

Important HTML Elements

Title tag

```
<head>
  <title>Page Title</title>
</head>
```

★ Best Practices

- ★ No longer than 60-80 characters
- ★ Important keywords near the beginning
- ★ Each title should be unique

Meta Description Tag

```
<head>
  <meta name="description"
  content="This is an example.">
</head>
```

- ★ No longer than 155 characters
- ★ Each description should be unique
- ★ Well written descriptions influence click-through rate

Image

```

```

Hyperlinks

Text Link

```
<a href="http://www.example.com/
webpage.html">Keyword in Anchor
Text</a>
```

★ Hyperlinking Best Practices

- ★ Limit links per page to roughly 150
- ★ Use "nofollow" for paid links and untrusted content
- ★ For image links, the alt tags serves as anchor text

NoFollowed Link

```
<a href="http://www.example.com/
webpage.html" rel="nofollow">
Keyword in Anchor Text</a>
```

Image Link

```
<a href="http://www.example.com/webpage.html"></a>
```

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

Google Webmaster Tools

<https://www.google.com/webmasters/tools/home>

Bing Webmaster Tools

<http://www.bing.com/toolbox/webmaster/>

Yandex Webmaster Tools

<http://webmaster.yandex.com/>

Canonicalization

Common Duplicate Homepage URLs

```
http://www.example.com

http://example.com

http://www.example.com/index.html

http://example.com/index.html

http://example.com/index.html&sessid=123
```

★ Canonicalized URL Best Practices

- ★ <http://www.example.com/>
- ★ `rel="canonical"`
- ★ `<link href="http://www.example.com/" rel="canonical" />`

More information at <http://mz.cm/canonical>

URL Best Practices

Common URL Elements

<http://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

- Use descriptive keywords in URLs
- Watch for duplicate content when using multiple parameters
- When possible, place content on the same subdomain to preserve domain authority
- ★ **Recommended:** <http://example.com/blog>
- Less Ideal:** <http://blog.example.com>

Robot Control Syntax

Robots.txt

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

User-agent: googlebot

Disallow: /no-google.html

Sitemap: <http://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

★ While robots.txt may restrict crawling, only Meta Robots and X-Robots will remove URLs from search results.

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"

Sitemap Syntax

XML Sitemaps

```
<?xml version="1.0" encoding="UTF-8"?>
<urlset xmlns="http://www.sitemaps.org/schemas/sitemap/0.9">
  <url>
    <loc>http://www.example.com/</loc>
    <lastmod>1970-01-01</lastmod>
    <changefreq>monthly</changefreq>
    <priority>0.8</priority>
  </url>
</urlset>
```

Sitemap Index File

```
<?xml version="1.0" encoding="UTF-8"?>
<sitemapindex xmlns="http://www.sitemaps.org/schemas/sitemap/0.9">
  <sitemap>
    <loc>http://www.example.com/sitemap1.xml.gz</loc>
    <lastmod>2004-10-01T18:23:17+00:00</lastmod>
  </sitemap>
  <sitemap>
    <loc>http://www.example.com/sitemap2.xml.gz</loc>
    <lastmod>2005-01-01</lastmod>
  </sitemap>
</sitemapindex>
```

Default Locations

<http://www.example.com/sitemap.xml>

<http://www.example.com/sitemap.xml.gz>

<http://www.example.com/sitemap.gz>

Other Common Sitemap Types:

- Mobile
- News
- Image
- Video

Important User-agents

For robots.txt, robots meta tags & X-Robots-Tag

Googlebot (can be used as default for most Google crawlers)

Googlebot-News

Googlebot-Image

Googlebot-Mobile

Googlebot-Mobile (Mobile Smartphones)

Mediapartners-Google (Mobile AdSense) or Mediapartners

Mediapartners (AdSense)

Bingbot

Baiduspider

Yandexbot

FacebookExternalHit

Rogerbot

User-agent in HTTP(S) requests

Mozilla/5.0 (compatible; Googlebot/2.1; +<http://www.google.com/bot.html>)

