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Customer Experience

Customer Experience in the Age of AI

by David C. Edelman and Mark Abraham

CUSTOMER EXPERIENCE

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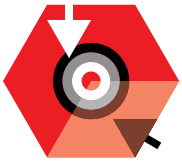
Customer Experience in the Age of AI

The case for building "intelligent experience engines"



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ABOUT THE ART

Mario Rossi's photography is inspired by mathematics and music. His compositions use geometry and repetitions of form to create kaleidoscopic transformations of movement, behavior, and perspective.

BRINKS IS A 163-YEAR-OLD business well-known for its fleet of armored trucks. The company also licenses its brand to a lesser-known, independently operated sister company, Brinks Home. The Dallas-based smart-home-technology business has struggled to gain brand recognition commensurate with the Brinks name. It competes against better-known systems from ADT, Google Nest, and Ring, and although it has earned stellar reviews from industry analysts and customers, its market share is only 2%. But its systems have generated a wealth of product usage information; its call centers have accumulated voluminous historical customer-level transaction data; and its field reps have been gathering competitive data since it began operations, in 1994.

Brinks wanted to find a way to use all this information to accelerate growth and optimize every customer touchpoint across all channels, especially in its messaging, personalization, and delivery of the user experience. In the fall of 2020, working with OfferFit, an AI start-up, the company tested thousands of combinations of messages and offers, varying the creative content, channel, and delivery times. It reorganized its structure around customer acquisition, service, and renewal and began using AI to optimize service-call scheduling, help cross-sell recommendations from call center reps, and conduct customer outreach for wireless system upgrades. In less than two years Brinks increased A/B testing from two or three tests a day to roughly 50,000 (with the capability to add more as needed). This process has dramatically reduced the need to wait for test results and has allowed Brinks to personalize every customer touchpoint. During the first half of 2021 its average direct-to-consumer (DTC) package size increased from $489 to $968. DTC revenue per user increased from an average of $42.24 to $45.95 during the same period. Overall revenue increased 9.5% compared with the same period in 2020.

Brinks Home is just one example of how brands can win by tapping a deep store of customer information to transform and personalize user experiences. From the pre-internet dawn of segment-of-one marketing to the customer journey of the digital era, personalized customer experiences have unequivocally become the basis for competitive advantage. Personalization now goes far beyond getting customers' names right in advertising pitches, having complete data at the ready when someone calls customer service, or tailoring a web landing page with customer-relevant offers. It is the design target for every physical and virtual touchpoint, and it is increasingly powered by AI.

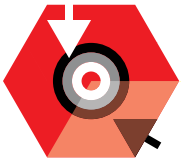
We have supported more than 100 leading global companies in their large-scale personalization efforts (including several that we reference in this article). Over the past five

IDEA IN BRIEF

THE REALITY
A personalized customer experience has become the basis for competitive advantage.

THE PROBLEM
However, providing personalization requires more than just a technological fix.

THE SOLUTION
Businesses must design intelligent experience engines, *which assemble high-quality, end-to-end customer experiences using AI powered by customer data.*



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years we have seen increases in their revenue of 6% to 10% and an increase in net incremental revenue attributable to personalization initiatives of anywhere from 40% to 100%. A joint survey we conducted with Google, involving thousands of consumers immediately following a personalized brand experience, revealed a comparable revenue effect.

Companies across all industries are putting personalization at the center of their enterprise strategies. Recently Kroger CEO Rodney McMullen called seamlessness and personalization two of the key competitive "moats" in which Kroger is investing. Likewise, companies in home improvement (such as Home Depot), banking (JPMorgan Chase), the restaurant industry (Starbucks), and apparel (Nike) have publicly announced that personalized and seamless omnichannel experiences are at the core of their corporate strategy. We are now at the point where competitive advantage will derive from the ability to capture, analyze, and utilize personalized customer data at scale and from the use of AI to understand, shape, customize, and optimize the customer journey. Digital-advantage supremacy has gone well beyond the boundaries of traditional marketing to become a much broader C-suite issue. The obvious winners have been the big tech companies, which have embedded these capabilities in their business models. But we also see challenger brands, such as sweetgreen in restaurants and Stitch Fix in apparel, that have designed transformative customer experiences based on first-party data.

