

## Companies Brace for Decade of Disruption From AI

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**Now that many executives are finding measurable results from their Big Data initiatives, they are looking ahead and making decisions about investments in emerging capabilities such as artificial intelligence and machine learning.**

Executives of the nation’s biggest corporations fear that major disruption is on the horizon. This is a central finding of [the 2017 Big Data Executive Survey](#) from New Vantage Partners, which tracks the views of senior corporate executives on disruptive capabilities, ranging from Big Data to artificial intelligence.

According to the fifth annual survey, which was released this month, nearly half of senior executives surveyed — a remarkable 46.6% — see disruptive change coming fast, with many fearing that their companies are at significant risk of disruption or displacement. Survey respondents consisted of corporate business leaders (CEO/president), data leaders (chief data officer), technology leaders (chief information officer), analytics leaders (chief analytics officer), and marketing leaders (chief marketing officer). Fifty major corporations were represented, including companies such as American Express, Biogen, Bloomberg, Capital One, Disney, Ford Motors, General Electric, JPMorgan Chase, Nielsen, Turner Broadcasting System, Visa, and Wells Fargo.

Previous editions of the survey were focused on levels of corporate investment in Big Data approaches. The 2017 survey focuses on “measurable results” and the business impact of Big Data investments thus far, and then attempts to look ahead to the coming decade — to how investments in emerging new capabilities, such as artificial intelligence (AI) and machine learning, will disrupt and transform traditional ways of doing business in an increasingly evolving and dynamic world.

The welcome news for many corporations is that, with 95% of executives now reporting that their organizations have undertaken a Big Data initiative, 80.7% of executives now characterize their Big Data investments as successful. Further, 48.4% of executives indicate that their Big Data initiatives have produced “measurable results,” with benefits ranging from expense reductions to the creation of new avenues of innovation and disruption for their businesses. Significantly, 21% of executives say that Big Data has had a highly disruptive and transformative impact on their organization.

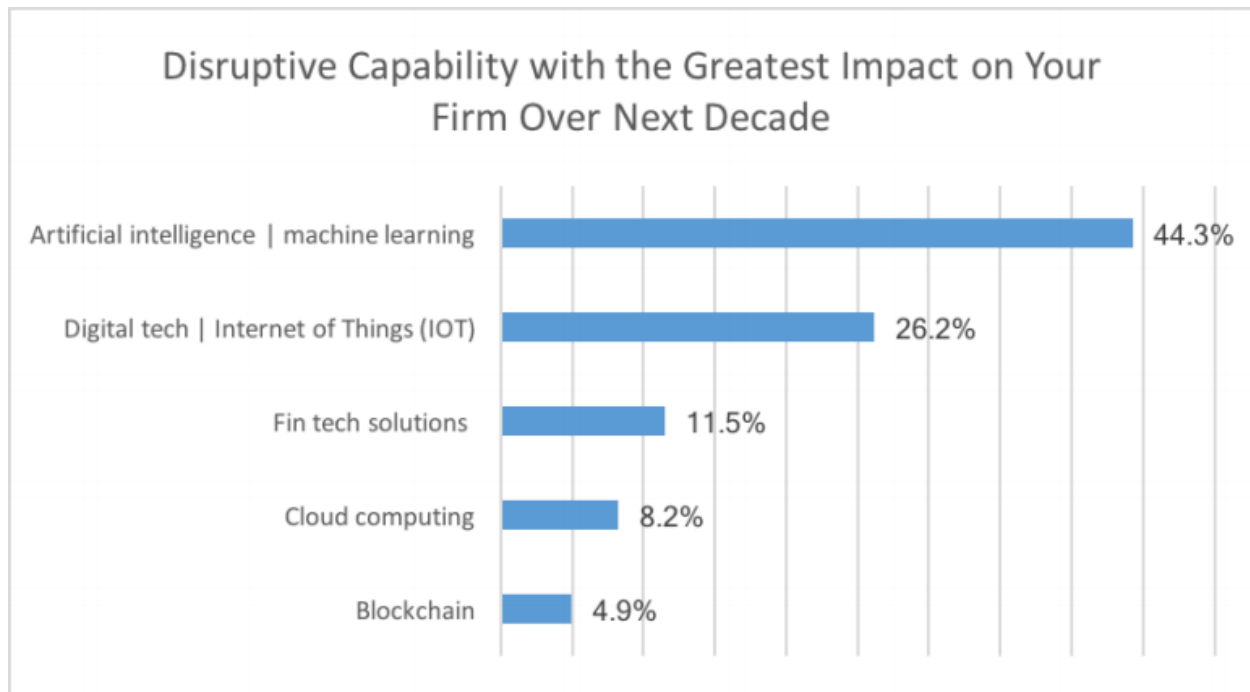
With investments in Big Data now bearing fruit, what do executives expect from the future? When executive respondents were asked, “Do you fear that your firm may be at significant risk of disruption and displacement in the coming decade?,” 6.9% answered that it’s “transform or die,” and 39.7% share the view that “change is coming fast.” These are executives who aren’t waiting around to see what comes next. They do not favor complacency. They’re looking to understand where the next sources of disruption will emerge from.

**While Big Data has been driving much of this disruption over the course of the past five years, AI and machine learning are seen to be rapidly emerging avenues for innovation and disruption in the**

decade ahead. With 37.2% of executives reporting that their organizations invested more than \$100 million in Big Data initiatives during the past 5 years — and 6.5% invested over \$1 billion — an overwhelming 88.5% of executives expect to invest in AI and machine-learning solutions as we move into the coming decade. And 68.9% of executives report that investments in AI are already underway, as are fresh investments in a range of emerging disruptive solutions such as Blockchain. Figure 1 illustrates that AI is expected to be the single most disruptive of the new capabilities.

**Figure 1**

**Artificial intelligence is expected to be the single most disruptive new capability.**



How will AI and machine learning impact and disrupt how corporations do business? In a provocative new article, [“Our Automated Future”](#), writing in the December 2016 issue of *The New Yorker*, social commentator Elizabeth Kolbert paints a stark and disturbing vision of a future economy dominated by accelerating automation and artificial intelligence. Kolbert highlights some of the disruptive factors that have already caused significant dislocation in the U.S. economy, with potentially even greater impact on the horizon: “If nearly half the occupations in the United States are ‘potentially automatable,’ and if this could play out within ‘a decade or two,’ then we are looking at economic disruption on an unparalleled scale,” Kolbert cautions. “What if the jobs of the future are also potentially automatable?”

Thomas H. Davenport echoes this view of the future in his recent book, *Only Humans Need Apply: Winners and Losers in the Age of Smart Machines*, observing, “Smart machines have been steadily advancing...to the point where computers often make better decisions than people.” Kolbert illustrates this point in the way IBM was able to defeat chess champion Garry Kasparov with Deep Blue and “Jeopardy!” king Ken Jennings with Watson. How long before other experts in intellectual professions can be replaced or supplanted?

With a plurality of executives envisioning a decade of accelerating disruption, corporations face a challenge, and an opportunity, to respond to a dynamic and changing business world or run the risk of falling behind. Big Data and forms of AI such as machine learning will begin to merge, further accelerating the pace of change.