

The Ultimate Large Language Model Optimization Guide for online retailers

The most complete and authoritative guide to optimizing your ecommerce product content for large language models like Bing, ChatGPT and Bard.

Aside from the Internet itself, it's safe to say no technology has had a greater impact on how people shop over the last two decades than the Search Engine. Today 89% of shoppers consult a search engine results page (SERP) when making a purchase.

Now another results page threatens to test the SERP's primacy: The <u>CHERP</u>. With their vast knowledge bases and lightning-fast response times, LLM-powered chatbots like OpenAl's ChatGPT, Google's Bard and Microsoft's Bing are poised to become another indispensable tool in shoppers' hunt for just the right product.

In a move that speaks volumes to the importance of this new technology in the buying journey, <u>Amazon is working on its own chatbot</u> that will "reimagining Amazon Search with an interactive conversational experience" to help customers make better buying decisions.

Some call it Large Language Model Optimization (LLMO). Others are calling it Generative AI Optimization (GAIO). Still others are labeling it Answer Engine Optimization (AEO). The name will likely change as the practice matures, but one thing is for sure: it's here to stay.

This guide is intended to help online retailers optimize their product content to ensure their products appear prominently in results as shoppers turn to LLM-powered chatbots like ChatGPT, Bard and Bing to research. It will cover:

- 1) How shoppers are using Bard, Bing and ChatGPT on their path to purchase,
- 2) How LLMs use product information to help shoppers find the right products, and
- 3) How retailers should structure their content to ensure their products appear prominently in LLM chat results.

How shoppers are using Bard, Bing and ChatGPT on their path to purchase

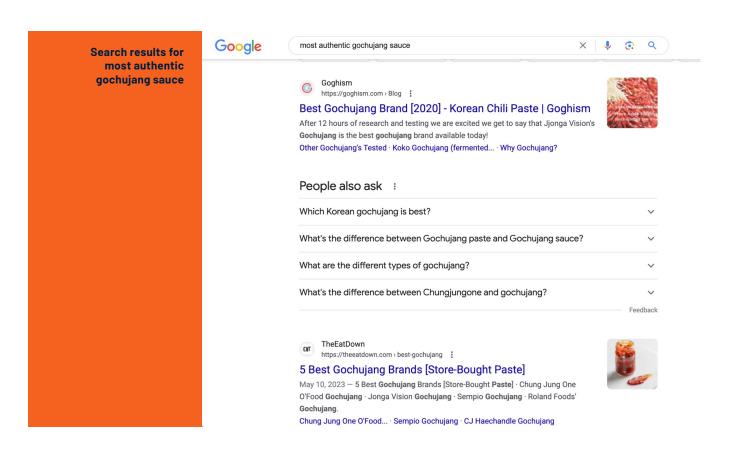
The purpose of traditional Search Engine Optimization (SEO) is to try and anticipate what consumers are searching for and the terms they use to search for it, then create valuable content chocked full of keywords that will best match their query.

With chatbots, there is no need to anticipate what consumers will search for. The chatbot is able to interpret a user's query and serve up a unique, perfectly customized answer. In other words, it optimizes its results in real time, as long as there is enough source content (read: detailed product information) on the internet to pull from.

The superpower of these chatbots is their ability to synthesize thousands—if not millions—of datapoints from across the web into a few paragraphs and/or a chart that is easily digestible and perfectly matches what the user is looking for.

So, instead of relying on professional product recommendation sites like Wirecutter and Engadget to review products based on their predefined criteria, shoppers can instantly parse millions of customer reviews across thousands of retail websites to determine how actual users rate products based on the criteria that matters to the shopper.

