

HOMO DEUS

A Brief History of Tomorrow

By Yuval Noah Harari

In the 20th century, humanity made great progress in reining in

1. famine
2. plague
3. war

In the 21st century, humanity will focus on three new overarching goals:

1. immortality (or at least greatly extended life spans)
2. happiness
3. divinity (or more accurately, upgrading our minds and bodies to give us what today might be seen as superhuman capabilities, perhaps analogous to the Greek or Roman gods)

1. Immortality

“For modern people death is a technical problem that we can and should solve.”

“Humans always die due to some technical glitch.... Nothing metaphysical about it.... And every technical problem has a technical solution.”

“An increasing minority of scientists and thinkers state that the flagship enterprise of modern science is to defeat death and grant humans eternal life.”

“The breakneck development of fields such as genetic engineering, regenerative medicine and nanotechnology fosters ever more optimistic prophecies.”

2. Happiness

“If science is right and our happiness is determined by our biochemical system, then the only way to ensure lasting contentment is by rigging this system.”

“We need to manipulate human biochemistry. And this is exactly what we have been doing over the last few decades.”

Tools: increasingly sophisticated drugs, direct electrical stimulation of appropriate spots in the brain, genetic engineering.

3. Divinity

“The upgrading of humans into gods may follow any of three paths:

a. biological engineering

b. cyborg engineering

c. engineering of non-organic beings.” (e.g. “neural networks will be replaced by intelligent software, which could surf both the virtual and non-virtual worlds, free from the limitations of organic chemistry.”)

Organisms are Algorithms

“The algorithms controlling humans work through sensations, emotions, and thoughts.”

Will the concept of “mind” fall into the dustbin of history like the earlier concepts of ether, soul, and God.

“Some scientists concede that consciousness is real and may actually have great moral and political value, but that it fulfills no biological function whatsoever. Consciousness is the biologically useless by-product of certain brain processes.”

How does modern science relate to religion?

“All too often people confuse religion with superstition, spirituality, belief in supernatural powers or belief in gods. Religion is none of these things.”

Religion is any all-encompassing story that confers superhuman legitimacy on human laws, norms and values. It legitimizes human social structures by arguing that they reflect superhuman laws [e.g., natural laws, economic laws, moral laws].”

“Religion asserts that we humans are subject to a system of moral laws that we did not invent and that we cannot change.”

Note: His definition is similar to concepts such as worldview, i.e concepts of how the world fundamentally works (“that’s just the way it is)

In addition to traditional religions, examples of more modern religions include

Liberalism

Nazism

Socialism (Marxism)

Humanism

“Religion gives a complete description of the world and offers us a well-defined contract with predetermined goals.”

Humanism

“Modern culture rejects the belief in a great cosmic plan.... The great political, artistic and religious project of modernity has been to find a meaning to life that is not rooted in some great cosmic plan.”

The result is the development of the dominant modern religion, humanism.

Humanism includes four major components/beliefs.

1. Individualism, i.e. the belief that every person is unique, valuable, has a core ‘self’ and has ‘free will’. Ultimate value lies with the individual, not the collective.
2. Human Rights
3. Capitalism, i.e. the free market
4. Democracy

Up to this point Harari has discussed the rise and fall of religions through history and where we are today. To what purpose?

To point out that all our beliefs are coming under serious scrutiny and challenge, and with the continued acceleration of technological advancement, our lives and all these beliefs are at risk of gradually being replaced by new technology “religions.”

“When genetic engineering and artificial intelligence reveal their full potential, liberalism, democracy, and free markets might become as obsolete as flint knives, tape cassettes, Islam and communism.”

Here’s where the book gets REALLY interesting!

Chapter 8 is entitled “The Time Bomb in the Laboratory”

1. Scientists are amassing evidence that “free will” is an illusion. “Over the last century, as scientists opened up the Sapiens black box, they discovered neither soul, nor free will, nor self—but only genes, hormones, and neurons that obey the same physical and chemical laws governing the rest of reality.”

2. Likewise, the idea of a single, unique core self is faltering in light of new evidence about brain functioning. “We are not individuals, we are ‘dividuals’.” “In reality, there is only a stream of consciousness, and desires that arise and pass away within this stream, but there is no permanent self that owns owns the desires....”

3. robo-rats

“Armies and corporations are showing keen interest in the robo-rats.”

Chapter 9: “The Great Decoupling” (from Humanism, i.e. our core beliefs)

Three potential scenarios of the 21st century

1. Humans will lose their economic and military usefulness, hence the economic and political system will stop attaching much value to them.
2. The system will continue to find value in humans collectively but not in unique individuals.
3. The system will still find value in some unique individuals, but these will constitute a new elite of upgraded superhumans rather than the mass of the population.

Harari discusses at length new technologies, especially AI and robotics, that are already displacing workers because they can do the job better. As it turns out, consciousness is not needed to do most jobs, but rather intelligence. Artificial intelligence—including the ability to recognize, patterns, problem solve, and utilize vast amounts of data that is incomprehensible to humans—is simply smarter in specific ways than us. “For AI to squeeze humans out of the job market it needs only to outperform us in the specific abilities a particular profession demands.”

e.g. stock-exchange traders, teachers, doctors, musicians, artists

e.g. robotic pharmacy in San Francisco

“The idea that humans will always have a unique ability beyond the reach of non-conscious algorithms is just wishful thinking.”

“The crucial problem isn’t creating new jobs. The crucial problem is creating new jobs that humans perform better than algorithms.”

Interesting discussion of how AI, via wearables , emotional recognition via face scans, etc., will ultimately know us better than we know ourselves. At some point we will ask for the AI's help in decision making. Further on, we will depend on that for decision making.

“Humans will no longer be autonomous entities directed by the stories their narrating self invents. Instead they will be integral parts of a huge global network.”

The final two chapters of the book discuss in depth the likely new religions of the future.

1. Techno-humanism

“Techno-humanism agrees that Homo sapiens as we know it has run its historical course and will no longer be relevant in the future, but concludes that we should therefore use technology in order to create Homo deus—a much superior model.”

2. Dataism

“Dataism declares that the universe consists of data flows, and the value of any phenomenon or entity is determined by its contribution to data processing.”

“Dataism is most firmly entrenched in its two mother disciplines: computer science and biology. Of the two biology is the more important.”