AI and machine learning get us one step closer to relevance at scale

Author
Marvin Chow

Published
Sep 2017

Topics
Emerging Technology, Mobile, Experience & Design

Artificial intelligence and machine learning are already transforming the technological landscape. From digital assistants to image-recognition software to self-driving cars, what was once the stuff of science fiction is now becoming a reality. But what exactly does it mean for marketing and advertising executives?

It could get us closer to one of advertising's most-sought goals: relevance at scale. Before then, we're going to see changes to the way we do business.

Technological advances have always created new opportunities for storytelling and marketing. Just as the advent of TV brought an era of truly mass advertising and reach, and the internet and mobile brought a new level of targeting and context, AI will change how people interact with information, technology, brands and services.

think with Google

"AI and machine learning could get us closer to of one of advertising's most-sought goals: relevance at scale."

A brief refresher

The pace of progress is ramping up so quickly in this space, it's useful to pause for a refresher on what AI and machine learning actually are.

Artificial intelligence is the study of how to make machines intelligent or capable of solving problems as well as people can. At its core, machine learning is a new way of creating those problem-solving systems. For decades, programmers manually coded computer programs to provide outputs when given a certain input. With machine learning, we teach computers to learn without having to program them with a rigid set of rules. We do this by showing a system several examples until it eventually starts to learn from them.

For example, teaching a system to recognise the difference between a cat and a dog was difficult to do with traditional programming. With machine learning, we feed the system various labelled pictures of cats and dogs – it looks at patterns and pixels and starts to guess which is which. Ultimately, it can start recognising the difference. In fact, this is the basis of technology we use today in Google Photos.

Conversational computing

Today there's very little technology at Google that isn't using AI and machine learning. AI is reinventing existing products, from Maps to YouTube, and it's powering new experiences.

Take the Google Assistant. Today, the Google Assistant is the first real progress we've made in creating a true conversational experience that essentially brings people their own personal Google. It uses speech recognition and natural language understanding to help people get things done in the real world – from managing their calendars to helping them control their lights.

"AI is reinventing existing products and powering new experiences."

Higher expectations, more personalised marketing opportunities

What does this mean for marketers? The further integration of technology into the physical world creates new consumer interactions that are even more simple and instantaneous.

Put another way, high consumer expectations will be higher than ever. This will pose a challenge for brands – and a great opportunity.

A big part of the opportunity for marketers is how AI will help us fully realise personalisation – and relevance – at scale. With platforms like Search and YouTube reaching billions of people everyday, digital ad platforms finally can achieve communication at scale. This scale, combined with customisation possible through AI, means we'll soon be able to tailor campaigns to consumer intent in the moment. It will be like having a million planners in your pocket.

We're getting closer to a point where campaigns and customer interactions can be made more relevant end-to-end – from planning to creative messaging to media targeting to the retail experience. We will be able to take into account all the signals we have at the customer level, so we can consider not only things like a consumer's colour and tone preferences, but also purchase history and contextual relevance. And all of this will be optimised on the fly in real time.

The world of tomorrow, today

So how can AI help improve what you're doing today in your marketing efforts? Our launch of the Pixel phone last year is a good example of how Google is starting.

A big part of our strategy for launch was experimenting with machine learning to help us reach and engage our target audience.

We turned to a new Doubleclick tool called Custom Algorithm that uses machine learning to increase the number of viewable impressions bought on premium placements. By making sense of historical data, it increases the likelihood that ads are served to the most relevant audience. The results for Pixel were impressive. When compared to other campaigns that didn't use the tool, impressions on premium inventory more than tripled and viewable CPM fell 34%.

Optimisation driven by machine learning presents opportunities well beyond media targeting, of course.

A new frontier

Instacart has used TensorFlow, Google's open-source machine-learning platform, to build a machine-learning model to predict the most efficient sequence its shoppers could follow to select items at a shop.

Elsewhere, brands like Coca-Cola are using AI to reinvent how consumers engage with their products through their smartphones. The Walt Disney Co. is using language processing to trigger an audio soundtrack when you're reading a story aloud to your child.

We also have to ask how AI and machine learning will spark new ideas and push the boundaries of creativity. With new tools, what will makers, artists and musicians design? And how will that affect the marketing world we work in? New forms of creativity will provide new ways of telling brand stories, and new media platforms as well.

For all of the progress and practical applications of AI that we're working on at Google today, we're still just getting started. AI and machine learning are already helping to solve problems marketers face. Undoubtedly, there will be marketing and advertising solutions – and opportunities – we haven't even thought of yet.