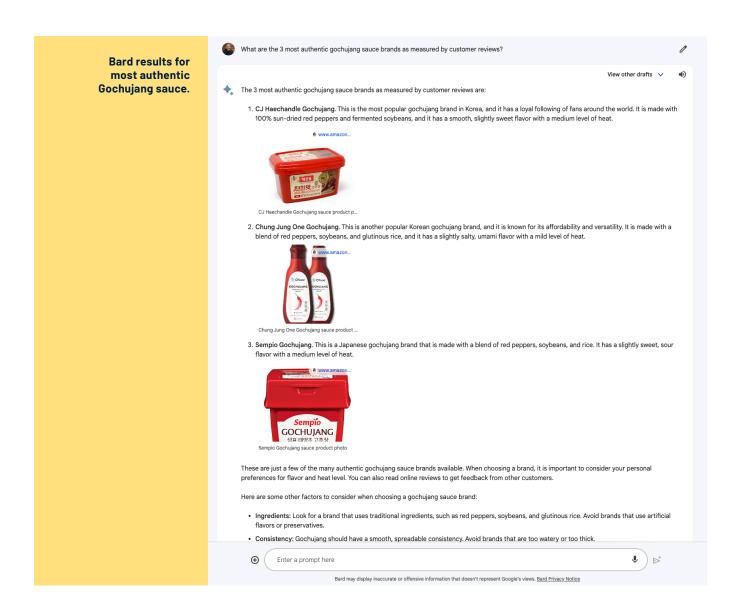
As an example, before chatbots, if I wanted to buy the most authentic Korean Gochujang sauce available for sale in the US I might have started my search by googling "most authentic gochujang sauce."



Unfortunately, there aren't enough people like me searching for authentic gochujang sauce to compel professional SEOs to create content around it. So, I'm left to manually search through several lists of "Best Gochujang" brands to find a review that mentions a brand's authenticity.

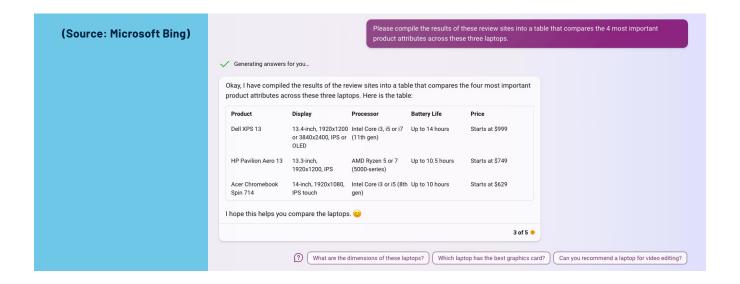
Or I could spend hours poring through customer reviews on Amazon myself until I found a review that convinces me that one brand was more authentic than the rest.

By turning to a chatbot instead of a search bar, I can quickly cut through the noise and determine which brands of Gochujang sauce are rated most authentic by real customers.



In other words, consumers no longer have to make their purchase decisions based on the criteria deemed important by professional reviewers or SEOs. We can make our decision based on the criteria that matters most to us, as reported by thousands of actual users of the product.

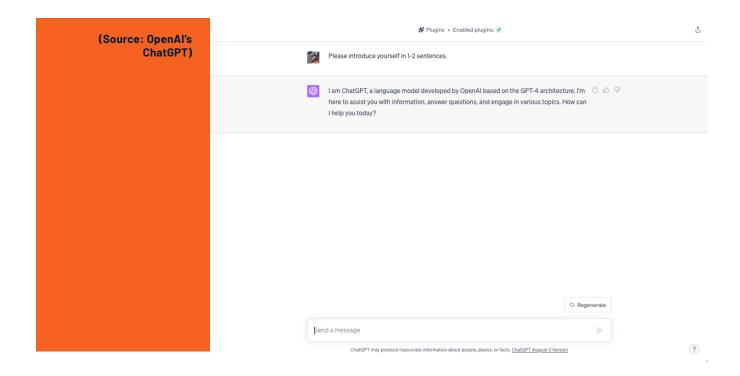
This is just one example, but these chatbots are a good choice anytime a shopper wants to quickly gather and synthesize data from across websites. If you do happen to value professional reviews, rather than slogging from one review site to the next sifting through long articles, a chatbot can summarize reviews from several review sites and compile them into a simple-to-read chart.



How each chatbot fares as a shopping assistant

ChatGPT

ChatGPT is a chatbot developed by OpenAI powered by the GPT-3 and GPT-4 language models. Whereas Bing and Bard are focused on the search-related goal of surfacing quality information and answers, ChatGPT's creators designed it for more open-ended use cases, like content creation and coding.



