WHITE PAPER

Personalization for the Unknown Customer

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PRECISETARGET

Personalization for the Unknown Customer

In the retail salesperson's fantasy, they would know everything about their customer. His or her tastes, prior purchases, budget, and needs. This perfect world conflicts with the consumers real-world need for privacy and unwillingness to be exploited by marketers. We should add there's also an aversion to creepiness, given that consumer still can't make peace with re-targeted ads following them around the web. In this white paper, we'll discuss PreciseTarget's approach to personalizing the retail experience for customers, that combines merchant data without using PII (Personally Identifiable Information).

What's Needed for a Personalized Customer Experience?

The sales person, or the intelligent recommendation engine, would like to know what's in the closet of the customer. If you could snoop inside the consumer's armoire, you'd get an idea of the types of products that appeal to the customer, including the colors, fabrics, brands, and price-points that fit the taste of the consumer. It would also be helpful to know the age, gender, and location of the customer. With this data, an intelligent machine could begin making reasonably good predictions about the consumer's future purchases. Your personalization machine would cluster people, within product categories, creating a personalization engine that "knows" what people like you are buying in footwear, sweaters, or cosmetics.

To pull this corpus of information together, you have to first hurdle three obstacles:

1. **Cross-Merchant Shopping Reality**: The average consumer buys 45 apparel and footwear items per year, from 30 different retail merchants. The largest retailer in the market is only selling two items

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per customer, meaning your desired data is spread across 30 different retailer databases. You'd need a way to combine the data of many retailers.

2. **Privacy and Data Security Concerns:** Retailers are very reluctant to share their transaction data, particularly with their competitors. Additionally, the risk-management lawyers at large retailers are unwilling to share PII about customers, which could violate their customer privacy policies.

3. **SKU-Level Normalization:** Even if you were able to amass the desired data, and your goal was to cluster people together, you'd first have to normalize all of the purchased SKUs into a "normal" taxonomy. Here's why: you'd like to cluster everyone together who bought a particular Michael Kors scarf. Aside from there being no common SKUs across the merchant community, retailers routinely change the names, descriptions, and attributes when they place the item in the catalog. A blue scarf at Macy's can be the same item as a turquoise wrap at Nordstrom. If you want to create clusters, you first need to create a gigantic catalog that knows the Michael Kors scarf, under all the names and descriptions used by retailers.

Job 1: Protecting the Consumer's Privacy

In order to build the intelligent recommendation engine, you first need the ability to de-identify individual consumers. With this approach, you want to transform the consumer into a "Synthetic Universal Identifier" (SUI). The SUI is a random code created by a third-party processor to protect business partner data. The SUI is not algorithmically created and only the

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third-party processor holds the match key. Therefore, PreciseTarget cannot decrypt the SUI. A partner wishing to submit data to PreciseTarget must first give the data to a third-party processor. In this model, you'd like the SUI to be common across all retailers. Meaning, if John Smith is code 9944T at Nordstrom, you'd like that same code to represent him at Macy's, J.Crew, and everywhere else. This would allow you to assemble a virtual closet, with products purchased from all retailers. Additionally, all retailers would be able to query the recommendations machine anytime code 9944T was at their website, in the store, or at an authorized affiliate of the retailer.

If you imagine your intelligent machine as a spreadsheet, you'd like each row of the spreadsheet to have the encrypted code followed by all the normalized products purchased from for each retailer. You wouldn't be able to determine the name of the consumer, you'd just have the code. We'll shortly discuss how you'll use this code to significantly increase your conversion rate.

Designed for Consumer Protection

The PreciseTarget Taste Platform uses a synthetically created identifier for each consumer, with no linkage to the actual consumer identity. Unlike email encryption, there is no possibility to reverse the synthetic identity. PreciseTarget stages its data, organized by Synthetic ID, in a secure staging center at the match company. A customer wishing to purchase data would receive the data by doing business directly with the partner, who acts as the trusted matching intermediary.

All retail data provided to the platform must be transformed to a taste event before submission to the platform. The transformation process is

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often conducted by a trusted intermediary, resulting in the taste platform learning the consumer had a taste event. A taste event can come in the form of a product purchase, a product click, or other forms of consumer interactions. Taste event data uses an aggregated set of product attributes which teaches the platform. It does not include the product brand name.

Putting Your Personalization System to Work:

Your system would enable you to personalize the experience for customers when they visit your web site, visit your affiliates, receive your emails, or visit your store. The system is designed to cluster consumers, rather than target them with specific products. In our experience analyzing our retail customer's data, it's clear that consumers are no more likely to repurchase a brand then everyone else in their demographic set. This means if a 25-year-old man purchases a pair of Cole Haan shoes from you, he's no more likely to repeat a Cole Haan purchase than all the other 25-year-old male customers.

Instead of product targeting, you'd like your personalization to be based on the actions and behaviors of other like-people in the shoe cluster. In the world of personalization technology, we spend little time trying to determine why people make purchase decisions. Instead, we focus on observing, in the form of data, what decisions people are making. The upside of this reality relieves you of a worry that your competitor can steal your customer if they know your customer's purchase history.

Your data is much more valuable in the aggregate, when combined with other retailers. You already experience this when you run online advertisements. Google and the other ad platforms use the combined

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performance data of all advertisements to yield better results for the individual advertiser. Netflix, Amazon, and Spotify also create clusters of consumers, to yield better results for all parties.

About PreciseTarget

PreciseTarget is a retail data company focused on helping retailers drive higher conversion by using our innovative Taste Graph. The company has profiled the product tastes of over 200 million U.S. adults in the largest retail categories, including apparel, footwear, cosmetics, home goods, and electronics. Our customers have trusted us with over 5 billion SKU-level transactions, and more than 200 major retailers provide us with daily data feeds. Retailers, agencies, and ad-tech companies use our audiences and customer profile data for e-commerce, in-store, and customer insight applications. To learn more, please contact us at Sales@PreciseTarget.com.

Our Founder

Our team is led by Rob McGovern, an experienced entrepreneur who founded Careerbuilder.com. He has previously served in executive positions at Hewlett Packard and Legent Corporations, and has held many board directorships at private and public companies. He's a graduate of the Smith School of Business at the University of Maryland, and in his free time is a cyclist, airplane pilot, and mentor to young entrepreneurs.