In this article we explore how cutting-edge companies build what we call *intelligent experience engines* to assemble high-quality customer experiences using AI powered by customer data. They design end-to-end solutions—for example, finding a location, scheduling an appointment, sending appointment reminders, providing directions, and guiding users through any necessary follow-up—that proactively lead customers toward achieving their goals. They also combine human enablers (cross-functional, agile teams) with data and technology that allow for rapid self-learning and optimization. Although building an intelligent experience engine can be time-consuming, expensive, and technologically complex, the results allow companies to deliver personalization at a scale we could only have imagined a decade ago.

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The Impediments to Personalization

Most brands don't personalize customer experiences at the scale or depth necessary to compete with the world's leading companies. Personalizing an end-to-end customer experience requires orchestration across channels—a capability that no brand has fully mastered. But merging the flow of customers' physical and digital experiences may be the only way challenger brands can compete against digital natives like Amazon and Google. Early movers have tapped into newer technologies, such as the internet of things, machine learning, marketing tech (martech) platforms, and a growing number of digital media tools that can create formidable advantages when combined with agile methods. Brands that want to surpass—or simply catch up with—early movers need to think about their data and technology foundation. Are their organizational structures and processes up to the task? Do they have a rapid-test-and-learn mentality?

Despite the dizzying array of software tools that purport to enhance every aspect of the customer experience, no one platform can comprehensively manage end-to-end personalization. Nevertheless, key problems, such as creating a 360-degree view of a customer, are being solved with automation, AI-powered intelligence, and activation tools for delivering AI-driven recommendations.

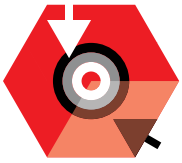
The telecommunications giant Comcast uses Pointillist, a customer-journey analytics service, that logs each customer's footsteps across its ecosystem. The service time-stamps visitor interactions and generates maps of each journey. Using AI to gather data and determine where journeys are failing, such as with its mobile app, Comcast quickly tackles experience issues.

Businesses are combining multiple AI, martech, and back-office solutions connected through common-application programming interfaces to better develop and use personalization data. Salesforce and Adobe provide channel delivery solutions; customer data platforms such as Amperity and mParticle help resolve identity issues; offer-optimization engines such as Formation and OfferFit help improve each ensuing offer; and platforms for content generation, such as Persado for creative copy and SundaySky for video, enable personalization at scale.

New digital media create new ways for users to interact with brands. Location-based tracking and payment systems activated by the swipe of a hand blur the lines across prepurchase (advertising/marketing), purchase (sales/transaction), and postpurchase (service/loyalty) interactions. These capabilities have created intelligent ways to reshape customer experiences, and they enable brands to be distinctively valuable and deepen engagement. Starbucks, for example, geo-targets lapsed customers who are near its stores with ads about new seasonal beverages, and it sends customers personalized in-app offers to encourage them to visit a store or to try their convenient mobile order-and-pay option.

Most companies don't have the bandwidth, resources, or technical prowess to compete with the likes of Comcast or Starbucks. The best approach for challenger brands is to develop a data and tech road map with granular requirements tied to specific, customer-driven use cases. For example, a company will need to figure out which customer data elements must be used in real time to power recommendations in the app, or it must determine which systems must talk to each other after a booking is made to suggest relevant add-on services. Then it must bring together the business and tech teams to work iteratively, focusing on delivering value as they build the foundation.

In the most successful digital transformations of the past decade, we have observed what we call the 70/20/10 rule: Seventy percent of the effort of changing an organization—its processes, ways of working, key performance indicators, and incentives—involves people. Twenty percent entails getting the data right. The remaining 10% is about the technology foundation. This breakdown stems from four impediments. First, most companies are still set up to be product-first, not customer-first, making it impossible for the dozen or so teams that cover channel, market, and product silos to collaborate. The increasingly popular role of chief customer officer was created to solve this problem, to orchestrate the people and moving parts behind the many customer touchpoints. Second, analytics is not infused throughout the business, and no single platform integrates customer data and enables advanced analytics. Third, content is created manually and not tagged for reuse. Finally, agile ways of working, even if common in IT teams, are generally not used by cross-functional teams. Without tools to facilitate teams'



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Intelligent experience engines must be surgically focused on micro-goals—positive moments composing the entire customer experience.

rapid experimentation and learning, companies end up with inconsistent, stagnant experiences across channels.

