BIG IDEA
Why New Cloud Platforms Are Key for Delivering Mass Personalization at Scale

How Modern Sales and Marketing Professionals Can Improve Conversion-Rate Optimization

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EXECUTIVE SUMMARY

Today’s modern sales and marketing executives face massive challenges when it comes to capturing the attention of prospects and buyers. Whether for the enterprise or the consumer, more effort than ever is required to improve conversion rates and shorten sales cycles. Buyers have higher expectations with regard to how they engage with organizations, and they expect greater attention when they interact with enterprises and brands. More importantly, buyers expect mass personalization at scale on their terms.

Unfortunately, most organizations have not built out the sales and marketing journeys to support mass personalization. In fact, most leaders must apply outdated and rigid technology platforms to support these initiatives. It’s hard to craft a sophisticated product with clunky, cumbersome tools. Therefore, as enterprises and brands vie for attention from buyers and prospects, they must craft smarter approaches using smart services driven by artificial intelligence (AI). Success will require brand-new platforms that can securely support, scale and sustain the ever-changing preferences of buyers. These platforms offer powerful, analytics-driven technology while making it easier for companies to connect their existing applications.

In this report, Constellation lays out the methodology to craft these AI-driven smart services, deliver on a concept called infinite ambient orchestration and identify the attributes of new technology platforms that can support a cycle of continuous innovation.
TODAY’S MODERN SALES AND MARKETING PROFESSIONALS FACE NEW CONVERSION CHALLENGES

Complexity in the buying cycle for both the enterprise and consumer markets drives sales and marketing professionals to not only rethink their strategies but also reassess their supporting technology. Contextual relevance has emerged as a key differentiator in improving conversion rate optimization. Thus, modern sales and marketing professionals face five major challenges in delivering personalized experiences and automating them to scale:

1. **Developing account-based strategies that require sales and marketing coordination.** The days of stovepiped sales and marketing teams operating in independent silos are over. Marketing-qualified leads must be tightly coordinated with sales-qualified leads. Organizations must collaborate and align their efforts with targeted accounts and buying segments. Every interaction must be tracked and examined from all angles and selling methodologies.

2. **Buyer indifference escalates as marketing programs proliferate.** Competition for buyer attention has increased exponentially. Customers are being inundated with marketing campaigns, phone calls, event invitations and the latest promotional offers, and response rates have dropped as a result. Prospects and buyers are suffering from sales and marketing fatigue and require more-relevant messages before they will engage. Spray and pray, dial for dollars, and overpromotion have created massive indifference. In fact, Constellation sees the overall open rates for nonpersonalized email campaigns down from 14.7 percent to 12.3 percent of emails sent. Meanwhile, personalized emails have high average open rates that range across industries from 27.19 percent to 53.45 percent.

3. **Enterprise procurement process requires more decision makers.** Just five years ago, sales and marketing professionals could count on shorter conversion cycles. With an average of two to three decision makers involved, deals required less effort. Today, the average enterprise deal requires five to seven decision makers. More decision points add up to longer buying cycles. In turn, extended buying cycles require more sophistication in marketing and sales techniques.

4. **Consumer buyers trade loyalty for anything else.** The mirage of customer loyalty in consumers has faded away. Buyers trade loyalty for convenience such as one-touch-click purchasing.
also trade loyalty for value, seeking the best bargain, free shipping or more rewards points. Finally, they trade loyalty for status in order to seem fashion-forward or socially responsible. The result? Nonpersonalized offers generate electronic waste.

5. **Buyers have multiple personas and roles.** Black-and-white segmentation is no longer valid. Multiple buying personas contextually exist as customers’ needs change based on their role, the time of day, geospatial location, weather and sentiment. A bad experience with an enterprise or brand in one role crosses into other buying cycles. Static and one-dimensional models result in failed marketing and sales efforts.

**CUSTOMERS RARELY ENCOUNTER MASS PERSONALIZATION AT SCALE ON THEIR TERMS**

Over the past four decades, valiant attempts at personalization have failed due to the lack of relevant and intelligent automation. At the same time, expectations of consumers and prospects have grown. The result is an expectations gap in personalization that manifests itself in more-fickle consumers and greater unpredictability in revenue for enterprises, brands and retailers. The inability to relevantly connect and effectively engage with consumers reflects some underlying truths that affect sales and marketing professionals:

1. **Stakeholders expect mass personalization.** In an age of digital disruption, customers, partners, suppliers and employees have grown accustomed to massive market choice, a plethora of pricing and policy options, and convenient delivery. The rise in expectations creates an insatiable cycle of satisfaction and disappointment that an omnichannel approach alone cannot deliver. Today, an omnichannel approach plays only a temporary role because organizations must progress forward.

2. **Lack of relevance leads to lack of engagement.** Contextual relevance can be correlated to an immediate effect on the top line. Constellation estimates that lack of content relevance often results in 83 percent lower response rates in the average marketing campaign. Conversely, personalized contextual relevance gained by factors such as the time of day, geospatial location, weather and identity improves commerce conversions between two to three times over nonpersonalized
campaigns. Context provides brands and organizations with the relevance to earn the permission to engage with customers.

