

## Important HTML Elements

<b>Title Tag</b> <code>&lt;head&gt;</code> <code>  &lt;title&gt;Page Title&lt;/title&gt;</code> <code>&lt;/head&gt;</code>	<b>★ Best Practices</b> <ul style="list-style-type: none"> <li>Less than 512px (50-70 characters)</li> <li>Important keywords near the beginning</li> <li>Each title should be unique</li> </ul>
<b>Meta Description Tag</b> <code>&lt;head&gt;</code> <code>  &lt;meta name="description"</code> <code>    content="This is an example."&gt;</code> <code>&lt;/head&gt;</code>	<ul style="list-style-type: none"> <li>Best under 155 characters</li> <li>Each description should be unique</li> <li>Well written descriptions influence click-through rate</li> </ul>
<b>Image</b> <code>&lt;img src="img/keyword.jpg" alt="keyword" width="100" height="100"&gt;</code>	

## Hyperlinks

<b>Text Link</b> <code>&lt;a href="https://www.example.com/webpage.html"&gt;Keyword in Anchor Text&lt;/a&gt;</code>	<b>★ Hyperlinking Best Practices</b> <ul style="list-style-type: none"> <li>Preference: HTML links over JavaScript</li> <li>Use "nofollow" for paid links and untrusted content</li> <li>For image links, the alt attribute serves as anchor text</li> </ul>
<b>NoFollowed Link</b> <code>&lt;a href="https://www.example.com/webpage.html" rel="nofollow"&gt;Keyword in Anchor Text&lt;/a&gt;</code>	
<b>Image Link</b> <code>&lt;a href="https://www.example.com/webpage.html"&gt;&lt;img src="img/keyword.jpg" alt="keyword" width="100" height="100"&gt;&lt;/a&gt;</code>	

## HTTP Status Codes

200	OK/Success
301	Permanent Redirect
302	Temporary Redirect
404	Not Found
410	Gone (permanently removed)
500	Server Error
503	Unavailable (retry later)

More information at <http://mz.cm/HTTP-codes>

## Webmaster Tools

<b>Google Webmaster Tools</b>
<a href="https://www.google.com/webmasters/tools/home">https://www.google.com/webmasters/tools/home</a>
<b>Bing Webmaster Tools</b>
<a href="http://www.bing.com/toolbox/webmaster/">http://www.bing.com/toolbox/webmaster/</a>
<b>Yandex Webmaster</b>
<a href="https://webmaster.yandex.com/">https://webmaster.yandex.com/</a>

## Canonicalization

<b>Common Duplicate Homepage URLs</b> <ul style="list-style-type: none"> <li><code>https://www.example.com</code></li> <li><code>https://example.com</code></li> <li><code>https://www.example.com/index.html</code></li> <li><code>https://example.com/index.html</code></li> <li><code>https://example.com/index.html&amp;sessid=123</code></li> </ul>	<b>★ Canonicalized URL Best Practices</b> <ul style="list-style-type: none"> <li>Preferred URL = <code>https://example.com/</code></li> <li>Place the following in <code>&lt;head&gt;</code> section to indicate preferred URL:  <code>&lt;link href="https://example.com/" rel="canonical" /&gt;</code></li> </ul> <p>More information at <a href="http://mz.cm/canonical">http://mz.cm/canonical</a></p>
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## URL Best Practices

### Common URL Elements

`https://store.example.com/category/keyword?id=123#top`

1 2 3 4 5 6 7 8

1. Protocol
2. Subdomain
3. Root Domain
4. Top-Level Domain
5. Subfolder/Path
6. Page
7. Parameter
8. Named Anchor

## SEO Tips for URLs

- Choose shorter, human-readable URLs with descriptive keywords
- Exclude dynamic parameters when possible (see Canonicalization and Pagination)
- When possible, place content on the same subdomain to preserve authority
- ★ **Recommended:** `https://example.com/blog`
- Less Ideal:** `https://blog.example.com`

## Robots Exclusion Standard

### Robots.txt

Location: <https://example.com/robots.txt>

User-agent: googlebot  
 Disallow: /example.html  
 Sitemap: <https://example.com/sitemap.xml>

More information at <http://www.robotstxt.org/robotstxt.html>

### X-Robots

Location: Sent in the HTTP headers

X-Robots-Tag: noindex

More information at <http://noarchive.net/xrobots/>

### Meta Robots

Location: In the html <head>

```
<meta name="ROBOT NAME" content="ARGUMENTS" />
```

More information at <http://www.robotstxt.org/meta.html>

### ★ Robots Best Practices

- ★ Only Meta Robots and X-Robots remove URLs from search results
- ★ Don't block CSS or JavaScript files with robots.txt

