

Transform Customer Experiences by Harnessing the Power of AI in CRM



Companies are using AI to build personalized and dynamic experiences to engage both internal and external audiences.

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When elite skiers set out to conquer the world's most challenging mountains, they need the best equipment. They can't just browse idly at the local ski shop. Going online to buy high-end equipment such as avalanche airbags and climbing skins, these skiers often already know exactly what they need to keep them safe and competitive in the mountains. To expedite the shopping experience, [Black Diamond Equipment, Ltd.](#), an online retailer of high-end skiing and hiking equipment, takes an active role in predicting their needs and immediately pushes the right items to shoppers, rather than waiting until they check out to make suggestions.

The site relies on a sophisticated analysis of a customer's past purchases, current weather conditions, and other points of insight to decide which products it pushes to customers. Shoppers obviously appreciate this customized experience: Purchasing is up by 10 percent and cart abandonment rates have dropped significantly.

Black Diamond is indeed a pioneer. Long before its competitors, it recognized that the old-school experiences for browsing, shopping, and service just wouldn't cut it anymore. Increasing customer demand drives the company to provide a personalized experience for every shopper. Powered by artificial intelligence (AI), this experience incorporates the ability to predictively sort products based on what it learns from a particular shopper's browsing habits, to auto-complete that shopper's search terms, and to return relevant search results. So, if a customer searches for "boots in coral," the engine returns a selection of orange boots via natural language processing (NLP).

The good news for groundbreaking retailers wanting to follow Black Diamond's example is that providing these high-octane experiences is now well within reach – when AI is embedded into their commerce and customer relationship management (CRM) platforms. Indeed, the business world is now entering a golden age of AI, and both customers and employees can expect to reap the benefits. AI startups received more than \$5 billion in venture-capital funding in 2016, according to CB Insights, and IDC projects that worldwide [revenues](#) from cognitive systems and AI will reach \$47 billion by 2020. Across industries, regions, and functions, the opportunities are significant. [Accenture](#) predicts AI will double annual economic growth in 12 countries by 2035.



Meanwhile, the implications for both internal and external customer experiences are equally compelling. Advances in algorithms and computing power, combined with the abundance of data for AI algorithms to learn from, add up to powerful new uses of AI to propel customer experiences that are not only responsive and personalized – but are also predictive.

The challenge is determining how to start developing the right processes and expertise for collecting data, and build the relevant AI algorithms and models, swiftly enough to fully reap the benefits. Most companies find it difficult, if not impossible, to accomplish those tasks on their own, given the dearth of data scientists and the need to rapidly build new systems, apps, and capabilities. That's why having AI already embedded into CRM significantly boosts the ability to deliver smart, high-impact customer experiences quickly and effectively. Just ask Black Diamond Equipment, which bases its business on these capabilities.

AI Embedded into CRM: How it Works

Customer intelligence starts with rich customer data residing in one location, providing a single comprehensive view of each customer. Without data, AI algorithms, no matter how advanced, will not be able to deliver meaningful predictive experiences.

“Individuals and customers now expect a unique experience – they don’t want to be treated like a generic customer or employee,” says Angelos Kottas, senior director, Product Marketing Platform at Salesforce. “They want contextualized, personalized, and connected experiences, with all their interactions with a business tied together.”

The challenge to date: providing that sort of rich insight into the customer has required the right data analytics expertise and staffing to be able to collect, mine, analyze and use the data to predict behavior. But organizations typically store customer data in a number of disparate systems. Meanwhile, many sources generate unstructured customer data, including customer web-browsing data, e-mail interactions with customers integrated into CRM, purchase history from ERP, service history, records from physical store visits, and interactions with multiple Internet of Things (IoT) devices at home and in stores. A comprehensive CRM platform – such as Salesforce Einstein, an integrated set of AI technologies – provides users with access to all the possibilities of the data without the complexities.

Moreover, this approach turns a CRM platform into an ideal technology choice not only to manage customer relationships, but to build all types of apps and experiences, from an accounts-receivable app to predict late payments to a supply-chain app to manage stock levels based on predicted demand. Using the same data model, business logic, and the experience layer that powers the CRM – combined with the simple, point-and-click way of creating apps – both IT and business users can leverage a boost of intelligence to deliver AI-powered experiences to anyone.



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Next-Generation Personalized Customer Experiences

Unlike traditional customer-facing platforms that deliver a fragmented view of the buyer, an intelligent platform presents a single aggregated view of customer data. The built-in intelligence layer helps businesses spot trends, anticipate needs, and respond more proactively. With that complete picture, for example, a business knows exactly when the customer last purchased a product, what that product was, whether he or she had a problem, and, if so, exactly how it was resolved.