The Upside: First to market, ChatGPT stands out with its simple, user-friendly interface. It currently offers an advertising-free experience and provides answers in a natural, human language. Trained on 170 trillion parameters, versus Bard's 137 billion parameters, ChatGPT is the undisputed heavyweight champion of LLMs. This makes it useful for a wide range of tasks.

The Downside: The drawbacks of using ChatGPT—the paid or free version—as a virtual shopping assistant are rather extensive unfortunately. The first challenge is that its free version is not connected to the internet. That means it only has access to product information from 2022 or earlier. Without access to the most current product content, no matter its other advantages, the free version just can't be relied upon as a shopping assistant.

With the paid subscription, users are able to access the purportedly more accurate GPT-4 LLM, as well as a plugin that connects ChatGPT to the internet. Yet even with the \$20/mo subscription that provides access to GPT-4 and the necessary plugin to access the internet, performance can be slow and unpredictable.

Once you drop the money for the paid version and connect the plugin, ChatGPT still stubbornly refuses to access customer reviews from retail websites. When you ask it for customer reviews, it still defaults to summarizing published product reviews from media outlets. Since you can just as quickly access this type of content with a quick Google search, there is no need to go through the extra time and expense of having a chatbot google the results for you.

The Verdict: ChatGPT was groundbreaking when it launched and it has proven incredibly useful across many tasks, both professional and personal. But its current capabilities as a shopping assistant are severely limited due to its lack of a direct connection to the internet.

Bina

As with ChatGPT, Microsoft's Bing chatbot is powered by OpenAl's language models. But, based on the user experience, Bing appears to be more focused on deepening the power and functionality of the Bing search engine.

The Upside: Bing is connected to the internet and can access the most up-to-date information about any product so long as that information is available online. It can access customer reviews directly from retail websites if prompted. It is even able to create comparative charts of products based on their benefits and features.

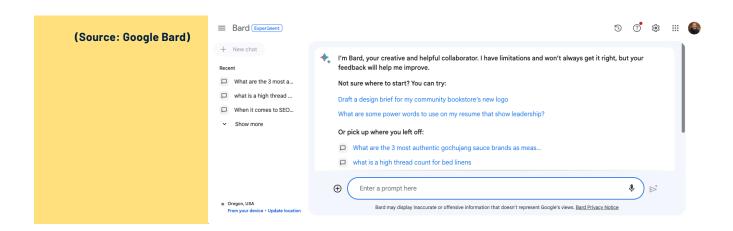
The Downside: When you ask Bing to provide a list of products with the best customer reviews, it defaults to offering a link to a published review from a media outlet, with a short summary of the reviewer's findings. Serving up links to other sites doesn't offer much of a benefit over a traditional search engine. Again, you are able to access and summarize real customer reviews with Bing, but it can take a bit more work and sophistication using prompts to get the results you're looking for.

Finally, like many Microsoft apps, its user interface is less intuitive and more complicated and ad-filled than ChatGPT or Bard.

The Verdict: While Bing does have certain advantages over ChatGPT as a virtual shopping assistant, its clunky user experience, laggy performance, and reliance on professional reviews limits its usefulness.

Bard

Bard is Google's Chatbot powered by their proprietary Pathways Language Model (PaLM 2). Though it has a "Beta Experiment" label in the corner, it is widely available across browsers to anyone who signs up with a Google account.



The Upside: Similar to ChatGPT, its user interface is streamlined and intuitive. While all Chatbots, including Bard, grapple with accuracy challenges, when it comes to research tasks—including product research—Bard's accuracy seems to be on par with ChatGPT when powered by GPT-4.

Unlike ChatGPT, which excels in creative outputs, Bard emphasizes factual and informative responses, aligning more closely with shopper expectations. In terms of response times, Bard consistently outperforms its counterparts. Currently, Bard offers an ad-free environment, but this might change as its user base expands.

The Downside: Bard is still not available in a few languages and geographies. Bard's performance is solid but, like the other two chatbots, it's accuracy can be hit or miss.

