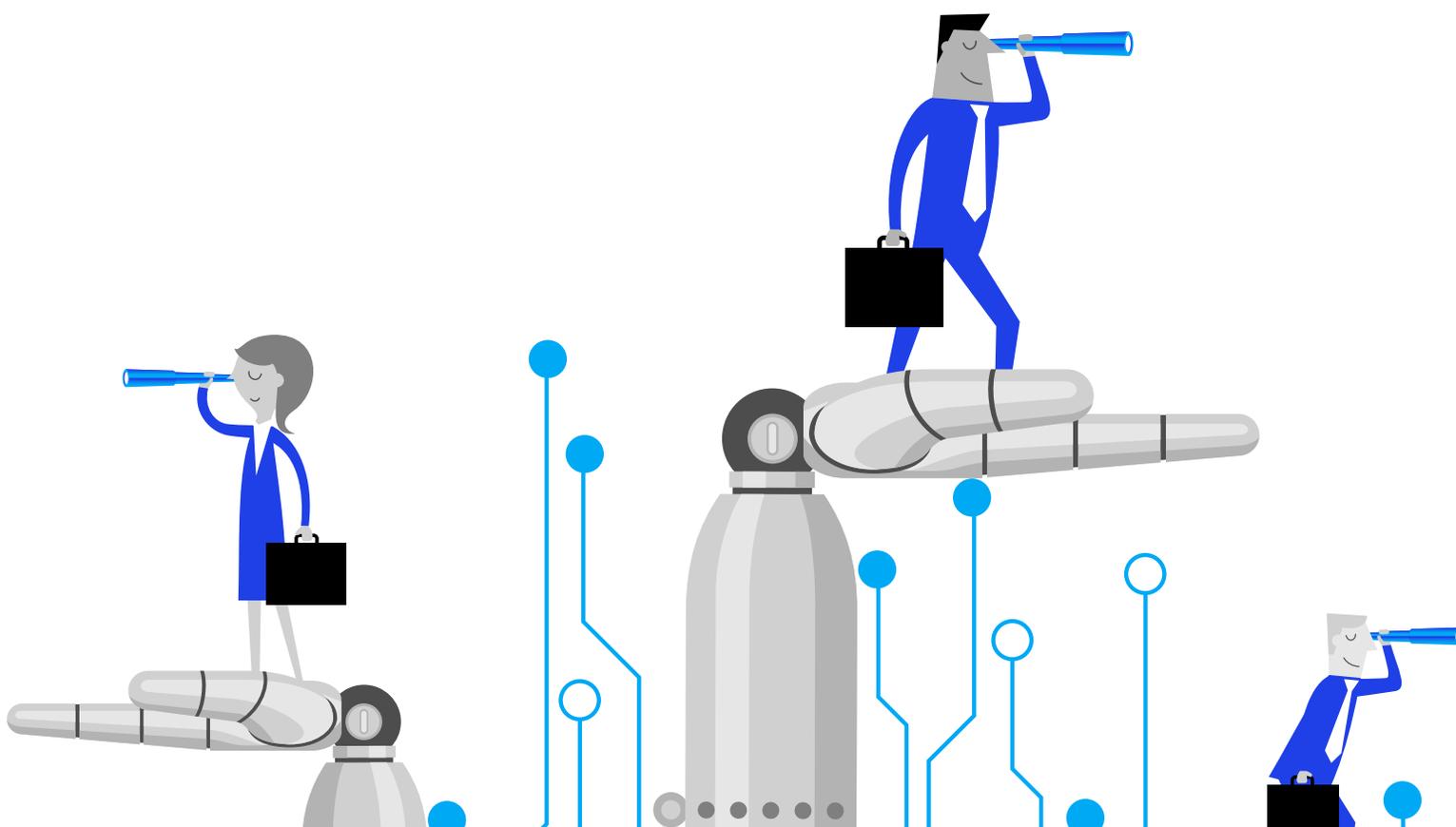


Marketing & Sales Practice

# Discussions in digital: Making machine-driven marketing work

To work effectively with machines, marketers need to set up guardrails, then let the machines crunch the data and the humans focus on creativity and personalization.