Then, the wide range of machine-learning (ML) models learn from what is collected to unearth and match patterns, as well as act on correlations that would otherwise remain hidden.

Using a consumer shopping experience as an example, AI models embedded within the CRM system's personalization engine take into account the catalog that any given shopper sees and the context on how the merchant is engaging with that shopper, and then rank every product for that buyer in terms of relevance from search results, making for the most targeted and personalized results ever. This is done at scale, constantly refining shopper recommendations based on learning.



The data for such recommendations include both historic and real-time click-stream data from multiple sources. What is challenging is that the algorithms used to create predictions are as heterogeneous as the sources of data used. To deliver predictive recommendations with the highest accuracy, a range of different algorithms is applied. In selecting the right algorithm, the champion-challenger model is used, meaning that every time an algorithm yields higher accuracy, it is automatically set to default over other models within the platform. That way, the path to personalization is very short. The end result of such accurate recommendations is that both customer conversions and the overall potential value of the merchant's inventory goes up.

Beyond recommending products, other powerful capabilities that enhance CRM for both employee and customer experiences include the algorithms for speech recognition, sentiment analysis, intent, content summarization through natural language processing, and question answering based on tables of data.

But how can an IT organization within an enterprise possibly use all these capabilities without extensive R&D and development capabilities? The key to the embedded intelligence layer within the Salesforce CRM is the visual-programming capabilities for enabling AI for any app, without the need to have a team of data scientists on standby. Everyone in the organization – from programmers to business users – can collaborate to create the right customer experience using iterative, rapid prototyping.

AI for Everyone

Because Einstein is much less complicated to use than traditional, heavyweight AI tools, organizations can transform employee and customer experiences in dramatically less time than used to be required. Previously, those using AI have struggled with the complexity of data preparation and integration. But the biggest hurdle was in finding the requisite data science expertise needed to build algorithms and create the engine for automating their application.

The phrase “artificial intelligence” may conjure up images of robots and self-driving cars, says Jim Sinai, vice president of Marketing, Salesforce Einstein. However, many advanced AI capabilities derive from software aiding human decision-making, as opposed to machines doing jobs previously accomplished by humans. “Software is going to get smarter,” says Sinai. “The net result is using software will be easier, allowing employees to focus on doing the things that they are really good at, which is connecting with customers both inside and outside the organization.

Working in concert, Einstein's AI features and the Salesforce platform enable greater process automation within sales, marketing, service, and commerce. They can reduce the friction of business processes in those areas as much as possible, says Sinai. This means everything from subtle nuances to improving customer happiness to game-changing capabilities.

“Einstein helps marketers target advertising so that consumers are served the right ad at the right time,” says Sinai. Consumers are annoyed by irrelevant ads, but are often open to germane and personalized marketing messages. In his view, the ability to customize those messages and fit them to the context is a major advance in online customer experience.



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Sinai cites a simple example of a job-hunting customer buying a business suit from an online retailer. The customer receives the wrong size suit – certainly a frustrating experience, especially if there’s a job interview coming up. Interacting with an automated call center agent bot is more satisfying than usual, though, when the capabilities of Einstein’s AI are utilized through the Salesforce platform. Rather than requiring the customer to repeatedly enter the same information, the interaction is powered by the immediate awareness of the full range of that customer’s data; for that reason, the process runs smoothly. The automated agent can better “realize” the importance of the customer promptly receiving a properly fitted suit, based on the data from all the customer’s sales and service activities with the retailer.

Salesforce users “feed” data into the Einstein system to train its algorithms, which then inform and improve the customer experience to provide more personalized service. Associates can train Einstein to visually recognize whatever product or image is important to the company, such as a logo, Kottas says. They can also train the system to recognize context requiring immediate intervention, such as an unhappy customer venting on Twitter or some other social-media forum.

Providing those extensive capabilities as a retailer is similar to an automotive dealer selling “connected” vehicles. Those vehicles, and the people who sell and service them, have intelligence at their fingertips. That intelligent data helps them proactively send reminders for an oil change, alert drivers to potential brake failure based on driving patterns, or initiate a new lease offer when mileage limits are within range.

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E-commerce providers can elevate the buying experience in a similar fashion with automated, personalized recommendations and special offers that draw in shoppers. Retailers can enlist Einstein’s NLP and ML capabilities in a support center environment to promote customer self-service. That embedded intelligence can even learn from conversation history and previous interactions to coach sales reps in the next steps they need to take to reach what is likely to be the best result for the customer.



