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Making Immediate Impact with AI

How E-commerce Brands Are Using Marketing's Hottest Technology to Go from Reactive to Proactive, Boost Conversions, & Predict Revenue

Contents

Abstract

Up until now, e-commerce and retail marketers have been reacting to customer interactions, events, and behavior.

This mentality has made it difficult for marketers to personalize content, offers, and timing of communications in advance of events actually happening. It's been next to impossible to predict customers' buying probability, their likelihood to convert on specific offers, and their projected business value over time — creating a "best guess" mentality when it comes to campaign execution.

It also makes it difficult for marketing leaders to predict the lifetime value of individual contacts and make larger-scale projections like anticipating marketing-attributed revenue for the quarter ahead.

Artificial intelligence carries the potential to completely reshape how marketers and executives run their businesses, but operational challenges are inhibiting many from adopting and implementing the most transformational technology the world has ever seen.

While 85% of marketers say AI will have "significant impact on the marketing industry" in the next five years, 54% do not understand AI marketing, and many more remain uncertain about how they can operationalize AI for predictive marketing.

AI allows marketing organizations to get in front of customers by intelligently automating nearly every activity and predicting who needs what when — with the ability to drive value in days, not months.

For brands on the leading edge, AI is helping unlock new dimensions of their marketing, optimize resources, anticipate how customer behavior will impact the business, and make decisions on what to do about it in advance. Companies like U.K. fashion retailer BrandAlley are unlocking previously unknown insights with AI.

This whitepaper explains how AI is helping marketers go from reactive to proactive marketing by predicting who is likely to buy, when they are likely to buy and how much they'll spend on their next purchase. It also covers how to overcome challenges within weeks and impact your next quarter's revenue.

As the underlying fabric of a solution, woven into the code itself, AI can help organizations redefine what customer experience looks and feels like in the modern era.

Introduction: AI Marketing in E-commerce

Since the advent of marketing, brands have been reacting to customer events — restricted by behavioral data generated in the past and confined by the capabilities of whatever automation tools were being employed.

At most, companies have been able to personalize select content to certain segments some of the time. But most of the time, this content is based on limited insights and customer experiences have mostly been "hit or miss." Customer interactions have become stale, and by the time marketers react, it might be too late.

Marketing leaders need to understand more about their database. They need to know the lifetime value of database members and segments, who is likely to churn, and be able to accurately predict revenue potential for those segments (and for the business as a whole) in the months ahead.
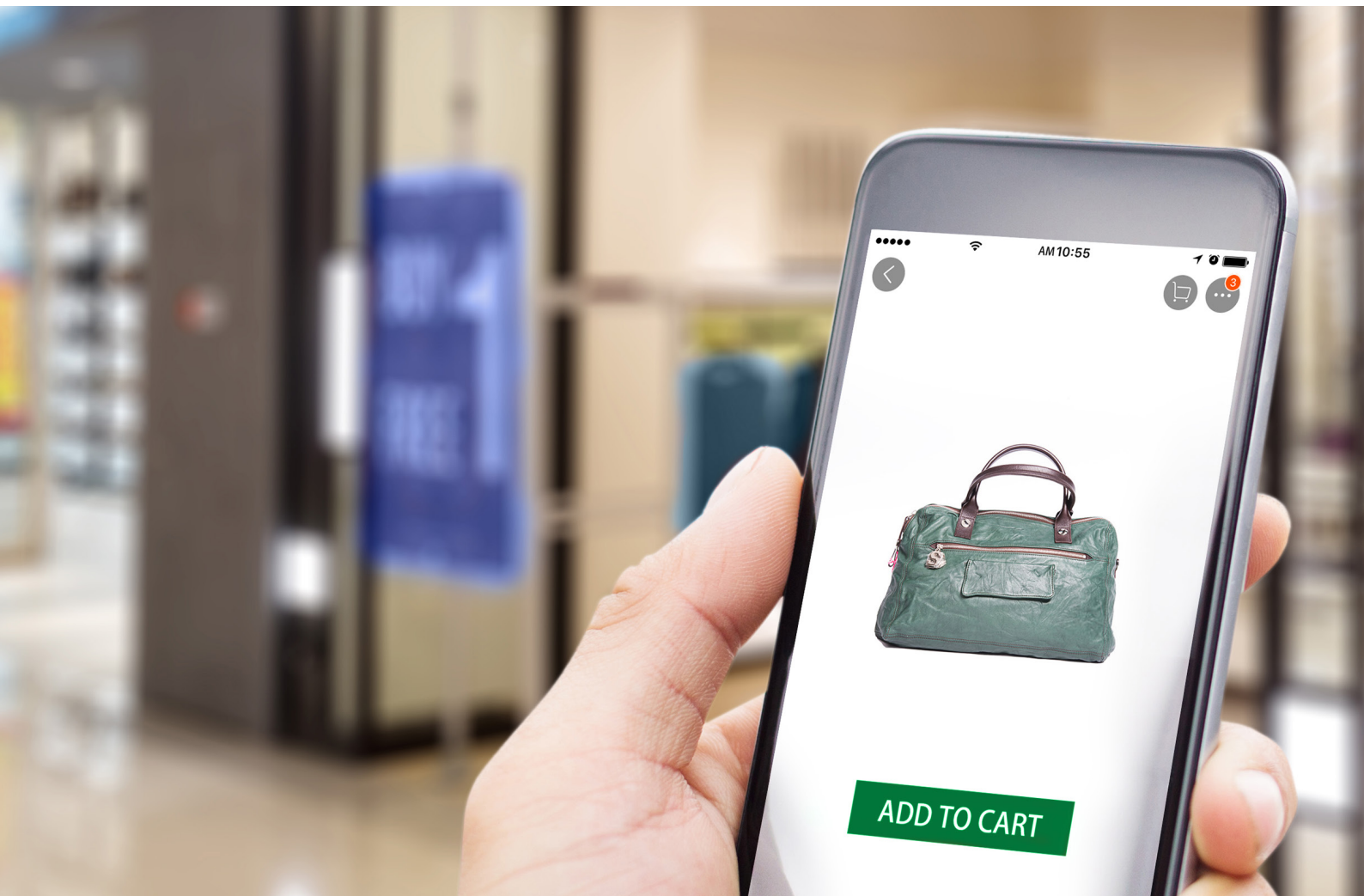
Without the technology to help, many brands don't even know what they don't know about customers!