The Verdict: In a comparative analysis, Bard's user experience, performance, accuracy, and versatility make it the most promising LLM for shopping assistance. As with standard search, Google's tech will likely be become consumer's choice.

To sum up, Bard will likely be consumers' preferred choice

As with traditional SEO practices where best practices recommend optimizing for Google over Bing, optimizing your content for Bard over Bing and ChatGPT will likely yield the best results.

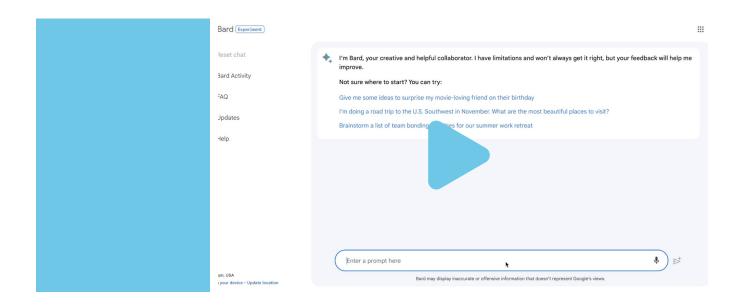
The Three Ways Consumer Can use Chatbots as a Shopping Assistant

These chatbots roll out new features and functionality almost weekly, so this list is certain to grow and evolve quickly. But here are three ways shoppers can quickly begin using these chatbots to make better and faster purchase decisions:

- · Product discovery,
- Product comparison, and
- Product deep dive research

Product discovery

When someone has a problem but doesn't know how to best solve it, they can turn to chatbots to quickly find out if there are any products they can turn to. The below 1-minute video is an example of how one might discover an eco-friendly alternative to liquid laundry detergent using Bard.

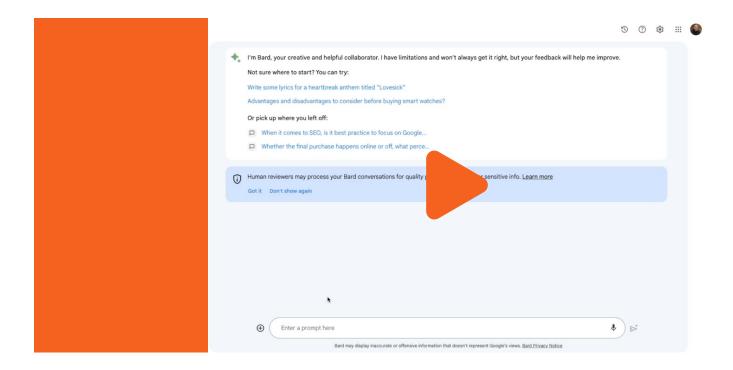


Other discovery queries a chatbot can answer:

- What are some options for sunglasses specifically designed for golf?
- Give me a list of sustainable furniture manufacturers headquartered in the Midwest whose products get consistently positive customer reviews.
- What are some popular nut-free snacks for a 5-year-old's summer birthday party?

Product Comparison

If a shopper knows what they want to buy and wants to quickly compare a list of products based on the criteria important to them, chatbots are a great way to go. The below example is for lightweight rain jackets, but you could imagine it working as well for high thread count sheets, best Texas dry rub or any other product category that has a lot of competing product offerings.



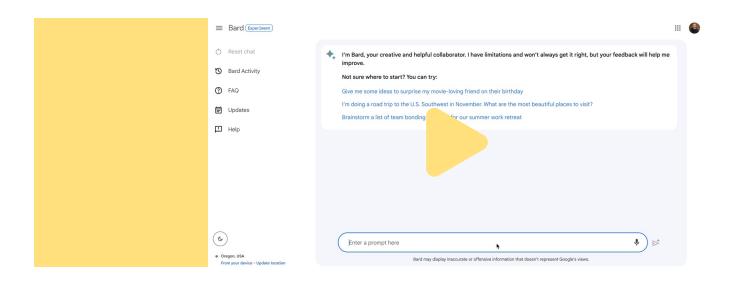
Other questions a chatbot can answer when comparing like products:

- Considering only customer reviews from actual runners, what are the top-rated Nike running shoes?
- What are the 4 spiciest hot sauces that get high customer reviews on Amazon?
- Give me a list of the lightest weight ebikes with 4.5 or higher customer reviews across rei.com, backcountry.com and competitivecyclist.com.

