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Cracking the digital-shopper genome

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Companies have more data at their fingertips than ever, so why do online shoppers remain such a mystery? The solution begins with bringing all the information together to form a meaningful picture of the consumer.

An airline sends a regular customer an e-mail about a special promotion on flights from New York City to exotic Caribbean destinations. The company had noticed she'd recently browsed vacation sites. The interested shopper eagerly clicks, landing on a page that shows all the airline's flights from all the cities it serves to all its destinations. By the time our erstwhile traveler has waded through this screen to find flights from John F. Kennedy International Airport and LaGuardia Airport, she's no longer seeing palm trees in her head—she's seeing red. This is the fault line of the modern digital-shopping experience, where reality falls far short of the promise of receiving what you want, when you want it.

It doesn't have to be this way. The solution is cracking what we call the shopper genome: converting the vast amount of data regarding consumer behavior and desires into meaningful insights. Today, the vast majority of e-commerce companies focus on just one part of a shopper's genome, for example, product affinities like urban or designer styles, while ignoring others, such as need states or emotional-connection points. Others compartmentalize their efforts by using separate channels, teams, and processes, resulting in a disjointed customer experience. That's like scientists decoding one set of chromosomes while ignoring all others.

Of course, we're not suggesting that cracking the shopper genome is easy. Until recently, technology barriers were the main problem in combining insights across different elements of the organization. Yet those barriers are starting to fall. As they do, more and more e-commerce companies and their technology providers have an opportunity to develop a coherent, comprehensive profile of their digital customers and effectively engage them across the seven primary digital touchpoints: Internet display advertising, e-mail, mobile advertising, search, shopping engines, social media, and video. The rewards are substantial: we've found that companies that are able to assemble larger swaths of the shopper genome to inform the way they interact with customers can achieve revenue increases of 10 to 20 percent.
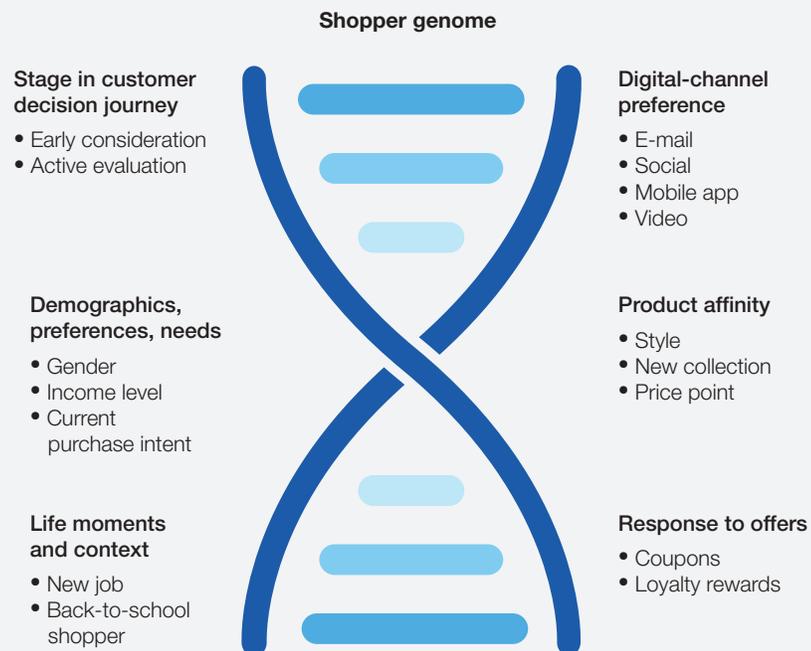
Mapping the digital shopper's DNA

While every e-commerce company wants a comprehensive view of its customers, few put in place a disciplined system for collecting and organizing those insights. In the same way that cracking the human genome requires decoding the DNA packages it comprises, companies should aspire to create a *complete* picture of the customer across a complete set of shopper characteristics (exhibit):

- *Customer decision journey* captures customer behavioral pathways and attitudes at each stage of a purchase journey. A customer may initially look for inspiration (ideas on what to buy) and then information (product descriptions, reviews, informational blogging content) before seeking the best way to buy a given service or product. Interactions can be tailored to this process: for example, one technology manufacturer seeks to identify shoppers on its website who are early in their journey and ensures they don't see pricing promotions, which are instead offered to visitors who are closer to actually buying.

Exhibit

Companies should create a complete picture of the customer across a comprehensive set of characteristics.

Shopper genome

Stage in customer decision journey
- Early consideration
- Active evaluation

Digital-channel preference
- E-mail
- Social
- Mobile app
- Video

Demographics, preferences, needs
- Gender
- Income level
- Current purchase intent

Product affinity
- Style
- New collection
- Price point

Life moments and context
- New job
- Back-to-school shopper

Response to offers
- Coupons
- Loyalty rewards

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- *Digital-channel preference* highlights how a shopper prefers to interact with a brand. These insights come from understanding how customers interact through various digital channels—such as apps, e-mail, social media, and video—and the ultimate value of that interaction. The most sophisticated approaches then map these channel preferences to phases of the customer decision journey to create a clear picture of the customer's cross-channel experience.

