

# Artificial Intelligence explained

Program teacher workshop 2 x 90 minutes

*Program version Sept 29, 2020. The order and type of modules can be dynamically adapted with respect to the needs of the participants as required.*

## **Unit 1, 90 minutes**

- Presentation, technical and organizational introduction
- Definition: What is AI?
- History of Artificial Intelligence
- Definition of terms, abbreviations
- Core concepts of AI at a glance
- Introduction to the subject of neural networks
- Presentation of the 'recognizer' for handwritten numbers
- Live training of a neural network
- Presentation of the module 'Simple Networks' (mathematics of neural networks)

## **Free training**

- In-depth reading
- Optional: Build your own AI

## **Unit 2, 90 minutes**

- Introduction to the Gradient Descent method
- Presentation of the online game Gradient Descent
- Module: Sumory (experiment with the restaurant game, strategies, average values, use of this core method within AI and in everyday life)
- Module: Turing Table (chatbots, Turing test, introduction to the game "Turing table")
- Outlook to other core methods (reinforcement learning, deep learning), current applications, and current state of research
- Didactic integration and worksheets

## **Free training**

- Create a lesson on AI
- Exchange among the participants about the lesson plans