3. **Manual management of personalization overwhelms most organizations.** Legacy approaches are not designed for creating large-scale individualization and cannot be retrofitted. These systems classify individuals into forced-fit, binary segments. Often, individuals who belong to multiple segments and use cases are frustrated with this approach. Sadly, most existing systems fail to handle the management of rules engines, policies, complex event processing and preferences at the segment level—never mind on the individual level. Of those who attempt manual personalization, most ultimately fail because of the complexities in managing personalization without using much technology. Moreover, sales, marketing and distribution systems must scale from hundreds of thousands to millions and even billions of customers.

4. **Static systems miss emerging market shifts.** Technologies can no longer be static. Legacy personalization systems deceptively start out easy to use but end up as cumbersome anchors years later. In an era of dynamic markets, supporting technology must identify new demand signals; assess, analyze and act on new demand signals; and apply cognitive and machine learning capabilities to adapt.

**AI-DRIVEN SMART SERVICES DELIVER MASS PERSONALIZATION FOR DIGITAL TRANSFORMATION**

Currently, the fashionable approach for mass personalization at scale comes from predictive models, which are a significant improvement over legacy system processes. Prediction does a great job of using past history to foretell future patterns. But with AI, systems are moving into intention-driven models. An intention-driven system goes further than predictive, testing for shifts in patterns by setting up hypotheses and awaiting the results.

“Context provides brands and organizations with the relevance to earn the permission to engage with customers.”
If one knows a person always gets a specific type of coffee at the same time every day, that’s predictive. But an intention-driven system will test to see what type of coffee is purchased based on time of day, weather, relationships, location and even sentiment gathered from heart rate or actions. The test comes from an offer or by studying shifts in patterns and behaviors. This self-learning and self-adjusting capability is powered by cognitive computing approaches. In fact, this algorithm-driven intelligence eventually will think on its own.

Digital transformation describes a shift in business models and approaches to engagement with customers, prospects, partners, employees and suppliers. AI-driven smart services provide the backbone behind these business-model transformations. Consequently, crafting AI-driven smart services requires a shift in thinking to atomic-driven smart services. In fact, these new AI-driven smart services rely on four key components (see Figure 1):

- **Digital footprints and data exhaust use AI to build anonymous and explicit profiles.** Every individual, device or network provides some information. That digital footprint or exhaust could come from facial analysis, a network IP address or even one’s walking gait. Using AI and cognitive reckoning, systems can start to analyze patterns and correlate identity. That means that AI services will recognize and know individuals across different contexts and take an intention-driven approach.

- **Mass personalization at scale delivers intention-driven digital services.** Anticipatory analytics, catalysts and choices interact to power mass personalization at scale. Anticipatory analytics allow customers to “skate where the puck will be.” Catalysts provide offers or triggers for response. Choices allow customers to make their own decisions. Each individual or machine will have its own experience in contexts depending on identity, historical preferences and needs at the time. With context-driven offers and multivariable testing on available choices, the AI systems will offer statistically driven choices to incite action. With no real beginning or ending, expect these systems to work like a *Choose Your Own Adventure* book. Funnels fall aside as customers, partners, employees and vendors jump in across processes, make their own decisions and craft their own experiences on their own terms. Journey maps must account for infinite journeys and support the customer-centric points of view.
• **Value exchange completes the orchestration of trust.** Once an action is taken, value exchange cements the transaction. Monetary, nonmonetary and consensus are three common forms of value exchange. While monetary value exchange might be the most obvious, nonmonetary value exchange (including recognition, access and influence) often provides a compelling form of value. Meanwhile, a simple consensus or agreement can also deliver value exchange, such as on the veracity of a land title or the terms of a patient treatment protocol.

• **Cadence and feedback complete an AI-powered learning cycle.** Powered by machine learning and other AI tools, smart services consider the cadence of delivery: one-time, ad hoc, repetitive, subscription-based and threshold-driven. Using machine learning techniques, the system studies how the smart services are delivered and applies this to future interactions.
EVERY AI-DRIVEN SMART PROCESS SUPPORTS INFINITE AMBIENT ORCHESTRATION

The quest for mass personalization at scale in an era of AI has led to new models of design for the future of applications. One design point for these new AI-driven smart apps is a concept called infinite ambient orchestration.

The three components can be described as:

1. **Infinite.** The design point should consider contextually relevant and relative journey design. These journeys have no beginning or end and represent intention-driven headless microservices, which aren’t tied to a single user interface. Journeys deliver both stateful and stateless interactions.

2. **Ambient.** Elements of AI provide contextual relevance. These capabilities make right-time recommendations to augment decision-making and in many cases power situational awareness. The goal is to achieve next-best actions, such as next-best prospect, next-best campaign, next-best content, next-best offer and next-best decision.

