constellation
RESEARCH

TRENDS

How Search Powers the Future of Commerce

Why Contextual Relevance Matters in First Impressions and in an AI-Driven World

R "Ray" Wang
Principal Analyst and Founder

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Brands and enterprises face massive challenges as digital channels and business models dominate the consumer's mindset as well as B2B expectations. Leaders now expect their search tools to enable contextual relevance. One of the most powerful capabilities in digital commerce is the ability to use search as a real-time demand signal to power AI-driven smart services and personalization. Starting with search in a digital commerce strategy will drive seven powerful benefits, from reducing friction to delivering mass personalization at scale.

Business Themes

Next-Generation Customer Experience

Digital Marketing & Sales Effectiveness

Matrix Commerce

BRANDS AND ENTERPRISES MUST ADDRESS THE DUAL COMPETING PRIORITIES OF DIGITAL COMMERCE

Constellation Research estimates there are more than 24.5 million digital commerce sites driving almost $4.5 trillion in digital commerce sales in 2020, with $10 trillion in sales expected by 2028. By 2025, an estimated 92.1% of all sales will be conducted on retail websites and mobile devices. With a plethora of options available to consumers, brands and enterprises must compete for their customers' time and attention while delivering highly efficient checkout capabilities.

To be more specific, on one hand, brands and enterprises must provide contextually relevant content to keep customers coming back and staying on their site as long as possible. On the other hand, they must provide the most frictionless purchase experience possible to expedite purchase velocity. These competing priorities have created massive challenges for digital commerce leaders (see Figure 1) and set up the battle ahead for relevance and decision velocity. Search and artificial intelligence (AI) are the key technologies that will power this next revolution in commerce.

Figure 1. The Dual Competing Priorities of Digital Commerce: Relevance vs. Velocity
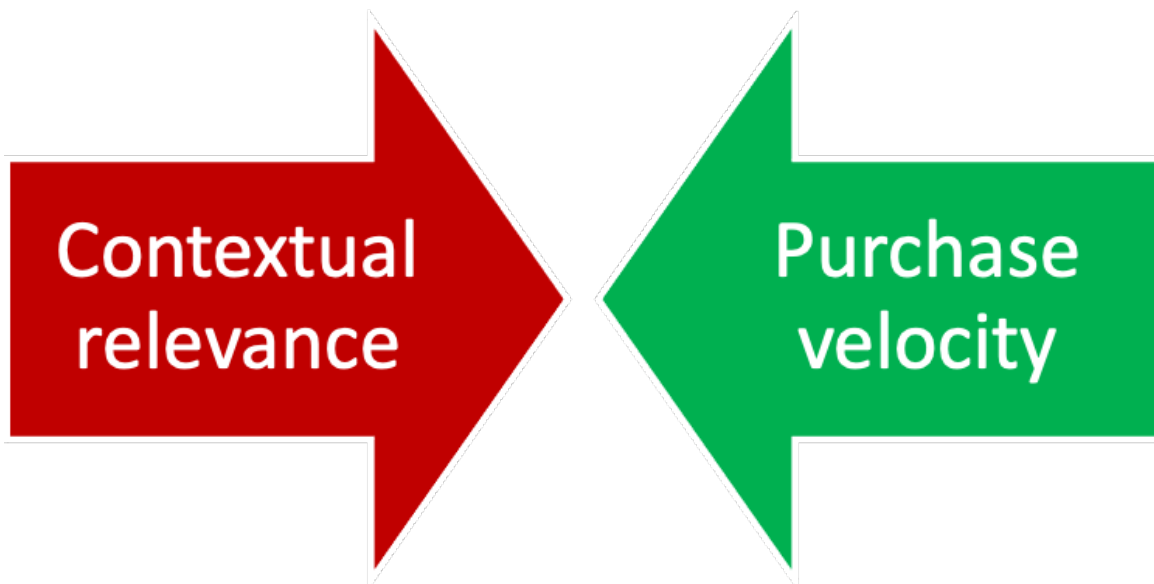
Source: Constellation Research

EFFECTIVE SEARCH STRATEGIES SUPERCHARGE DIGITAL COMMERCE BY COMMUNICATING INTENT

With a mind-boggling assortment of products and services available on commerce sites, customer journeys must begin with search. Effective search strategies allow customers to make decisions at the speed of thought. Customers today expect the ability to quickly find the goods and services that meet their needs. In fact, the greater the relevance of the search, the faster the customer can go from intent to purchase. Consequently, search is the most powerful tool available for communicating a purchase intent or demand signal.

