



# AI AT WORK

Three big brands are using artificial intelligence (AI) technologies, such as machine learning, to build new business models and transform their industries—**banking, insurance and healthcare.**

Artificial intelligence technologies are proving their power across virtually every industry in ways that add actionable insight and efficiency.

But one can look at the rise of this transformative paradigm with a more focused lens to see AI as a business tool of the highest order, one that improves processes and inspires new models.

Three leading executives explain how their brands are using AI and the cloud to advance their businesses.

## CAPITAL ONE: BANKING

The arrival of chatbots and robo-advisors is the tip of the disruptive iceberg in the industry. Big data, open-source software, cloud computing and fast processors—with AI technologies as the foundation of the mix—are transforming all aspects of the industry. Capital One is using its in-house machine learning capabilities to create innovative, AI-powered digital products for customers, such as its intelligent assistant, Eno.



### THE CLOUD

“In 2015, we declared ourselves a cloud-first organization, meaning all new development will be built on the cloud. We control our environment better; we move with speed and agility and flexibility. **As the cloud infrastructure evolves, we can evolve with it, and we think that’s really powerful.**”

### DEEP LEARNING

“We’re focused on building capabilities around what we call explainable AI. **We think it’s important to have models that aren’t just black-box models but ones that enable us to understand why deep learning and neural net models are making the decisions they are.**”

**ROB ALEXANDER**

Chief Information Officer, Capital One



## AON BENFIELD: INSURANCE

Managing risk is at the heart of insurance. Popular retirement products, such as variable annuities, have huge data sets that add up to enormous warehousing and computing challenges for insurers. To help combat this, Aon Benfield’s PathWise division built a cloud-based enterprise business solution that leverages AI and machine learning to help clients see their risk through time. This is done by intelligently combining assets, liabilities, scenario generators and complex investment strategies together.



### THE CLOUD

“We do not do 100 simulations or 1,000 or 100,000 or a million. We do trillions of simulations. If I want 100 GPUs [graphics processing units] for 48 hours, I can get it from the cloud. **We’re talking about minutes here instead of months** required to order and then set up the infrastructure yourself. And in many client compute and data-processing situations, we’re just way ahead of our competitors in terms of performance per dollar spent.”

### MACHINE LEARNING

“Machine learning is going to really help the industry in expected ways—for example, with claims management, client support and fraud detection—and in unexpected ways, such as with product design, hedging, ALM, investing, and risk identification and quantification. **Deep learning and cloud computing mean the future has never been brighter** for new product development, valuation, hedging and managing capital in the insurance industry.”

**PETER PHILLIPS**

President and CEO,  
PathWise Solutions Group at Aon Benfield



## PHILIPS: HEALTHCARE

The Dutch health technology giant is connecting a vast ecosystem of medical devices and information on the cloud. The result is a “healthcare internet of things” that is personalizing patient care. Deep learning systems feed off present and historical data, giving medical professionals the insight needed to refine diagnosis and target treatment to the individual patient.



### THE CLOUD

“Several years ago, we started to securely connect medical devices—**making them smart—to create a common view of data that enables teams to analyze and orchestrate what to do.** Doctors can plug into this deeper view to be more precise and timely in action, and they can apply the right therapy.”

### DEEP LEARNING

“Deep learning is applicable to each of our core businesses. Take diagnosis and treatment, for example, which are built around our imaging systems and the informatics around them. **The more we know about [an individual patient], the more we can guide what we should be looking for and what we’re seeing.** And that ability can guide our interaction with the device itself.”

**JEROEN TAS**

Chief Innovation & Strategy Officer, Philips