Retail and e-commerce marketers have long needed something more — they need insights and information about individuals (and the segments they're a part of) well in advance of events actually happening. Armed with this predictive intelligence, brands can predict what a customer is worth, their buying probability, and their likelihood to convert on specific offers… just to name a few.

The ability to solve for this pervasive issue lies in what some believe is the most transformational technology in history: artificial intelligence.

AI has propelled the Fourth Industrial Revolution and e-commerce and retail brands across the globe bold enough to learn about its benefits are taking advantage across a myriad of use cases.

With AI, brands are unlocking new dimensions of their marketing and finding new insights about lifecycle segments.

The ability to work with AI is evident for the entire marketing organization:

- For **marketing professionals** in their day-to-day, machine learning handles and executes data analysis, decision-making, and next-best actions. Predictive analytics allow marketing practitioners to project dozens of metrics like CLV, buying probability, the value of a specific group of customers, customers that are most likely to remain loyal, customers likely to churn or convert, whether a lead has good value, and overall revenue. Marketers are getting in front of customers by intelligently automating the execution of next-best offers, 1-to-1 content, individualized incentives, and more.

- For marketing leaders, AI helps predict the lifetime value of individual contacts and permutations of different segments. It can predict revenue potential for those segments (and for the business as a whole) in the months ahead. Without AI, marketing leaders *don't even know what they don't know.* This has an unseen yet massive impact on how business leaders allocate budget for marketing efforts and project the value of marketing as a function within the business.

Our primary focus will be on how AI is impacting and improving marketers' lives by enabling proactive action in lieu of reactive messaging.

This paper will offer practical information to help you create impact by working in tandem with AI as the strategic partner it's meant to be for 2020 and beyond.

What's Holding Brands Back?

Artificial intelligence marketing can completely reshape how marketers and executives run their businesses, but challenges still inhibit many from adopting it.

Only 37% of organizations are investigating potential use cases for AI. 54% of marketers do not understand AI marketing, and many more remain uncertain about how it actually allows them to be more proactive and make predictions about events.

A number of other perceived blockages have kept e-commerce organizations from testing or piloting AI solutions, including:

‣ **Status quo and business as usual.** E-commerce and retail brands have been reactive in the past. Making the mind shift is something some brands just aren't ready to do.

‣ **Pressure to perform.** With so much already on their plate, many marketing teams are strapped for time. AI may seem daunting.

‣ **Integrations.** With giant tech stacks accumulated over months or years, the mending of disparate systems could pose operational or IT risk..

Combined, these obstacles only perpetuate ongoing and pervasive issues — issues that AI could solve if better understood, tested, and eventually adopted.

Still, 88% of marketers believe AI has already, or will, reinvent the marketing industry. According to a Drum report, 85% are optimistic about AI's impact over the next five years.

These marketers know something that the minority of the rest do not. They know that AI can help them get in front of customers by predicting buying probability, likelihood to purchase, and multiple other events.

How AI Works with an End-to-End Solution

Though use cases must be identified, AI shouldn't be implemented on a channel-by-channel basis. A siloed approach will hinder impact and dilute results.

Instead, AI should serve as the underlying fabric of a solution — vertically integrated across it — and interwoven within its DNA. With end-to-end business knowledge incorporated — from a CDP through to the marketing platform — AI algorithms work best to collect all available customer data and make the most informed decisions.

With end-to-end business knowledge incorporated, an underlying layer of code that's hard-wired to self-learn can then *govern* multiple channels, in multiple instances, and across a database. For example, a Bayesian model can determine the best send time for each individual, and determine what time a message is most likely to be acted upon across all devices.

The algorithm is not implemented as a feature but is woven into the fabric of the platform. In the case of AI, multiple algorithms work hand-in-hand to provide a single out-of-the-box, turnkey solution. One algorithm predicts probability, while another predicts the channel engagement strategy, and yet another constantly optimizes in real time.

Bayesian Bandit:
Optimizing send time for individual contacts by testing engagement over time
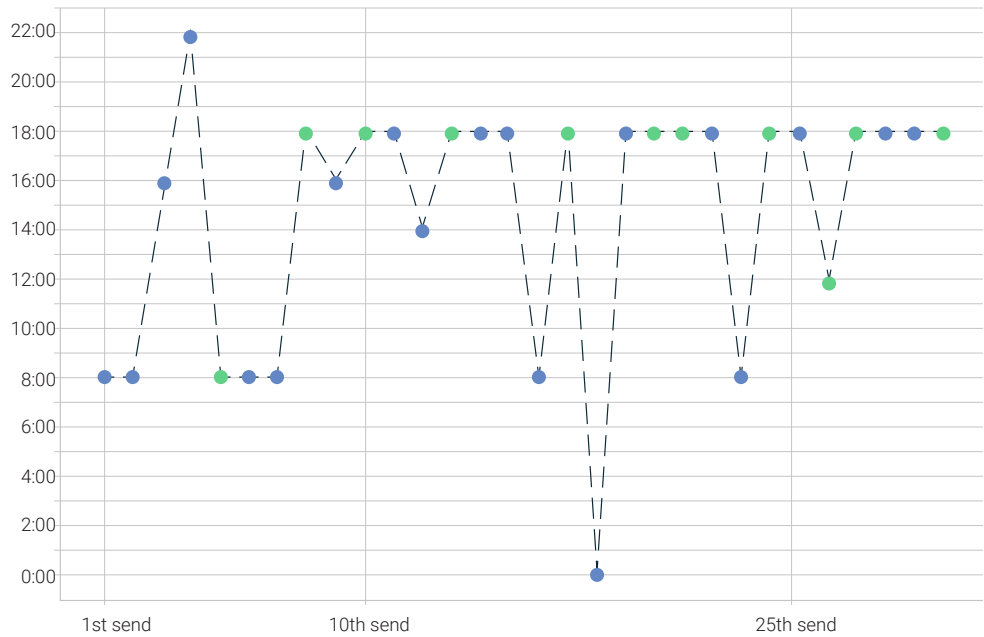
In this way, an AI platform is critical to a brand's ability to automate personalization at scale. As the underlying agent, the prediction platform and a marketing automation platform work hand-in-hand.

