendliness as a ranking signal

- Also:

Devices

desktop	56.9%
mobile	37.2%
tablet	5.9%
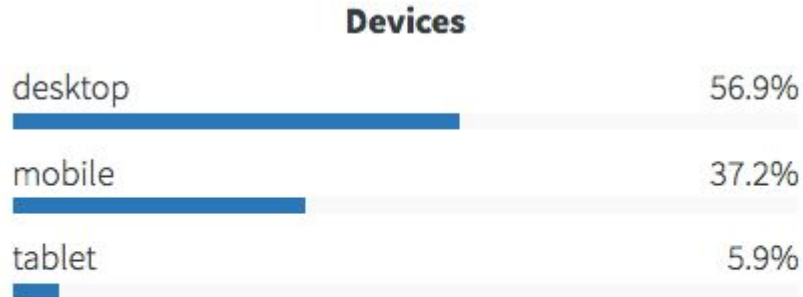
Federal websites!

Mobile-friendliness Testing

Mobile-Friendly Test

🌐 http://usa.gov/

⊘ Alert - 2 blocked resources   ›
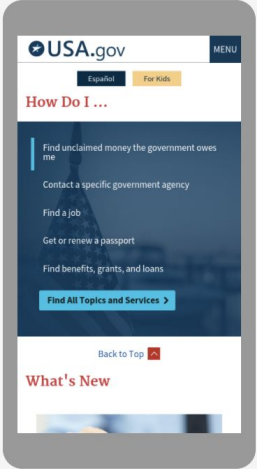
Tested on: Feb 28, 2017 at 5:53 PM

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

USA.gov — MENU

Español   For Kids

How Do I ...

Find unclaimed money the government owes me

Contact a specific government agency

Find a job

Get or renew a passport

Find benefits, grants, and loans

Find All Topics and Services ›

Back to Top

What's New

Speed

"Does your site load quickly?"

Speed

- 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

Speed Testing

URLs

"Do URLs contain meaningful keywords to page topics?"

URLs

- Use simple, human-friendly URLs

- Use punctuation
  - "The URL

    http://www.example.com/green-dress.html

    is much more useful to us than
    http://www.example.com/greendress.html.
  - We recommend that you use hyphens (-) instead of underscores (_)"

HTTPS

"Does your site use HTTPS to provide a secure connection for visitors?"

HTTPS

- Since 2014, Google has been advocating "HTTPS Everywhere"

- It is a lightweight ranking signal

- Also, we make it easy with DigitalGov Search!

HTTPS Testing

Titles

"Do HTML title tags contain

keywords relevant to page topics?"

`<title>`Key Attributes of Excellent Titles`</title>`

- **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

Description

"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

Headers

"Do headlines & subheads use

header tags with keywords?"

Headers

- Use `<h#>` tags!

- Page title should be in the `<h1>`

- Tags needs to be in order
    - `<h1>`
    - `<h2>`
    - `<h3>`
    - etc.

`<meta>` tags Google understands

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" />
```

Structure

"Do pages use structured data
to enhance listings?"

Structure

- Informs rich snippets and "cards" in search results

- Allows computers to interpret what the text means
  - "Semantic markup"

Say what?

Entities & Attributes

Nouns & Adjectives

What is it, and what's it like?

Apple

Color: red

Variety: Gala

Background: white

Quantity: 1

Structured markup options

Schema.org

- `itemprop`

Open Graph Protocol

- `og:`

Dublin Core

- `dc:`

...and more!

