

## **Commentary: Emerging artificial intelligence can transform how we live and work**

Altuğ Ülkümen and Jerry Haar

*Guest Columnists*

Monday Mar. 14, 2018

Orlando Sentinel

It's been a little more than 20 years since IBM's Deep Blue computer beat chess champion Garry Kasparov in a six-game match. Since that time, artificial intelligence — also known as machine intelligence — has achieved an unimaginable level of breadth, depth and speed. To say it is revolutionizing our daily lives is an understatement. Alexa, Siri, AlphaGo; Amazon's suggestions of books of the same genre based on algorithms of previous reading preferences; the detection of malware; machines that signal to a central data bank when materials fatigue puts an engine at risk — these are just some of the breakthroughs in artificial intelligence.

While artificial intelligence is getting better — smarter at increasingly complex and cognitively demanding tasks — there are still many areas where humans excel and that includes creative tasks or those that require physical dexterity, but these are rapidly shrinking, given the comparative advantages of AI over the human mind. With AI, machines learn from examples rather than being explicitly programmed for a particular outcome.

The wonder of AI is that it has the advantage of vast memory or instant access to very large databases of information, and the ability to process them almost instantly. These databases also do not suffer from lapses, and performance does not decline over time.



*Altuğ Ülkümen, left, and Jerry Haar*

Take the example of a radiologist, a medical doctor with a specialist degree in radiology (requiring approximately eight years of study) who is capable of analyzing one image of a patient at a time. Now pitted against an AI system that can scan many more images and with a much higher degree of accuracy (fewer false positives or negatives) over the same period of time, we have a new problem: It is now the white-collar jobs that include cognitively demanding tasks that are being threatened or displaced.

As Massachusetts Institute of Technology management professors Erik Brynjolfsson and Andrew McAfee note: Commercial loan contracts that previously took loan officers 360,000 hours to review can now be completed in a few seconds, thanks to a system JP Morgan Chase introduced.

Is business ready for AI? According to global management consultants at McKinsey & Co., industries are less than 40 percent digitized, despite heavy penetration of digital technologies in retail, high technology and media.

A recent study by MIT Sloan Management Review and the Boston Consulting Group is illuminating. They interviewed over 3,000 business executives, managers and analysts in 112 countries and 21 industries. Almost 85 percent of corporate respondents believe that AI will give their firms a competitive advantage; yet, only 20 percent of the companies surveyed have incorporated AI in some of their offerings and production processes — this despite an investment of between \$26 billion and \$40 billion in 2016 alone.

The gap between firms that use AI and those that do not is large, with the laggards lacking analytics expertise and easy access to their data.

As for which industries are more inclined to harness the capabilities of artificial intelligence, 72 percent of respondents in technology, media and telecommunications expect AI to affect significantly the goods and services they offer customers over the next five years. However, it is important to keep in mind that, as Peter Breuer of McKinsey asserts, empowering companies to become AI-driven is 50 percent about AI and 50 percent about changing employee mind-sets.

AI will be able to accomplish tasks that, until now, were not achievable. AI has the potential of ushering us into a new golden era of unparalleled economic growth, productivity and prosperity, but much of this depends on how we steer the ship with this emerging technology in the critical phase of its early, formative years.

*Altuğ Ülkümen is a chartered financial analyst and IT consultant based in Geneva, Switzerland. He was formerly a partner and CIO at Lobnek Wealth Management. Jerry Haar is a business professor at Florida International University and a Global Fellow at the Woodrow Wilson International Center for Scholars in Washington, D.C.*