



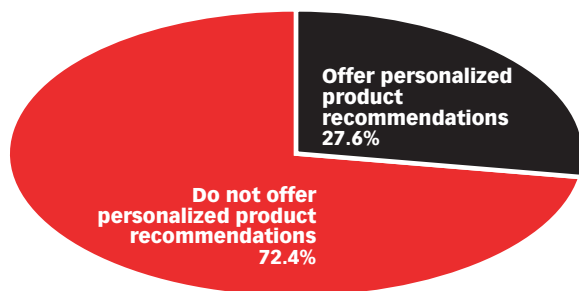
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Personalized Product Recommendations:

Predicting Shoppers' Needs

Executive Summary: Personalized recommendations help shoppers discover products of interest when there is a large selection. Only a minority of online retailers use recommendation systems—but many of those that do report sales increases of 10% or more, as well as higher customer engagement and loyalty.

US Online Retailers that Offer Personalized Product Recommendations on E-Commerce Site, August 2008 (% of respondents)



Note: n=124
Source: Internet Retailer, "Emerging Technology" conducted by Vovici Corporation, September 2008

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Recent success stories are spurring more retailers to jump on board. The market is also getting a boost from consumers who say recommendations help them save money in tough economic times by showing them exactly what they need.

Many large retailers have shied away from offering product recommendations because the technology has failed to meet expectations. But a handful of product recommendation vendors are proving they can deliver quality results.

Most personalized product recommendations appear on product pages, but retailers are increasingly placing them in e-mails as well. In the future, consumers will also see them in display ads. Retailers will inevitably seek to extend them to all customer touchpoints and sales channels.

While automated recommendations are a powerful tool, there are some product categories, including fashion apparel, where peer recommendations, frequently shared on social shopping sites, are more effective. Smart retailers will find creative ways to offer both.

Key Questions

- What is the outlook for personalized product recommendations?
- What factors hold back more retailers from offering product recommendations?
- Where are retailers placing product recommendations?
- What is the role of peer recommendations?

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The eMarketer View

Major retailers that developed their own product recommendation technology enjoyed early success in this market. Until recently, only large retailers had the money, expertise and time to develop the complex algorithms that drive these systems. Amazon and Netflix were pioneers in building recommendation engines. Netflix, for example, was founded in 1997 and began developing its recommendation system in 1999. Today, ForeSee Results consistently ranks Netflix No. 1 in customer service among top Web retailers. Product recommendations lie at the heart of the engaging shopping experience Netflix creates for its customers.



[Click here to watch the video "Case Study: Netflix Personalized Product Recommendations."](#)

"We realized that [personalization] was a differentiator for our service." —Steve Swasey, VP communications, Netflix, in an interview with eMarketer, February 2009

Improved technology has enabled small retailers to offer product recommendations. The market has advanced to where a number of product recommendation vendors have proven they can deliver real customer value. This has made the technology affordable to small retailers.

Scentiments.com, for example, is a small online perfume retailer that successfully launched personalized product recommendations on its Website. It rolled out recommendations in August 2008 and soon after reported increased total sales and average order value.

However, retailers still need a certain degree of sophistication to succeed. Like other small retailers, Scentiments.com tested several recommendation solutions before finding its current vendor.

Small retailers have an edge over their larger competitors. By taking advantage of the latest vendor technology, small retailers can leapfrog over their bigger counterparts, which might have a lot invested in legacy in-house solutions. They can make decisions faster and change directions, if necessary. The technology's power and the high risks involved in a poor implementation make recommendation systems a political hot potato within large retail organizations.

"Everyone wants to get their hands on [personalization technology]. Everyone wants to control it. And everyone is worried about what happens if it does not work quite the way they want it to."

—David Selinger, CEO and co-founder of product recommendation vendor richrelevance, in an interview with eMarketer, February 2009

But the growing number of success stories is spurring large retailers to jump on board. Zappos.com, for example, currently uses a low-tech solution to offer personalized recommendations on only some product pages. Its recent expansion into product categories beyond shoes may be just the impetus needed to push the retailer over the hump. Brian Kalma, director of user experience at Zappos.com, said the retailer's goal is to roll out recommendations on a massive scale with a powerful engine at the center.

To achieve its ambitious goal, Zappos.com is evaluating whether to develop a system in-house or outsource it to a vendor. Looking further ahead, Zappos.com envisions turning its site search feature into a vehicle for delivering personalized product recommendations.

"Hopefully one day our search engine will become so effective that it could really replace what we are currently calling a recommendation engine." —Brian Kalma, director of user experience, Zappos.com, in an interview with eMarketer, February 2009

A print version of the [interview with Brian Kalma of Zappos.com](#) is available on eMarketer's Website.

Recommendation systems will not replace peer recommendations. Even though automated recommendation systems have improved, there are situations where peer recommendations provide more meaningful results. Take for example a woman who has just moved to Manhattan and needs help choosing and purchasing appropriate business attire. An automated recommendation system would be challenged to find suitable suggestions based on her historical shopping data. A better source of apparel advice would be other professionals working in New York.

Peer recommendations are most commonly shared on shopping-oriented social networks such as Kaboodle, ThisNext and StyleHop. While these social shopping sites are very much a work in progress, their popularity is growing.

Automated recommendations will mimic peer recommendations as consumers reveal more personal information to retailers.

In the future, recommendation technology might become more adept at helping that young professional choose fashionable attire for a new job in Manhattan. This will happen when consumers start to see greater value in their recommendations in return for volunteering more information about themselves to retailers. Consider a person who tells a retailer the date he will graduate from law school. As that date approaches, a recommendation engine might predict that this person will be in the market for business suits, luggage, stationery and watches.

