

Artificial intelligence – Introduction: Perspectives on AI

Various points of view on artificial intelligence exist. The future evolution of AI applications is especially the subject of debate. The three most common scenarios predicting the evolution of AI are addressed below.

“AI will replace us” scenario

“Intelligent robots will populate the Earth and exist together with humans. People developed these robots in their likeness and brought them to life. The robots will use their artificial intelligence to develop their own life and overthrow human domination.”

This narrative turns up repeatedly in numerous movies, books, computer games, plays, and other works of art. Humans are usually assigned the role of protecting their existence and their planet from the intelligent machines that have become dangerous. Movies such as “Matrix” and “Blade Runner” have made these negative future scenarios popular in recent decades. As digitalization advances, these scenarios appear to be moving closer to the present and are also being picked up in media.

“AI will save us” scenario

Besides the rather negative view of artificial intelligence, a positive perception of the future with AI also exists. This view states that AI is a supermachine that autonomously solves problems and makes people’s lives easier. Compared with people, AI can process far more information, is less restricted physically, and is “invulnerable”. AI is superior to humans because it is not subject to feelings when making decisions and is thus more rational. It always makes reasonable decisions. Accordingly, it will not replace or exterminate people.

“AI will support us” scenario

Especially in professional circles, experts grapple with the topic in a more sophisticated manner. Frequently, they do not represent either of the two views of the future with AI as described above. Instead, among experts the view often prevails that in some areas, AI will evolve into a valuable assistant that can reduce people’s workloads with certain tasks. In this scenario, people are always the ones who will retain control over the machines.

What is the current reality?

Opinions about the future of AI indeed diverge greatly, but they have one thing in common: AI is predicted to be capable of a great deal. This raises the question of how far AI has been developed to date, what opportunities can be derived from it, and what challenges must be overcome.

To be able to evaluate this, we should clear up the following questions:

- What exactly does AI mean?
- Can natural intelligence really be simulated artificially?
- What constitutes the intelligence of machines?
- How does AI learn and to what extent is it intelligent?
- What are examples of applications and how do they work?
- How and where can AI help?
- What risks does AI entail and how can they be handled?
- What are the limits at this time?
- What future developments can be derived?