AI algorithms work in conjunction with previous behavioral data to develop probabilities of certain events happening (like a customer purchasing). Algorithms take into account expected revenue/cost as well as the guidelines that the marketer sets in place to create a final output as depicted in the chart below.
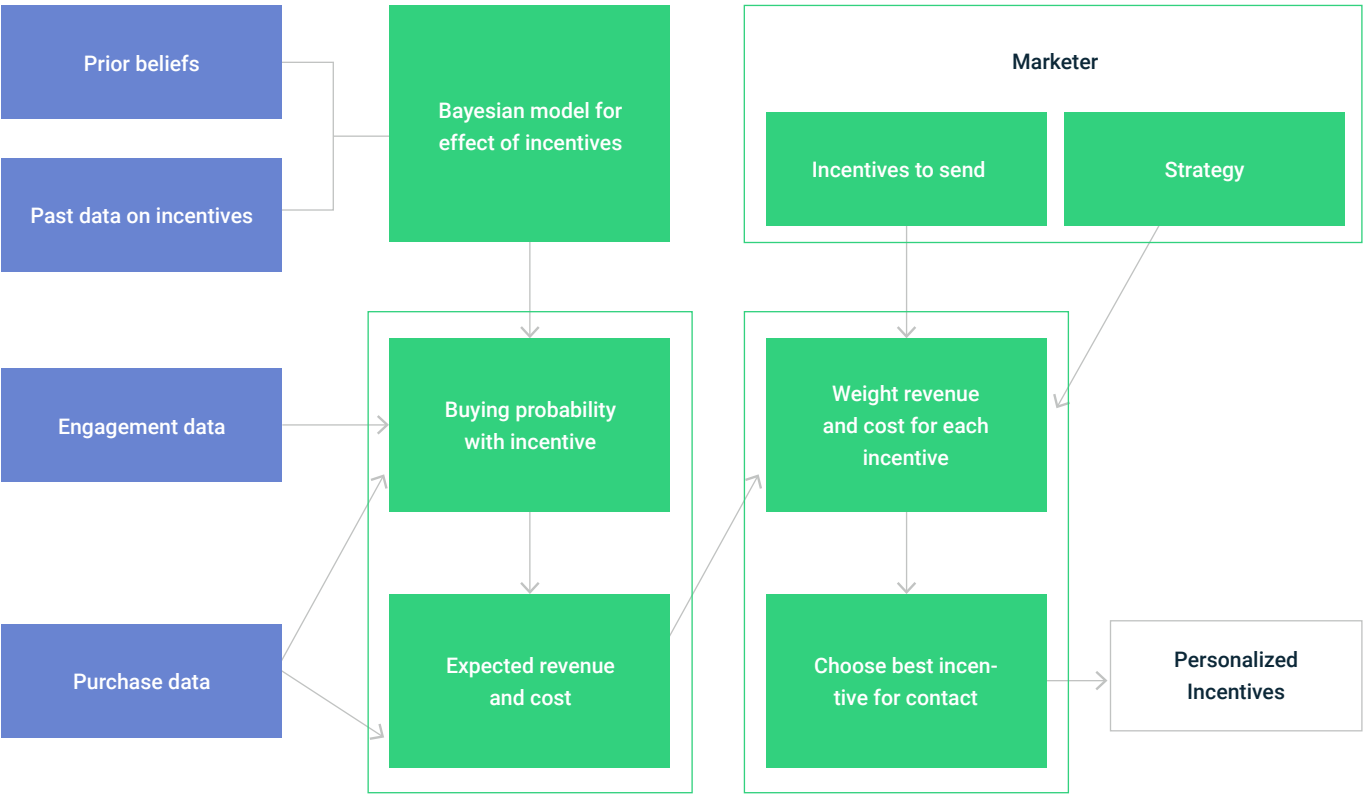
In this model, marketers' jobs shift from sorting through data, making best guesses, or A/B testing what to send each segment to adjusting the overall strategy.

Insider Scoop: How Our AI Works

Emarsys offers a natively-integrated CDP with an AI prediction platform and channel automation capabilities as one seamless solution, out of the box. AI-based turnkey tactics are fully populated with business logic to personalize communications on a 1-to-1 level. Marketing teams load in content, set their strategy, and choose their segment. The platform handles campaign execution, and all of its components. With embedded AI and knowledge from 2,000+ clients and 4.2 billion contacts, the Emarsys Marketing Platform has the ability to predict customer behavior over a timespan of 360 days.

With individual campaigns, through an extendable model, users can add many contact fields, relational data tables, or decision trees to create quite sophisticated models.

Data is everything

Artificial Intelligence marketing solutions are capable of mining huge data sets to help marketers hone in on trends, themes, and decisions across various channels, platforms, and outlets. AI solutions can aggregate this data and uncover previously hidden insights about consumer behaviors, choices, and segments.

AI interprets data points that are collected across the consumer purchase journey. It is not generating new data; it only enriches attributes based on initial captured behavior. Therefore, the underlying captured data needs to be as accurate as possible. Whereas humans learn through the process of doing an activity, algorithms learn from processing more data. And in today's day and age, clean data is gold.

