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Like This? You'll Hate That. (Not All Web Recommendations Are Welcome.)

By Laurie J. Flynn
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SAN FRANCISCO, Jan. 22 - On Amazon.com, a customer interested in buying the novel "The Life of Pi" is also shown "The Kite Runner" because other Amazon customers -- presumably with similar tastes -- also purchased that book. That's just one approach among many in the science of recommendation software.

Web technology capable of compiling vast amounts of customer data now makes it possible for online stores to recommend items tailored to a specific shopper's interests. Companies are finding that getting those personalized recommendations right -- or even close -- can mean significantly higher sales.

For consumers, a recommendation system can either represent a vaguely annoying invasion of privacy or a big help in bringing order to a sea of choices.

"It's like if your music is in Tower Records and no one knows it, you're nowhere," said Tim Westergren, a founder of Pandora, an online music site, and of the Music Genome Project. "On the Internet, it's that times 100."

But spewing out recommendations is not entirely without risk. Earlier this month, Walmart.com issued a public apology and took down its entire cross-selling recommendation system when customers who looked at a boxed set of movies that included "Martin Luther King: I Have a Dream" and "Unforgivable Blackness: The Rise and Fall of Jack Johnson" were told they might also appreciate a "Planet of the Apes" DVD collection, as well as "Ace Ventura: Pet Detective" and other irrelevant titles.

The company said that the problem was created last year when the Web site set out to promote African-American films for Martin Luther King's Birthday. It linked a set of four African-American films to a group of 263 popular movies also boxed into sets, hoping that the links would give the four films more exposure.

EX1044
Roku V. Media Chain
U.S. Patent No. 10,885,154

"Unfortunately," said Mona Williams, a Wal-Mart spokeswoman, in a statement, "some of the inadvertent combinations were very offensive."

Wal-Mart's trouble stemmed not from the aggressive use of advanced cross-selling technology, but from the near lack of it. Companies with more nuanced strategies have avoided embarrassing linkages.

At NetFlix, the online DVD rental company, for example, roughly two-thirds of the films rented were recommended to subscribers by the site -- movies the customers might never have thought to consider otherwise, the company says. As a result, between 70 and 80 percent of NetFlix rentals come from the company's back catalog of 38,000 films rather than recent releases.

"The movies we recommend generate more satisfaction than the ones they choose from the new releases page," said Neil Hunt, NetFlix's chief product officer. "It increases customer loyalty to the site."

Mr. Hunt said NetFlix's recommendation system collected more than two million ratings forms from subscribers daily to add to its huge database of users' likes and dislikes. The system assigns different ratings to a movie depending on a particular subscriber's tastes. For example, "Pretty Woman" might get a four- or five-star rating if other people who share a customer's taste in movies rated it highly, while the same film might not appear on another customer's screen at all, presumably because other viewers with that customer's tastes did not rate it highly.

"The most reliable prediction for how much a customer will like a movie is what they thought of other movies," Mr. Hunt said. The company credits the system's ability to make automated yet accurate recommendations as a major factor in its growth from 600,000 subscribers in 2002 to nearly 4 million today.

Similarly, Apple's iTunes online music store features a system of recommending new music as a way of increasing customers' attachment to the site and, presumably, their purchases. Recommendation engines, which grew out of the technology used to serve up personalized ads on Web sites, now typically involve some level of "collaborative filtering" to tailor data automatically to individuals or groups of users.

Some engines use information provided directly by the shopper, while others rely more on assumptions, like offering a matching shirt to a shopper interested in purchasing a tie. And some sites are now taking personalization to another level by improving not only the collection of data but the presentation of it.

Liveplasma.com, an online site for music and, more recently, movies, graphically "maps" shoppers' potential interests. A search for music by Coldplay, for example, brings up a graphical representation of what previous customers of Coldplay music have purchased, presented in clusters of circles of various sizes.

The bigger the circle, the greater the popularity of that band. The circles are clustered into orbits representing groups of customers with similar preferences.

"This is a way of showing recommendations that are vastly more useful than textual links," said Whit Andrews, a research vice president at Gartner Inc., a market research company in Stamford, Conn.

Another development under way is matching customer tastes across Web businesses, using knowledge of a customer's tastes in music to try to sell them books, for example. "To date, that's been largely uncharted territory," Mr. Andrews said, though not for lack of trying. Web sites have long tried to develop systems for cross-selling among companies that protect customer privacy but also allow sharing of data.

While large online stores are having success through recommendations, smaller Web sites are having a more difficult time using the technology to their advantage. Developing a system for cross-selling is expensive, and perhaps most important, requires amassing a huge amount of customer data to be effective, said Patty Freeman Evans, a Jupiter Research analyst.

As a result, according to Ms. Evans, fewer than one-quarter of online shoppers make unplanned purchases when they are online, a far smaller percentage than customers at actual stores.

Walmart.com's DVD sales site now has no automated recommendation system at all. The music section of Walmart.com, however, uses a system closer to that of Amazon, where customers are given recommendations based on music they've purchased in the past. The company is also looking at using that technology for the DVD section, along with movie reviews and guides that are automatically linked to customer searches.

Carter Cast, president of Walmart.com, says personalized recommendations are one of the company's "important priorities" for its Web store. "It's convenient and helpful for customers, and it does help generate sales," Mr. Cast said, referring to the personalization feature on Walmart.com's music section.

Certainly, Apple's iTunes store has benefited from its ability to recommend songs and artists. In fact, its newest feature, called MiniStore, is able to make recommendations based on songs in users' playlists, no matter where they came from.

When someone is using the MiniStore and selects a song on the playlist, Apple will automatically collect that information. The feature, however, has been criticized by privacy advocates who say it allows Apple to snoop on customers. Under pressure, Apple decided last week to make the feature an option that customers get only on request.