Einstein Behind the Scenes

Building custom apps to provide personalized next-generation customer experience has typically proven cumbersome and expensive. Companies have needed teams of data scientists to sample and cleanse the data, build algorithms, run queries, select features, choose the models, integrate to other systems, calibrate scores, and connect to external tools for AI and ML capabilities.

And there is currently a serious shortage of such scientists. According to [IDC](#), U.S. businesses will need 181,000 people with deep analytical skills, and five times that number with data management and interpretation skills, within the next year. A [McKinsey study](#) predicts that the number of data science jobs in the U.S. alone will exceed 490,000 in 2018. However, there will be fewer than 200,000 available data scientists to fill these positions. Most organizations have neither the financial resources nor the time to realistically pursue these elite professionals.

A customer intelligence platform such as Salesforce Einstein bridges the gap. It helps organizations create innovative and compelling customer experiences without having to hire data scientists. An organization's current staff, whether they are programmers or business analysts, can add AI to apps and experiences with simple point-and-click tools.

Salesforce also gives users the flexibility to use pre-built AI models or build new ones using external AI application programming interfaces (APIs) and algorithms. "With Salesforce Einstein, we do the data prep, we have built the models and the predictions and calibrated those models and we have plumbed it directly into the system," Kottas says. "This tool democratizes AI and puts it in reach for all."

Fanatics: Build Emotional Ties with Customers

Predicting customers' future behaviors and needs often turns on the ability to parse their emotions, more than just their past purchases, and create a shared bond. Online sports retailer Fanatics is a powerful case in point.

To Red Sox fans, sending Babe Ruth to the Yankees in 1919 was baseball's original sin. For 86 years, the Curse of the Bambino weighed heavily on the Sox, ushering a championship drought that lasted until 2004. The animosity between the baseball rivals intensified over nearly a century, fueled by a handful of high-profile losses, some brutal brawls, and intensely passionate fans.

Sports merchandise is an emotional business. For a retailer like Fanatics, understanding and respecting fans' preferences has been critical to its success. "We want to deliver the most relevant merchandise to you, at the right time, for your team," says Jonathan Wilbur, the company's director of CRM. "If you're a Yankees fan, we want to make sure we're never showing you anything Boston Red Sox."



When a team wins the Super Bowl, we can have 350 products live with a press of a button three seconds after the game.



– Jonathan Wilbur, Director of CRM, Salesforce Marketing Cloud

The company's ability to engage with customers around the biggest sporting events in near real time is unmatched. Fanatics carries merchandise for more than 1,000 professional and college teams, including those in the National Football League, Major League Baseball, the National Basketball Association, the National Hockey League, NASCAR, and soccer leagues, plus a growing roster of international teams. The company is event-driven, engaging fans around everything from the World Series to football star Peyton Manning's retirement announcement. Multiply a thousand teams by an endless stream of sports news and events, and you've got billions of e-mails going to fans each year.

"In 2015, we sent about 3.5 billion messages," says Wilbur. When he joined Fanatics in 2009, the company was using a homegrown, SQL-based email system. Nothing on the market provided the control over targeting marketing they needed. Today, his teams use Salesforce Marketing Cloud to run their campaigns. They're able to create highly personalized, dynamic messages.

Fanatics used Marketing Cloud to send 15 million e-mails within 10 minutes following Super Bowl 50 in February 2016. Wilbur's teams built scripts that searched customer data to display fans' favorite teams, pulled in real-time scores and stats from vendor feeds, and personalized branding using partner IDs.

The resulting campaigns were customized according to multi-tier segments. Fanatics was able to deliver merchandise relevant to fans and their teams at just the right time. Carolina Panthers fans didn't get e-mails about "Super Bowl Champs" T-shirts after their team lost the big game, but Denver Broncos fans had offers in their inboxes within minutes after the final whistle.

Now they have further automated the process. Wilbur is now using Journey Builder to create automatically triggered rules-driven campaigns based on dynamic information. "Any time a baseball player hits three home runs in a game, we'll send an e-mail featuring his jersey. Set it and forget it," he says.

Fanatics is also looking to its NBA store in New York and venue-based experiences at NASCAR races to build more holistic views of its fans. In the meantime, those fans continue watching and supporting their favorite teams. Fanatics is ready to engage with them the instant there is a newsworthy moment. "When a team wins the Super Bowl, we can have 350 products live with a press of a button three seconds after the game," says Wilbur. None of those products are ever marketed to fans of the wrong team.



IT's New Role in AI

For all its power and capability, though, Einstein democratizes the experience of developing high-powered custom apps that leverage advanced capabilities.

The platform's meta-data-driven model and infrastructure abstraction layer eliminates the heavy lifting typically associated with building custom apps and workflows.