```
 1  <!DOCTYPE html>
 2  <html lang="en" dir="ltr">
 3  <head>
 4  <meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
 5  <meta charset="utf-8" />
 6  <link rel="shortcut icon" href="https://www.commerce.gov/sites/all/themes/doc/doc_theme/favicon.ico" type="image/vnd.microsoft.icon" />
 7  <meta name="viewport" content="initial-scale=1" />
 8  <meta name="viewport" content="width=device-width, initial-scale=1.0, user-scalable=yes" />
 9  <meta name="MobileOptimized" content="width" />
10  <meta name="description" content="We invite you to use our content API to enhance the value, accessibility and usability of Commerce data for gover
    and the public." />
11  <meta name="HandheldFriendly" content="true" />
12  <meta name="apple-mobile-web-app-capable" content="yes" />
13  <meta name="keywords" content="Data,Application Programming Interfaces (APIs)" />
14  <meta name="generator" content="Drupal 7 (http://drupal.org)" />
15  <link rel="image_src" href="https://www.commerce.gov/sites/commerce.gov/files/open_for_biz-agenda_logo_final.jpg" />
16  <link rel="canonical" href="https://www.commerce.gov/page/api-documentation-commercegov" />
17  <link rel="shortlink" href="https://www.commerce.gov/node/1489" />
18  <meta property="og:site_name" content="Department of Commerce" />
19  <meta property="og:type" content="website" />
20  <meta property="og:url" content="https://www.commerce.gov/page/api-documentation-commercegov" />
21  <meta property="og:title" content="API documentation for Commerce.gov" />
22  <meta property="og:description" content="We invite you to use our content API to enhance the value, accessibility and usability of Commerce data fo
    business and the public." />
23  <meta property="og:updated_time" content="2016-09-23T13:36:33-04:00" />
24  <meta name="twitter:card" content="summary_large_image" />
25  <meta name="twitter:site" content="@CommerceGov" />
26  <meta name="twitter:url" content="https://www.commerce.gov/page/api-documentation-commercegov" />
27  <meta name="twitter:description" content="We invite you to use our content API to enhance the value, accessibility and usability of Commerce data
    business and the public." />
28  <meta name="twitter:title" content="API documentation for Commerce.gov" />
29  <meta property="article:published_time" content="2015-08-25T17:06:50-04:00" />
30  <meta property="article:modified_time" content="2016-09-23T13:36:33-04:00" />
31  <meta itemprop="name" content="API documentation for Commerce.gov" />
32  <meta itemprop="description" content="We invite you to use our content API to enhance the value, accessibility and usability of Commerce data for
    business and the public." />
33  <title>API documentation for Commerce.gov | Department of Commerce</title>
34  <link type="text/css" rel="stylesheet" href="https://www.commerce.gov/sites/commerce.gov/files/css/css_xE-rWrJf-fncB6ztZfd2huxqqxu4WO-qwma6Xer30m4
    />
35  <link type="text/css" rel="stylesheet" href="https://www.commerce.gov/sites/commerce.gov/files/css/css_ujN36yHaqKHTKyxjs_cj3_DuSqYFJTOaKF2F28xMKws
    />
36  <link type="text/css" rel="stylesheet" href="https://www.commerce.gov/sites/commerce.gov/files/css/css_KmGK7kK9q3XAfDWNd1V261sD5ZqVeOF2Fhfvs8yl97k
```

Google prefers schema.org

Recommended entity type: CreativeWork

Subtypes:
- articles
  - news
  - reports
- blog posts
- datasets
- maps
- webpages
- entire websites

Google prefers schema.org

Other useful entity types

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

- ContactPoint
  - PostalAddress

Google prefers schema.org (2)

JSON-LD

- `<script>` in the `<head>`

RDFa

- inline properties in the `<body>`

Microdata

- inline properties in the `<body>`

JSON-LD