The source of the product suggestion can be more relevant than the item itself.

Someone who likes reading business books might place greater stock in the recommendations of a Wharton business school professor than those generated by a recommendation engine. In this situation, the person making the recommendation is more important than specific product attributes.

More retailers will offer both kinds of recommendations on their Websites.

Amazon recognizes that an algorithmic solution is not the end-all. Besides serving up automated recommendations, Amazon also offers peer recommendations through Listmania—the lists of recommendations compiled by passionate consumers of a particular product category. In the future, more retailers are likely to follow Amazon’s example. Retailers that incorporate both automated and peer recommendations on their Websites will create more-engaging shopping experiences for their customers.

Product Recommendations

Retailers use recommendation systems to serve online shoppers with relevant upsell and cross-sell product suggestions. Product recommendations are generated using either the customer’s past shopping behavior, the past shopping behavior of similar customers or the attributes of the product itself. Some retailers use a combination of these three methods.

Online consumers are familiar with personalized product recommendations from shopping on Amazon and seeing the message: “Customers who bought X also bought Y.” Amazon uses a collaborative filtering technology to predict what a person might want to buy next. This is a combined approach that compares the active customer’s past purchasing and browsing behavior with the shopping behavior of other customers with similar tastes. It then uses the preferences of those like-minded customers to produce automated recommendations for the active customer.

With the exception of large Web retailers such as Amazon and Netflix, which built their own personalization engines, most retailers rely on vendors to generate and deliver recommendations to their customers.

Outlook for Personalized Product Recommendations

Personalized recommendations help customers discover products of interest they might not find otherwise. They appear while customers are browsing or buying products and suggest other items that the shopper might also be interested in buying.

“Recommendations are the analogue of a personal shopper.”

—David Selinger, CEO and co-founder of personalization vendor richrelevance, in an interview with eMarketer, February 2009

Retailers like personalized product recommendations because they create cross-sell and upsell opportunities. They also cite long-term benefits such as a higher degree of customer engagement and loyalty.

Despite being around for 10 years, the personalized product recommendation market is still in its nascency. According to an August 2008 Internet Retailer survey of Web merchants, only about one-quarter of respondents said they offered personalized product recommendations on their site.

US Online Retailers that Offer Personalized Product Recommendations on E-Commerce Site, August 2008 (% of respondents)



Note: n=124

Source: Internet Retailer, "Emerging Technology" conducted by Vovici Corporation, September 2008

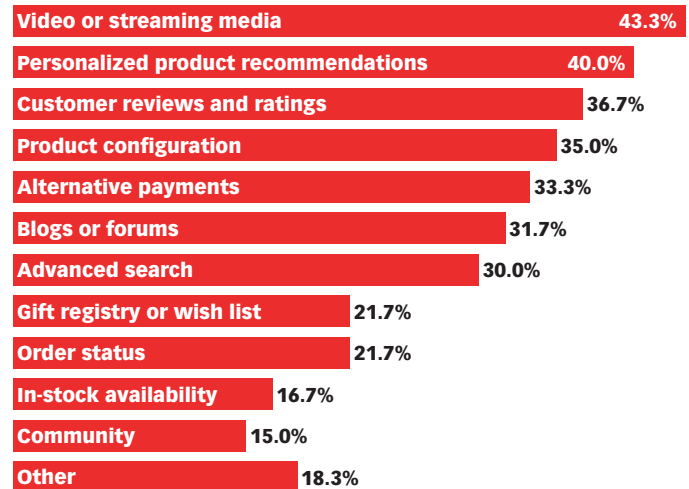
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Even among those Web retailers that offer recommendations, some make them available for only a portion of their product catalog. And some do not use recommendation algorithms but instead rely on staff to manually pair items to be served up as product suggestions.

Despite low adoption rates, some 40% of Web retailers told Internet Retailer in an October 2008 survey that they planned to add personalized product recommendations to their Websites by year end—second in priority to video functionality.

Advanced Site Features and Functions that US Online Retailers Plan to Add This Year, October 2008 (% of respondents)



Source: Internet Retailer, "Website Design, Content and Rich Media" conducted by Knowledge Marketing, January 2009

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Meanwhile, retailers that already use recommendation engines want to get more out of them. David Selinger, CEO and co-founder of product recommendation vendor richrelevance, told eMarketer that retailers want to learn how to integrate personalization deeper into the customer experience, apply it to their multiple channels and leverage more of their customer behavior data.

Success stories from retailers that have added personalized product recommendations to their Websites have raised awareness of the technology's potential. Here are some examples:

- **Austad's Golf**, a multichannel retailer of golf equipment, has increased quarterly Website sales by 10% year over year and average order value by 20% since launching personalized product recommendations in late 2007.
- **Burton Snowboard**, a sports retailer, reported that personalized product recommendations have driven nearly 25% of total sales since it began offering them in 2008. Prior to this, Burton's customer recommendations consisted of items from its list of top-selling products.
- **The Knot**, a bridal accessories retailer, added personalized product recommendations to its site in 2008. It credits those recommendations with lifting overall sales by 15%.
- **PETCO**, the pet supply retailer, began using personalized product recommendations in September 2008. Since then, the value of its average online shopping order has increased by more than 26%. The average number of items per order has risen nearly 30% for visitors who took advantage of its personalized product recommendations.

Outlook for Personalized Product Recommendations

The rising value consumers attach to recommendations during tough economic times provides an additional incentive for retailers to add them to their Websites. They help consumers find the precise products they need and thus reduce the likelihood of purchasing unsuitable items, according to a November 2008 survey conducted by JupiterResearch on behalf of richrelevance and Bazaarvoice.