To get started, companies should launch self-governing pods of workers from marketing, operations, analytics, technology, and the commercial functions and invest them with clear goals, budgets, and decision rights. These integrated groups should be tasked with developing a limited number of specific experiences that represent breakthrough opportunities to drive revenue and build deeper customer bonds. They should have the tools to measure their day-to-day progress and should work in intensive two-week sprints to develop and test ideas for improving engagement. They should optimize many variables, such as what triggers to respond to, which channel to use, when to reach out to a customer, what message to issue, and what incentive to offer. AI can play a progressively bigger role in this effort as more experiments are run and more data is gathered. The pods can use machine learning to determine how to set up multivariate tests, keep track of everything in motion, and decide when to lock in and scale a test to a broader population.

Building an Intelligent Experience Engine

To fulfill every goal the customer may have for an end-to-end experience, companies must think through how to design the flow of a given moment, the information needed to support it, and the cross-channel or cross-party connections (for instance, between in-store and online or in mid- or postexperience) required to successfully complete the interaction. This is not just an exercise in journey mapping or technology planning. It is about developing the front-end flow to the customer and the back-end fuel to drive intelligent experience engines.

Intelligent experience engines are not built just at the highest level of an end-to-end experience, such as enabling better security services at Brinks. They must also be surgically focused on microgoals—positive individual moments that compose the total experience—and ensure that all those goals get stitched together.

Moreover, those engines are "intelligent" in more than one way. They are crafted creatively and insightfully, using the best possible data and expertise. And they employ ever-improving machine-learning algorithms to figure out the right next step to enable the customer's progress—constantly testing, always learning, and fueling decisions about how the interaction works. What the customer gets is a seamless, positive, and distinctive experience that will only improve over time.