```
1   <script type="application/ld+json">
2   {
3     "@context": "http://schema.org",
4     "@type": "BreadcrumbList",
5     "itemListElement": [{
6       "@type": "ListItem",
7       "position": 1,
8       "item": {
9         "@id": "https://example.com/books",
10        "name": "Books",
11        "image": "http://example.com/images/icon-book.png"
12      }
13    },{
14      "@type": "ListItem",
15      "position": 2,
16      "item": {
17        "@id": "https://example.com/books/authors",
18        "name": "Authors",
19        "image": "http://example.com/images/icon-author.png"
20      }
21    },{
22      "@type": "ListItem",
23      "position": 3,
24      "item": {
25        "@id": "https://example.com/books/authors/annleckie",
26        "name": "Ann Leckie",
27        "image": "http://example.com/images/author-leckie-ann.png"
28      }
29    },{
30      "@type": "ListItem",
31      "position": 4,
32      "item": {
33        "@id": "https://example.com/books/authors/ancillaryjustice",
34        "name": "Ancillary Justice",
35        "image": "http://example.com/images/cover-ancillary-justice.png"
36      }
37    }]
38  }
39  </script>
```

SEARCH

DIGITALGOV

RDFa

```
1   <ol vocab="http://schema.org/" typeof="BreadcrumbList">
2     <li property="itemListElement" typeof="ListItem">
3       <a property="item" typeof="WebPage"
4           href="https://example.com/books">
5         <span property="name">Books</span>
6         <img property="image" src="http://example.com/images/icon-
    bookicon-.png" alt="Books"/></a>
7       <meta property="position" content="1">
8     </li>
9     ,
10    <li property="itemListElement" typeof="ListItem">
11      <a property="item" typeof="WebPage"
12          href="https://example.com/books/sciencefiction">
13        <span property="name">Science Fiction</span>
14        <img property="image" src="http://example.com/images/icon-science-
    fiction.png" alt="Genre: Science Fiction"/></a>
15      <meta property="position" content="2">
16    </li>
17    ,
18    <li property="itemListElement" typeof="ListItem">
19      <a property="item" typeof="WebPage"
20          href="https://example.com/books/sciencefiction/awardwinnders">
21        <span property="name">Award Winners</span>
22        <img property="image" src="http://example.com/images/cover-ancillary-
    justice.png" alt="Ancillary Justice"/></a>
23      <meta property="position" content="3">
24    </li>
25  </ol>
```

Microdata

```
1   <ol itemscope itemtype="http://schema.org/BreadcrumbList">
2     <li itemprop="itemListElement" itemscope
3         itemtype="http://schema.org/ListItem">
4       <a itemscope itemtype="http://schema.org/Thing"
5          itemprop="item" href="https://example.com/books">
6         <span itemprop="name">Books</span>
7         <img itemprop="image" src="http://example.com/images/icon-
    bookicon.png" alt="Books"/></a>
8       <meta itemprop="position" content="1" />
9     </li>
10    ,
11    <li itemprop="itemListElement" itemscope
12        itemtype="http://schema.org/ListItem">
13      <a itemscope itemtype="http://schema.org/Thing"
14         itemprop="item" href="https://example.com/books/sciencefiction">
15        <span itemprop="name">Science Fiction</span>
16        <img itemprop="image" src="http://example.com/images/icon-science-
    fiction.png" alt="Genre: Science Fiction"/></a>
17      <meta itemprop="position" content="2" />
18    </li>
19    ,
20    <li itemprop="itemListElement" itemscope
21        itemtype="http://schema.org/ListItem">
22      <a itemscope itemtype="http://schema.org/Thing"
23         itemprop="item"
    href="https://example.com/books/sciencefiction/ancillaryjustice">
24        <span itemprop="name">Ancillary Justice</span>
25        <img itemprop="image" src="http://example.com/images/cover-ancillary-
    justice.png" alt="Ancillary Justice"/></a>
26      <meta itemprop="position" content="3" />
27    </li>
28  </ol>
```

You don't have to do it all!

Essential schema.org properties

Author

dateModified

datePublished

Headline

Name

Url

Description

Breadcrumb (WebPage)

http://www.w3resource.com/schema.org/introduction.php

Special stuff for your homepage

Control your site name

```
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">
```

Enable site search within Google results

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

Don'ts

Stuffing

- Meta keywords
- Meta description

Hidden

- Text on page

Cloaking

- Showing different pages to engines than to humans

Learning Goals

- 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

search@support.digitalgov.gov | 202-505-5315

https://search.digitalgov.gov

Thank you!