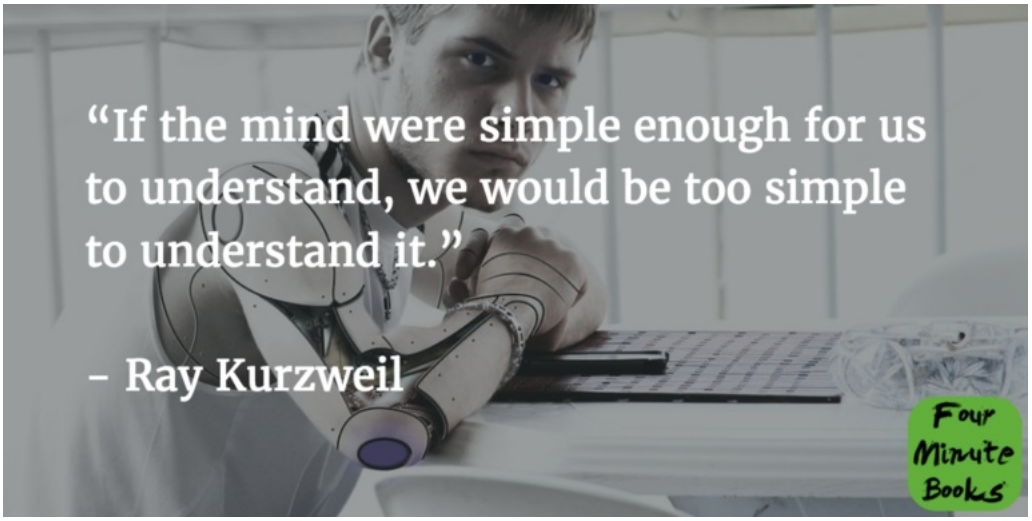
The Singularity Is Near Summary

1-Sentence-Summary: *The Singularity Is Near outlines the future of technology by describing how change keeps accelerating, what computers will look like and be made of, why biology and technology will become indistinguishable and how we can't possibly predict what'll happen after 2045.*

Read in: 4 minutes

Favorite quote from the author:



Ray Kurzweil is THE future guy at Google. His inventions range from optical character recognition devices to scanners and print-to-speech reading machines for the blind. He's preoccupied with topics like futurism, transhumanism (overcoming fundamental human limitations, like death) and of course, artificial intelligence.

He's also written seven books about these and other topics, many of which include predictions about the future. A lot of Ray's predictions from the past turned out to be correct (for example that computers would beat the world's best chess players by the year 2000 – IBM's Deep Blue beat Kasparov in 1997), so it'll be exciting to see which of the ones from *The Singularity Is Near* are spot on.

The singularity itself is a term describing a singular point in human history, where the future of humanity will become unpredictable, because it's changing so quickly. Imagine an artificial intelligence so smart that it constantly revolutionizes and improves itself at such a fast rate, that even the laws of physics will have a tough time catching up with it.

There are upsides and downsides to that. Here are 3 of them:

1. The Law of Accelerating Returns says that the speed of evolution keeps increasing.
2. Self-replicating nanobots will soon replace doctors and repair your body from the inside.
3. If the nanobots go haywire, we're screwed.

Ready for a sneak peek into the future? Let's look into Ray's crystal ball!

Lesson 1: The speed of evolution increases every year, according to the Law of Accelerating Returns.

Take a second to think about all the changes your great-grandparents have seen in their lifetime. Mine have seen the rise of the car, the commercialization of aircraft travel and the first moonlanding. Now your grandparents. My grandma and grandpa are some of the few who manage to deal with smartphones and the internet somewhat decently.

Contrast that with what you've seen in just the last 15 years. The entire world is now connected. Cars start to drive themselves. You can carry most of the world's knowledge in your pocket. Space rockets can be re-used.

The more time passes, the faster evolution brings about new changes. Around 4 billion years ago the process of evolution started. It took half of that time (2 billion years) JUST for multicellular organisms to develop from single-cell organisms. After that, the evolution from the first mammals to our homo sapiens took only 200 million years.

That's not all though. According to Ray, what he calls the Law of Accelerating Returns says that in addition to the changes themselves, the benefits of those changes for humanity, the returns of evolution, are also increasing.

For example, if you look at the number of calculations per second a $1,000 computer can make used to double every three years until 1950. Then, until 1966, it doubled every two years. Now it doubles every year, making computers cheaper all the time.

Lesson 2: Your doctor will soon be out of a job, because nanobots will repair your body from the inside.

Let's transfer this accelerating rate of returns to a field that's becoming more and more intertwined with technology: medicine. Can you imagine what medicine will look like 10-20 years from now, given that it'll evolve faster every year?

One example of such a next-level technology are **nanobots**.

These mini-robots are so tiny that they can move through your entire body, for example using your bloodstream as a means of transport. **You can imagine them as white blood cells on steroids**. They'll be able to eliminate bacteria, toxins or viruses from your body wherever they're needed, keep your veins and arteries clean and remove chemical residues in your brain. Nanobots could even be used to deliver medicine just to specific cells, for example cancerous ones, or repair your genes when they're damaged, for example from a sunburn.

Apart from being controllable via the internet, these nanobots will be able to self-replicate, meaning they can make however many copies they need of themselves, in order to take care of your body. You'll just have to go to the doctor once and get an initial injection – after that, you can say bye-bye to your physician!

Lesson 3: If the nanobots spin out of control, we're all doomed.

Everything that has an upside also has a downside. Ray thinks the singularity will happen by 2045. By then, nanobots in our bodies will be common practice. In fact, they'll be a vital part of our survival. Imagine some of the nanobots protecting and healing your brain or immune system are destroyed or break down – they'll need to be replaced quite fast! That's why they'll be able to replicate themselves in the first place.

But just like bodily cells can spin out of control and turn into cancerous cells by self-replicating uncontrollably, so could the nanobots. Nobody knows what'd happen if a virus turned your nanobots against you, but that's not even the most frightening scenario.

If nanobots started multiplying uncontrollably outside of a human body, a nuclear explosion will seem like a joke.

Nanobots use carbon atoms as their basic building blocks, meaning they need carbon to survive. Infinitely replicating nanobots would start sucking carbon atoms from every piece of biomass around them – trees, animals, even humans – until there's nothing left. Since the number of nanobots doubles with each replication, it'd only take 130 iterations until all life on earth is gone. This'd take anywhere between three hours and a couple of days.

Scary huh?

The Singularity Is Near Review

I took two of the most contrasting points from the book, because I wanted to show you that the future lies on a spectrum. These are the extremes and we'll likely end up somewhere in the middle of annihilation and immortal super-humans. I think Ray is one of your best bets to learn something about tomorrow today, so if you want to learn more about some of his other predictions, go check out *The Singularity Is Near*!

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What else can you learn from the blinks?

- How DNA-powered computers will give us 1000x increases in processing power

- Why your smartphone might soon be smarter than you
- What will enable gene therapy to become common practice
- The reason organ donations will be unnecessary soon
- Why your body will at some point be more technology than biology, and how that'll give you X-Men style abilities
- How you'll be able to download knowledge into your brain by 2030, just like Neo did in The Matrix
- When $1,000 will get you a computer that's smarter than all of humanity combined

Who would I recommend The Singularity Is Near summary to?

The 23 year old medical or nursery student with an interest in anti-aging technology, the 37 year old app developer, who's curious about the development of artificial intelligence, and anyone who likes sci-fi movies.