Deep dive on a single product

Inevitably, a shopper sets their sights on a single product they're excited about. The final question before hitting the buy button is: Is this really the right product for me, or am I missing something?

At that point they can use a chatbot to quickly summarize customer reviews of the product about to buy, positive and negative, to make sure there are no surprises when it arrives at their door.



Other questions the chatbot can answer about a specific product:

- Do customers find this helmet comfortable to wear?
- Has a professional tennis player ever reviewed this racquet?
- The product description says it doesn't taste fishy, do customer reviews agree?

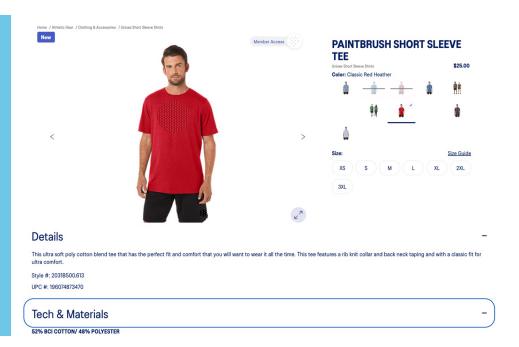
Chatbots are only as good as the product information they're fed

The above examples are just a few of the many ways millions of shoppers are quickly beginning to use chatbots in their path to purchase. But none of this will do much good for brands that don't have the kind of high-quality, structured product content these LLMs need to serve up valuable insights to shoppers.

The LLMs that power these chatbots rely on information that is readily available on the internet. The more and better product information you provide, the better LLMs can use it to inform shoppers about your products.

As it stands, most retailers aren't in a position to turn out the detailed, specific, consumer-centric product information to take advantage of this new channel.

Product page from leading global sports brand.



The above product page is not out of the ordinary when it comes to the kind of product information available to LLMs. In fact, this is a product page from a leading global sports brand. This kind of poor product content ensures a product is all but invisible to the LLMs that power conversational Al.

How LLMs use product information to help shoppers find the right products

There are two ways product information can be included in chatbot responses: 1) Information about your products can be included in the LLM's pre-training data, or 2) it can be included in the chatbot's Retrieval-augmented generation (RAG) data.

Pre-Training Data

Pre-training data is the massive collection of text and code that is used to train large language models to understand and use language on a foundational level. This collection encompasses everything from books, articles and discussion boards to corporate websites, wikis and educational materials.

Google and OpenAI don't share how they gather this data so it's difficult to know what specific content is included in the LLM's pre-training data. And even if your product data is to train and LLM pre-training data, given the sheer breadth of data used to inform these models, it is improbable that the product information from any single retailer could significantly sway or greatly influence the LLM's knowledge base or outputs.

Retrieval-augmented generation (RAG) Data

Retrieval-augmented generation (RAG) is a technique that allows Bard and Bing to access live content on the web to improve the quality of their responses. This means that RAG-based LLMs are able to generate responses that are more informed by the latest information, even if that information was not included in their pre-training data.

Product content on your website is more likely to appear in RAG data because RAG results come from a much wider range of sources like ecommerce websites and social media. If you have high quality, relevant product content on your site, it will likely be used. Plus, RAG data updates faster than pre-training data, so changes to your content show up quicker, ensuring chatbots are providing shoppers with the most up-to-date info about your products.

Given all this, it's recommended retailers aim to get their product information included in the RAG data rather than pre-training data.

The less well known your products, the harder the product copy on your website needs to work

The more well-established your products, the more likely there is already plenty of content out there for these LLMs to feast upon, good and bad. If your product isn't well-established and lacks 3rd party reviews, the product content on your own website will likely be the only sources of information these LLMs will have on your product. That makes it all the more important for less established brands to ensure the product stories across your site are complete, accurate and elicit loads of positive reviews.

How retailers should structure their content to ensure their products appear prominently in LLM chat results.