The Salesforce platform provides point-and-click development tools that open app-building to those users closest to understanding customer pain points and business problems. It invites them deep into the process of initiating new products and services without adding to the IT backlog.

This fundamentally shifts the role of IT from “command and control” to “coaching and collaboration.” With open APIs, a meta-data-driven model, and integration at the database and process level, companies can leverage the Salesforce platform to extend customer intelligence to any workflow and service. This ensures that customer centricity is at the heart of every interaction and every operation.

Rather than simply working on transactions and tending to housekeeping and operational tasks, IT is empowered to focus on value-added and strategic objectives. This elevates its role in the customer-engagement process. The Salesforce platform's

no- to low-code programming environment brings non-technical business users into the development fold. Having customer service and marketing teams actively participate in the development process expands the knowledge base of people working on customer-centric solutions.

“As part of the platform, Einstein declaratively sets up what it used to take a data scientist to do,” says Jon Sigler, senior vice president at Salesforce. “Every tool in the Salesforce ecosystem can take advantage of it. It’s baked into the system.”

Improve the Employee Experience

It’s not just customers who expect more from the brands and providers they patronize these days. Employees also have increasingly sophisticated expectations. The forces of digital disruption set the bar high for intuitive experiences that anticipate what someone likes – or doesn’t like – and serves up what they need or desire at any moment. That includes improving employees’ digital experiences on the job.

As people acclimate to higher levels of engagement in their personal lives, they come to expect comparable flexibility, interactivity, and productivity with the tools and business processes they use to do their work. “The customer is everywhere,” says Eric Jacobson, senior director of platform product management at Salesforce. “You need to embrace that employees are also customers, and therefore make experiences better for everyone.”

To stay ahead, companies need to use personalized platforms with advanced capabilities such as AI and ML. These platforms are powered by the terabytes of data companies now collect to create personalized customer experiences that evolve with consumer preferences and needs. Emphasizing a customer-centric focus throughout every experience, and every step of every business process, can provide organizations with serious competitive advantage. An intelligent customer platform provides the ideal springboard for this next phase of business and digital transformation.

For more information on Salesforce technology and digital transformation, visit salesforce.com





Taking Flight in the Airline Industry

One global airline has taken off on a mission to improve its customer experience by greatly expanding available services. The airline has used Salesforce's Marketing Cloud, Service Cloud, and Chatter for years to handle an increasing number of interactions over social media. Customers can also handle routine tasks on their own, such as getting flight confirmations and boarding passes via popular social media venues such as Facebook Messenger.

As more customers use a wider variety of social-media channels, the airline is branching out with Salesforce's AI and ML capabilities. It's helping its service representatives engage in more personalized customer conversations, better answer questions, and more effectively solve problems. Leveraging the DigitalGenius application along with the Salesforce platform, the system builds on previous customer-agent interactions and continues to learn and improve responses based on agent behaviors. This airline isn't replacing its human agents with automated responses; instead, it is leveraging the technology to help its people provide smarter and more personalized responses that ultimately improve individual customer experiences.



Rolling Smarter in Transportation

A small vehicle manufacturer was widely considered a leader in vehicular technology. However, using outdated and disparate systems for sales, service, and marketing hampered the company's ability to provide highly personalized customer service.

By using an intelligent customer platform and the Salesforce Ignite customer-innovation program, this manufacturer was able to retool its entire business around a seamless human-centered customer experience. First, the platform pushes out targeted, relevant content to engage prospects and optimize lead generation. From there, the company offers an Internet of Things (IoT)-connected vehicle that supports a next-generation owner experience.

Owners can remotely diagnose problems with their vehicle using an app. They can even receive service on the spot since the company's technicians have access to key data via the IoT. When it's time for a feature upgrade, owners don't have to bring the vehicle into a shop. They simply receive automatic firmware updates remotely, streamlining the experience and reducing service costs.



Salesforce Einstein: The Elements for True Customer Intelligence

Salesforce Einstein can enhance the digital experience for those working in several roles and with differing levels of responsibilities:

- Sales Cloud Einstein improves the professional experience for sales reps by scoring leads, pointing to prospects most likely to convert into customers. The system also identifies deals in the pipeline most likely to yield sales.
- Marketing Cloud Einstein provides more insightful recommendations to increase average order values, convert more anonymous web visitors, and more quickly recommend the next best product, content, or offer for customers on any channel.
- Einstein Social Insights helps marketers manage social interactions by automatically analyzing their tone, sentiment, and degree of spam. These tools get to the heart of each function, turbocharging processes and increasing employee effectiveness and satisfaction.

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