### Arguments can be:

Nofollow (do not follow links)  
 Noindex (do not index)  
 Noarchive (do not archive)  
 NoODP (Do not show Open Directory Project description)  
 ...Or combined (noindex, nofollow)

If the robots <META> tag is not defined, the default is "INDEX,FOLLOW"

## Important User Agents

### For robots.txt, robots meta tags, and X-Robots-Tag

Googlebot (can be used as default for most Google crawlers)	Mediapartners-Google (Mobile AdSense) or Mediapartners
Googlebot-News	Googlebot-Mobile
Googlebot-Image	Googlebot-Video
AdsBot-Google	Bingbot
Baiduspider	Yandexbot
FacebookExternalHit	Applebot
Slurp	Twitterbot
* (wildcard for all robots)	Rogerbot

## Sitemap Syntax

### XML Sitemaps

```
<?xml version="1.0" encoding="UTF-8"?>
<urlset xmlns="http://www.sitemaps.org/schemas/sitemap/0.9">
  <url>
    <loc>https://example.com/</loc>
    <lastmod>2015-01-01</lastmod>
    <changefreq>monthly</changefreq>
    <priority>0.9</priority>
  </url>
</urlset>
```

### Default Locations Can Be:

<https://example.com/sitemap.xml>

<https://example.com/sitemap.xml.gz>

<https://example.com/sitemap.gz>

### Sitemap Index File

```
<?xml version="1.0" encoding="UTF-8"?>
<sitemapindex xmlns="http://www.sitemaps.org/schemas/sitemap/0.9">
  <sitemap>
    <loc>https://example.com/sitemap1.xml.gz</loc>
    <lastmod>2015-01-01T18:23:17+00:00</lastmod>
  </sitemap>
  <sitemap>
    <loc>https://example.com/sitemap2.xml.gz</loc>
    <lastmod>2015-01-01</lastmod>
  </sitemap>
</sitemapindex>
```

### Other Common Sitemap Types:

- Mobile
- News
- Image
- Video

## Pagination

- Use rel="next" and rel="prev" in the <head> section to indicate the relationship between paginated URLs

**First Page** - <https://example.com/article>

```
<link rel="next" href="https://example.com/article?pg=2">
```

**Second Page** - <https://example.com/article?pg=2>

```
<link rel="prev" href="https://example.com/article">
<link rel="next" href="https://example.com/article?pg=3">
```

**Final Page** - <https://example.com/article?pg=3>

```
<link rel="prev" href="https://example.com/article?pg=2">
```

More information at <http://mz.cm/rel-next>

## Important Social Metadata

### Sample Meta Tag Template: "Article"

Place this data between the <head> tags of your website

```
<!-- Open Graph data -->
<head prefix="og: http://ogp.me/ns# fb: http://ogp.me/ns/fb# article:
http://ogp.me/ns/article#">
<meta property="og:title" content="Your Title Here" />
<meta property="og:type" content="article" />
<meta property="og:url" content="https://example.com/" />
<meta property="og:image" content="https://example.com/image.jpg" />
<meta property="og:description" content="Your Description Here" />
<meta property="og:site_name" content="Your Site Name, i.e. Moz" />
<meta property="fb:app_id" content="Your FB_APP_ID" />

<!-- Twitter Card data -->
<meta name="twitter:card" content="summary">
<meta name="twitter:site" content="Your @publisher_handle">
<meta name="twitter:title" content="Your Page Title">
<meta name="twitter:description" content="Your Page description
less than 200 characters">
<meta name="twitter:creator" content="Your @author_handle">
<!-- Twitter Summary card images must be at least 120x120px -->
<meta name="twitter:image" content="https://example.com/image.jpg">
```

### ★ Social Metadata Best Practices

#### ★ Default to Open Graph

Platforms that support Open Graph protocol include:

- Facebook
- Twitter
- Google+
- LinkedIn
- Pinterest

#### ★ Optimal Image Sizing

- ★ Choose large images over small
- ★ Twitter:
  - Minimum 120 x 120px
  - No larger than 1MB
- ★ Facebook:
  - Minimum 200 x 200px
  - Over 1200 x 630px recommended

More information at <http://mz.cm/social-meta>

## Rich Snippets and Structured Data

Enhance search results and help machines to understand your content

### Common Vocabularies

- ★ [schema.org](http://schema.org)
- [datavocabulary.org](http://datavocabulary.org)
- [microformats.org](http://microformats.org)

