# SIRI co-founder: AI still too narrow to be feared

By **Michael Klein** - July 5, 2017

There is no shortage of fears over the rise of artificial intelligence. Both theoretical physicist Stephen Hawking and Tesla founder Elon Musk have warned that the development of full artificial intelligence could spell the end of the human race.

Futurist Ray Kurzweil predicted in his book "The Singularity is Near" that by 2029 computers will have human-level intelligence. Kurzweil, who is Google's director of engineering focused on machine learning, believes the singularity, a point when technological advances, especially in artificial intelligence, will lead to machines that are smarter than human beings, is going to prompt a rapid acceleration in intelligence.

Rather than fear this development, Kurzweil argues that AI is going to make humans smarter. Instead of a single all-encompassing and potentially threatening artificial intelligence that is often depicted in science fiction works, he says that by the 2030s there will be millions of artificial intelligences that will be connected to the neocortex of humans, heightening their intelligence.

In contrast to Hawking, who is concerned that humans, limited by their slow biological evolution, would not be able to compete and ultimately superseded by machines, Kurzweil believes AI will enable humans to transcend biology.

Closer to the present, Adam Cheyer, co-founder of SIRI, the digital assistant in Apple iPhones, says real AI is nothing that we have to be afraid of in our lifetime.

Speaking at accounting firm Eisner Amper's 10-year anniversary in Cayman, the inventor said, "In my view, there is nothing to worry about. If you talk to anyone who works in AI and understands what AI can or cannot do, it will be more likely that we will meet extraterrestrial life than machine life."

Cheyer stated that AI is very good at solving narrow problems, like self-driving a car or playing chess or Go, where neural network-trained machines are capable of beating the best human players.

"But we have made almost no progress in general AI. Any 5-year-old is way smarter than any machine in extracting core ideas from one situation and applying them to a completely different situation. We do not know how to do that. Consciousness, we have no idea what that means. There is no research that is making progress into that."

What humans are afraid of is a sentient being. But even though he started a company called Sentient Technologies, Cheyer said, "I can tell you. We do not know how to do sentient technologies."

When iPhone users talk to a digital assistant like SIRI, there are moments when it feels human-like. "But it is not real, it is just a simulation."

Yet, Cheyer acknowledges that during the past five to six years new advances have occurred that he never thought could happen: From Tesla's self-driving cars to a chat bot winning the Turing test, in which a computer program is able to convince humans who communicate with it through a computer interface that they are talking to another human.

The SIRI-co-founder believes the relationship between human and machine intelligence will evolve and lead to greater collaboration. In software coding, there are now programs written by machines that humans no longer understand, such as trading algorithms.

The combination of human and machine coding is already leading to a broader deployment of AI in the business context.

Companies are applying machine learning to optimize their decision making. AI is used in financial trading, in hospital emergency rooms to predict arterial blood pressure spikes inpatients, in personalized website development and even in agriculture to improve flavors and yield.

Cheyer, who also founded Viv, the digital assistant that will feature in the next Samsung Galaxy smartphone, says voice assistants could become the next paradigm that every business needs to connect, just like they have a website or mobile appearance.

This would require one assistant that can be accessed from any device for any type of service in a way that can be personalized, he said.

Today, Siri and other assistants are the same for every user. "I want an experience based on what I do, what my business is and what my interests are," Cheyer said.

Once this is achieved, the assistant will be a ubiquitous interface, as important as the web or mobile, he said.

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