

SITE SEARCH SECRETS

Data structure and organization—and not just technology—are key to successful site search

[By David Cooksey and John Shaw]

E-commerce has experienced tremendous growth since its inception, but as the growth of new online shoppers slows over the next few years, retailers will need to optimize their online businesses to get the most return from their investment dollars—and from their existing customers. One area where businesses can really get their money’s worth is focusing on improving site search.

Think of site search as the online equivalent of a sales associate. In a store, a customer asks a sales associate for help—for instance, “Do you carry sleeping bags for extremely cold weather?” Online, the site-search tool becomes the substitute for that salesperson. In fact, the search functionality needs to be even better because it must return search results in a way that anticipates follow-up questions. The best site-search systems are the equivalent of a super-salesperson; one who knows everything about every product and can respond to the customers in a structured, logical way.

Yet achieving this super-salesperson level of service is not as straightforward as implementing even the best search functionality. Great site search requires more than just technology; it requires a high degree of human involvement. This involvement includes thinking seriously—and from a consumer’s perspective—about the products you sell and how to describe them. Each product’s data needs to be specific, its attributes need to be clearly identified, and it

ADD TO CART >> **ADD TO WISHLIST >>**
EMAIL TO A FRIEND >>

BillMe Later BUY NOW! NO PAYMENTS FOR 90 DAYS on purchases over \$250

AVAILABILITY: In stock, leaves warehouse in 1 - 2 full bus. days. - (Details)

Economy Ground Service Available (normally \$10.79) (Details)

Remember, no sales tax except in KY and PA.

ENHANCED VIEWS

FULL PRODUCT INFO **USER RATINGS & REVIEWS**

The Coleman® Laurel Ridge 40-degree rectangular sleeping bag is ideal for warmer weather camping with a comfortable polyester cover and fleece liner. It's packed with 4-lbs of Thermo Tech® insulation.

Features	Benefits
▪ Bag Type: Rectangular	Provides great flexibility and interior room.
▪ Shell: Polyester	A versatile fabric that keeps its shape.
▪ Fill Fibers/Insulation: ThermoTech®	Offers you great insulating abilities.

Key Specs:

- Bag Size: Men's Regular
- Bag Length: 75 in
- Bag Width: 33 in
- Comfort Rating: 40 Degrees
- Packed Length: 16.54 in
- Packed Width: 9.84 in
- Storage Method: Quickcord™ Closure

Including key data with each product helps customers make more informed decisions.

needs to be grouped into categories that are logical to consumers. This level of detail and organization can enable successful site search, wherein customers can locate the products they want, faster and more intuitively.

In other words, the right type of product data and advanced site search functionality operate in tandem to bring the super-salesperson alive online.

Site search demystified

Before getting into the specifics of structuring product data catalog information, we should first discuss how site search works as a navigation

tool. The mission of search is to get a consumer to view the product he had in mind as quickly as possible. It’s useful to think about search as a special type of navigation, best understood from two basic points of view—the searching consumer and the direction-giving retailer.

At a more detailed level, this interplay between the two perspectives can be broken down into six essential areas of concern.

For consumers:

► **Relevance:** relevant product results from search, with the most relevant on top.

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► **Control:** the ability to guide searches by having proper context for searching and for search results, such as sorting results by price or popularity.

► **Inference:** figuring out what a searching consumer has in mind based on keyword search, which can be difficult since many searches are single words. This makes it critical to have technology in place to sort root words and query back to a consumer when trying to decipher misspelled words (i.e., “Did you mean?”).

For retailers:

► **Management:** tactical control of how search is implemented and how it needs to evolve based on analysis.

► **Messaging:** the ability to deliver promotional, positioning, or brand-related messages in search results.

► **Content:** product information needs to be aligned with, and even predict, search parameters.

This last element, content, is perhaps the most important, as the quality of a retailer’s content is critical for delivering a good search experience. Having high-quality content means getting inside consumers’ heads to organize data in a way that reflects how they shop—not how retailers think they shop—and then structuring this data to support advanced selling tools and improve the shopping experience.