As the first step of the customer journey when a buyer gets to a company's site, the initial search results and the subsequent searches provide attribution and context. Context such as time of day, location, interests, content viewed and even weather can improve the relevance of search results. When paired with AI capabilities, these search results form a knowledge base that can be used to improve personalization over time both for individual consumers and for larger, persona-based segments.

Currently, Constellation has identified these five best practices that brands and enterprises apply to optimize search for digital commerce (see Figure 2):

1. **Preview search.** Based on contextual clues ranging from cookies to shopper clicks to profile histories, preview search can provide textual and visual suggestions as search terms are typed into the search box. Users love the instantaneous nature of preview search and the ability to rapidly surface relevant content.

2. **Search autocomplete.** One of the most powerful search tools is the ability to suggest keywords during search. Every character entered into search is a demand signal. By adding AI-driven approaches to personalization, digital commerce leaders can improve relevance and velocity in the intent-to-purchase cycle.

3. **Faceted search.** This technique takes the attributes (such as product or content features) and uses them as criteria for shoppers to explicitly filter for their search results. This approach provides an

easy way for users to create their own self-service personalized filters to find relevant goods and services.

4. **Full-page search.** This technique lays out the initial results based on ascertained relevance. Product catalogs are filtered, showcased, sorted, navigated and priced accordingly, based on demand. How well the user interacts with the search results will drive the granular level of filtering by context.

5. **Store- and product-level search.** Smart commerce sites help to bridge the gap between physical and online shopping by identifying shoppers' ZIP codes to enable a geographical lookup of nearby inventory. This level of context by proximity filters out available products and services based on availability and location. More than half of retailers with a digital and physical presence enable same-day pickup, curbside pickup and same-day delivery.

Figure 2. Five Strategies for Optimizing Digital Commerce Search

Preview search	Search autocomplete	Faceted search
Full-page search	Store- and product-level search	
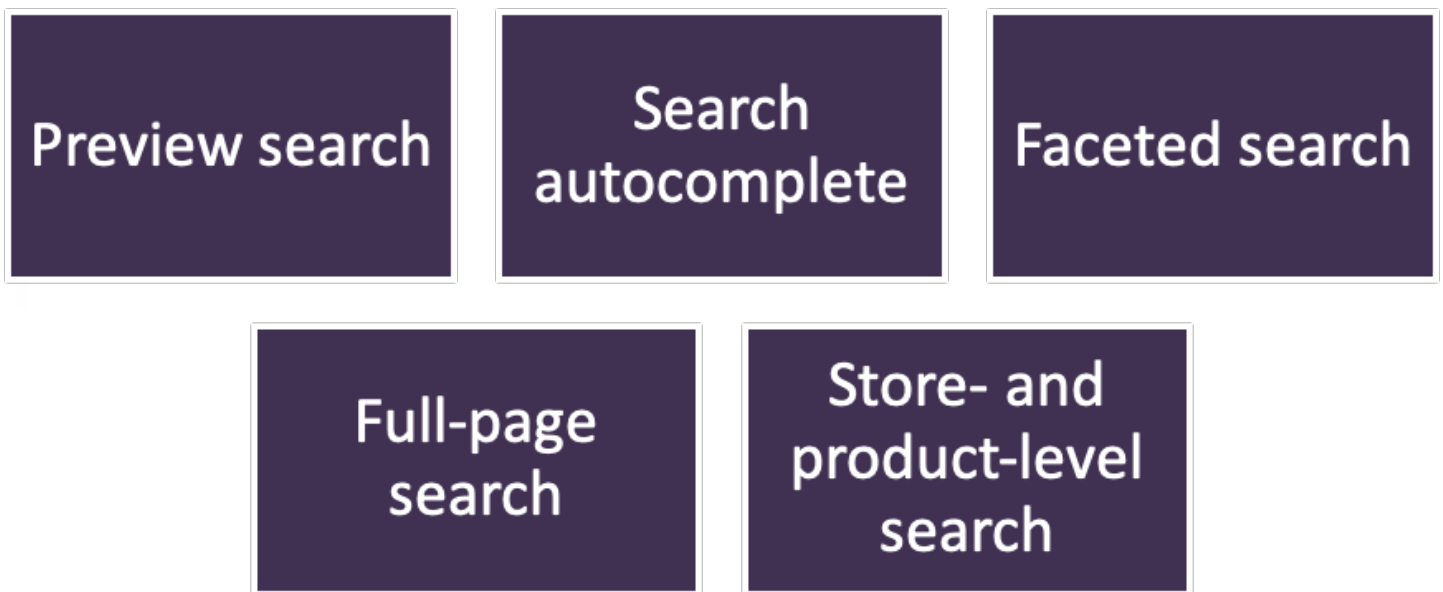
Source: Constellation Research