When structuring product information in a way that can be easily understood and processed by the LLMs that power Bard or Bing, here are the 6 areas to focus on:

- 1) High Quality Product Description: A complete, clear, and accurate product description is crucial for inclusion in chatbot conversation results. Thankfully, optimizing your product copy for chatbots follows many of the same rules as optimizing product copy for shoppers. The big change for most retailers is that their product information should be much deeper and more specific.
 - **a.** Use conversational language. When people chat with an LLM, they expect to have a conversation. First and foremost that means writing at a comfortable reading level. Though most of us read at a much higher level in our work life, the average adult reads most comfortably at an 8th grade reading level. That means:
 - Using simple 1- and 2-sylable words and avoid jargon.
 - Keeping sentences short and to the point.
 - Using active voice instead of passive voice.
 - Breaking up long text into consumable blocks with headings and subheadings that clarify what each text block.
 - b. Answer common questions. What questions might people ask about your products? Answer these questions in your product descriptions and other content. Consider adding a FAQ to the bottom of every product page. Though most people won't read it, that content will be available for LLMs to access in case a shopper asks the question to a chatbot.

What are the top 10 questions people ask Bard about Ulta Beauty's Pattern Leave-In Conditioner?

A quick and easy way to figure out what kind of questions View other drafts 💙 • shoppers have about your Here are the top 10 questions people ask Bard about Ulta Beauty's Pattern Leave-In Conditioner: products is to ask the Chatbots themselves. 1. Is Pattern Leave-In Conditioner good for curly hair? 2. What are the ingredients in Pattern Leave-In Conditioner? 3. Does Pattern Leave-In Conditioner weigh my hair down? 4. How do I use Pattern Leave-In Conditioner? 5. How often should I use Pattern Leave-In Conditioner? 6. How much Pattern Leave-In Conditioner should Luse? 7. Where can I buy Pattern Leave-In Conditioner? 8. What does Pattern Leave-In Conditioner smell like? 9. How does Pattern Leave-In Conditioner compare to other leave-in conditioners?

10. Is Pattern Leave-In Conditioner worth the price?

c. Be specific. Don't just say that your product is "great." Explain why it's great. Be as specific as possible when describing the use case your product is designed for. This will help LLMs better understand which shoppers to recommend your product to. It will also help generate higher quality and more consistent customer reviews, which will again, help LLMs better understand and more frequently recommend your product.

Users turn to these chatbots to find products that solve specific problems.

Be specific about what makes your product best and for whom.

Give me five lightweight sunglasses specifically designed for golf

Here are five lightweight sunglasses that are specifically designed for golf:

- Rudy Project Tralyx+: These sunglasses have a wraparound design that provides maximum
 coverage and protection from the sun. They also have adjustable nose pads and temples for a
 comfortable and customized fit. The lenses are made with Rudy Project's ImpactX-2 technology,
 which enhances contrast and clarity on the course. The lenses are also photochromic, meaning
 they adapt to changing light conditions.
- Oakley Subzero: These sunglasses have a retro-inspired look with a sleek metal frame and round lenses. The lenses are made with Oakley's Prizm Golf technology, which improves color perception and contrast on the green. The lenses also have an iridium coating, which reduces glare and enhances vision in bright light.
- Nike Maverick RGE M: These sunglasses have a sporty and stylish design with a lightweight and durable nylon frame. The lenses are made with Nike's Max Optics technology, which delivers precise vision from all angles. The lenses also have a golf tint, which enhances the visibility of contours and slopes on the course 3.
- Roka TL-1: These sunglasses have a minimalist and modern design with a titanium frame and
 ultra-thin temples. The lenses are made with Roka's C3 technology, which offers high-definition
 optics and superior contrast on the course. The lenses also have a hydrophobic and oleophobic
 coating, which repels water, oil, and dirt.⁴
- Tifosi Veloce: These sunglasses have a versatile and affordable design with a Grilamid TR-90 frame and interchangeable lenses. The lenses are made with Tifosi's Enliven Golf technology, which adds definition to colors that matter most to golfers, such as blues, greens, and some reds. The lenses also have a vented design, which prevents fogging and overheating

