The Rise of Intelligent Commerce

New intelligent merchandising techniques give shoppers exactly what they want.

The shopping experience along the customer journey is becoming more personalized than ever.

Instead of generic product information they'll have to sift through on their own, today's customers want personalized content and product recommendations. This kind of one-to-one approach to the customer journey is driving intelligent commerce, and it's becoming a key characteristic of today's most successful merchants.

A great example of this approach is shopping on Amazon. Depending on what you do on the site, you'll see highly rated recommendations, "also bought" recommendations, "also viewed" recommendations, and more. This strategy

is so successful that Amazon generates at least **35 percent** of its revenues from recommendations.[1] Customer expectations are also being set outside of their shopping experience—Netflix, for example, delivers hand-crafted content recommendations and "binge-worthy" suggestions to viewers.

This eBook provides an overview of the technology behind product recommendations and of how to choose the right solution for your business.

The shortest path to intelligent commerce

What does this mean for today's digital businesses? One of the fastest, most effective paths to intelligent commerce is to add personalized product recommendations to your online store. These recommendations are generally good for both customers and businesses. They convert well, increase customer satisfaction, and encourage buyers to spend more time enganging with your site.
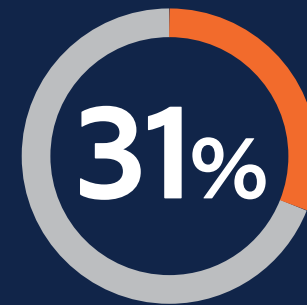
Product recommendations make quantifiable differences for digital businesses.

70%
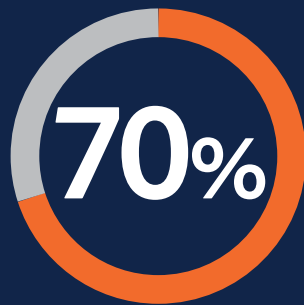
Online retail browsers who engage with a recommended product have a **70%** higher conversion rate during that session.[2]

20%

Even shoppers who click on a product recommendation but don't buy are **20%** more likely to return to your site.[2]

31%

Product recommendations account for up to **31%** of eCommerce revenues overall.[3]

Getting started with personalized product recommendations

Of course, you may wonder if personalized product recommendations are difficult or costly to set up. The good news is that, as technology advances, it becomes easier to add personalized product recommendations to your site. Already, a growing number of businesses are embracing artificial intelligence (AI), machine learning, and algorithmic personalization.

58%

Use of machine learning and algorithmic personalization by marketers is up 58% year over year.[3]

61%
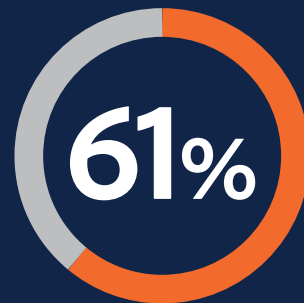
61% of consumers will share personal data in exchange for more personalized marketing.[4]

Introduction to product recommendation engines

Product recommendation engines use AI-driven algorithms to analyze massive amounts of data automatically in order to recommend the most relevant items to a particular user in a given context. They can be personalized according to user-specific data or generalized for anonymous users browsing your web pages. And they may be integral to your commerce platform or added to it through a flexible API or extension.

Product recommendations can be done manually through rules that you apply to your commerce platform, but it is not a scalable process. Making manual recommendations is time-consuming, and rules need to be revamped as seasons, SKUs, and buying cycles change throughout the year. Without a product recommendations engine, your manually input rules will quickly become stale or even inaccurate, which can cost you customers. In one survey of 1,000 retail customers, **38 percent** of digital shoppers said they would stop shopping at a retailer that made poor product recommendations.[5] Plus, with manually applied rules, you can't provide recommendations in real time.

How recommendation engines work

There are two main approaches to generating personalized recommendations: **content-based filtering** and **collaborative filtering**.

Content-based filtering

Content-based filtering is based on one individual user's interactions and preferences. This approach uses the metadata collected from a user's history and interactions to identify shopping patterns over time. Generally speaking, the more information that the user provides, the higher the accuracy. And consumers are often willing to provide that information. Research suggests **60%** or more of consumers are willing to share their data in exchange for a more personalized experience. In other words, existing customers will get very accurate recommendations, but new visitors may not.[4]
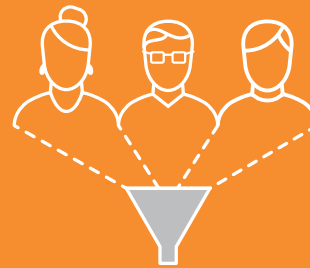
Collaborative filtering

Collaborative filtering casts a much wider net, collecting information from many different users. This approach makes recommendations based on other users with similar tastes or situations, by using their opinions and actions to recommend items to you or to identify how one product may go well with another. "Frequently bought together" recommendations are one example of this approach.

What to look for in a product recommendation engine

If you want to improve your customers' shopping experience with a product recommendation engine, the expansion of AI and machine-learning technologies means you have lots of options to choose from. It also means you have some work ahead of you. Evaluating these options and making the right choice for your business can take time.