Online Resources that US Online Shoppers Consider Useful for Researching or Purchasing Products, by Spending Plans, November 2008 (% of respondents)

	Plan to reduce spending (n=270)	No plans to reduce spending (n=279)
Store/retailer Websites	91%	86%
Search engines	86%	86%
User ratings and reviews	81%	73%
Manufacturer Websites	78%	77%
Recommendations (people who bought this)	71%	61%
Recommendations (recently viewed)	70%	61%
Recommendation e-mails	69%	55%
Recommendations (people who viewed this)	66%	56%
Recommendations (best sellers)	64%	55%
Enthusiast/news/information sites	52%	43%

Note: used in the past 12 months

Source: richrelevance and Bazaarvoice, "Online Retail: Driving Relevant Experiences" conducted by JupiterResearch, provided to eMarketer, February 23, 2009

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For example, while 55% of consumers with no plans to reduce spending indicated that recommendation e-mails were useful for scrutinizing purchases, 69% of respondents with plans to reduce spending said that this type of recommendation was useful.

Why use personalized product recommendations?



Howard Wyner

CEO
Scentiments.com

"We were missing out on cross-selling and upselling opportunities. We didn't want to force customers into anything or try to upsell products just because they were overstocked or best-selling brands. We really wanted to make intelligent recommendations based on how customers use the site." [Full Interview](#)



Steve Swasey

Vice President Communications
Netflix

"We realized that [personalization] was a differentiator for our service. There are a lot of ways to get DVDs and stream movies. The advantage of being a Netflix member, beyond the tremendous selection and value, is that we have a track record of your personal taste when you rent and rate movies." [Full Interview](#)



Jack Aaronson

CEO
The Aaronson Group

"Depending on the client, we've seen anywhere from a 10% to 30% increase in ROI based on product recommendations and horizontal browsing features, like customer reviews that let a customer surf the site in a horizontal way versus going from the navigation categories on down. They allow someone to serendipitously traverse the site in a somewhat random way." [Full Interview](#)



David Selinger

CEO and Co-Founder
richrelevance

"Recommendations are the analogue of a personal shopper. They help consumers find the products they're interested in. The retailer sees an increase in the number of purchases, and thus, an increase in overall revenues. A store that's easy to navigate will have a higher degree of engagement and loyalty with customers, so the long-term value of customers goes up as well." [Full Interview](#)

Scentiments.com Case Study

Challenge

While popular online retailers such as Netflix and Amazon offer familiar examples of personalized product recommendations, small Web businesses such as Scentiments.com have also successfully instituted personalization.

No stranger to e-commerce, family-run perfume merchant Scentiments.com, which is No. 376 in Internet Retailer's 2008 Top 500 Guide, launched its first nontransactional online store in 1996. Since then, Scentiments.com has continuously evolved, adding shopping carts and launching e-mail promotions as soon as those technologies became available. It replicated the in-store shopping experience with an online "Fragrance Guru"—accessible by phone and Internet—to provide customers with help in selecting perfumes. Then, in August 2008, Scentiments.com began experimenting with social bookmarking and customer ratings/reviews.

Personalized recommendations based on users' shopping behavior seemed like a logical progression. As Scentiments.com's CEO, Howard Wyner, explained it, "We really wanted to make intelligent recommendations based on how customers use the site."

Figuring out how to implement personalized recommendations with limited staff and experience was the next step.

Solution

After testing several vendors' recommendation systems, Scentiments.com ultimately settled on an outsourced solution from MyBuys. Shopping patterns, purchase histories and provided preferences are all used to tailor recommendations for individual patrons, as well as to increase upselling and cross-selling opportunities for the retailer.

Online customers receive suggestions based on what others with similar tastes have bought. Since sensory products such as perfume are difficult to assess online, fine-tuned recommendations are particularly useful.

E-mail marketing further enhances the targeted approach. Scentiments.com relies on a segmented e-mail distribution list with more than 700,000 names. In addition to product recommendations, customers receive reminders based on items of interest that they have not yet purchased. They also receive alerts when out-of-stock items become available or if prices change.

"When customers get these product alerts and recommendations," said Mr. Wyner, "they feel we're going that extra mile for them with helpful information—not just trying to force some product on them."

Results

After employing personalized features, overall site revenues increased by 11%. E-mail click-through rates doubled to 7.8%, the open rate reached 30% and conversion rates rose to 16%, four times the company's original rate for its standard e-mail promotions.

According to an October 2008 Internet Retailer survey, only 2.3% of online retailers achieve conversion rates of 10% or higher from e-mail marketing campaigns. Clearly, Scentiments.com's promotions have been a success.