Googlebot-News

Googlebot-Image/1.0

[various mobile device types] (compatible; Googlebot-Mobile/2.1; +<http://www.google.com/bot.html>)

Mozilla/5.0 (iPhone; U; CPU iPhone OS 4_1 like Mac OS X; en-us) AppleWebKit/532.9 (KHTML, like Gecko) Version/4.0.5 Mobile/8B117 Safari/6531.22.7 (compatible; Googlebot-Mobile/2.1; +<http://www.google.com/bot.html>)

[various mobile device types] (compatible; Mediapartners-Google/2.1; +<http://www.google.com/bot.html>)

Mediapartners-Google

Mozilla/5.0 (compatible; bingbot/2.0; +<http://www.bing.com/bingbot.htm>)

Mozilla/5.0 (compatible; Baiduspider/2.0; +/web/20130307230956/<http://www.baidu.com/search/spider.html>)

Mozilla/5.0 (compatible; YandexBot/3.0; +<http://yandex.com/bots>)

facebookexternalhit/1.1 (+http://www.facebook.com/externalhit_uatext.php)

Mozilla/5.0 (compatible; rogerBot/1.0; UrlCrawler; <http://moz.com/help/pro/rogerbot-crawler>)

Important Metadata

Facebook Open Graph

```
<head>
<meta property="og:title" content="Title Goes Here">
<meta property="og:description" content="description-goes-here">
<meta property="og:type" content="your-content-type-goes-here"> (e.g., "article")
<meta property="og:url" content="http://www.your-site.com/">
<meta property="og:image" content="http://www.your-site.com/image.jpg">
<meta property="og:site_name" content="your-site-name">
<meta property="fb:admins" content="your-Facebook-page-user-ID">
</head>
```

More information at <https://developers.facebook.com/docs/opengraph/>

Twitter Cards

```
<head>
<meta name="twitter:card" content="summary">
<meta name="twitter:url" content="http://www.example.com/your-url-goes-here/">
<meta name="twitter:title" content="Title Goes Here">
<meta name="twitter:description" content="Your description goes here.">
<meta name="twitter:image" content="http://example.com/image.jpg">
</head>
```

More information at <https://dev.twitter.com/docs/cards>

Google+

Google+ will extract information from Open Graph properties, title and meta description tags, or Schema.org microdata (recommended).

```
<html itemscope itemtype="http://schema.org/Article">
<head>
<meta itemprop="name" content="Title Goes Here">
<meta itemprop="description" content="Description Goes Here">
<meta itemprop="image" content="http://example.com/image.jpg">
</head>
```

More information at <https://developers.google.com/+/web/snippet/>

Google+ Authorship

- For author information in Google search results:

1 Link your content to your Google+ profile

```
<a href="[profile_url]?rel=author">Google</a>
```

2 Link back to your site from the 'Contributor' section of your Google+ profile

More information at <https://support.google.com/webmasters/answer/2539557>

Google+ Publisher

- For businesses, brands, products and organizations:

1 Link your homepage to your Google+ profile

```
<a href="[profile_url]?rel=publisher">Google</a>
```

2 Link to your website from your Google+ page's profile

More information at <https://support.google.com/webmasters/answer/1708844>

Targeting Multiple Languages

Declare language attribute in the HTML element

```
<html lang="fr">
```

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 & country versions of content

HTML version in <head>

```
<link rel="alternate" hreflang="x-default" href="http://www.example.com/" /> (Specifies Default)
<link rel="alternate" hreflang="de" href="http://example.com/de/" /> (Specifies Language)
<link rel="alternate" hreflang="de-ES" href="http://example.com/de-es/" /> (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
ch 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

More region codes can be found at http://en.wikipedia.org/wiki/ISO_3166-1_alpha-2

Mobile Web Development

1 Responsive Design

- Uses CSS to alter the rendering of the page on the device using media queries

Example:

```
/* Phones */
@media (max-width: 767px) { ... }

/* Tablets to Desktops */
@media (min-width: 768px) and (max-width: 992px) { ... }

/* Large devices */
@media (min-width: 1200px) { ... }
```

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: 5710
```

(...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="http://m.example.com/">

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