Here are some things to look for when you're considering a product recommendation engine:
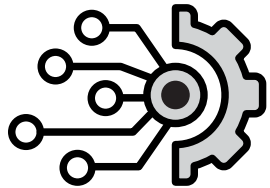
"Battle-tested" AI

Artificial intelligence incorporating machine learning is the gold standard for product recommendations. With machine learning, recommendations are developed in response to user behavior rather than static rules. As users explore your site, machine learning can customize recommendations to their browsing behavior. It gets better as it "learns" over time, so recommendations never get stale. In contrast, manually defined recommendations age quickly and must be updated by hand every quarter—or, in some cases, every week.

However, even if a product recommendation engine incorporates machine learning, that doesn't mean it's mature or has been proven to work in real-world shopping environments. To determine if a product recommendation engine is battle-tested, ask questions like these:

- How long has your company been in business?
- Does your company have a history of innovating with AI?
- What does your product development team look like? Does it include engineers and business experts?
- How long has your engine been on the market?
- How do you test new features and functions?
- How many customers do you have? And in what industries?
- What are market analysts saying about your engine?

What to look for in a product recommendation engine (continued)

Real-time personalization

Some recommendation engines rely heavily on user profiles and purchase histories. This approach can be problematic when users first visit your website; this is called the "cold start" problem. Instead, you should look for a recommendation engine that applies machine learning to real-time user data. To determine if an engine provides accurate, personalized recommendations in real time, ask questions like these:

- Does your engine use historical data, real-time data, or both?

- Does your engine provide real-time recommendations?

- If so, what types of recommendations does your engine provide (trending, etc.)?

- What is the average conversion rate for different types of product recommendations?

- Does your engine deliver "backup" recommendations?

Shopper- and merchant-friendly experience

Product recommendations should deliver a pleasant experience for your business and your shoppers. They should be simple for your team to create, deploy, and manage. Finally, they should appear as a natural part of your customer's online journey and not make it more difficult for shoppers to view product information or check out. To determine if a product recommendation engine will deliver a win-win experience, ask questions like these:

- Can you embed the recommendations UI into your daily workflow?

- Can users integrate the experience of creating recommendations into their current workflow?

- Can you format the recommendations any way you want to?

- Will recommendations work with your site's theme?

- Can you place recommendations on multiple store-front pages along the shopping journey?

How to tell if product recommendations are working for your business

Overall, product recommendations tend to boost conversions and revenues, but some types and placements may work better for your business than others. To understand how well your site's recommendations are working for you, review the metrics for every occurrence of a product recommendation.

For each instance, check:

- Click-through rates for recommendations
- Conversion rates for recommendations
- Number of products viewed
- Average revenue (GMV) per 1,000 recommendations
- Percentage of overall revenues coming from recommendations

MAGENTO COMMERCE NOW OFFERS PRODUCT RECOMMENDATIONS POWERED BY ADOBE SENSEI

Today, Magento Commerce comes with personalized Product Recommendations powered by Adobe Sensei, Adobe's machine learning technology. This new feature automatically analyzes the behavior of shoppers on your site, such as their product views, items added to carts, and purchases, and combines that information with product catalog metadata, such as name, price, and so on, to create product recommendations that are engaging, relevant, and personalized—with no manual analysis or headaches.

The engine provides nine different types of recommendations, including:

- **Product-based recommendations:** customers who viewed this also viewed, customers who viewed this also bought, customers who bought this also bought
- **Shopper-based recommendations:** recommended for you
- **Content-similarity-based recommendations:** more like this
- **Popularity-based recommendations:** most viewed, most purchased, most added to cart, trending

Key takeaways

- Product recommendations are a proven way to increase conversions and sales—as long as they're accurate.

- Manual, rules-based recommendations are time-consuming to maintain.

- A proven, "battle-tested" AI engine will deliver better results and less risk than a new, untried product.

- Machine learning is the most effective way to generate fresh, relevant product recommendations while complying with privacy rules.

- Magento Commerce now offers Product Recommendations powered by Adobe Sensei.

Notes:

[1] https://www.mckinsey.com/industries/retail/our-insights/how-retailers-can-keep-up-with-consumers
[2] Monetate, "EQ2 2018: The Right Recommendations"
[3] https://www.barilliance.com/personalized-product-recommendations-stats/
[4] John Koetsier, "61% of Americans Will Share Personal Data for Personalized Marketing Communications," Inc., August 8, 2018. Data source: Smart Communications
[5] Bazaarvoice, 2018.

TO LEARN MORE

Learn more about how Magento Commerce can simplify your experience and benefit your business. Please visit our website or contact your sales representative today.

ADOBE EXPERIENCE CLOUD

Leveraging deep customer intelligence, Adobe Experience Cloud gives you everything you need to deliver a well-designed, personal and consistent experience that delights your customers every time you interact with them.

Built on the Adobe Experience Platform, leveraging Adobe Sensei machine learning and artificial intelligence, Adobe Experience Cloud gives you access to the world's most comprehensive suite of solutions across three clouds—Adobe Analytics Cloud, Adobe Marketing Cloud, and Adobe Advertising Cloud. And because it's from Adobe, it's integrated with Adobe Creative Cloud and Document Cloud so that the design of a great experience is inextricably linked to its delivery.

ADOBE COMMERCE CLOUD

Adobe Commerce Cloud combines Magento Commerce with Adobe Experience Cloud, providing an end-to-end platform to manage, personalize, and optimize the commerce experience across every touch point.

MAGENTO COMMERCE

Magento Commerce is a flexible, scalable commerce solution with integrated tools for managing, measuring, and optimizing every aspect of the commerce experience.

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