

# Ask the AI experts: What are the applications of AI?

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Automotive, financial services, utilities—in these and many other industries, businesses are already applying artificial intelligence to core business processes and to innovating products.

**Business adoption of artificial intelligence** is picking up steam, but still today only 20 percent of organizations that are aware of AI actually use this rapidly advancing technology. One reason: many executives are still wondering, “What can AI do for *my* business?” Earlier this year at the AI Frontiers conference in Santa Clara, California, we sat down with AI experts from some of the world’s leading technology-first organizations to find out about current and future applications of AI. An edited version of the experts’ remarks follows the video.

This video is one in a five-part Ask the AI Experts series that answers top-of-mind questions about the technology:

- What’s driving today’s progress in AI?
- Should we be afraid of AI?
- What will take AI capabilities to the next level?
- What advice would you give to executives about AI?

## Interview transcript

**Rajat Monga**, *engineering director, TensorFlow, Google*: AI is going to be part of nearly every application we have around us. It’s going to be part and parcel of everything we do, just like the Internet has changed things.

**Adam Coates**, *director, Baidu Research Silicon Valley AI Lab*: Deep learning is, in some sense, not a product by itself. And so what’s going to happen, I think, is that it’s going to be in enterprises everywhere, in applications all over the place—whether you’re running a data center, trying to help someone with a self-driving car, or trying to forecast the weather or the kinds of crops that are going to grow—all these crazy things. All of those are gradually going to be feeling these ripple effects from AI.

**Gary Bradski**, *chief technology officer, Arrai*: AI will be used for big, high-impact applications. It is a big enabler for robotics, so autonomous vehicles is a big one. Speech recognition is really starting to work—it's a very useful interface—that's big. It's going now to natural language, you see that showing up with Amazon's Alexa and Google's products. I call that ambient AI, where you can just ask questions and things happen.

Medicine's a big one. You're diagnosing problems, and you can already see these things can often do better than a doctor, in certain circumstances. They don't get distracted, and they can ferret out very subtle patterns.

**Mohak Shah**, *lead expert, data science, Bosch Research and Technology Center, North America*: Broadly, the advancements will come into what we like to call the Internet of Things. That would mean things like developing your service efficiencies, advancing your manufacturing capabilities, reducing scraps, and looking into your operation of the fleet. And that can happen all the way from small devices to very large devices, like aviation aircraft.

There are essentially operational efficiencies—reducing the cost of operations, increasing availability, and all sorts of industry-fitting scenarios. I believe those are the ones that are going to be realized near term.

Further out, there is a whole scenario around consumer-oriented capabilities. I think we have started seeing some successes in the area. The big success will come when, as a person, I can essentially look into an integrated environment that I can be interacting with seamlessly. That's a bit further down the line, mainly owing to, one, the lack of penetration of these devices, and second, I think we still have to address a lot of interoperability constraints when it comes to these different environments that we work with. □

**Simon London** is the director of McKinsey digital communications and is based in McKinsey's Silicon Valley office. **Gary Bradski** is the chief technology officer for Arrai, **Adam Coates** is the director of the Baidu Research Silicon Valley AI Lab, **Rajat Monga** is the engineering director for Google's TensorFlow, and **Mohak Shah** serves as the lead expert in data science at the Bosch Center for Artificial Intelligence in North America.