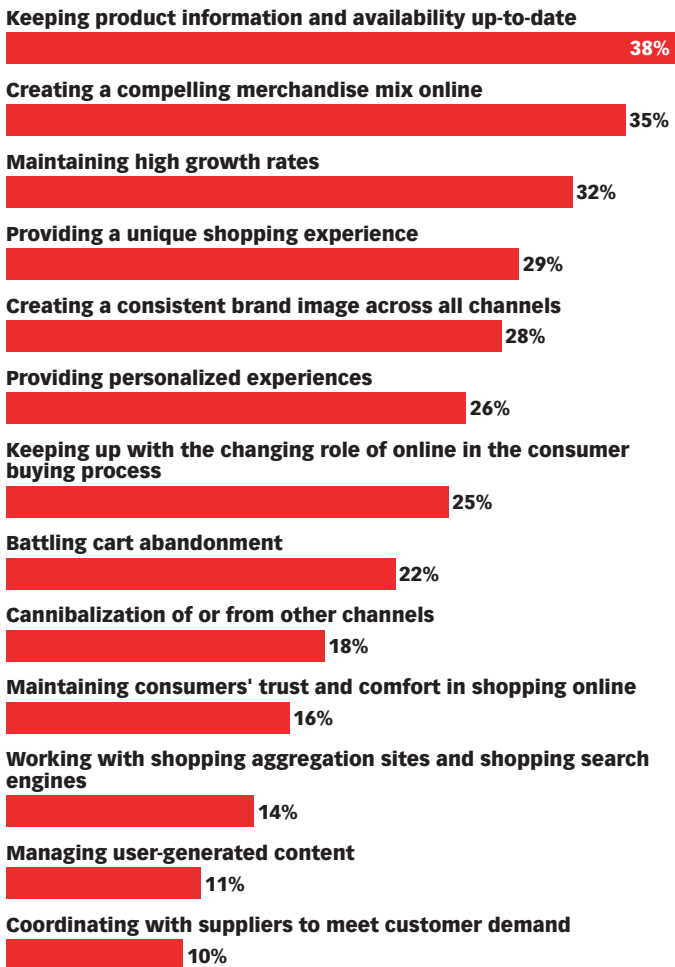
"When the numbers came back, we knew the recommendations were relevant," said Mr. Wyner. "Customers were enjoying that."

Barriers to Adoption of Product Recommendations

Business, technology and consumer issues have held back development of the product recommendation market.

The main business issue is competing priorities. Retailers have been preoccupied with nailing down the online basics before taking on the challenge of personalization. Keeping product information and availability current, getting the optimal product mix online and creating a consistent brand image across channels have drawn resources away from providing a personalized shopping experience, according to a June 2008 Retail Systems Research (RSR) survey of retail executives worldwide.

Leading E-Commerce Challenges According to Retail Executives Worldwide, May-June 2008 (% of respondents)



Note: n=108
Source: Retail Systems Research (RSR), "Playing Well with Others: eCommerce's Evolving Role in the Customer Experience" sponsored by Gomez and Microsoft, August 2008

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What are some challenges of using personalized product recommendations?



Cheryl Kellond

Senior Vice President, Advertising
ChoiceStream

"Poor recommendations hurt a brand, and in a lot of cases there's a big cost for getting it wrong. I think a lot of people look at personalized ads or personalized recommendations on their site and say, 'Oh, I can do that myself. If someone likes this, I'll recommend products like that.' But given all the contexts in which you want to give recommendations, it's a pretty complex problem." [Full Interview](#)



David Selinger

CEO and Co-Founder
richrelevance

"There are so many different concerns. There are very few vendors and in-house implementations that can solve all those problems. Adoption is slow as a function of it being so powerful. Everyone wants to control it. And everyone worries about what happens if it doesn't work quite the way they want it to." [Full Interview](#)



Jack Aaronson

CEO
The Aaronson Group

"A lot of the technologies look strictly at what the products are without having a deeper understanding of what made the product interesting to the user. They answer the question, 'What did the user buy?' but not, 'Why did the user buy something?' Based on that knowledge, what else should we recommend now? Five people might each buy the same core set of products for different reasons." [Full Interview](#)



Steve Swasey

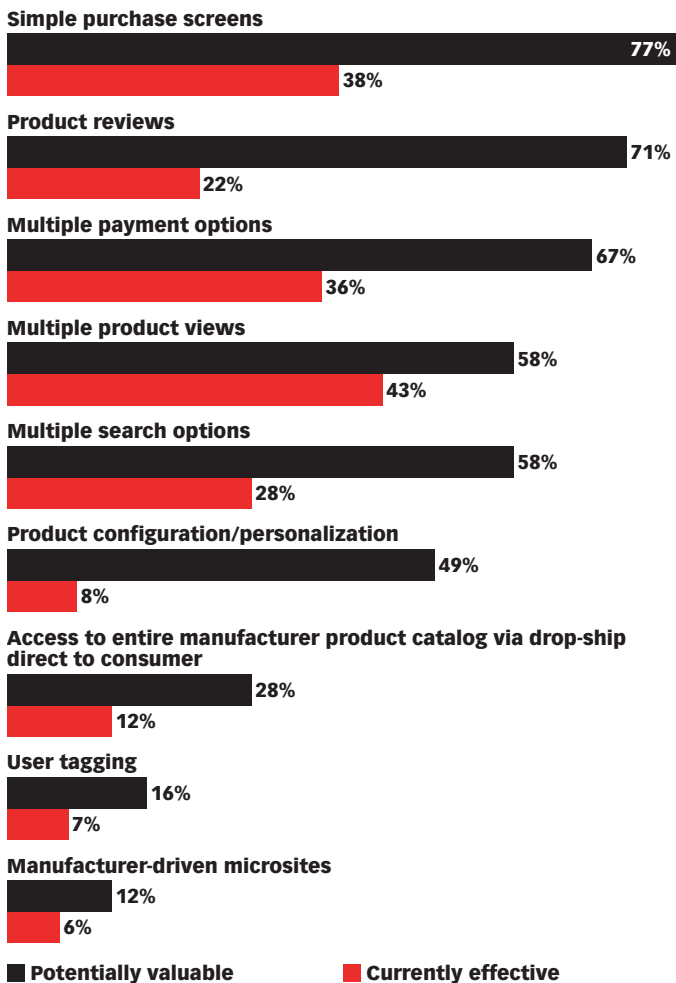
Vice President Communications
Netflix

"Clearly, the rental history tells us something, but you could be renting movies for special occasions or others. Just because I rented 'Goodfellas' doesn't mean I like all crime movies. The fact that I rated it five stars tells Netflix that I probably like crime movies, but I also might like movies that have an epic appeal over generations. The personalization experience is not as complete if members don't rate movies." [Full Interview](#)

Barriers to Adoption of Product Recommendations

The RSR survey also revealed that retailers believed the gap between personalization's current effectiveness and its potential value is wider than for most other Website features and functions. Some 8% of survey respondents indicated their product configuration and personalization technologies were currently effective, compared with 49% who said these technologies were potentially valuable.