WHY EXISTING PERSONALIZATION EFFORTS FAIL IN A DIGITAL ERA

Over the past four decades, valiant attempts at personalization have failed due to the lack of relevant and intelligent automation. Moreover, consumer and prospect expectations for such services have only grown. The result: an expectations gap in personalization that manifests itself in fickler consumers and greater unpredictability in revenues for brands and retailers. The inability to relevantly connect and effectively engage with consumers reflects some underlying truths:

1. **Stakeholders expect mass personalization.** In an age of digital disruption, shoppers, purchasers, customers, partners, suppliers and employees have grown accustomed to massive market choice, a plethora of pricing and policy options and convenient delivery. The rise in expectations creates an insatiable cycle of satisfaction and disappointment that an omnichannel approach alone cannot deliver.

2. **Lack of relevance leads to lack of engagement.** Contextual relevance correlates to an immediate effect on the top line. Constellation estimates that lack of content relevance often results in 83% lower response rates in the average marketing campaign. Conversely, personalized contextual relevance by time of day, geospatial location, weather and identity improves commerce conversions two to three times compared with nonpersonalized campaigns. Context provides brands and organizations with the relevance to earn permission to engage with customers. This context must be captured and used to improve mass personalization at scale.

> *"Context provides brands and organizations with the relevance to earn permission to engage with customers."*

3. **Manual management of personalization overwhelms most organizations.** Legacy approaches are not designed for creating large-scale individualization and cannot be retrofitted. These systems classify individuals into forced-fit, binary segments. Often, individuals who belong to multiple segments and use cases are frustrated with this approach. Sadly, existing systems fail to handle the management of rules engines, policies, complex event processing and preferences on the segment level—never mind on the individual level. Those who attempt manual personalization ultimately

fail due to the complexities in managing personalization without the help of much technology. Moreover, sales, marketing and distribution systems must scale from hundreds of thousands to billions of customers.

4. **Static systems miss emerging market shifts.** Technologies can no longer be static. Legacy personalization systems deceptively start out easy and end up as cumbersome anchors years later. In an era of dynamic markets, supporting technology must identify new demand signals; assess, analyze and act on new demand signals; and apply cognitive and machine learning capabilities to adapt.

HOW AI-ENABLED SEARCH IMPROVES FIRST IMPRESSIONS IN THE CUSTOMER JOURNEY

Today's customers expect to find what they want with the tap of a finger and make purchases at the speed of thought. In the battle for commerce dominance, every brand and enterprise must judiciously compete for the purchaser's time and attention. AI techniques such as natural language processing, machine learning and neural networks have transformed the manual and cumbersome rules-based approaches into more automated and self-sensing ones.

Consequently, modern search strategies must move beyond static recommendations. Providing a list of suggested products is akin to using a shotgun to take out a fly. These brute-force techniques are giving way to more-refined, AI-driven approaches. For example, each search conducted by a purchaser initiates a digital feedback loop. Capturing the interactions with search results and the contextual attributes—such as time of day, product viewed, total time spent on a page and purchase history—provide much-needed signal intelligence about how and why purchasers make their decisions.

When search is paired with AI techniques and technologies, brands and enterprises deliver more contextually relevant customer journeys, and each interaction furthers the personalization knowledge graph. Every search not only communicates a demand signal or purchasing intent but also powers the subsequent interactions of how a product is displayed, how a service is offered and how well the brand can deliver relevant content to the buyer. These interactions and micro moments make up the customer journeys in the brand experience. Effective search strategies should mimic a personalized shopping experience consistent across all channels of engagement.

Successful AI-driven search strategies will increase six growth-oriented digital commerce metrics in the following ways:

- 23% more money spent per visitor
- 27% more money spent per customer search
- 35% more page views
- 41% more customer time spent on site
- 49% higher add-to-cart rate
- 54% higher rate of conversion

AI-DRIVEN SEARCH TURBOCHARGES DIGITAL COMMERCE

AI-driven search techniques lead to seven key improvements in mass personalization at scale:

1. **Reducing friction in finding the right products and services.** Use segment data and individual behavioral insight to assist customers in selecting the right products and services. Use tools such as relevant navigation, filters and AI to improve precision decisions in search results. Enable customers to find the best-fit products and services faster with less clutter and minimal information overload.

2. **Improving recommendations.** Use browsing history, profile information, search cart contents and broader search patterns to make better recommendations. Refine recommendations as more data sources are applied and profiles enrichened. Use that data to improve suggestions and power the knowledge graph.

