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# Metadata

Data Science - Semester 4

# Metadatas And SEO

It's critical that ecommerce marketers understand the metadata that drives search engine optimization.

Metadata is a series of micro-communications between your site and search engines.

Nearly all metadata is invisible to visitors. It lives and works behind the scenes in the HTML of web pages. The metadata we use for SEO speaks to search engines directly from each page crawled. Because it's not immediately visible, metadata can seem foreign. Here is a typical example, found in nearly all pages.

```
<title>The title tag goes here</title> <meta name="description"
content="And the descriptive text that goes in here is the meta
description. "> <meta name="keywords" content=""/>
```

# Metaddata And SEO

- SEO (Search Engine Optimisation) involves altering website code, content, and presence in order to increase rankings in search engines
- At least half a billion searches are made worldwide on a daily basis
  - If you are ranked at the top of a search engine, you are essentially running a free marketing campaign

# Metaddata And SEO

How a search engine works?

- Search engines use programs called spiders, or bots, to search the internet and document their findings.
- Spiders firstly go to a webpage and analyse it
  - Goes through the HTML code and categorises the most important words (keywords) in the document.
- It then moves on to any pages that linked from the current page.
  - This is one way how search engines find new pages.
  - It also visits pages that may not be linked by other pages, but were submitted by search engines.

# Metadada And SEO

## Search Engine Optimization:

- SEO consists of activities / techniques applied towards making a website rank at the top in search engine.
- The prime aim of SEO exercise for a marketer is to help generate awareness for its brand website by gaining attention through **content relevance** and **keyword prominence** rather than paying for it through SEM campaigns.
- The key aim on any search engine is to help users find a specific piece of information from the billion pieces of content lying on the internet.
- Search Engines execute following **major functions which** form the core of their businesses.





# Metadada And SEO

## Crawling:

The purpose of the crawl is to **identify relevant pages for indexing** and **assess whether they have changed**.

Crawling is performed by **robots (bots)** which are also known as **spiders**. These access web pages and retrieve a reference URL of the page for later analysis.



# Metadada And SEO

## Indexing:

An index is created to **enable the search engine to rapidly find the most relevant pages containing the query typed by the searcher.**

Rather than searching each page for a query phrase, a search engine **'inverts'** the index to produce a lookup table of the documents containing particular words.



# Metaddata And SEO

## Ranking & Scoring:

The indexing process has produced ***a lookup of all the pages*** that contain particular words in a query, but they are not sorted in terms of relevance.

Ranking of the document to assess the most relevant set of documents to return in the Search engine result pages (SERPs) occurs in real time for the search query entered.

First, relevant documents will be retrieved from a runtime version of the index at a particular data center, then a rank in the SERPs for each.



# Metaddata And SEO

## Query request and Results Serving:

The familiar search engine interface **accepts** the searcher's query.

The **user's location** is assessed through their **IP address** and the query is then passed to a relevant data center for processing.

**Ranking then occurs** in real time for a particular query to return a sorted list of relevant documents, and these are then displayed **on the Search Results Page**.



# Metaddata And SEO

## Improving Search Engine Ranking Through SEO

- The challenge for SEOs is that there are many **ranking factors** and they are constantly changing!
- Google references over **200 main ranking factors** which mean hundreds of detailed changes to the way pages are evaluated and represented in the search results places happening each year.
- Fortunately there are **four common factors** that influence search engine rankings, that can be managed as part of an SEO strategy:



# Metaddata And SEO

## Important SEO Tips You Need to Know:

1. Remove anything that slows down your site.
2. Link to other websites with relevant content.
3. Write for humans first, search engines second
4. Encourage other trustworthy sites to link to you.
5. Write unique and relevant Meta descriptions for every page.
6. Use readable and meaningful URLs only.
7. Use the right keywords in your images.
8. Create & publish unique content consistently to improve your rankings.
9. Build momentum with social signals.



