

The Wealth Perspective

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Artificial Intelligence?

“We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run.” – Ray Amara. Ray has been right in my life time. It seems many of the advances that computers promised in the early days (remember 2001 Space Odyssey) were just not technically feasible. We forget about the promise as time goes by and gradually technology invades our daily lives and, like the quote above, we underestimate the effects in the long run.

If we were Rumpelstiltskin, and had been sleeping from 1997 to now, it would be hard to imagine. We have instant voice prompt questions and answers on our phones and we can even watch full length movies on our phones. Exponential advance tells us that the next 10 years will bring 4 times the advancements than the last 20. So hold on it's coming and fast.

Here are some of the myths and realities of AI. Super intelligence by 2100 is inevitable/impossible. Many AI experts disagree on this one. There is no consensus. Only crazy paranoid people worry about AI. Many AI researchers are concerned. AI turning evil/conscious. Actually worry. AI having goals misaligned with ours. Robots are the main concern. Misaligned intelligence is the main concern. It needs no body, only an internet connection. AI can't control humans. Intelligence enables control. We control tigers because we are smarter. Machines can't have goals. Heat seeking missiles have a goal. Super intelligence is just years away. It's at least decades away. We need to take that time to make it safe.

The key driver behind AI is big data. In 1992 we collected 100 gigs of data per day. In 2017 we are producing 50,000 gigs of data per second. Machine learning is helping us make sense out of all this data; it is simply too much for us to absorb. People have made AI possible. Here are some of the founding fathers.

Geoffrey Hinton toiled away in relative obscurity developing his machine learning algorithms. His seminal papers on neural networks were scoffed at for decades. Today his theories have become the framework upon which much of machine learning is based. Now almost all machine learning experts have some background in cognitive science thanks in large part to his pioneering approach.

Andrew Ng is a professor at Stanford and the chief scientist at Baidu. While he was getting his start in the field he supposedly was the one who convinced Larry Page that Google needed to start working on AI. He believes AI to be the modern day equivalent of electricity. At first electricity was just used to power light bulbs, but soon people realized they could apply it to other things and before long nearly everything was hooked up to an electric power source.

Michael Jordan. Hard to believe but this Michael Jordan might actually go down in history as the more famous one. His biggest contribution was the popularization of Bayesian networks which are used in a wide variety of machine learning applications, most notably in medicine as it seems to be a particularly good method for matching symptoms to diseases.

Ben Goertzel founder of multiple artificial intelligence companies and chairman of the Artificial General Intelligence Society. He has devoted his life to solving intelligence and bringing about artificial general intelligence. He believes we will have machines as intelligent as humans by 2025.

Demis Hassabis as head of arguably the most advanced artificial intelligence lab in the world, Google's Deepmind. Demis may be closer than anyone else to achieving AGI. He is a strong believer in a machine learning technique called deep neural networks and uses it to drive his groundbreaking program AlphaGo. There are many more.

AI—When will we know?

Passing the turning test. When we can't tell if we are speaking to a robot or a person.

It starts taking action independently of a human. Sets its own goals

It starts questioning its own existence and wondering if there aren't better ways get things done.

We are not that far away—self driving cars are basically here and the basis of their ability to do this is rooted in all the above.

RE: futurism.com/the-age-of-ai-what-you-need-to-know-to-prepare-for-synthetic-intelligence

Thanks, Andy McClung CFP

2016 Market Results

S&P 500	+1.8%
NASDAQ Composite	+4.3%
Dow Industrials	+.05%
Russell 2000	+.03%
Dow Global	+2.6%

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