

Ecommerce Search Buyer's Guide

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Lucidworks



Everything's Changed (Again? Again.)

Tumbleweeds skitter through shopping malls. The storefront is dead. Iconic retailers are dropping like flies as consumers become increasingly comfortable with buying nearly everything online. Everyone has to adapt. And you better wear a mask.

When retailers first flocked to the internet, they launched little more than corporate brochure sites redirecting consumers to nearby locations. As purchasing power moved online, the now-familiar online store began to take shape: a search bar, a photo gallery of products, and a shopping cart. With so many massive product catalogs, search became the primary way for customers to find what they wanted.

And competition is coming from all sides, all the time. New shops with a fresh shiny sheen pop up like mushrooms while established players keep expanding their catalogs to gobble up as much share as they can. Retailers have to quickly move past simply searching product names and descriptions for particular keywords. Today's ecommerce search systems have to understand intent and provide personalized search results and recommendations that are unique to every shopper.

This buyer's guide will walk you through the key features to consider when choosing an ecommerce search platform. You'll learn the must-have functionality that is core to any search application, as well as more advanced capabilities that retailers must have in order to create a compelling, effective, search experience.

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Ecommerce Search Trends: Your Two Biggest Nightmares

Amazon and Google ruined it for everybody. In a good way.

Customers now expect to be able to find exactly that thing they're looking for with just a quick search. They expect smooth, fast user interfaces that react to the first letters they type with, "I bet this is what you're looking for! How about this?! Or this other thing?!" Consumers expect the browsing, shopping, buying, delivery, and support phases of the customer journey to be smooth as silk and completely personalized to who they are, their wants, and needs.

Customers desire a uniquely personal experience.

After surveying the industry landscape and hearing first-hand from our customers (some of the world's biggest retailers) here are the two main reasons it's time to think about deploying a new ecommerce search system (or divorcing your old one). AI can identify types of products and all of their respective attributes, shopper personas, and how those products and branded content are used throughout the buying journey.



Terrible Search Results

If they can't find it, they can't buy it.

Online search functionality should feel seamless. Type what you're looking for, and watch it appear instantly — like magic. No stumbling through category hierarchies or landing pages. Just fast, accurate search results pointing you to exactly what you want, even if you spelled it wrong or didn't call it by the exact right words

Unfortunately, the search functionality of many ecommerce sites isn't quite there yet.

But if they can't find it, it doesn't exist. Or even worse, they assume you don't have it, but somebody else might and they're gone, likely to never return.

Finding what a user needs in response to a query is called relevance. Basic relevance is rooted in matching product descriptions to search keywords. This isn't enough anymore. What humans consider a relevant response to the keywords they type in a search box isn't always a word for word match with the language marketers use to describe a product in a catalog listing. A modern ecommerce search system should look at what users click for the terms they've searched and boost those results for all users. That means that users who don't click to the next page, or even look beyond the first result, are seeing better results based on what others users clicked for similar queries. This kind of collaborative tuning requires capturing user "signals" like click-stream events and purchases in order to improve search.

On the business side of things, delays in turning insights into action can waste valuable time. Your search and analytics team runs some analysis on your log and finds some experiments they want to test that might increase conversions. So you wait for engineering resources to become available to code it, they roll it live to development servers and you test it there, then deploy to production and it's live. By now it's probably weeks or months later so the assumptions you wanted to test are based on outdated data so you have to start all over. Another backend bugaboo is stale inventory data showing products that are no longer available.

