

Artificial Intelligence explained

Short Program Overview

A version of the program from Sept 24, 2020, the order and type of the modules can be dynamically adapted with respect to the needs of the participants as required.

Digital

Analog

Discussion Game

Unit 1, 120 minutes

- presentation (of all participants) with an overview of the process and technical introduction *Discussion game*
- Introduction to the topic with AI brainstorming, application examples, terms, overview map of the AI, vocabulary *Discussion game*
- Module: Neural Numbers (neural network, training data, learning) *Digital*

Free experimentation (after the workshop), approx. 120 minutes, offline/asynchronous, independently, if possible in small groups

- Module: Build your own AI *analog*

Unit 2, 120 minutes

- Feedback on the experiments *Discussion game*
- Module: Treasure hunt with Gradient Descent (Discover method, error function, draw curves together) *Digital*
- Additional module: Simple Networks (experiment with simple neural networks, adjusting weights, learning, generalization) *Digital*

Free experimentation (after the workshop):

- Gradient Descent method (describe the method, invent treasures) *Analog/Digital*
- Simple Networks Game (various levels) *Digital*

Unit 3, 120 minutes

- feedback on the experiments *Discussion game*
- Module: Sumory (experiment with the restaurant game, strategies, average values, use of this core method within AI and in everyday life) *Digital*
- module: Turing table (chatbot, historical examples, Turing Test, introduction to the game "Turing table") *Analog Discussion game*

Free experimentation (after the workshop):

- Chat with Hans (AI chatbot) *Digital*
- Play the game “Turing table” in small teams *Analog*

Unit 4, 120 minutes of

- Feedback on the experiments *Discussion game*
- Module: Music and AI
 - experiments with piano genius and AI jam (discussion on “Can an AI generate art”) *Digital*
- Module: Perspective AI (social effects of AI, what's possible in the near future? What is desired?) *Analog Discussion game*
- Feedback on the workshop *Discussion game*
- List of reference material for further training *Discussion game*

Free experimentation

- Take the (German) virtual tour of I AM AI
- Write a letter to your workshop leader and tell them what you enjoyed what was difficult, what was too simple, too complex, etc. ... How can the workshop get even better? *Discussion game*