

Mapping eCommerce Product Taxonomy with AI Pt. 1

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Product Taxonomy and its importance in retail

Every product on a retail website is categorized in such a way that it denotes where the product belongs in the entire catalog. Generally, these categorizations follow a hierarchy that puts the product under some Category, Subcategory and Product Type (Ex. *Clothing, Shoes & Jewelry > Men > Clothing > Shirts*). We call this hierarchical eCommerce product categorization as Product Taxonomy. Categorizing products in a logical manner – in a way a shopper would find intuitive, helps in navigation when he or she is browsing an e-commerce website.

In addition, with a good category organization, a product lends itself for better searchability (for search engines) on e-commerce websites. Search engines work by looking up query terms in an index which points to products which contain those terms. Matches in various fields are ranked differently in relevance.

For instance, a term that matches a word in the title, indicates greater relevance compared to one which matches the description. Additionally, terms that are exclusive to certain products, signal greater selectivity and hence contribute more to ranking. In light of this, the choice of words in fields indicating a product's category affects the relevance of search results for a user query. This improves discoverability and as relevant results show up, it in turn improves the user experience. A good product taxonomy contributes to



Mapping eCommerce retail taxonomies is not only a requirement for the Knowledge Graph, but has some direct business applications as well:

Assortment Analytics

- Mapping competitors' products to their own taxonomies help retailers understand the exact gap in their assortment, regardless of how competitors are categorizing their products
- Let's say a retailer is interested in knowing the assortment of a product type, Scented Candles in their competitor's catalog. Now, the retailer might have categorized it as *Home & Kitchen > Home Decor > Scented Candle* but the same product type could have been categorized as *Fragrance > Home > Candles* on a competitor's website. Here, having an efficient and scalable mechanism to map product taxonomies provides accurate assortment analytics which retailers look for. Example:



Roll over image to zoom in



Jo Malone Peony & Blush Suede Home Candle 200g (I0091463)

Brand: Jo Malone

★★★★★ 27 ratings

Available from these sellers.

Scent	Fruit
Brand	Jo Malone
Item Dimensions LxWxH	3 x 3 x 5 inches
Item Weight	1.6 Pounds

About this item

- Jo Malone Peony & Blush Suede Scented Candle - 200g (2.5 inch)
- A luxurious & delicately perfumed candle Warms yo
- Jo Malone
- Number of items: 1.0

New (3) from \$95.00

Health & Household > Health Care > Alternative Medicine > Aromatherapy > Candles

Fragrance > Candles & Home Scents > Candles



Roll over or click image to zoom in



Jo Malone London
Peony & Blush Suede Candle
 SIZE 7.0 oz/ 200 g • ITEM 1947068

★★★★★ 11 reviews | ❤️ 6.3K loves

\$69.00

Pay in 4 interest-free
 payments of \$17.25

Klarna. ⓘ

1 ▼

Add to Basket

❤️ **Add to Loves**

☒ **Get It Shipped** You're only \$50.00 away from Free Shipping. [Shipping & Returns](#)

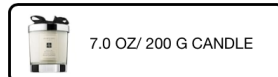


☐ **Reserve & Pick Up** ⓘ Select to see availability at **stores near you** ▼

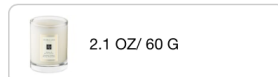


7.0 oz/ 200 g Candle

Standard size



Mini size



Value size



Fragrance > Candles & Home Scents > Candles

Automated Catalog Suggestion

It is also used in Catalog Suggestion as a Service, where for any product we suggest the appropriate taxonomy it should follow on the website for a better browsing experience.

Stay tuned to Part-2 to know how we are solving the problem of mapping various retail taxonomies.

Click here to know more about [assortment analytics](#)

- **Shwet Kamal Mishra**

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