

A Scientist Says Humans Will Reach the Singularity Within 19 Years

The countdown is on...

Here's what you'll learn when you read this story:

- Futurists have long debated the arrival of the singularity, when human and artificial intelligence will merge, a concept borrowed from the world of quantum physics.
- American computer scientist and futurist Ray Kurzweil has long argued that the singularity would likely occur around the middle of the 21st century, and with the rise of AI, his predictions are gaining more credence.
- In his book, *The Singularity is Nearer*, Kurzweil doubles down on those predictions and details how humanity's intelligence will increase a millionfold via nanobots (among other things).

You don't exactly become a world-renowned futurist by making safe predictions. And while all of those past predictions don't always come to pass, these ideas help expand our thoughts on what exactly the future might look like.

And no one makes futuristic predictions quite like Ray Kurzweil.

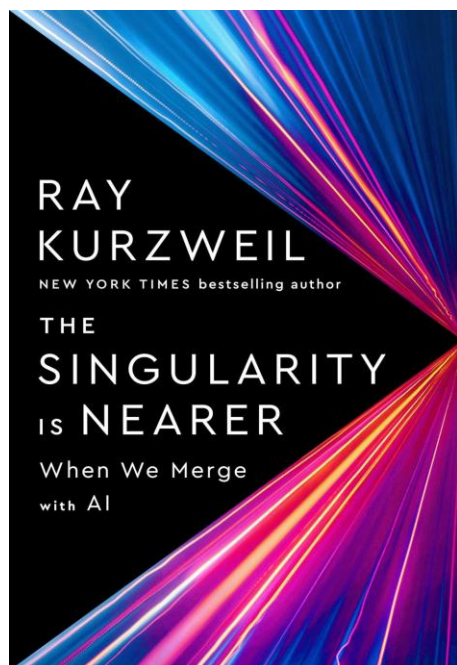
An American computer scientist-turned-futurist, Kurzweil **has long believed** that humanity is headed toward what's known as "**the singularity**," when man and machine merge. In 1999, Kurzweil theorized that **artificial general intelligence** would be achieved once humanity could achieve a technology capable of a trillion calculations per second, which he pegged to occur in 2029.

Experts at the time scoffed at the idea, figuring it'd be at least a century or more, but with Kurzweil's timeline only a few years off—and talk of AGI spreading—that decades-old prediction is beginning to loom large.

Can We Contain AI Before We Reach the Singularity?

In his 2024 book, **The Singularity is Nearer** (a play on his 2005 book of the same name minus an “-er”), Kurzweil doubles down on these ideas in the modern era of artificial intelligence. Not only is he “sticking with [his] five years” prediction, as **he said in a TED Talk**, Kurzweil also believes that humans will achieve a *millionfold* intelligence by 2045—just 19 years from now—aided by brain interfaces formed with nanobots non-invasively inserted into our capillaries.

“We’re going to be a combination of our natural intelligence and our cybernetic intelligence,” Kurzweil said in an interview with **The Guardian**, “and it’s all going to be rolled into one. We are going to expand intelligence a millionfold by 2045, and it is going to deepen our awareness and consciousness.”



While this idea subscribes to a merger more akin to physical intervention to bridge the gap between man and machine, other philosophers and AI experts agree that some form of merger is **likely inevitable**, and in some ways, is already beginning. In July 2024, Oxford's Marcus du Sautoy and Nick Bostrom both **expounded on the hopeful and harrowing** possibilities of our AI future, and for both of them, a kind of synthesis appeared inevitable.

"I think that we are headed toward a hybrid future," Sautoy told *Popular Mechanics*. "We still believe that we are the only beings with a high level of consciousness. This is part of the whole Copernican journey that we are not unique. We're not at the center."

Of course, this "Brave New World" of a hybrid AI-human existence brings with it a plethora of issues both political and personal. What will humans do for jobs? Could we possibly live forever? Would that change the very idea of what it means to be human?

Who Sets the Doomsday Clock?

Kurzweil, like many other futurists, is relatively optimistic on this front. In that same interview with *The Guardian*, Kurzweil highlights the idea of a Universal Basic Income as a necessity rather than a fringe idea currently supported in more progressive circles, and AI will bring unprecedented advancements in medicine, meaning the very idea of immortality isn't out of the realm of possibility.

"In the early 2030s we can expect to reach longevity escape velocity where every year of life we lose through aging we get back from scientific progress," Kurzweil told *The Guardian*. "And as we move past that, we'll actually get back more years. It isn't a solid guarantee of living forever—there are still accidents—but your probability of dying won't increase year to year."

Just like *Back to the Future Part II* predicted flying cars, so too could these technology-fueled utopias crumble to dust as these dates inch closer and closer. But more than two decades ago, Kurzweil predicted we'd be rapidly approaching a major moment in humanity's technological history at the tail end of this decade.

Currently, no evidence suggests the contrary.