Terrible Customer Experience

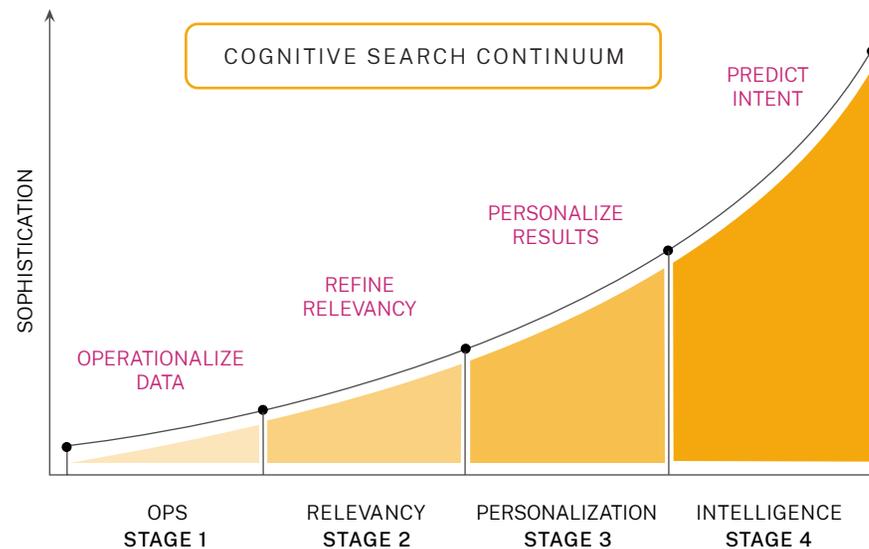
Going beyond the quality and relevance of search results, we also find that retailers are in a constant battle to continually improve and optimize the customer experience across all channels - web, mobile app, in-store, or on the phone.

When customer data and behavior data isn't united with the customer experience, the overall feel is inconsistent and uninformed. There's no historical perspective of the customer to establish where they are in the customer life cycle and the customer's potential lifetime value. Without this data you also can't deploy accurate personalization and effective user segmentation. Marketing campaigns and customer support efforts are clumsy, muddled, and middling. Customers experience a bland, boring, generic shopping experience and when they go to get customer support they get the same thing: a generic, inconsistent experience.

It Could Be Better (A Lot Better)

These challenges aren't insurmountable; these are all problems that other companies have solved. There's a pretty clear path from outdated, outmoded ecommerce search to the promised land of connecting customers with the products and recommendations they desire.

Lucidworks developed the Cognitive Search Continuum, a four-part maturity model showing how retailers can start to evolve their search platform from simple catalog search to a hyper-personal customer experience.



Of course, the journey is never complete. Using the cognitive search continuum as a roadmap, you can iterate through the stages to provide the best experiences for more relevant recommendation and increased conversions. Let's get going.

COGNITIVE SEARCH CONTINUUM: THE FOUR STAGES

1 Stage One: Ops

Stage one is pretty simple - just getting everything up and operating. You have a basic search platform that sits alongside your product catalog listings. It might just be the native search in your ecommerce platform itself. Customers can search for products by name and brand and other simple product attributes across just a few data sources like a product catalog with product descriptions. There is no personalization so customers receive one generic search experience. Also be sure your analytics and logs are organized and enriched so when you're ready to use that data for advanced capabilities later on, it's already there ready to go. Long story short: Shoppers search for things, and (more or less) find them.

2 Stage Two: Relevancy

Stage two is about improving search results through both manual adjustments from merchandisers and automated strategies. Merchandisers can boost and bury products in search results. Search results consistently show the best products for a query and rank them correctly. You're selling more of what you want to be selling. The long-form text descriptions of products have been indexed to improve relevancy. The system has picked out various characteristics like color, size, and put them into fields that can be sorted and filtered. Synonyms and misspellings are automatically detected and corrected.

3 Stage Three: Personalization

The third stage in our continuum is when platform, data, and applications all work together. Customer behavior like browsing, clicks, views, past purchase history, current session affinities, past queries, inventory data, CRM data, shifting tastes, and other signals are captured and aggregated to create a customized experience specific to each user for each specific visit. Search becomes predictive and the recommendations are complementary.