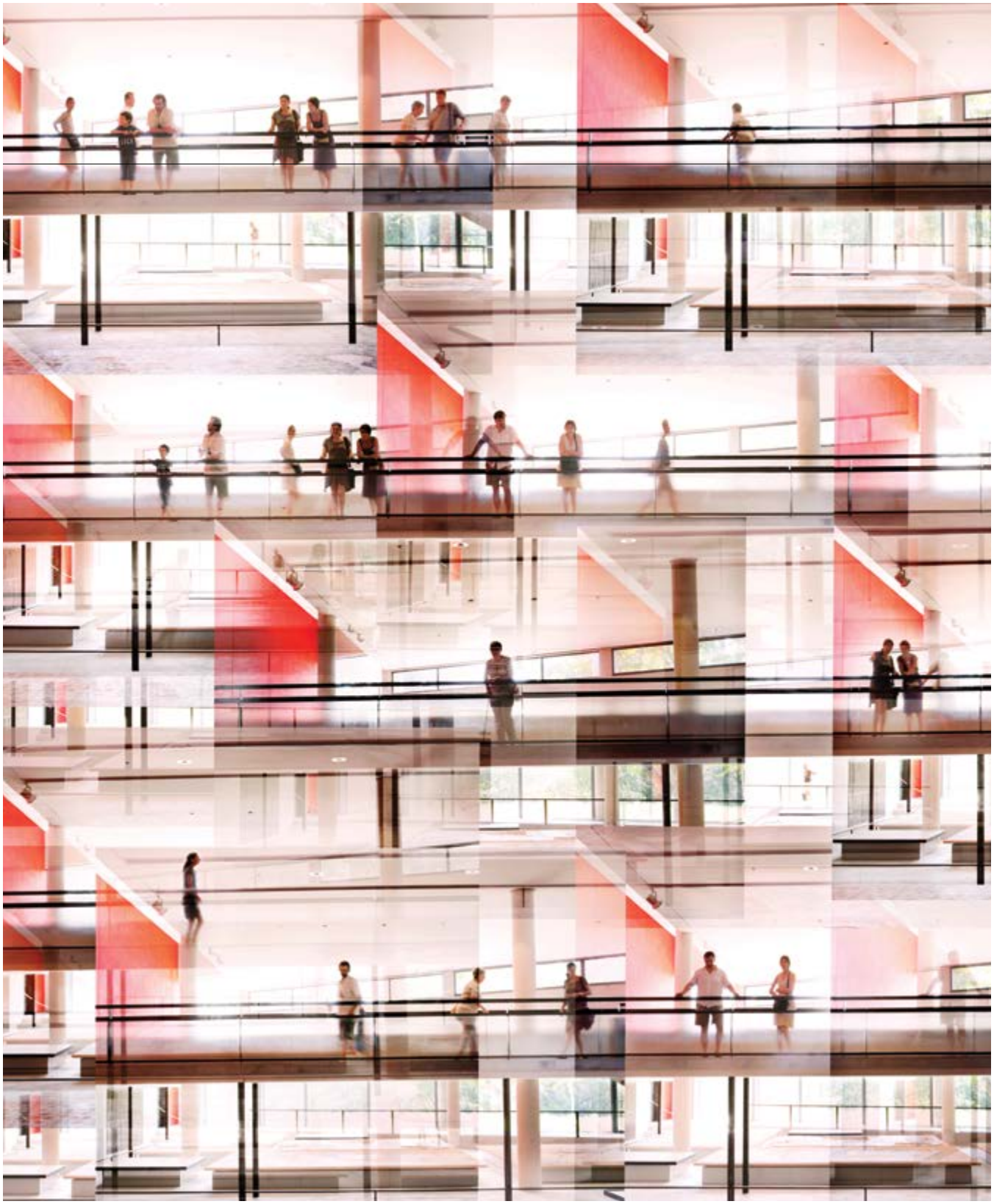
The brands that have had the most success pursue five pivotal practices, which define the craft of building intelligent experience engines. They *connect data signals and insights* from a constantly expanding range of sources. They *reimagine the end-to-end experience as a seamless flow,* powered by automated decisions. They *activate the experience across channels,* connecting touchpoints to engage customers wherever they may be. They *fulfill according to the customer's context,* always recognizing who and where someone is. And they *test relentlessly,* injecting new innovations, rigorously measuring their impact, and understanding how things affect people differently.

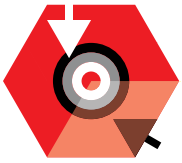
Let's consider these practices one by one, using examples of companies that are getting it right.

Connect Data Signals and Insights

The first requirement for building an intelligent experience engine is constructing a 360-degree view of each customer, using the expanding range of possible ways to capture new signals from each one. The athletic-apparel company lululemon invested heavily over the past five years to achieve this goal. When a guest makes a purchase at a retail location for the first time, she is asked to provide her email address to receive a receipt. Emails are also collected when customers sign up for free in-store yoga classes. Like many other brands, lululemon uses this personal information to augment basic customer demographics from a service like Experian or Acxiom, enabling marketing actions such as gender- and geo-based targeting.

As people continue to engage with the brand, they often download the app or shop online, and clickstream data is used to understand which items customers browsed, which ones they spent a long time considering or came back to, and which ones they quickly moved past. This data can be leveraged to infer intent and target future recommendations accordingly. In 2020, when lululemon acquired Mirror, it gained a new window into customers' behavior.





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Mirror streams fitness classes into users' homes, giving lululemon insights into customers' workout routines—preference data that helps the brand further refine recommendations for future products and services.

Reimagine the End-to-End Experience as a Seamless Flow

Qantas, Australia's leading airline, takes a broad look at the flow of travel and has invested heavily in optimizing every detail of the customer journey. This begins with the core airline business: Qantas personalizes the booking, check-in, in-lounge, and in-flight experience. For example, its app makes real-time recommendations according to where the passenger is, such as how to check in most efficiently, what time to leave for the airport, and the best route to take.