Machines need to know stuff about the world. The way they learn is through experiences, data, and examples… those experiences give them the data from which to learn. But you also need the right set of algorithms. With machine learning, if you take in enough data, you can train a system to do almost anything. With modern AI, there is a lot of big data involved, but also new algorithms.

Ashwin Ram
Technical Director of AI, Google,
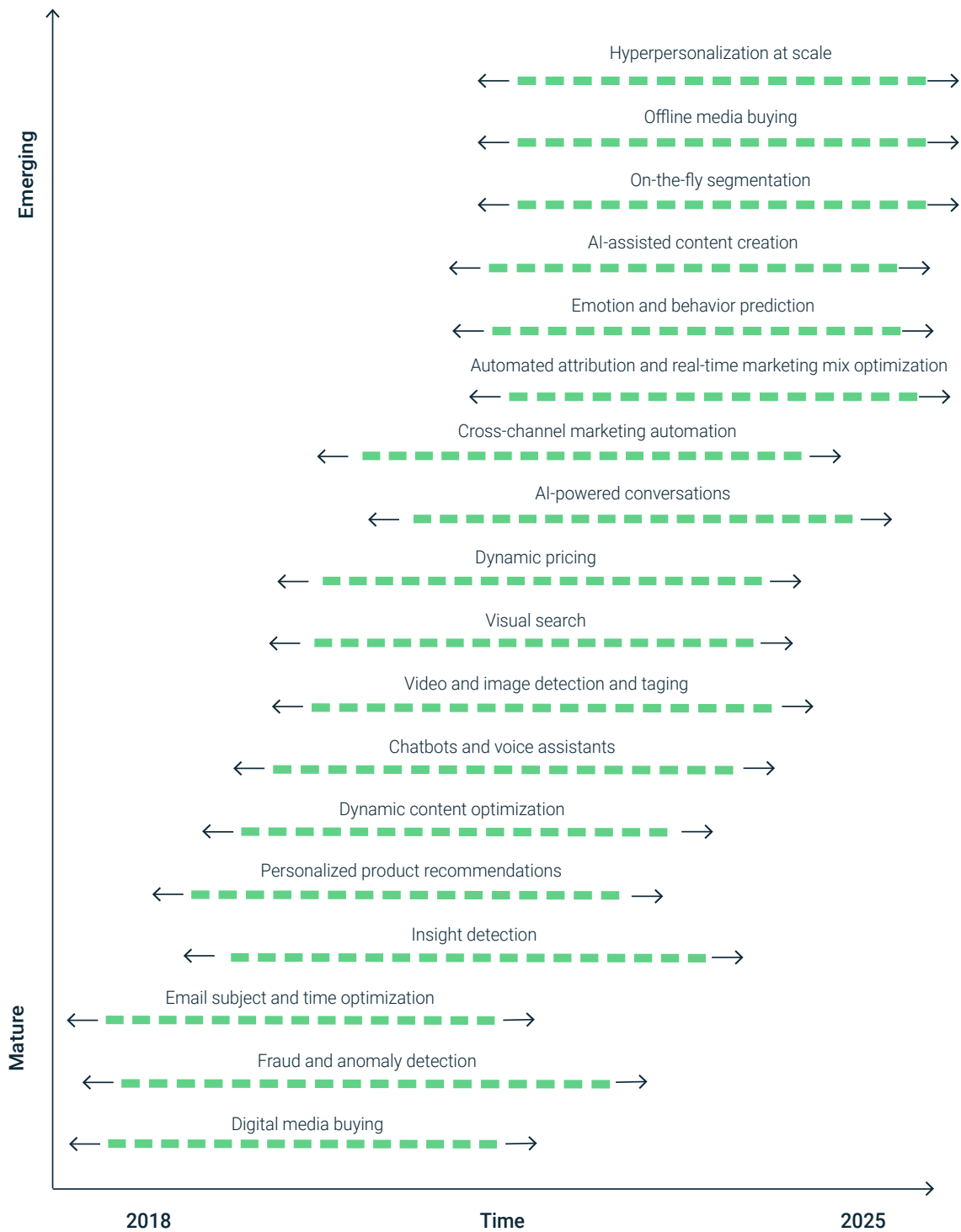AI Researcher, and Entrepreneur
ashwinram

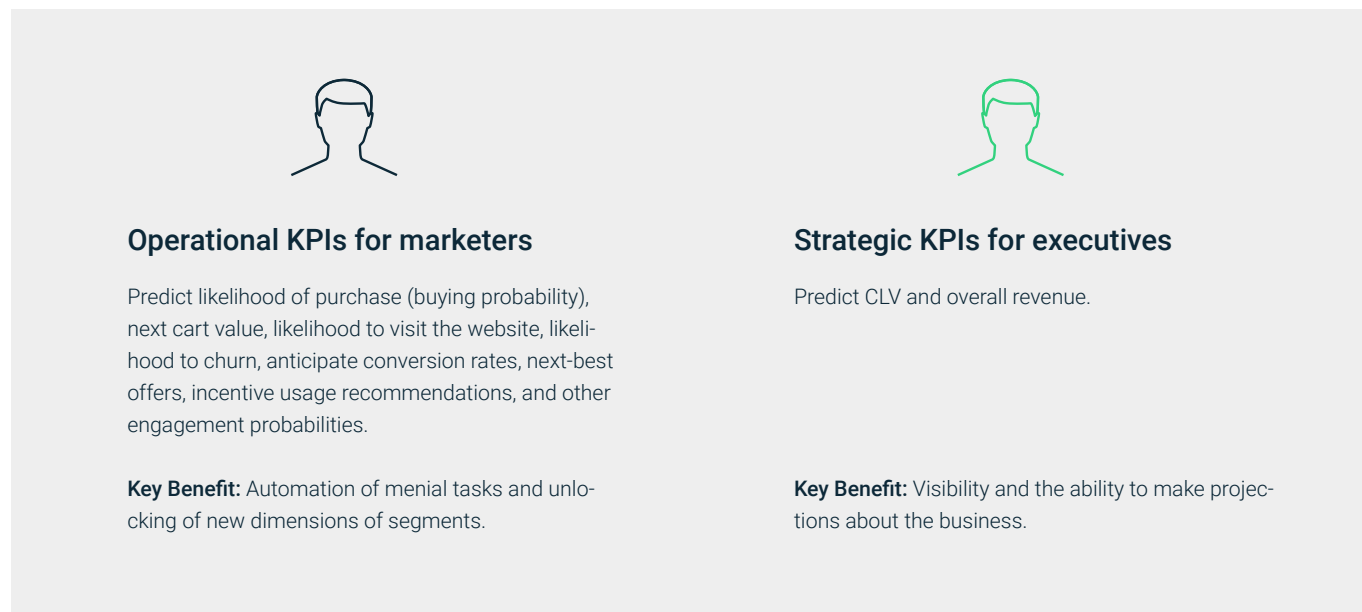# The Real Value of AI for E-commerce: Predicting the Future