*by Dianne Esber and Jane Wong*



© sorbetto/Getty Images

**As the relentless advance** of technology sees automation increasingly replace humans, it's not just factory floors that are being transformed. Unprecedented amounts of user data and computing power are being harnessed to usurp traditional marketing roles as well. In our latest *Discussions in Digital* podcast, Dianne Esber, a partner at McKinsey's San Francisco office and a leader in marketing and sales, and cohost Jane Wong, an associate partner in the San Francisco office, explore the present and future of machine-driven marketing with Sachin Puri, head of performance marketing at StubHub, and Barry Ames, product marketing at YouTube TV. The following is an edited transcript of their conversation.

**Dianne Esber:** Much has been made of how technology has made marketing a more technical discipline, spawning lots of theories about man versus machine, or ideas versus numbers. I think this development—let's call it machine-driven marketing, has generated a lot of anxiety in many marketing organizations, and across the C-suite. In fact, McKinsey's research has found that organizations that are able to unify technology and creativity actually experience the most rapid growth. So, Sachin, let's start with you. In your experience, what type of work is best suited to be done by machines, and what by humans?

**Sachin Puri:** Every time we do anything more than once, we ask ourselves, "Can this be automated?" For example, if we are predicting the value of particular users and their engagement with us on YouTube, we ask, "Do we need to show a particular ad? How much should we bid to show that particular ad?" There is a science behind that. It's work that humans don't need to do. Those are the kind of roles that we automate.

We have a focused, dedicated team that does that. The creativity that comes out of this team is based on thinking about the audiences we are targeting. "Is this an MLB fan? If somebody's an Elton John fan, would it make sense to show them a piano or a

guitar? And in what setting?" Things of this nature, which are more emotion and sentiment related, are things we rely more on humans to define.

Having said that, once those ideas are developed, our aim is always to automate them so human capacity, creativity, and energy can be dedicated toward another innovation. That's how the evolution happens. It's not one versus the other—you need one to support the other.

**Barry Ames:** Sachin and I are in two different industries, but we approach it quite similarly. Machine learning provides us with an opportunity to let machines optimize targeting and find particular folks in a huge base of users. That frees up the marketers to be the ones coming up with the hypotheses. They can then sit back and let the machines find these folks and optimize toward pockets of opportunity in the user base. So in that respect, it's not man versus machine. It's actually quite liberating for marketers not to be on the hook to find those folks and scale marketing programs that have thousands of cells of personalized content.

So the ability to build provocative creative and sit back and watch the results roll in is just a fundamentally different approach to test-and-learn than we were all doing ten years ago.

## The evolving creative process

**Jane Wong:** How has machine-driven learning impacted creativity and the creative process?

**Sachin Puri:** The creative process has to evolve as we adopt more machines. And that requires a change of mind-set to let machines decide which creative, text, and messaging to show the users in that particular moment to grab their attention.

However, determining what messaging jibes with the brand purpose you want to push will still be driven by humans. So whether you want to go with

a white image or a darker image that connects with the human emotion that you want to portray as the brand is a decision that's still human-based. What's changed is letting the machine find the right mix for that particular user. I think that's a big change that every marketer is going through, to let machines make some of those decisions.

**Barry Ames:** The creative folks that I work with love it. It's liberating for them. But five years ago, the idea that they wouldn't necessarily know the exact targeting for a piece of creative or have pinpoint control on every permutation of every message and every placement would have been scary.

**Sachin Puri:** This prototyping and the ability to use different combinations by letting machines show different creative helps marketers to do rapid prototyping and free media testing. Creative people love it. But in the beginning, there was apprehension.

## Winners and losers?

**Dianne Esber:** Are there winners and losers in this man versus machine or not?

**Sachin Puri:** As we bring machines and humans together, the sensitivity and the maturity to manage the change, so that everybody sees the common success versus the individual, is important. But being able to connect to their individual success is also important for people, and that puts pressure on the leadership to motivate people to keep working with machines for a better output.

**Barry Ames:** I would say motivate and educate, because a big portion of starting down this path is bringing everyone along with you. Our CMOs grew up in a different era, so you're educating up and out even as these capabilities continue to evolve. A key learning from this process is that bringing everyone along is a necessity.

## Successfully integrating humans and machines

**Dianne Esber:** What kinds of things have you done where you've seen the integration between man and machine most effective?

**Sachin Puri:** From a search-marketing standpoint, one of the things that we let machines decide is the business value of showing or not showing a search ad as an impression. It's a repetitive process which is tied to an audience and the data that we often let our machines decide. But once machines give us that opportunity to show our ad, deciding what ads to show and what language to present is still driven by humans.

