

# Simple ideas about AI

*Definition of "AI" or "Artificial Intelligence": a branch of computer science dealing with the simulation of intelligent behavior in computers, the capability of a machine to imitate intelligent human behavior (Merriam-Webster)*

## There is no AI

In the 1999 movie "*The Matrix*" a zen kid teaches the protagonist, Neo, to bend a spoon with his mind, only to reveal that the trick is to realize: "There is no spoon". AI is kind of mindbending too, but in a similar way it is useful to realize: there is no AI! Instead there is a powerful collection of mathematical tools, algorithms and models, which aim to simulate intelligence. The fact is, that these tools can deliver truly amazing results, when they are applied in the right way and this is the reason for their popularity. Tools like **machine learning**, **deep learning**, **agents** and all their variations are now part of the common language and usually referred to in some way as AI. Mathematical models are nothing new in the industry as such and have been part of optimization tools for decades. What is new, is that the performance of computers and availability of data have reached a level where the powerful models can work in a time-frame that makes sense in practical use.



"There is no spoon"

## A whole lot of data

If you have heard anything about AI, you are sure to have heard, that the AI needs data. A whole lot of data. While this is true for many of the tools, it is not the case for all tools. Furthermore it has led to a general misconception, that if only you have a "lot of data" then you can apply AI tools. This leads to many disappointments with results and the return on the investment can be unnecessarily poor. Reasons for this are often:

- The **quality** of the data is poor (wrong, missing, inhomogenous)
- The data is not **relevant** for the business objective
- The data is in the wrong **place** and/or available at the wrong **time**

## The simple ideas

We create an environment (a platform) where the AI has access to the right kind of data at the right time, allowing it to **learn and perform in real time**. This makes it possible to train the AI on the go making it easier for both humans and machines to learn together in double learning loops. This reduces risks in connection with the implementation and leads to a **shorter path to return on investment**. Note that some types of problems will require different technologies and different approaches.