3. **Orchestration.** In an age of access, not ownership, systems must orchestrate across insight, process, platforms and ecosystems. Orchestration traverses the wide range of systems in the organization from transactional, engagement, experiential and mass-personalized systems to address new business challenges.
SALES AND MARKETING LEADERS WILL USE AI TO FOCUS ON BUSINESS OUTCOMES

The combination of machine learning, deep learning, natural language processing and cognitive computing changes the ways that customers and prospects interact with their environments. AI-driven smart services will sense one's surroundings, know one's preferences from past behavior and subtly guide people and machines through their daily lives in ways that will truly feel seamless. This quest to deliver AI-driven smart services across all industries and business processes will usher in the most significant shift in computing and business this decade and beyond.

Organizations can expect AI-driven smart services to deeply affect the entire campaign-to-commerce flow and transform customer experience journeys. Success requires the establishment of AI outcomes (see Figure 2). Once the outcomes are established, organizations can craft AI-driven smart services that orchestrate, automate and deliver mass personalization at scale.

The disruptive nature of AI comes from the speed, precision and the capacity to augment humanity. When AI is defined through the following seven outcomes, the business value of AI projects gains meaning:

1. **Perception describes what's happening now.** The first set of outcomes describes surroundings as manually programmed. Perception provides you with a “digital boardroom” that monitors the organization's surroundings.

2. **Notification tells you what you asked to know.** Notifications through alerts, workflows, reminders and other signals help deliver additional information through manual input and learning. By delivering insight at the right time for the right decision in the right form factor, leaders can make decisions.

3. **Suggestion recommends action.** Suggestions build on past behaviors and are modified over time based on weighted attributes, decision management and machine learning. Studying past actions provides a framework for understanding decision-making. Over time, the systems learn preferences and identify patterns of decisions, establishing future suggestions.
4. **Automation repeats what you always want to do.** Automation enables leverage as machine learning matures over time and with tuning. Once the system identifies patterns of action, training of the system will automate decisions and reduce the false positives and identify exceptions to the automation algorithms.

5. **Prediction informs you what to expect.** Prediction starts to build on deep learning and neural networks to anticipate and test for behaviors. As more and more demand signals populate the model and systems train to identify and incorporate exceptions, predictions gain accuracy and precision.

6. **Prevention helps you avoid bad outcomes.** Prevention applies cognitive reckoning to identify potential threats. Working toward situational awareness, the systems can prevent compliance issues, de-risk regulatory exposure and reduce legal liability.

7. **Situational awareness tells you what you need to know right now.** Situational awareness comes close to mimicking human capabilities in decision-making. While not perfect, additional training and pairing with new systems will help these systems with decision-making at scale.
RECOMMENDATIONS: NEW PLATFORMS REQUIRED

Existing personalization systems for sales and marketing professionals often pull from legacy transactional and engagement systems such as their customer relationship management software and social software. Unfortunately, these systems lack key attributes required to support mass personalization and AI-driven systems. Consequently, to support the next-generation requirements of sales and marketing professionals, organizations will need to either build on top of new cloud platforms or buy key technologies to support these initiatives. New cloud platforms must have inherent AI and machine learning capabilities while being able to connect all data and deliver timely mass personalization.

For instance, mass personalized systems start with a design point of being intention-driven (see Figure 3). These systems solve for massive individual scale and deliver personalized user experiences. The communication style moves from role-tailored to sentient. Mass personalized systems move from right-time delivery to anticipatory delivery through peer-to-peer networks. Information is managed using self-aware knowledge bases built on predictive intelligence. These attributes require very different approaches of design and thus a new technology platform. While prevalent in areas such as ad networks and gamification, mass personalization capabilities are lacking in today's systems for sales and marketing professionals.

Meanwhile, on the journey to AI-driven systems, existing platforms often are not replaced. In fact, organizations will build on top of these systems and abstract information into new ones. For example, in the airline and travel industry, many mobile apps abstract data from mainframe systems. This mobilizing of the mainframe occurs as designers build experiential systems that pull from a transactional system and an engagement system to craft new experiences. The shift from experiential systems to mass personalized will work in the same manner. Organizations will pull from experiential systems to add a layer of mass personalization on top of journeys. Over time, AI-driven systems will build from the learnings of these mass-personalized systems through machine learning and neural networks.

In today’s post-sale, on-demand, attention-driven economy, sales and marketing professionals must reimagine how they can craft journeys that incorporate mass personalization at scale to gain relevancy.
and deliver on their brand promises. Success requires a reexamination of their existing technology environment and understanding that most legacy systems will serve as a barrier to success.

Success will require a new class of technology that can deliver on mass personalization while building on experiential, engagement and transactional systems. With this foundation in place, new cloud platforms will emerge to take organizations and brands into the future of AI-driven systems.
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- Organizers of the Constellation Connected Enterprise—an innovation summit and best practices knowledge-sharing retreat for business leaders.
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