4 Stage Four: Intelligence

Stage four is about getting intelligence into the search and shopping application experience as one fully automatic feedback loop. Customers can talk to your apps and it can make suggestions through chatbots and other channels using natural language processing. Apps have gone beyond typing into a search box and offer input through voice, image upload, or media file. When shoppers don't ask specific enough questions, the system asks clarifying questions. Low-performing queries are identified and improved.

Required Capabilities for Powerful Ecommerce Search

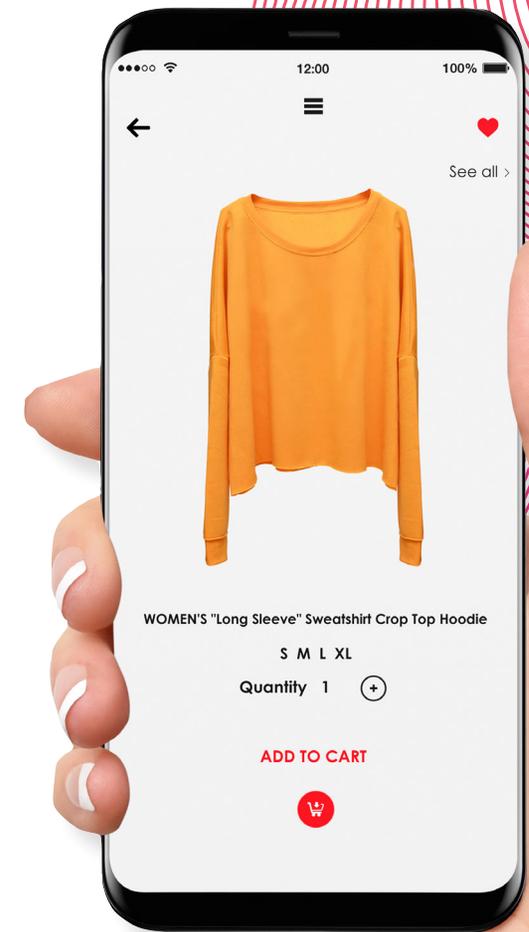
When you're shopping around for a dedicated ecommerce search platform to expand your digital shopping experience-or replacing an outmoded search solution—there's a whole raft of essential features and capabilities you need to make sure your new platform has.

Here's a rundown of the top dozen:

- **Scalability** is an obvious — but crucial — differentiator when choosing an ecommerce search solution. With the always unpredictable currents of social media and viral marketing, Black Friday can come any day these days and systems have to scale up and scale down as traffic, data, and content volume swings from one extreme to the other — all without a huge devops team and unneeded hardware.
- **Signal capture** is the capture of user behavior data or “signals.” In most search applications, signals include events such as user queries, clicks, adds, purchases, and other similar clickstream data. However, in advanced uses, this may include user location, vector, altitude, or any number of event type data.
- **Machine learning powered recommendations** aggregate user signals to create a personalized shopping experience for each customer for each visit. Ideally ML models can be imported and exported by your data scientists for the best optimization.
- **Synonym detection and misspelling correction** that goes beyond simple word lists and uses machine learning and language analysis to suggest synonyms and misspellings on the fly. A smart system will suggest possible synonym combinations to admins so they can continuously update and understand what shoppers are looking for.