Marketers are using (or plan on using) AI to drive immediate value across dozens of use cases. Among the most interesting include hyper-personalization at scale, on-the-fly segmentation, and behavior prediction.

When it comes to e-commerce, AI primarily helps brands transform their marketing by anticipating what customers will likely want and how much they'll spend. Up until now, marketers have mostly been beholden by previous behavioral data — now self-learning algorithms can actually use available data to inform and project events in the future. AI helps reveal what was previously unseen and is actually making marketers smarter. And you don't have to be an AI pro or possess technical skills to "do" AI.
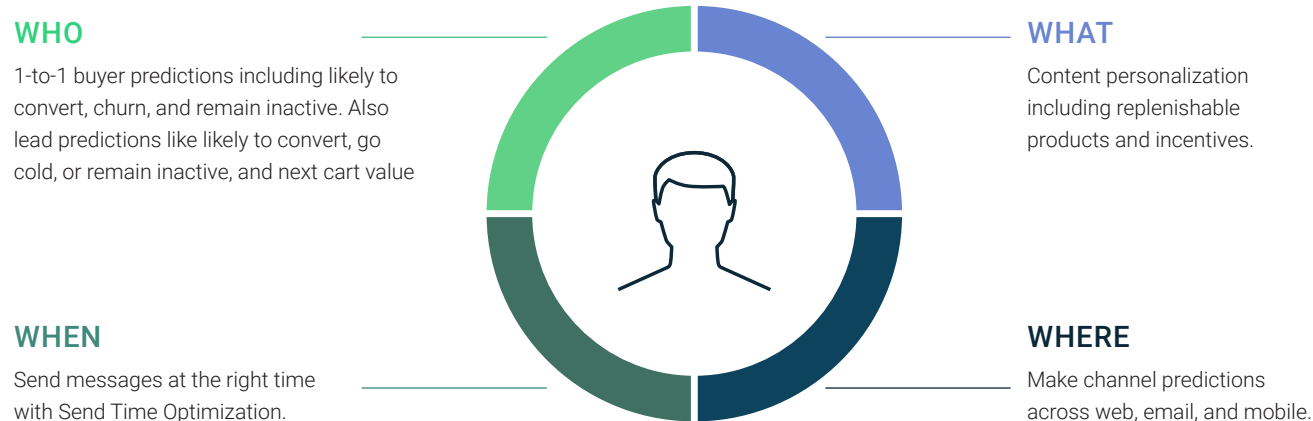
CMOs must anticipate the progressive emergence of new and mature AI marketing use cases