Website Technologies that Are Most Potentially Valuable vs. Currently Effective for Increasing Online Sales According to Retail Executives Worldwide, May-June 2008 (% of respondents)



Note: n=108

Source: Retail Systems Research (RSR), "Playing Well with Others: eCommerce's Evolving Role in the Customer Experience" sponsored by Gomez and Microsoft, August 2008

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The personalization gap between current effectiveness and potential value is easy to understand. Until recently, product recommendation vendors did not instill confidence in their retailer customers. Implementations were expensive and time-consuming—sometimes lasting up to a year. And the final results were often questionable.

Some of the thorniest technological challenges to developing personalized product recommendation engines were outlined in a January 2009 ReadWriteWeb blog posting by Richard MacManus, its founder and editor. They were culled from a January 2009 event in Amsterdam called Recked that was aimed at engineers interested in recommendation technology.

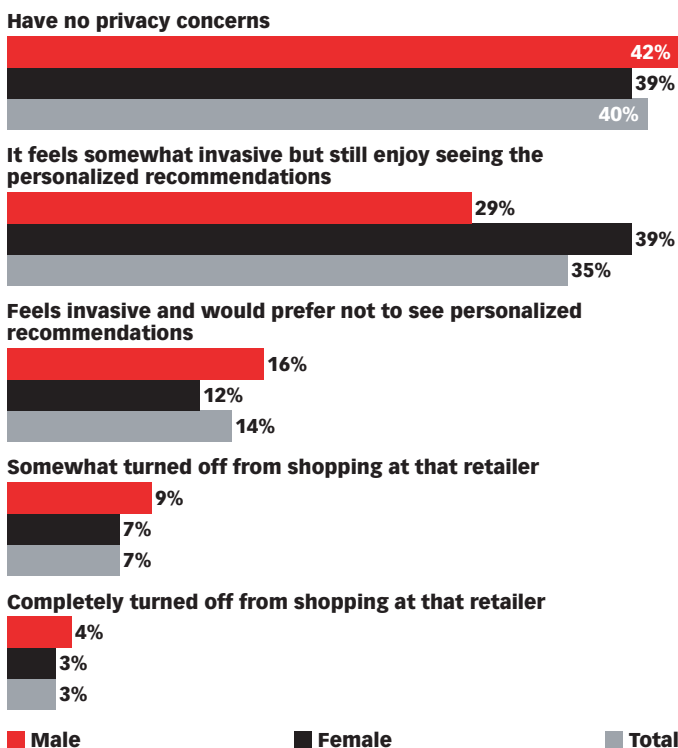
- **Lack of data.** Making effective recommendations requires a lot of customer user data. For Amazon and other large retailers with high user traffic, this is not a problem. But smaller retailers will have poorer recommendations because they do not draw enough visitors to make intelligent product correlations.
- **Changing products.** For product categories subject to fast-changing trends, such as fashion apparel, past purchase behavior is not a good predictor of future purchase intentions.
- **Changing purchase intentions.** Product recommendation systems have trouble sorting out what people buy for themselves from what they buy once as a gift for someone else. They also have difficulty predicting a customer's new product needs that are different from past shopping behavior.
- **Unpredictable tastes.** Individuals' tastes in some product categories can be diverse and unpredictable making it difficult to generate recommendations.
- **Complex technology.** A lot of variables need to be considered to deliver even the simplest product recommendations. A few major retailers, such as Amazon and Netflix, deliver high-quality recommendations to their customers, but many other retailers still struggle to find the magic formula.

Barriers to Adoption of Product Recommendations

Turning to consumer issues, privacy, surprisingly, is not a major concern for customers who receive personalized product recommendations on a retailer's Website.

An April 2008 survey by the e-tailing group and MyBuys found that online buyers believed the rewards of personalized product recommendations outweighed the risks to privacy. Some 75% of all respondents either felt no concern or felt somewhat infringed upon but still enjoyed seeing recommendations.

Privacy Concerns Related to Personalized Online Recommendations According to US Online Buyers, by Gender, April 2008 (% of respondents in each group)



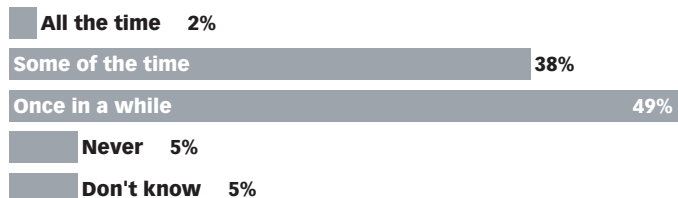
Note: n=1,345 who purchase online at least four times per year and spend \$500+; numbers may not add up to 100% due to rounding
Source: the e-tailing group and MyBuys, "The Executive Guide to Captivating Customers," June 2008

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Problem of Relevance

The hit-and-miss quality of personalized product recommendations is a serious consumer issue and really a manifestation of technology problems. Only 40% of respondents to the e-tailing group/MyBuys survey reported that recommendations on a Website were on target either some or all of the time. Nearly one-half of respondents said recommendations hit the mark just once in a while.