- **Business rules management** is still important for manually adding, removing, and editing business rules including boost, block, bury functions using a simple dashboard and interface for making changes, previewing them, and committing them to production. With a drag-and-drop interface and dashboards for understanding product relevancy and shopper behavior, merchandisers can respond to changing tastes and language in real-time, without relying on IT.
- **Named entity recognition (NER)** uses natural language processing (NLP) to recognize brand names, model numbers, prices, color, size, fabric, styles, and other nouns and adjectives in a product catalog data set. uses, this may include user location, vector, altitude, or any number of event type data.
- **Autocomplete/typeahead is a standard feature** every consumer expects every time they type in a search box. A rich autocomplete capability extends this to provide instant result sets (products or categories) that can include attributes such as links, prices, and thumbnail images. Further, auto-classification is a more advanced form of typeahead. For example, when a user types “speaker,” then “audio electronics” is automatically selected as a category.
- **Zero results management** fixes queries that don't return results so shoppers don't experience a dead end and leave the online store.
- **Faceted navigation** and **range filtering** adds checkboxes, sliders, and other UI elements for filtering and limiting a search by criteria germane to the products (size, color, shipping options, price range). This is especially useful for limiting a search to a category or department.
- **Clustering and classification** are machine learning techniques that allow data or queries to be grouped or labeled automatically.
- **Head/tail analysis** is a machine learning technique that identifies and rewrites underperforming queries to be more like similar, well-performing queries.
- **A/B testing** and **experiment management** inform admins whether changes to search results rankings are working as expected. Especially with personalization, recommendations, or other AI techniques, it is important to determine whether the changes actually improved click-through rates, purchases, or any specified measure of success.

And it's a baker's dozen so we're adding a 13th feature to be lucky:
- **Omnichannel integration** enables the search experience to connect and reflect data from retail websites, mobile apps, loyalty programs, and store visits, giving retailers greater visibility across all channels. This allows them to provide services like personalized offers and in-store pickup at the closest location, creating one unified customer experience.



The Six Most Important Ecommerce Metrics To Be Obsessed With

As you get ready to deploy an ecommerce search system, you'll want to ensure you've put reporting in place to measure the success of your new search app — especially if you're moving to a new search experience and want to prove that the return on investment was worth it.

There are a ton of ecommerce metrics you can spend hours — even days — slicing and dicing and analyzing. The first three you probably already know by heart, having used them for a new ecommerce experience. And the last three are especially important for measuring ecommerce search performance and ROI:

- **Conversion Rate**
- **Average Order Value**
- **Clickthrough Rate**
- **Search Abandonment Rate**
- **Null Results**
- **Search Utilization**

Also important — and often forgotten until it's too late: **Don't forget to baseline** if you're swapping ecommerce search apps or adding a new one, be sure you have at least a year of baseline data so you can measure the success of your new system and compare it to the previous solution.



SIX IMPORTANT ECOMMERCE METRICS FOR YOUR ROI



Conversion Rate

Important metric for measuring how many sales resulted from consumer using search as part of path to purchase.

Important when presenting quarterly results and reports about the value of search to the overall health of the business, and the need to continue to invest in search.



Average Order Value

AOV is the total amount of orders received by the system in a period of time divided by the number of transactions.

Tells if user browsing by category or search app functionality like search results, product recommendations, or other personalization features is having any effect on the amount of the orders coming in the door.



Clickthrough Rate

Measures search result quality. Shows which type of search queries are effective.

Quality search results should be sorted by relevance and displayed in a format that entreats the shopper to go from a list of products to a particular product detail page.



Search Abandonment Rate

How often a shopper searches the catalog, sees a set of search results and then simply bails.

Are the search results obviously of low quality? Differences in search query behavior and personalization may have an effect on encouraging customers to complete a purchase.



Null Results

Tells you what queries return no results, leading a customer to a dead end.

With manual rules setting or automated tuning with machine learning algorithms, you should be able to quick identify these queries and point the customer in the right direction.



Search Utilization

What percentage of a site visitors use the search box as part of their shopping and browsing experience.

This is a key measure of the effectiveness of the search application as part of the overall site, shopping, and purchase flow. The more people that use the search box, the more likely they are to purchase.

Lucidworks

Our customers say it best:

Lenovo

“We don’t have to go in and validate that results are good, our customers are telling us the results are good. We’ve had some dramatic growth. The results that we’ve had with Fusion are nothing short of astounding.”

-Marc Desormeau, Global Search Lead, Lenovo

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New Pig

“Fusion allows us to quickly analyze user behavior, find problem searches, and use query pipelines to fix them in a meaningful way...There’s just nothing really on the market that allows the level of control that Fusion does.”

-John McQuade, Director of Software Development, New Pig

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