### Popular Formats

- ★ Microdata
- RDFa
- JSON-LD

### Breadcrumbs | [Widgets](#) > [Large Widgets](#)

```
<ol itemscope itemtype="http://schema.org/BreadcrumbList">
  <li itemprop="itemListElement" itemscope itemtype="http://schema.org/ListItem">
    <a itemprop="item" href="https://example.com/widgets">
      <span itemprop="name">Widgets</span></a>
      <meta itemprop="position" content="1" />
    </li>
  > <li itemprop="itemListElement" itemscope itemtype="http://schema.org/ListItem">
    <a itemprop="item" href="https://example.com/widgets/large">
      <span itemprop="name">Large Widgets</span></a>
      <meta itemprop="position" content="2" />
    </li>
</ol>
```

### Reviews | ★★★★★ Rating: 5.0 - Review by Roger Mozbot

```
<div itemscope itemtype="http://schema.org/Review">
  <div itemprop="itemReviewed" itemscope itemtype="http://schema.org/Book">
    <span itemprop="name">The Art of SEO</span> </div>
  <span itemprop="reviewRating" itemscope itemtype="http://schema.org/Rating">
    <span itemprop="ratingValue">5</span>
  </span> stars -
  <b><span itemprop="name">A good read.</span></b> </div>
  <span itemprop="author">Roger Mozbot</span>
  <span itemprop="reviewBody">The Art of SEO is a good book.</span>
</div>
```

### Common Structured Data Uses

Events

Recipes

Business Information

Media Content

People

Contact Data

Mobile Apps

Email Markup

More information at <http://mz.cm/rich-snippets>

# Targeting Multiple Languages

## Declare language attribute in the HTML element

```
<html lang="de">
```

## URL Structures for Country & Language Targeting

ccTLDs (Country Level Only)	Subdomains with gTLDs
example.de	de.example.com/
Subdirectories with gTLDs	
example.com/de/	

## rel="alternate" hreflang="x"

Annotate alternate language & region versions of content

### HTML version in <head> (each version must identify all versions, including itself)

```
<link rel="alternate" hreflang="x-default" href="http://example.com/" /> (Specifies Default)
<link rel="alternate" hreflang="de" href="http://example.com/de/" /> (Specifies Language)
<link rel="alternate" hreflang="de-DE" href="http://example.com/de-de/" /> (Specifies Language + Region)
```

### Sitemap version

```
<?xml version="1.0" encoding="UTF-8"?>
<urlset xmlns="http://www.sitemaps.org/schemas/sitemap/0.9"
  xmlns:xhtml="http://www.w3.org/1999/xhtml">
  <url>
    <loc>http://example.com/english/</loc>
    <xhtml:link rel="alternate" hreflang="de" href="http://example.com/deutsch/" />
    <xhtml:link rel="alternate" hreflang="en" href="http://example.com/english/" />
  </url>
  <url>
    <loc>http://example.com/deutsch/</loc>
    <xhtml:link rel="alternate" hreflang="en" href="http://example.com/english/" />
    <xhtml:link rel="alternate" hreflang="de" href="http://www.example.com/deutsch/" />
  </url>
</urlset>
```

Popular Languages		Popular Regions	
zh	Chinese	CN	China
es	Spanish	US	United States
en	English	IN	India
ar	Arabic	JP	Japan
hi	Hindi	BR	Brazil

More language codes can be found at [http://en.wikipedia.org/wiki/List\\_of\\_ISO\\_639-1\\_codes](http://en.wikipedia.org/wiki/List_of_ISO_639-1_codes)

More region codes can be found at [http://en.wikipedia.org/wiki/ISO\\_3166-1\\_alpha-2](http://en.wikipedia.org/wiki/ISO_3166-1_alpha-2)

# Mobile Web Development

## 1 Responsive Design

- Place the meta viewport tag in the <head> of the document
- Uses CSS to alter the rendering of the page on the device using media queries

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

```
<link rel="stylesheet" media="(min-width: 700px)" href="min-700px.css">
```

```
<style>
  @media (min-width:500px) and (max-width:600px)
  {h1{color:#555}}
</style>
```

## 2 Dynamic Serving via Vary HTTP Header

- Serves different HTML and CSS on the same URL, varied by user agent

```
HTTP/1.1 200 OK
Content-Type: text/html
Vary: User-Agent
Content-Length: 3495

(...rest of HTTP response headers...)
```

## 3 Separate URLs

- Identify mobile and desktop versions using rel="alternate" and rel="canonical"

```
Desktop page: http://example.com/
<link rel="alternate" media="only screen and (max-width: 640px)" href="https://m.example.com/">
```

```
Mobile page: http://m.example.com/
<link rel="canonical" href="https://example.com/">
```