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Machine Intelligence

The Transhumanists Arrive

Courtney Boyd Myers, 10.12.09, 6:00 PM ET

Technology futurists love to talk about the Singularity as the point in time when technology progresses so rapidly that machine intelligence melds with and surpasses human intelligence. In early October, more than 800 technology- and future-focused attendees gathered at the historic 92nd Street YMCA in New York City for the fourth annual Singularity Summit.

For \$498 (the cost of a weekend ticket) the audience wrapped its mental arms around presentations by well-known tech soothsayers, including author and programmer Ray Kurzweil; Steve Wolfram, the founder of the novel search engine Alpha; Aubrey de Grey, an expert on anti-aging science; Australian philosopher David Chalmers, who advised the Matrix film series; and Pay-Pal co-founder and venture capitalist [Peter Thiel](#), who has donated more than \$100,000 to the Singularity Institute for Artificial Intelligence (SIAI), the organization putting on the event.

Kurzweil--Singularity's "main man"--predicts machines will surpass human intelligence by 2029. Others say it won't occur for another 40 to 100 years. But when we do cross that line, SIAI President Michael Vassar says nothing will be the same. "Humans living in the post-Singularity world will be as powerless as jellyfish are in today's world," he says.

In Pictures: The Transhumanists Arrive

At the conference, a presentation from [Brad Templeton](#) on the future of the auto industry turned out to be a crowd favorite, in part because of the videos he showed of DARPA's robotic cars.

"Robots won't drink and drive," Templeton promised. Since human drivers kill 40,000 people per year in the U.S. and millions worldwide, this is a future we can all be happy about. Unless you are an insurance agent who asked Templeton, "Well, if no one dies from accidents anymore, what will happen to the collision insurance industry?"

When Kurzweil took the stage, he was met with wild applause. He believes futurism is about thinking "exponentially, not linearly," and bases his predictions on principles like Moore's Law. Kurzweil said he looks forward to living in an age in which human intelligence is augmented by brain implants that extend our memories, enhance our senses and allow us to solve problems faster and with greater accuracy. He predicts that one day machines will have consciousness. For those unconvinced in the audience, Kurzweil asked, how does one test consciousness?

Today thousands of people can already claim some sense of medical "cyborg status." According to Ed Boyden from MIT's Media Lab, 100,000 people have cochlear implants, 30,000 people have deep brain stimulators and tens of thousands of patients have spinal stimulators. Further work in machine intelligence could have profound medical achievements. By replicating the human brain onto computer software, as Henry Markram aims to do with his Blue Brain Project, we may be able to understand our brain's organizing principles and therefore cure diseases like stroke and addiction with direct brain engineering. We might also augment existing brain functions like memory.

In a time of financial crisis, the idea of looking so far into the future can be daunting to some. But Clarium Capital Management founder Thiel said the Singularity is the single most important economic, political and technological question that we *have* to answer. He said we are not in an economic or housing recession right now, but that we are experiencing a technology crisis.

He explains our current crisis as a credit problem because all forms of credit involve claims on the future. For instance, a bank will lend us money if we can pay more in the future based on our history of growth. But if we experience a severe credit crisis, it's because we were wrong about future growth.

So where's the money in AI? Over lunch on the first day, two London-based hedge fund managers said they'd flown in for the weekend just for the summit because the Singularity is vital to their work in long-term investments.

Many computer scientists and engineers remain skeptical of the Singularity and the cargo-cult enthusiasm that surrounds it. They don't believe in humanity's ability to reach a point at which technology will be so complex as to render us inconsequential. Ariel Rabkin, a third year Ph.D. candidate at UC Berkley's Computer Science program, who did not attend the summit, doubts that many technical people take the Singularity seriously. "Human-comparable AI is really hard," he said, "And we're nowhere close to achieving it." He added, "I can tell you that nobody I work with at Berkeley or elsewhere has ever mentioned it. We don't think about it."

There is no shortage of prophets predicting the end is near, but the Singularity continues to pique the curiosity of the layman. The robotic car builders, morally bound computer engineers and anti-aging scientists put on their best efforts to capture the attention of a wider audience and persuade tech savvy venture capitalists to open their wallets. Their vision for our future, while a little horrifying at times, seems to have our best interests at heart. They promise to continue working to guarantee our survival.

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