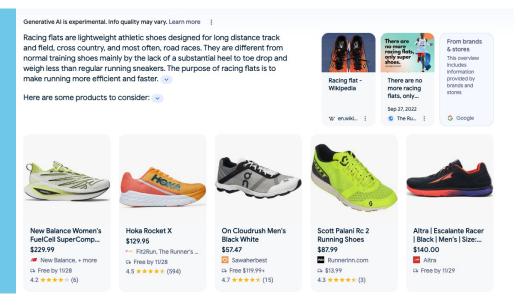
 Learn more:
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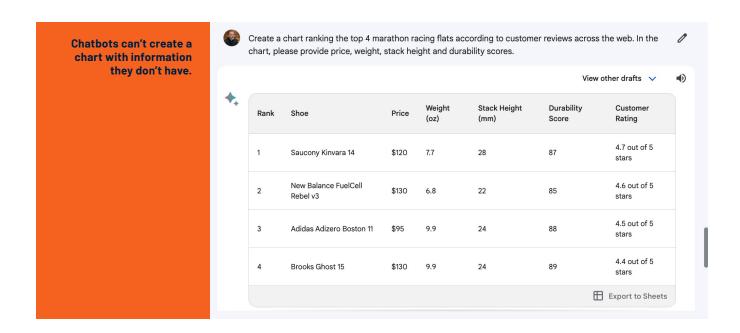
- **d. Contextual Information:** Include details on the product's context of use or any other relevant information. For instance, if it's a piece of sports equipment, provide information about which sports it's used for, the level of play or position it's suitable for (beginner, intermediate, expert, point guard, defender, etc.). Here is a list of all the types of contextual information shopper are interested in:
 - **Functionality and Purpose:** Clearly describe what the product is designed for and how it's used. This can help consumers understand if the product will meet their specific needs or solve their problem.
 - Unique Selling Proposition (USP): Highlight what makes your product different or better than competing products. Be specific here, especially if you aren't the market leader. People are looking for products that solve specific problems. Your products won't show up in chatbot conversations if you speak in broad generalities.
 - **Materials and Construction:** What materials is the product made from? How is it constructed? This can be particularly important for clothing, shoes, and sports equipment where the type and quality of materials can have a big impact on performance and comfort.
 - Care Instructions: How should the product be cleaned or maintained? What should consumers avoid doing to ensure the product lasts as long as possible?

- **Safety Information:** Are there any potential safety concerns or precautions that users should be aware of?
- **Brand Story:** Consumers are often interested in the brand behind the product. What is the brand's purpose? How are their products made? Do they prioritize sustainability or other ethical practices? Remember that most customers don't come in through the homepage. Don't be shy to talk about your brand story on every product page.
- **Value:** Explain why the product is priced as it is and the value consumers will get from it. This could involve discussing the quality of materials, craftsmanship, the longevity of the product, etc.
- **Compatibility or Requirements:** Does the product require, or work well with, any other products? This is often relevant for tech products but could also apply to things like sports equipment.
- **Warranty Information:** What kind of product warranty or guarantee does the company offer? This information can give consumers peace of mind about their purchase.
- e. Use keywords your consumers use. Different people use different terms to search for the same products. Make sure to include keywords in your product descriptions and other content that match the way your customers search. Fitness runners might search for "training shoes" whereas elite competitors might search for "racing flats." Know who the customer is for each product and what the language they use to search for that product.

Competitive runners search for racing flats. Fitness runners search for running shoes. Speaking very generally about your products, hoping to be considered by many different consumers is a recipe for failure with LLMs.



f. Product specifications: Detailed product specifications should be provided. This includes any technical details such as dimensions, weight, materials used, color, size, etc. The specifications should be categorized and labeled properly. It's easy for chatbots to quickly build comparison charts for multiple products. If you're specs aren't on your product page for the LLM to grab, your product won't be part of the comparison the chatbot creates for the users.



g. Freshness: When determining the quality of content, LLMs not only consider relevance to the question and authority of the source, they also consider freshness of the content. Consumers also buy the same product for different reasons throughout the year. Ensure you're updating your product content at least 2x a year to ensure it's seasonally relevant.

h. Make your content easily consumable. Identify which details you want LLMs to focus on. Organize product descriptions into bite-sized text blocks, each tackling an aspect of what makes your product unique. Begin each with a header introducing the topic. This makes it easier for shoppers and LLMs to absorb the information.