- *Product affinity* details what products and product attributes customers prefer across brands and categories. These insights are based on where customers spend their time while visiting a website and on their product-purchase history, analyzed for "key preference indicators" that help to create useful product taxonomies, such as whether the customer shows a preference for a certain designer or style. In structuring a taxonomy based on this behavior, retailer The Children's Place, for example, uses Demandware's CQuotient to analyze language in customer reviews and selects the most relevant words to inform a product's metadata.

- *Response to offers* details how customers respond to various offers and what incrementally results from those interactions. These responses track how coupon offers, discounts, and loyalty rewards, for instance, affect customer-shopping behavior at a level of detail that allows an e-commerce company to understand which offers yield the most cost-effective payoff by customer segment and, eventually, by individual customer.

- *Life moments and context* looks at episodes in a customer's life (such as having a child, getting a new job, or moving house) and behavior during seasonal events (such as at Christmas or on vacation). This analysis provides a better understanding of the consumer based on how much time typically elapses between purchases and whether the customer is buying consumables or durables (such as furnishing a new home or office).

- *Demographics, preferences, and needs* provide insights about shoppers based on information beyond interactions with a specific e-commerce company. In recent years, there's been impressive growth in the quantity and quality of data aggregated about customers at the "abstracted ID" level (that is, information that is not personally identifiable). Sophisticated data aggregators such as Acxiom and Nielsen's eXelate are able to append not only demographic data such as age, gender, or zip code–based income level but also preferences and intent deciphered from browsing behavior across networks of hundreds of websites. For this to work over time, e-commerce companies need to adhere to strict standards about keeping data abstracted and respecting consumer privacy.

What's needed to crack the genome
Pulling these insights together to crack the shopper genome is both a *technology* and *people* challenge. Each requires specific capabilities: the two main elements of the ever-evolving technology landscape that must be mastered are data assembly and data-driven action, while organizationally, companies need to not only find the right people but also use them the right way.

Technology

Technology is emerging to help provide a complete and dynamic picture of the shopper. At the heart of customer intelligence is a customer-relationship-management (CRM) capability that goes way beyond a tool to capture customer records or call-center interactions and is able to integrate insights about customers in one place. Advanced CRM capabilities facilitate *data assembly* by providing a comprehensive view of "first party" customer data such as purchase history, service interaction, website-navigation behaviors, and social-media conversations. Additional insight into what customers do when they are not engaging with the brand can be gained through third-party data. Data-management platforms help companies aggregate customer data they already have in their systems. Third-party "megadata" aggregators offer wide sets of ready-made integrations with demand-side platforms.

When it comes to *data-driven action*, recent innovations have enabled more dynamic ways of delivering personalized experiences. For example, site-personalization providers such as Certona, MyBuys, and RichRelevance dynamically alter the product selection provided to different site visitors based on their shopping profiles, while companies such as 360pi and Profitero allow e-commerce players to monitor competitors, define business logic, and adjust prices accordingly.

This gets to one of the big advantages that digital stores have over traditional physical locations: in theory, they can render differently to every visitor on each visit. Retailer Kenneth Cole reconfigures various elements on its website based on a visitor's click-behavior history—some see more product reviews, for example, while others see more videos, images, or special offers. The algorithm the company uses constantly learns which content works best depending on the customer and renders the site accordingly. Similarly, some B2B sites present content tailored to customers based on the industry they come from (perhaps identified through Internet Protocol address lookups), while other e-commerce companies tailor ads to users by delivering multiple forms of a purchased ad, customized to any element of an offer (for example, product, price, promotion, or presentation of a product).

People

E-commerce companies tend to have separate teams, processes, and budgets for various functions. For instance, responsibility for driving repeat buys and loyalty often rests with the e-mail team, while reengaging visitors who did not buy during a visit is commonly assigned to the retargeting team. Media buying is focused on traffic acquisition and is separated from e-commerce, which is focused on conversion. Such separation torpedoes the ability to deliver a great user experience. A media buy may highlight a specific experience or offer, for example, but if the e-commerce team has not created content to deliver on it, the user is left confused and frustrated—just like our Caribbean vacation shopper. Technology providers further complicate this challenge. E-mail service providers generally don't integrate with social-media ad systems, for instance, and on-site search providers don't integrate with CRM systems.

In our experience, companies can begin to address these organizational issues by creating teams that "own" a customer segment across the full journey. Central responsibility for this resides with customer-segment—or "cohort"—owners, who oversee every phase of engagement from strategy to execution and have broad cross-functional authority and decision rights. These teams create a customer-segment profit-and-loss overlay on top of existing channel- or product-centric ones. They also focus the annual marketing planning and execution cycles on these specific segments. Ultimately, cohort managers make sure that all customer communications are orchestrated, harmonized, and synchronized across every touchpoint.

A deep understanding of the customer experience across channels is at the core of this capability. Cohort leaders put in place advanced-analytics teams that create a unified, 360-degree view of the customer that constantly updates insights into the shopper genome. These insights form the basis of an ongoing set of rapid test-and-learn initiatives to continuously optimize customer interactions. To execute on the strategy, cohort managers rely on marketing-channel managers who implement the campaign in their respective channels, such as e-mail and website. And since technology is the foundation of this capability, these teams have dedicated support from the company's marketing technologists to help navigate complex build-or-buy technology decisions and find the most effective solutions.

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Any comprehensive customer-engagement program needs to start with a clear vision of what a complete digital experience looks like. Making that a reality requires cracking the shopper genome—and building the technology and organizational capabilities that deliver on the customer's increasingly high expectations. □

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