Hyperpersonalization at scale

Offline media buying

On-the-fly segmentation

AI-assisted content creation

Emotion and behavior prediction

Automated attribution and real-time marketing mix optimization

Cross-channel marketing automation

AI-powered conversations

Dynamic pricing

Visual search

Video and image detection and taging

Chatbots and voice assistants

Dynamic content optimization

Personalized product recommendations

Insight detection

Email subject and time optimization

Fraud and anomaly detection

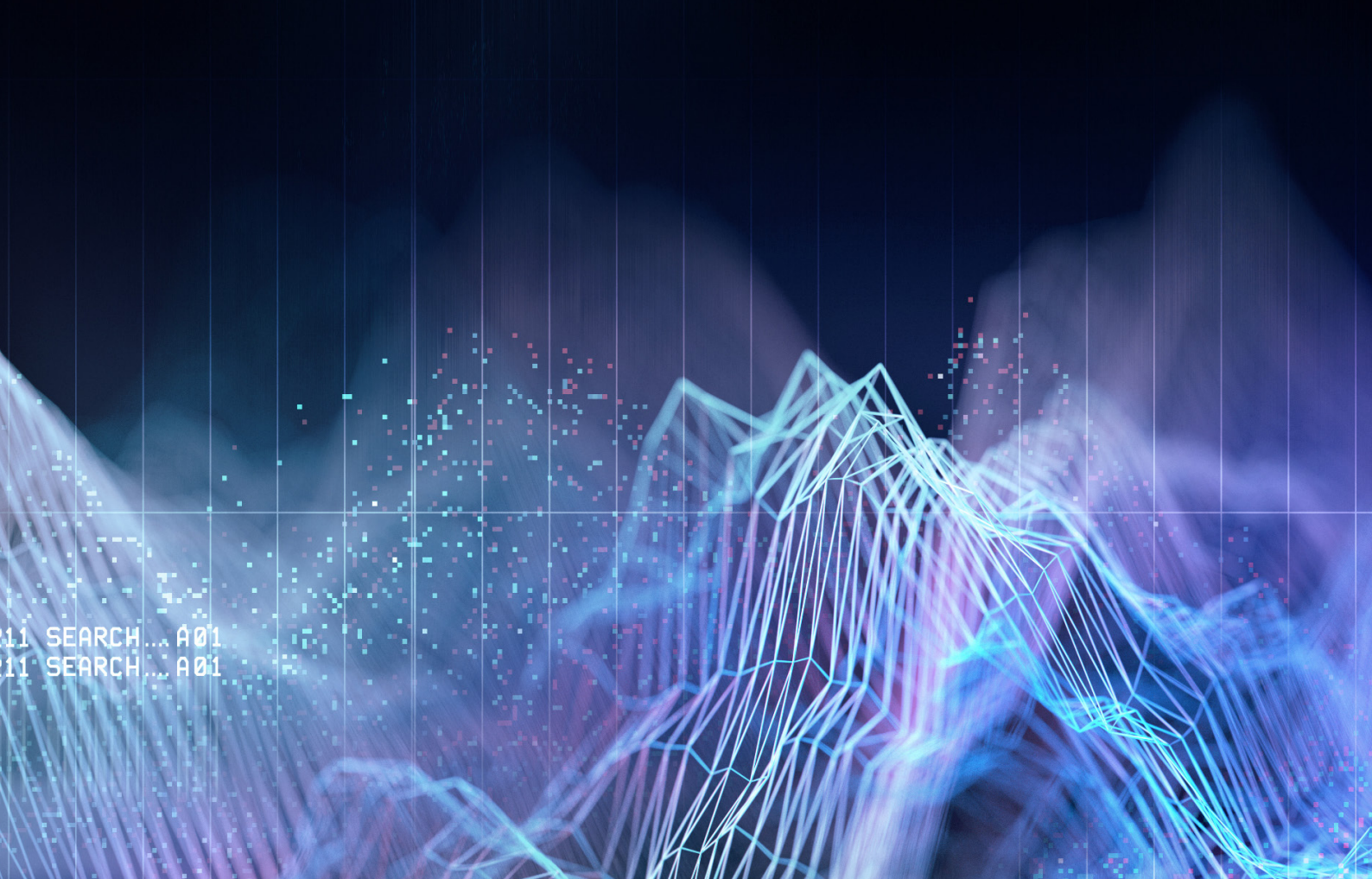Digital media buying

Emerging

Mature

2018　　　　　　　Time　　　　　　　2025

Zeroing in on the benefits for brand marketers in their day-to-day, both strategic and operational benefits of AI are plentiful:

Operational KPIs for marketers

Predict likelihood of purchase (buying probability), next cart value, likelihood to visit the website, likelihood to churn, anticipate conversion rates, next-best offers, incentive usage recommendations, and other engagement probabilities.

Key Benefit: Automation of menial tasks and unlocking of new dimensions of segments.

Strategic KPIs for executives

Predict CLV and overall revenue.

Key Benefit: Visibility and the ability to make projections about the business.

AI also offers key insights into the who, what, when, and where about customers:

WHO

1-to-1 buyer predictions including likely to convert, churn, and remain inactive. Also lead predictions like likely to convert, go cold, or remain inactive, and next cart value

WHAT

Content personalization including replenishable products and incentives.

WHEN

Send messages at the right time with Send Time Optimization.

WHERE

Make channel predictions across web, email, and mobile.

AI in Action: Examples

Let's have a look at several examples in greater detail.

Using AI across channels and use cases

Email

Problem: Sending mass emails to the wrong people; communicating with the wrong content to disengaged members

Solution: Send different, live content (with the same e-newsletter) at different times for contacts who demonstrate differing engagement levels, preferences, and behavior.

Web

Problem: No insight into who is visiting your website, why, and their previous behavioral history.

Solution: Employ AI to prompt different visitors with different content based on purchase/engagement history. Suppress or target "highly likely to visit," churning, or disengaged web visitors on different channels.

Using AI across the customer lifecycle

Predictive life cycle segments for buyers.

Problem: Inability to stitch together the entire lifecycle for individual customers or to use a unified profile to inform and automate messaging.

Solution: Get granular depending on the who, what, where, when, and why. Differentiate messaging for contacts who have made, for example: [at least one purchase/more than one purchase/exactly one purchase] and are [likely to remain inactive/likely to churn/ likely to convert] in the next 30 days.

Drive consumers from one lifecycle stage to another.

Problem: Losing customers into the abyss after they make one purchase; an inability to customize offers for individuals

Solution: Identify first-time buyers who are likely to convert and encourage the second purchase with an offer. Identify active buyers who are likely to convert, then provide an offer most likely to secure the purchase and increase the cart value.

Understand likelihood of conversion.

Problem: Inability to understand conversion likelihood of specific groups or customers.

Solution: Understand, with a high level of accuracy, who is likely to buy or convert. Also understand which segments/sets of customers are likely to remain inactive or defect. Make predictions about which defective contacts are most likely to return.

Target customers likely to churn with proactive communications.

If you know that Customer A buys every 90 days, and Customer B buys every 2 weeks, you know each has very different purchase cycles. Understand which customer is a higher-value customer, and, if they go cold, automate delivery of the content most likely to convert them before it's too late.

Cross-sell opportunities.

Problem: Reliance on a rule-based system or simple algorithm to automate cross-sell recommendations.

Solution: Incorporate more customization and deliver 1-to-1 content based on other products a customer has bought and based on what they're likely to need in the next, say, 7 days.

Using AI to predict revenue

Predict revenue potential for customers.

Problem: No way of understanding anticipated value of customers and segments in order to customize communications.

Solution: Predict, at an individual contact level, what a customer's next cart value is going to be, then automate execution of the best content for them.

▸ "Customer A will likely spend $160 on her next purchase."

▸ "Customer A will buy every 90 days whereas Customer B will buy every 2 weeks."

▸ "Customer C who used to be a high-value customer is going to churn in the next 30 days."

Predict overall revenue.

Problem: Without accurate projections about CLV and the value of segments over time, brands are hard-pressed to understand how the business will grow over time.