Earthbreeze provides a great example of how a deep product story can be designed to be easily consumable by both shoppers and LLMs.



Easily Dissolves

Our Eco Sheets dissolve within seconds in hot or cold water. They work in all machines, HE included. You can even hand wash with our Eco Sheets. Many happy customers use Earth Breeze with septic and greywater; Eco Sheets are concentrated, premeasured, and lowsudsing.

Removes The Toughest Stains

It may be shocking to know Eco Sheets deliver such a powerful clean. 2+ million people have already switched to Earth Breeze. Why? Because it's super concentrated and will remove the toughest stains.





Ditch the heavy plastic jug

Earth Breeze comes in an earth friendly cardboard package instead of a wasteful single-use plastic jug!
Cardboard is much more sustainable and eco-friendly than single-use plastic. Single-use plastic can take hundreds of years to decompose.

Though the consumer-facing text is the most valuable content for LLMs, there are other content types and requirements you should also consider.

- 2) Multimedia content: Include a variety of different types of media on the product page. This includes images, videos, 3D renderings and other multimedia content. The more diverse the media, the better the large language model will be able to understand the product and answer questions about it.
- **3) Metadata and Tags:** Use metadata and tags to provide additional context about the product. This could include the product's intended audience (age group, gender, etc.), secondary use cases not included in the consumerfacing description (outdoor, indoor, winter, summer, etc.), and product features (water-resistant, machine-washable, etc.).
- 4) Structured Format: Data should be formatted in a structured way that makes it easy for the LLMs to process. For instance, use JSON or XML formats to structure your data. Standardization across the data set is also important to reduce any potential ambiguity. As an example, just as in formatting content for rich snippets, breaking your content up into sections organized by common questions and using those questions as headers allows LLMs to better understand the content and match it to user inquiries.
- **5) FAQs and Common Use-Cases:** It's also beneficial to include data on frequently asked questions or common use cases for the product. This could include care instructions, warranty information, and so on. Though most consumers might not read your FAQ, the LLMs can use this information to answer user questions about these topics.
- **6) Customer Reviews and Feedback:** If available, customer reviews and feedback can provide valuable insights about the product's use and performance in real-world scenarios.

The idea is to create a comprehensive experience where a language model can infer valuable information about the product that it can then communicate to its users. By providing a detailed, structured, and consistent product information, you'll be able to leverage these models effectively as a valuable new sales channel.

Optimizing for LLM is actually about optimizing for customers

This is a very long list of content and requirements. It likely represents a tripling or quadrupling the level of product content most retailers are currently producing. We would understand if retailers decided to stick their current levels of content production. But they would do it at their own peril. The reason LLMs require this level of content is because this is the level of content shoppers are demanding from the LLMs.

Today there is a very large gap between the amount of product content consumers need to buy and the amount of content most retailers are able to produce given current technology, teams, and timelines. Retailers that step up early will be rewarded with increased sales and loyalty.

How to get it all done?

Though daunting, this quantity of content is well within reach of most retailers without a significant increase costs or manpower. But it will take new systems and ways of working, with teams leaning heavily into generative AI to lighten the burden.

Today, many of the world's leading online retailers are already increasing traffic, conversion rates and sales with Talkoot. Talkoot is an Al-powered product content production platform that helps the world's most loved brands create deeper, more valuable connections with customers everywhere they buy through more scalable and powerful product storytelling.

To see how Talkoot can do the same for your brand, <u>get in touch with one of</u> our consultants.



About the Author

Brian Hennessy is the Co-Founder & CEO of Talkoot, the most powerful & complete Al product storytelling platform for ecommerce. Prior to Talkoot, he spent his career helping large consumer brands put their story to work, first as the global writing director for adidas, then as founder of Thread, a story studio that helps great companies find their story and use it to create better products, more inspired coworkers and more loyal customers.

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