Narratives and taxonomy

Retailers also need to be aware of two important areas when building their site search: product narratives, and taxonomy and metadata.

In product narratives, product information should be as specific as possible. Since online shoppers can’t touch items prior to purchase, online retailers must describe the attributes that help consumers not only understand a product but also experience it. While descriptive

The anatomy of taxonomy

Structured product information like this ...

Product Attribute	Values		
Category	Gas	Electric	Charcoal
Fuel Type	Natural gas	Propane	Charcoal
Number of burners	3	4	6
Cooking space	160 sq. in.	180 sq. in.	200 sq. in.
Brand	Weber	Ducane	Charbroil
Side burner	Yes	No	No
Rotisserie attachment	Yes	No	No

... enables filtered search and comparison.

and more...

- filtered browsing
- product page features & benefits
- guided selling tools
- enhanced information bubbles

narrative passages may help tell that product’s story, specific detailed information about its attributes is critical to helping customers make informed buying decisions.

Taxonomy and metadata deal with how content is organized and attributes assigned. When we helped plan and implement a transformational retail web site redesign for our partner, Ace Hardware, we closely examined the online catalog and how it was organized. While it contained a lot of good, descriptive information on the products Ace sells, the information wasn’t organized or formatted to best take advantage of advanced selling tools.

Their product descriptions were in an unstructured format—that is, there were sets of HTML text marked up with bullet points and other punctuation. However, to be useful, those bullet points needed

more specific product attribution, formatted so they could support product filtering and search. For example, specific attributes for circular saws include amps, voltage and blade diameter—all of which are now included in Ace’s product filtering categories.

In addition, browsing and searching were challenging due to the way the product catalog was organized. The naming and placement of product categories needed to be rethought in order to make it easy for consumers to find products. For instance, a sleeping bag needs to be assigned to certain categories, such as “outdoors” or “camping & hiking,” so that it’s easy to find. Think of these as the departments in a physical store. The outcome of defining and assigning these categories for an e-commerce site is known as product taxonomy.

Taxonomies are implicitly agreed-upon meanings, or structured groupings, organized by the retailer according to certain logic. This is a subtle but important point. Because a product taxonomy is organized by the retailer according to this logic, it may be hard for consumers to understand the groupings and labels if they are not familiar with them. Therefore, product taxonomies must be organized with the consumer in mind, using labels and groupings common to the consumer, not the retailer. Conducting user research and testing on taxonomy categories and labels, as well as navigation and search schema, are crucial to building effective e-commerce sites.

The detailed product information can be broken down further by specific product attributes. For example, attributes of a sleeping bag could include standard information such as size and color, and, for avid campers and backpackers, the packed length and width and storage method. This set of detailed product attribution information is known as metadata.

Together, taxonomy and metadata are critical to enabling shoppers to find the right products and to making informed decisions about those products.

Once metadata and taxonomy structures are in place for a product catalog, this information, when coupled with an advanced set of technology tools, enables customers to filter products by the structured categories that the retailer has created.

This type of product filtering, what GSI Commerce calls parametric navigation and is also sometimes called faceted navigation, can help shoppers be more specific about their product searches. It helps ensure they'll find the products they're looking for because results of a keyword search will be presented to shoppers in more logical and

Why invest in taxonomy?

- ▶ Taxonomy informs how navigation will be implemented.
- ▶ A good taxonomy gives the customer a sense of what is available. The fewer "like" categories, the easier it is for the customer to know where to look.
- ▶ Well-structured taxonomy and metadata support search engine optimization strategies.
- ▶ A well-crafted taxonomy will speak the customer's language; retailer-centric descriptions and classifications require learning on the customer's part.
- ▶ A well-conceived taxonomy is easier to maintain and to build upon.
- ▶ A well-organized taxonomy enables more targeted marketing campaigns.

relevant groupings that the shopper can further refine.

For instance, a search on AceHardware.com for a "hammer" will bring up several category filters such as plumbing and electrical, and the search results can also be refined by brand and price. With each new filter, a customer can narrow search results until only a few products are left to compare, contrast, and eventually purchase.