Solution: Based on cumulative projections for individuals — as well as trajectory of business growth — marketers can anticipate revenue over time.

▸ "The business will make $X in revenue next quarter."

Use Case: BrandAlley Uses AI to Rejuvenate Their Marketing

Company: BrandAlley, an online fashion retailer in the U.K.

100+	**20k**	**6M**	**80M**
brands	active SKUs in the database	members	emails sent per month

We needed to catch customers at the right moment. Before, we were looking at our lifecycle segments, and we [knew we] had X amount of churning customers that we needed to bring back, but [by the time we knew they were churning] they'd defected… rather than wait for a customer to lapse, and then reach out to them with a communication, email, etc., we were able to use AI to see when an individual was about to lapse, and then communicate to that person. We've tried a lot of reactive marketing – but we had to reach people at the right moment, and that's what AI did for us.

Alexandra Simion
Head of Marketing, BrandAlley
@AlexandraSimion

Challenges:

- Manually curating marketing campaigns.
- Finding content fast and pushing it to the right people before the sale ends or the brand disappears.
- Segmenting the database efficiently and using less people and less time to get a campaign out the door.
- Increasing conversions across the site — including first-time buyers to active.

BrandAlley's AI use cases:

Converting first-time buyers to second-time buyers
BrandAlley saw immediate increase in open rates, average basket value (10% increase), and revenue.

$127.73   **$141.06**
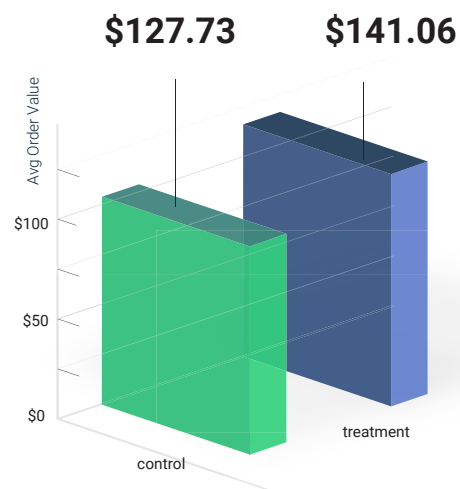
BrandAlley AI - Likely to convert - Repeat - v2.0 program for repeat buyers
Avg Order Value in control vs treatment groups
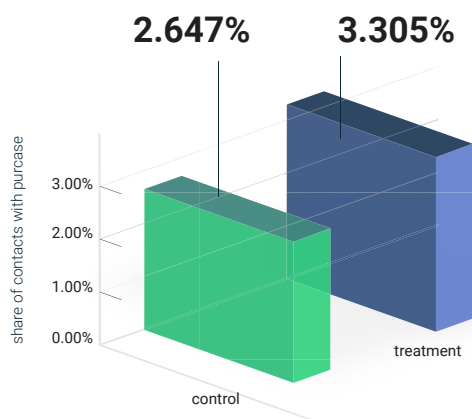
Relative uplift: 9.41% (±7.62%)
Treatment is significally better than control at the 95% confidence level.

9.4% uplift in conversions among "repeat buyers."

Engaging likely-to-churn customers (still active and browsing, but heading toward churning)
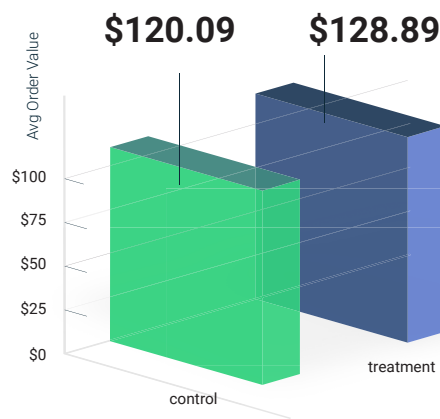AI told them when to communicate, and yielded 24% increase in conversion.

Relative uplift: 24.9% (±11.0%)
Treatment is significally better than control at the 5% level.

BrandAlley AI - Likely to churn - Repeat - v3.0 program
share of contacts with purchase in control vs treatment groups

24% uplift in conversion among "likely to churn."


Relative uplift: 9.20% (±7.22%)
Treatment is significally better than control at the 5% level.

BrandAlley AI - Likely to churn - Repeat - v3.0 program
Avg Order Value in control vs treatment groups

9.2% uplift in AOV among "likely to churn."

In employing AI, BrandAlley was able to achieve more than 40% Y-o-Y order growth, reduce cost-per-acquisition (CPA) by 50%, increase their customer reach eight-fold, and boost Facebook registrations by 230%.

We love being proactive. Having that freedom of actually reaching customers at the [perfect moment] in time with a great deal you might have on the side – it's delivered us a lot more revenue than any previous campaigns we did in the past.
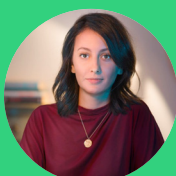
Alexandra Simion
Head of Marketing, BrandAlley
@AlexandraSimion

Conclusion

Global e-commerce marketing teams are embracing artificial intelligence as an enabling technology that can deliver the true personalization customers are craving.

Intelligent AI-enabled systems can understand diverse, multi-device data points to surface insights that marketers could never find manually... especially among millions of data points across hundreds of thousands of customer profiles.

Given quality data, AI can decipher user intent, understand when contacts are browsing or buying on your website, and make inferences about what individual consumers need to keep them from churning.

By predicting, scaling, and automating contextual customer experiences across platforms and devices, marketers can open new revenue streams and create impact unlike anything ever imagined prior.