Frequency with Which Products Recommended on a Website Are on Target According to US Online Buyers, April 2008 (% of respondents)



Note: n=1,345 who purchase online at least four times per year and spend \$500+; numbers may not add up to 100% due to rounding
Source: the e-tailing group and MyBuys, "The Executive Guide to Captivating Customers," June 2008

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A ChoiceStream survey found that 45% of respondents complained about having received poor-quality recommendations online in 2008, a negligible change from 46% in 2007. The most commonly cited problem in 2008—inappropriate recommendations—increased by 10 percentage points over 2007. Inappropriate matches would refer to the suggestion of a children's DVD for an adult or an evening bag for a man.

Reasons that Personalized Product Recommendations Were a Poor Match According to US Internet Users, 2007 & 2008 (% of respondents)

	2007	2008
Inappropriate	41%	51%
Didn't match my preferences	37%	48%
Already owned products	43%	45%
Unrelated to search	33%	44%
Other	7%	3%

Source: ChoiceStream, "2008 ChoiceStream Personalization Survey," January 13, 2009

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Retailers' Use of Product Recommendations

Retailers are gradually extending the use of personalized product recommendations into all their sales channels and customer touchpoints—stores, Websites, call centers, mobile phones, marketing e-mails and display ads. This goal is to have customer shopping behavior data accessible throughout the organization.

"In the very near future, every touchpoint a retailer has with a consumer will be personalized—whether that is on the site, in e-mail, in the store, in advertising." —Cheryl Kellond, senior vice president of advertising for product recommendation vendor ChoiceStream, in an interview with eMarketer, February 2009

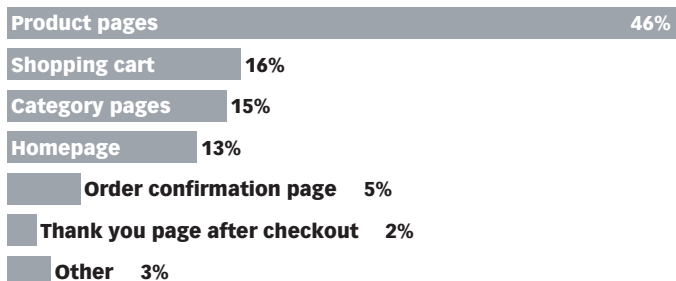
Cheryl Kellond, senior vice president of advertising for product recommendation vendor ChoiceStream, in an interview with eMarketer, February 2009

Websites

The predominant place to find product recommendations is on retailers' Websites. Recommendations serve different purposes there, depending on where and when they are shown. The product page is the place to show customers more and less expensive alternatives. But when they make a purchase decision and move to the shopping cart page, that is time to show them accessories and other items that go with the product they are purchasing.

Product pages accounted for 46% of all recommendations, according to Internet Retailer's August 2008 survey.

Location Where Personalized Product Recommendations Appear on E-Commerce Site According to US Online Retailers*, August 2008 (% of total)



Note: *among those who offer personalized recommendations
Source: Internet Retailer, "Emerging Technology" conducted by Vovici Corporation, September 2008

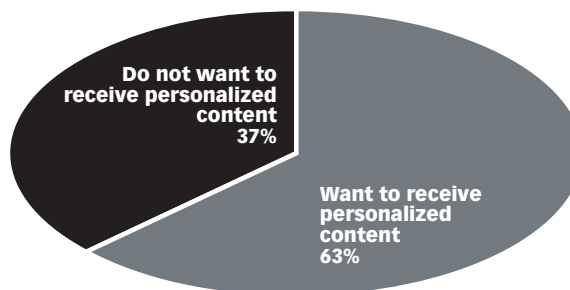
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E-Mail

Retailers are also placing personalized product recommendations in customer e-mails. An October 2008 Epsilon survey revealed that nearly two-thirds of recipients of retail e-mails liked to receive personalized messages based on their past shopping behavior rather than generic content sent in batch campaigns.

US Internet Users Who Want to Receive Personalized E-Mail Content* from Retailers, October 2008 (% of respondents)



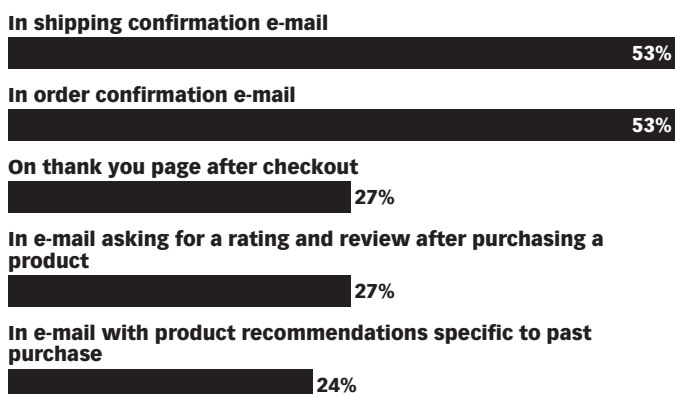
Note: n=746 who receive retail permission-based e-mail; *based on their Website activity, past purchases, etc.
Source: Epsilon, "Confessions of an Online Shopper: An Inside Look at Email Marketing for the Retail Industry" conducted by ROI Research, February 2009

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Personalized e-mails are effective at bringing customers back for repeat purchases or to complete a purchase. The greatest number of online buyers perceived value when personalized product recommendations appeared in transactional e-mails that confirmed order and shipping details.