Structuring catalog info

As valuable as proper organization and classification of a retail product catalog can be, taking on a product-catalog classification project can be overwhelming. Here are five guidelines to keep in mind to facilitate the process:

1. Analysis

Use analytical data on your current e-commerce site to mine sales, click-stream and search information. Specifically, interpreting click-stream data can uncover where customers are having problems navigating.

Analyzing search logs can inform you as to what terminology customers use, unavailable products that customers expect to see and even what attributes customers deem important to their purchasing decisions. For instance, an

abundance of searches for the term "recumbent exercise bike" should inform a sporting goods retailer that it should segment or attribute these products rather than grouping them under "exercise bikes." Furthermore, a large quantity of searches for any given term can be a sign that customers are having difficulty finding those products in the standard navigation scheme.

2. Co-design

While it seems as if this type of work would lend itself to a solitary, heads-down work style, you'll find much better results by engaging everyone involved in the process from the beginning.

When crafting the catalog and metadata, think how a consumer will search for a type of product and engage with it. For example one of our partners wanted to describe a collection of products designed for young girls as "Just for Tweens." The design team thought the label was too marketing-oriented and wouldn't be well received by shoppers. However, when it was tested with real users, shoppers understood and liked the label.

3. Speak about results

Talk to all relevant stakeholders about the strong results that proper taxonomy and metadata can yield.

Talk about analytics that can demonstrate results, such as reduced clicks to reach a product page and reduced page abandonment.

4. User Research

Validate the taxonomy and metadata and the interactions they enable via user testing. Always get real people in front of prototyped sites to determine what's working and what needs to be tweaked. Even before a prototype is built, a developer can use card-sorting techniques to obtain user validation of particular classification choices. These activities ensure that the taxonomy and metadata support the user's way of thinking, not just the retailer's.

5. Plan for the future

Follow up every taxonomy and metadata project with a clearly defined plan for governing the continual implementation and maintenance of a well-organized product catalog. This can be a huge commitment for a large retailer with big seasonal changes of stock, but for other retailers, whose product assortments see small annual fluctuations, it will be easier. Failure to follow a clear governance plan will result within a mere matter of months in a return to the same state of chaos that your catalog was in prior to the overhaul.

Benefits of a better catalog

Once a catalog is in order, a retailer can implement a host of user-centric experiences that can drive customer excitement, retention and conversion.

One easy example is the ability for consumers to comparison shop. With the right data sets, retailers can help shoppers select products to compare, and present them with a detailed feature-by-feature comparison of products.

Another great user experience and shopping tool enabled by a proper catalog is a gift-finder. Again, with a well-designed taxonomy and clearly defined metadata, retailers can present customers with filters based on occasion, gift recipient personas (e.g.,



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“man who has everything”), price ranges and more, resulting in a filtered list of recommended products.

And customers aren't the only ones winning here. When all is said and done, the ability to bring these more advanced search and navigation capabilities to customers should pay off to the retail business.

Savvy site operators with a healthy awareness of our cross-channel world will utilize site search to guide customers into their stores, whether by simple rerouting of keyword searches for “stores” to their site's store locator tool or a deeper interaction.



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The results can be impressive. When we implemented a taxonomy and metadata redesign for one e-commerce partner, several key metrics spoke to the project's effectiveness and the deeper engagement with shoppers who were able to connect with products faster.

From March to June 2007, when compared to the same time period the previous year, prior to the redesign, shoppers were spending an average of 6.6% longer on the site while viewing 15% fewer pages per visit.

Efficient shopping was definitely a result, with the statistics showing a significant drop in average number of clicks for users to get to key product category pages:

▶ Clicks to get to GPS devices decreased 52%.

▶ Clicks to elliptical exercising machines decreased 42%.

▶ Clicks to treadmills decreased 40%.

For the site, overall page views dropped by 15% while revenue increased, indicating a more efficient navigational site experience.

And with each new catalog organization project we

complete, the results echo the ones above.

Without question, this type of data-organization project will improve site search, product filtering and the overall shopping experience for customers. And, as our studies suggest, it is highly beneficial to the retailer as well, with the potential for increased revenue and more engaged, satisfied customers. ♦

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