The airline has also thought beyond travel. It has built a loyalty ecosystem across categories with hundreds of partners, such as Woolworths (the leading Australian grocer), Hilton, Avis, eBay, and major Australian banks, enabling its customers to earn and spend points in novel ways according to their preferences. Its media, analytics, and research service, Red Planet, helps Qantas and many of its partners combine off-line and online behavioral data with media buying to target ad campaigns.

Qantas has also used its data to launch new businesses. For example, it designed an app with which customers can earn points for healthful habits such as taking a certain number of steps each day or working out regularly. To unlock the points, customers are invited to sign up for the airline's new health-insurance business. The app also enables the company to cross-sell travel and other products to members. To orchestrate communications about these offerings, Qantas built a marketing messaging platform that leverages AI and a library of personalized content to deliver the right message through the right channel to each customer.

Activate the Experience Across Channels

Starbucks is famous for its personalization across channels. Its app delivers gamified offers based on individual preferences and behaviors; its paid digital media ads are highly targeted; and its in-store experiences include digital menus in the drive-through that change according to weather, local customer preferences, and inventory.

Although many smaller restaurant chains struggle to compete with Starbucks's level of personalization, sweetgreen, which has only 140 stores worldwide (Starbucks has 33,000-plus), built its cross-channel experience with data and digital in mind. It launched a best-in-class app that makes it easy to create a custom salad and pick it up or have it delivered. It uses the app to roll out new digital menus and deliver personalized offers for customers, and it allows in-store customers to pay by phone. The app enabled sweetgreen to surpass Starbucks's percentage of digital engagements in 2021, with 68% of sweetgreen sales coming from digital channels, compared with only 52% for Starbucks stores in the United States.

Fulfill According to the Customer's Context

Huge retailers like Kroger and Tesco have large data and analytics teams that build algorithms for use in engaging customers in ways that are most appealing to them. Kroger's and Tesco's analytics arms—84.51° and dunnhumby, respectively—run hundreds of propensity models to decide which personalized promotions to offer which customers.

The midsize grocery chain Giant Eagle has also entered this space. It is partnering with Formation, an innovative software-as-a-service tech company, to achieve the same level of personalization in targeting its promotions. The grocer has gamified the shopping experience, rewarding its customers with loyalty points whenever they complete certain steps arranged via its app. For example, new customers might be invited to complete a "weekly shop challenge" that encourages them to come to the store once a week during a specific month to earn extra points in Giant Eagle's fuelperks+ program—good for free gasoline or discounted groceries. Loyal and long-term customers might receive points for shopping a new category that, judging from similar customer profiles, probably interests them, such as chocolate.

Test Relentlessly

Stitch Fix is a digital native that encourages and incentivizes its teams to run hundreds of experiments every month, fully expecting a third of them to fail. It feeds the data from these experiments into its intelligent experience engine to inform the next best action. It also asks customers for data directly. (See "Stitch Fix's CEO on Selling Personal Style to the Mass Market," HBR, May–June 2018.)

Stitch Fix's Style Shuffle is an interface that new subscribers can engage with when they sign up for the service. Customers swipe right for items they like and left for ones

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they don't, giving Stitch Fix a clear view of their personal taste and style. The company's algorithms then extrapolate that data from a few items to thousands of SKUs to help craft the monthly selection of apparel delivered to the customer's home.

Honing the Craft

"Competing on Customer Journeys" (HBR, November 2015), by one of us (David) and a coauthor, described how leaders reshape organizations by using cross-functional teams aligned with customer experiences. Today leaders are going further by endowing teams with even greater responsibility for leveraging data. The teams essentially serve as product managers dedicated to continually improving end-to-end customer interactions.

To begin the process we've described, you should ask: What experiences do we want to revolutionize, and how can we build an intelligent engine to achieve our goals? Once you've decided on the answers, research a few customer records in your CRM and marketing automation platforms to determine whether you've captured all the relevant data needed to power more-valuable experiences. Did you use the data to make the customer experience better? Did you do so seamlessly across channels? The answer to both questions is probably no.

Most CEOs and their C-suite colleagues claim to recognize the importance of the customer experience. But we often see more talk than action. That must change. Every company needs an explicit strategy for building an intelligent experience engine, which can align the organization toward using AI, personalization, and agile processes to build deeper, more enduring brand loyalty.

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