For example, you may not want to say "Go Blue" to an Ohio State fan. You're not getting their click.

But if you say "Go Blue" to a Michigan fan, they are clicking on your ad. We've found that using some of this fan language also helps us with search marketing where we let machines do their job. We don't have to worry about whether we are paying \$1 or 50 cents. But what we show them is very, very important, and where we land them and what we show on that page is also very, very important. I'm sure a search marketer doesn't want to manually show a wolverine on a Michigan landing page, so they let the machine decide that. But what to say on the landing page is something humans need to decide.

## Knowing how to keep the machines in check

**Dianne Esber:** Tell me about some of the checks and balances that you have in place when you rotate toward some of these machine-driven insights and optimization.

**Barry Ames:** Sometimes we get results back that are counterintuitive, and as marketers, we're

**“I think organizations have folks in data science, certainly deep analytics, and creative marketing functions already. The missing piece I’ve found has been somebody who can sit in the middle and liaise between those groups ...”**

**—Barry Ames**

scrambling to explain why, since it can be quite surprising.

I think it’s actually important for the folks that are integrators to have a healthy dose of brand marketing, to understand the goals of the brand and the policies of the company. Because we are the police in that case, to make sure that the marketing we’re doing is reflecting that, we don’t just let it meander wherever it may.

**Sachin Puri:** Sometimes you have to let machines make those decisions and take you to new boundaries, and sometimes you have to put up the guardrails. If you tell a machine to maximize click-through rate and you don’t put guardrails around ad fraud, machines are just going to keep optimizing through click-through, even if they are fraudulent impressions and fraudulent clicks.

If you’re getting a very high click-through rate and you’re not seeing the conversion on the other side, your indicator immediately would say, “Oh my God, we have so many clicks, but no conversion.” Suddenly your conversion rate starts to tank, and the whole company is going crazy because nobody is buying.

So you need to focus on the cold metrics that matter. If you measure them and track them on an

ongoing basis against what normal looks like, then you can predict some of those behaviors early on.

**Barry Ames:** If things trend negatively in ways that are subtle, one way to guard against that is to push your success metric down the funnel, because clicks may not be a great indicator of continued loyalty or even conversion two minutes later. So by building more of the optimization around loyalty, for example, or sustained lifetime revenue from a customer, you can start to align that as closely as you possibly can with the ultimate goals of the company. It makes you feel a little bit better, that you’re not optimizing away from the ultimate goal.

### **Attracting integrated marketing talent**

**Dianne Esber:** By 2026, McKinsey Global Institute estimates the demand for analytics translators in the US may reach about two million to four million. So tell me, what kind of integrated-marketing talent have you focused on developing, and why?

**Barry Ames:** I think organizations have folks in data science, certainly deep analytics, and creative marketing functions already. The missing piece I’ve found has been somebody who can sit in the middle and liaise between those groups, generalists that can speak all those languages and,

importantly, bring everyone along for the ride. So that means educate all the groups on the shared objectives and key results (OKRs), build the vision around that, and communicate the results, which is not always as easy as it's been in traditional test-and-learn applications.

You also need to educate the C-suite and the stakeholders of the various organizations that need to be partnering on these shared objectives, goals, and program results. It's not an easy role, certainly.

**Sachin Puri:** At StubHub, as we talked about, it's all about the fan. So one thing that we always talk about is how do we bring the fan into the room when we are making these decisions? That way, the integrated-marketing managers are able to connect their journey across every single channel, activation, or customer touchpoint.

The competitive advantage lies in the actual creativity and innovation that humans bring. So one of the things that we do at StubHub, when we are hiring and recruiting, is look for someone who's passionate about live experiences, someone who relates to music, sports, and theatre. If they understand the fans, if they understand what fans go through emotionally and what their decision criteria are, they're fans themselves.

That's the competitive advantage, because they will be able to bring that audience passion and tweak the machines, tweak the algorithm, tweak the copy, the creative, the landing page, and messaging toward the fan using fan-focused language.

In our experience, this is a very difficult talent to attract, although it can be trained.

**Dianne Esber** is a partner in McKinsey's San Francisco office, where **Jane Wong** is an associate partner.

Designed by Global Editorial Services  
Copyright © 2019 McKinsey & Company. All rights reserved.