Value* of Receiving Personalized Product Recommendations in Post-Purchase Communications According to US Online Buyers, April 2008 (% of respondents)



Note: n=1,345 who purchase online at least four times per year and spend \$500+; *individuals who responded "valuable" or "very valuable"
Source: the e-tailing group and MyBuys, "The Executive Guide to Captivating Customers," June 2008

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The e-tailing group also found that online shoppers looked favorably on personalized e-mail alerts that remind shoppers when requested products are back in stock or new arrivals from a favorite brand are available.

A few retailers are putting personalized product recommendations in e-mails to get customers who abandoned shopping carts to return to the site to complete the purchase. For example, knowing that mothers are often distracted when shopping online, Diapers.com sends a reminder e-mail a couple days later if the customer has not returned to complete the purchase.

Display Ads

In the next few years, more retailers are likely to place personalized product recommendations in display ads to reach customers on other Websites. ChoiceStream, a product recommendation vendor, recently announced such a service that uses a customer's shopping behavior on the retailer's Website as the basis for delivering personalized display ads that are served on other sites.

The "2008 ChoiceStream Personalization Survey" found that the bigger the online spender, the greater the person's willingness to click on a personalized ad rather than on a nonpersonalized ad. One-half of respondents who spent more than \$250 online in the past six months were more willing to click on a personalized ad than a nonpersonalized one.

US Internet Users Who Are More Willing to Click on Ads if They Are Personalized, by Amount Spent Online*, 2008 (% of respondents in each group)



Note: ages 18+; *in the past six months
Source: ChoiceStream, "2008 ChoiceStream Personalization Survey," January 13, 2009

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"Personalized ads bring past visitors back to the site for new purchases. So it really is about generating that next sale."

—Cheryl Kellond, senior vice president of advertising, ChoiceStream, in an interview with eMarketer, February 2009

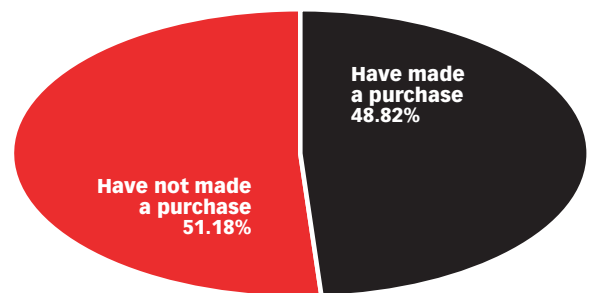
Both personalized e-mails and display ads are used by retailers to build retention and loyalty in tough economic times. But personalized display ads can reach consumers who might have brand affinity for a retailer and yet never opted to receive its e-mails.

Peer Product Recommendations

Product recommendations are delivered by recommendation systems powered by algorithms as well as by real people through word-of-mouth or social networking.

The sharing of product recommendations among friends is alive and well on social media sites, according to a June 2008 Razorfish study. Some 49% of "connected consumers" had made a purchase based on a peer recommendation received on a social media site.

US Connected Consumers Who Have Made a Purchase Based on a Recommendation Gotten Through a Social Media Site, June 2008 (% of respondents)



Source: Razorfish, "Digital Consumer Behavior Study" as cited in "FEED: The Razorfish Consumer Experience Report," October 2008

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For additional information on the above chart, see Endnote 099246 in the Endnotes section.

With some types of purchases, social recommendations provide consumers with more-satisfying product suggestions than those generated by an automated system.

"With fashion goods—whether apparel or home furnishings—the ability for automated algorithmic behavioral analytics to predict the future or give consumers back relevant recommendations is limited."

—David Reinke, president, StyleHop, in an interview with eMarketer, February 2009

A print version of the [interview with David Reinke of StyleHop](#) is available on eMarketer's Website.

Peer Product Recommendations

Word-of-mouth had the biggest influence on apparel purchases, the Retail Advertising and Marketing Association (RAMA) reported in a June 2008 survey. RAMA separated results by age brackets and found that when making apparel purchases, respondents ages 18 to 34 were more influenced by word-of-mouth than those ages 35 and older.

Media that Influence Apparel Purchases According to US Consumers, April-June 2008 (% of respondents)

Word-of-mouth	34.3%
Retail advertising inserts	33.3%
In-store promotion	30.4%
Coupons	28.0%
Magazines	26.7%
Direct mail	24.4%
Newspapers	22.9%
Broadcast TV	21.0%
E-mail advertising	19.0%
Online advertising	15.8%
Cable TV	13.8%
Read article on product	11.7%
Product placement	11.5%
Radio	8.9%
Outdoor billboards	6.0%
Yellow pages	4.5%
Blogging	3.3%
Instant messaging (computer)	3.2%
Satellite radio	2.9%
Text messaging (cellphone)	2.7%
Web radio	2.6%
Video on cellphone	2.3%
Online video game advertising	2.1%

Note: ages 18+

Source: BIGresearch, "Simultaneous Media Survey (SIMM) 12" conducted for the Retail Advertising and Marketing Association (RAMA), November 21, 2008

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A whole crop of social networks designed specifically for shopping has sprouted up over the past few years under the moniker "social shopping sites." Examples include Kaboodle, ThisNext and StyleHop.

Social shopping sites have a bright future, according to household shoppers who responded to a 2008 TNS Retail Forward survey. Respondents most frequently picked social shopping sites as a shopping innovation expected to be widespread by 2015.