3. **Targeting orders with relevant cross-sell and up-sell promotions.** Improve overall cart value by deploying AI techniques to identify broader buying patterns. Add data from pricing sensitivity analysis and past buyer behavior to optimize promotions based on propensity to buy.

4. **Optimizing merchandizing based on inventory and availability.** Utilize inventory and supply chain information to determine what products to feature at what price points based on AI -driven models. Prioritize items with lower shelf-life dates and pricing elasticity.

5. **Creating demand signals for supply chains.** Identify search-result data that indicates demand signals. Use these demand signals to determine how much inventory to stock and preorder to ensure availability.

6. **Increasing the purchase velocity.** Help clients speed the click-to-checkout time so they can come back and buy more. Capture search results and search navigation paths to accelerate purchase velocity for other buyers.

7. **Accelerating precision decisions.** Combine data from search with other data sources. Apply external data sources such as weather data, buyer questionnaires, customer feedback, social media signals and point-of-sale information to enrich existing profiles and buyer graphs.

BOTTOM LINE: PURCHASE VELOCITY AND CONTEXTUAL RELEVANCE CAN MUTUALLY EXIST TO DRIVE EXPONENTIAL COMMERCE GROWTH

The future of commerce starts with contextually relevant search. As AI-driven merchandising, promotions, visual and voice search take hold, expect more interactive digital channels to provide much-needed signal intelligence. These key inputs to digital feedback loops will power the precision decisions needed to enable greater purchase velocity.

Although humans remain key in the business-to-consumer buying environment, expect business-to-business transactions to become increasingly automated. In these AI-driven buying scenarios, machines will be transacting with other machines at speeds of up to 100 transactions per second. This level of purchase velocity asymmetry will be exacerbated by automation and AI.

Those brands and enterprises that cannot deliver on 100 decisions per second will not only fail to deliver on expectations but will cease to exist. To be successful, brands and enterprises must design for greater and greater purchase velocity while keeping shoppers and purchasers engaged with contextually relevant content for a greater amount of their time and attention.

R "Ray" Wang
Founder and Principal Analyst

R "Ray" Wang is Founder, Chairman and Principal Analyst of Constellation Research, Inc., and the author of the popular enterprise software blog, "A Software Insider's Point of View." He previously was a Founding Partner and Research Analyst for enterprise strategy at *Altimeter Group*.

A background in emerging business and technology trends, enterprise apps strategy, technology selection and contract negotiations enables Wang to provide clients and readers with the bridge between business leadership and technology adoption. Wang has been recognized by the prestigious Institute of Industry Analyst Relations (IIAR) as the Analyst of the Year, and in 2009, he was recognized as one of the most important analysts for Enterprise, SMB and Software. In 2010, Wang was recognized on the ARInsights Power 100 List of Industry Analysts and named one of the top Influential Leaders in the CRM Magazine 100 Market Awards.

Wang graduated from the Johns Hopkins University with a B.A. in natural sciences and public health. His graduate training includes a master's degree from the Johns Hopkins University in health policy and management and health finance and management.

🐦 **@rwang0**   💻 **constellationr.com/users/r-ray-wang**   in **linkedin.com/in/rwang0**

constellation
RESEARCH

ABOUT CONSTELLATION RESEARCH

Constellation Research is an award-winning, Silicon Valley-based research and advisory firm that helps organizations navigate the challenges of digital disruption through business models transformation and the judicious application of disruptive technologies. Unlike the legacy analyst firms, Constellation Research is disrupting how research is accessed, what topics are covered and how clients can partner with a research firm to achieve success. Over 350 clients have joined from an ecosystem of buyers, partners, solution providers, C-suite, boards of directors and vendor clients. Our mission is to identify, validate and share insights with our clients.

Organizational Highlights

· Named Institute of Industry Analyst Relations (IIAR) New Analyst Firm of the Year in 2011 and #1 Independent Analyst Firm for 2014 and 2015.

· Experienced research team with an average of 25 years of practitioner, management and industry experience.

· Organizers of the Constellation Connected Enterprise—an innovation summit and best practices knowledge-sharing retreat for business leaders.

· Founders of Constellation Executive Network, a membership organization for digital leaders seeking to learn from market leaders and fast followers.

💻 **www.ConstellationR.com**   🐦 **@ConstellationR**

ℹ️ **info@ConstellationR.com**   ❓ **sales@ConstellationR.com**

San Francisco Bay Area | Boston | Colorado Springs | Ft. Lauderdale | Los Angeles | New York Metro

Northern Virginia | Portland | Pune | Sacramento | San Diego | Sydney | Toronto | Washington, D.C.