Go from reactive to proactive marketing with AI

Learn more about how AI can help you predict dozens of metrics across the organization.
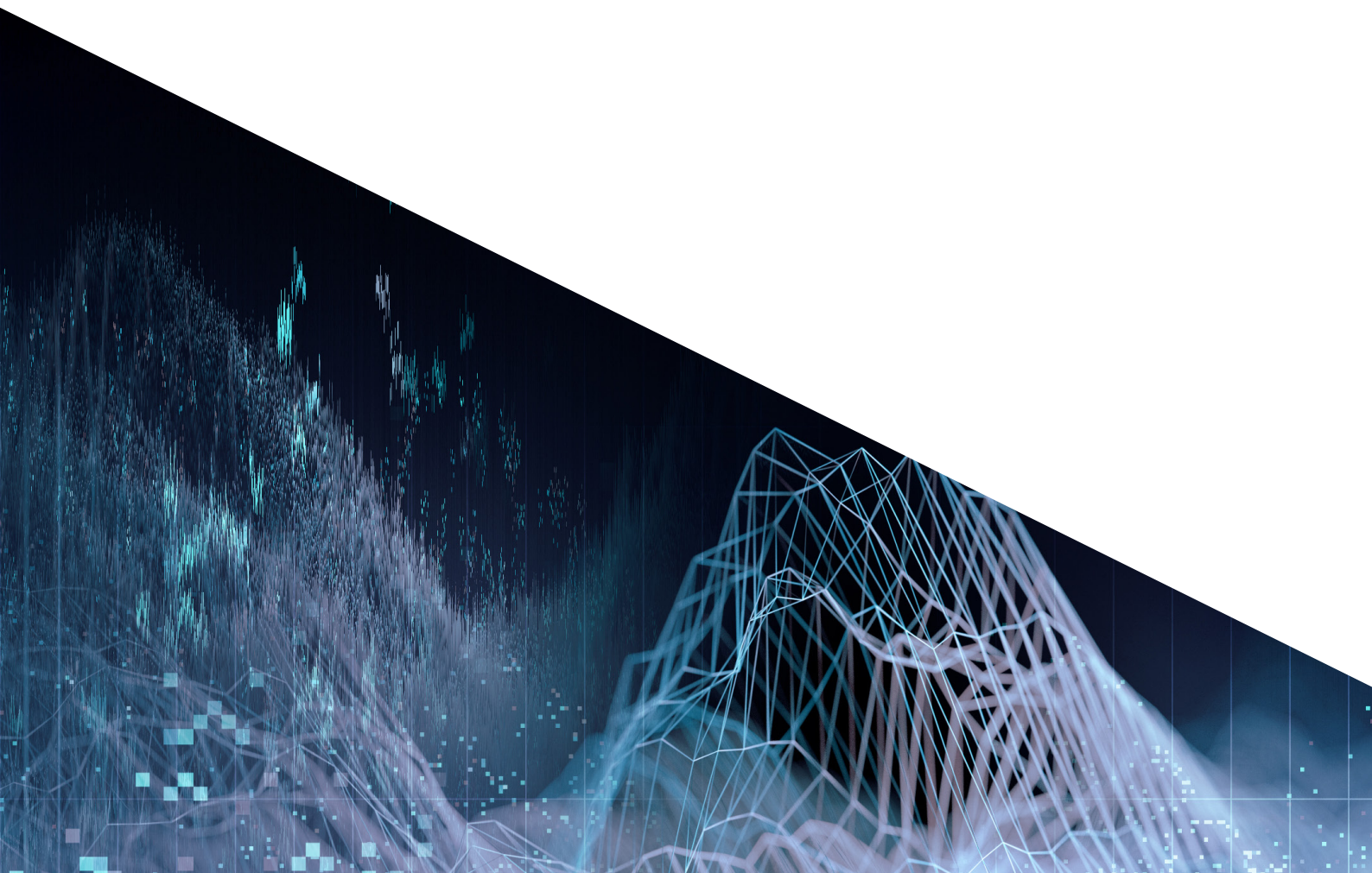
About the Author

Raj Balasundaram is SVP of Artificial Intelligence at Emarsys, where he helps leading brands leverage their digital platforms and data to out-maneuver competitors and achieve superior financial results. Raj has delivered presentations and talks at a variety of global conferences and road shows including #DMWF Expo Global, evangelizing the art of data intelligence-based marketing. Prior to Emarsys, Raj worked at both Oracle and ExactTarget.

About Emarsys

Emarsys is the largest independent marketing platform company in the world and the only marketing platform that knows your industry. With embedded, industry-specific turnkey solutions, our software enables truly personalized, one-to-one interactions between marketers and customers across all channels — building loyalty, enriching the customer journey, and increasing revenue. This enables companies to scale marketing decisions and actions far beyond human capabilities.

With more than 2,000 customers and 4.2 billion contacts, our AI-driven platform has the ability to predict what any of your customers will be doing over 360 days.

Using engagement scores, purchase history data, and behavioral patterns, Emarsys is able to predict a contact's potential lifetime value, as well as their likelihood to purchase or churn, in a given time frame. Emarsys AI provides channel propensities at a 1-to-1 level for emails, mobile, web, or in-store. Products, content, and incentives are automatically tailored to each individual, for each use case and across all channels, while taking their engagement probability, purchase probability, and next cart value into account.

Resources

AI Marketing Readiness In Retail And E-Commerce

Breaking Down AI: How to Work Side-by-Side with Data, Algorithms, and Automation Systems

Revolutionizing Big Data with Artificial Intelligence

[Revolution Series] The Role of Artificial Intelligence in Marketing [Podcast]

Breaking Down AI: How to Work Side-by-Side with Data, Algorithms, and Automation Systems

The Role of Artificial Intelligence in Email Copy: Coming to an Inbox Near You [Podcast]

How BrandAlley Scales its Email Marketing and Customer Acquisition with AI

How AI Marketing Works: Achieving 1-to-1 Personalization at Scale

The First Step to AI Readiness: Cleaning Your Data

A.I. for Marketing & Growth - Where do I start? [Video]

4 Ways Artificial Intelligence Is Making Marketers Smarter

100 Medium articles to make you an AI pro: Learning AI (Pt.1)

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