Leading Shopping Innovations that Primary US Household Shoppers Predict Will Be Widespread by 2015 (% of respondents)

Social shopping sites	80%
Collaborative product development	80%
Receiving sales and product information on mobile phones	77%
Interactive dressing room mirrors	76%
Interactive dressing room help	76%
Group buying	75%
Shopping by mobile phone	74%
Smart carts	73%
Biometric fingerprint payment	60%
Networked shopping	56%
3-D body scanning	55%
Holographic sales assistance	42%

Source: TNS Retail Forward, "New Future in Store" as cited in press release, May 7, 2008

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Conclusions

In eMarketer interviews with developers and customers of personalized product recommendation systems, two points consistently emerged:

- Consumers should be told why a product is being recommended.
- Good personalization systems encourage customers to rate the quality of recommendations which, in turn, helps to raise the quality of future recommendations.

The following best practices provide a roadmap for how the product recommendation market should evolve.

Dig below the surface to learn why customers buy particular products.

One shortcoming with many recommendation systems is that they look strictly at what products a customer buys or browses, without understanding what attracted the customer in the first place. So for a book, its title would be the first level of information for analysis. But deeper information could be captured, such as the book's author, genre, geographical setting and time period. Incorporating this data into a personalization engine's algorithm will lead to stronger recommendations.

“There's a lot of intelligence to be gained by looking at the reasons why people bought things—and not just what they bought.”

—Jack Aaronson, CEO and founder, The Aaronson Group, in an interview with eMarketer, February 2009

Explain the reason a product is being recommended.

Consumers get confused when they are shown a hodgepodge of recommendations. Are they top sellers? Are they related to recent or not-so-recent purchases? Netflix avoids this confusion by listing the movie titles that generated a specific group of recommendations.

Allow customers to volunteer the types of attributes they like about products.

To deliver more-relevant recommendations, advanced recommendation systems learn and adapt to customer feedback in real time. As consumers start to see real value in their recommendations, they will continue to provide feedback to make them even better. For now, customers do that by rating the quality of recommendations they received. In the future, product recommendation vendors will learn more about purchase intent by harvesting the customers' ratings and reviews as well the search terms they enter.

The location of a product recommendation should determine its purpose.

This is a simple principle that is often overlooked, explained Web strategy and design consultant Jack Aaronson, in an interview with eMarketer. “When customers are on a shopping cart page they should see recommendations for items that go with a product,” Mr. Aaronson explained. “But some retailers make the mistake of second-guessing customers after they make their purchase decision by suggesting alternative products.”

Test algorithms to determine which work best in different situations.

Retailers should not only make recommendations, they should also track their performance by tying them back to a shopper's behavior to see what actually works. To do this, the retailer needs several recommendation algorithms, each tweaked to weigh different product attributes. Testing the effectiveness of each can result in clear winners for different situations.

How will personalized product recommendations change in the future?



Cheryl Kellond

Senior Vice President, Advertising
ChoiceStream

"Product recommendations themselves will get better. What I'd really like to see, though, is users taking control over their recommendations or having an input to their recommendations, volunteering what attributes they like about products or what they might be interested in. One day all touchpoints with consumers, from a retailer in particular, will be personalized. The current economic climate is really making what we're doing salient, as retailers go out there and have to capture every potential purchase opportunity in the market to meet their numbers." [Full Interview](#)



David Selinger

CEO and Co-Founder
richrelevance

"I'm excited about the idea of watching the user interface to study how consumers interact with recommendations. If you think about it, recommendations are interacted with very similarly to a display ad, and the creativity of display ads—how it's presented, the colors, interactivity—is incredibly important. There's so much power behind these systems and their ability to make the shopping experience better. It's about making recommendations something the customers keep going back to." [Full Interview](#)



Jack Aaronson

CEO
The Aaronson Group

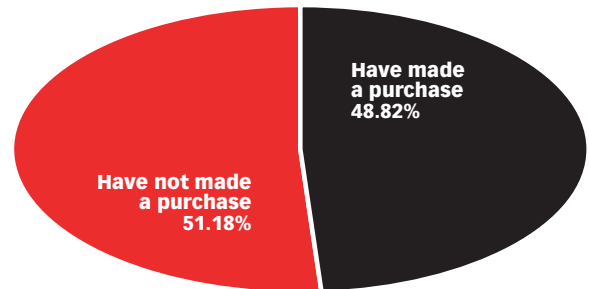
"My hope is that more people will start looking at this metadata layer and realize there's a lot of intelligence to be gained by looking at the reasons *why* people bought things and not just *what* they bought. Even with those portfolios of algorithms that various companies have, a lot of them are still surface-level and the really interesting data that lies beneath the surface is not harnessed as it could be." [Full Interview](#)

Endnotes

Endnote numbers correspond to the unique six-digit identifier in the lower left-hand corner of each chart.

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US Connected Consumers Who Have Made a Purchase Based on a Recommendation Gotten Through a Social Media Site, June 2008 (% of respondents)



Source: Razorfish, "Digital Consumer Behavior Study" as cited in "FEED: The Razorfish Consumer Experience Report," October 2008

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Extended Note: "Connected consumers" are Internet users with access to broadband who spent \$200 online in the past year (travel, Netflix, tickets, Amazon gifts, etc.); visited a "community site" (MySpace, YouTube, Facebook, Classmates, Wikipedia, etc.); and consumed or created some form of digital media, such as photos, videos, music or news.

Related Information and Links

Related Links

The Aaronson Group

<http://www.aaronsongroup.com/aaronsongroup.asp>

ChoiceStream

<http://www.choicestream.com/>

the e-tailing group

<http://www.e-tailing.com/>

Internet Retailer

<http://www.internetretailer.com/>

Netflix

<http://www.netflix.com/>

richrelevance

<http://www.richrelevance.com/>

Scentiments.com

<http://www.scentiments.com/>

StyleHop

<http://www.stylehop.com/>

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