# Metadata And SEO

## Meta Tags

Pay careful attention to the terminology. Meta tags are metadata, but not all metadata are meta tags. Some elements commonly called “tags” are actually attributes of a tag.

### Meta Tags

The most obvious metadata for SEO are meta tags, so we’ll start there. The meta tag takes the following form.

```
<meta name="description" content="This what a meta tag with a name attribute of description looks like." />
```

Each of the tags below follows this format with the beginning tag of “meta,” followed by name attributes. When you type a meta description into your CMS, it automatically generates the meta tag in the correct format.



# Metadatas And SEO Description

**Description:** Sometimes used by search engines as the descriptive black text in the search result listing, meta descriptions can help increase customer clicks in search results, but meta descriptions will not impact rankings. The description attribute for the meta tag explains the page content in a summary that needs to be at least 11 words long to display, and will truncate at around 160 characters. (After roughly 160 characters, the remaining text won't display.) Don't bother placing the first 160 characters from the copy on the page into your meta description — just leave it blank if you have to. Google will ignore such descriptions and determine the most relevant content (from the text on the page) to display as the summary text in its search results.



# Metaddata And SEO Keywords

## **Keywords:**

Meta keywords ceased to impact rankings in 2009.

Bing may still use them, but only as a spam signal. In other words, too many irrelevant keywords in this attribute may harm rankings in Bing. Do not use the keyword attribute unless your internal site search engine requires it.



# Metaddata And SEO Robots

## Robots:

Part of the exclusion protocol, the meta robots attribute tells search engines whether to index or pass link authority through the links on a page. The four attributes are “index,” “noindex,” “follow,” “nofollow.” Keep in mind that search engines by default index content and follow links. So it’s pointless to use the attribute combination of “index, follow.”

Meta robots attributes are commonly used at the template level, since you may want to exclude all pages using a certain template from being indexed. Remember, though, that accidental use of the *noindex* tag can result in drastic decreases in SEO performance.



# Metadatas And SEO

## Title Tags

### Title Tags

Title tags are still the single most important piece of metadata on the page. Their format is simple, and as with meta tags, your CMS will generate the tag for you from the title or headline you enter. Here's what a title tag looks like.

```
<title>SEO: For Conversions, Every Page Is a Landing Page | Practical Ecommerce</title>
```

The best title tags begin with the most relevant keywords, product name, or article name, and end with the name of the site — “Practical Ecommerce,” above. Stay within 60 characters and keep the unique, relevant, and valuable keywords toward the beginning of the title for maximum SEO benefit.



# Metaddata And SEO Schema Markup

**Schema Markup:** In 2011, Google, Bing, and Yahoo launched the [Schema.org](http://schema.org) project to enable webmasters to mark their pages with a specific syntax of data to help the engines digest the content more accurately and efficiently. In particular, the Schema markup about your company, store, and your products' prices, availability, and ratings are instrumental in allowing the search engines to display information about your items directly in the search results.

Unlike the other metadata listed here, Schema structured data is code that needs to be implemented by a developer. It is most commonly seen as a series of JSON-LD instructions that look like this:

```
<script type="application/ld+json"> { "@context":  
"http://schema.org", "@type": "Organization", "url":  
"http://www.example.com", "name": "ACME Sales  
Corp.", "contactPoint": { "@type": "ContactPoint", "telephone": "+1-  
888-888-7890", "contactType": "Customer service" } } </script>
```



# Metaddata And SEO

## Image Tags

### Image Tags and Alt Attributes

Search engines primarily use image tags to identify the URLs for the images to be shown on the page. Other attributes can specify the height and width of the image. Here's what an image tag looks like.

```

```

*Alt* is the most important image attribute for SEO, though its relative importance to other SEO factors is small. Alternative attributes provide a short textual description of the image to serve accessibility needs for customers with vision or mobility disabilities. They also serve as small keyword relevance signals for SEO, most importantly in image search.