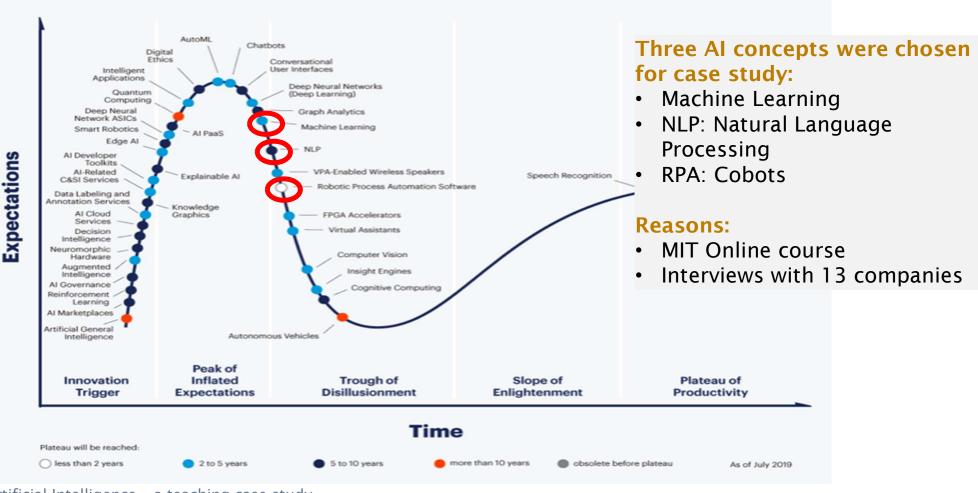# Case Artificial Intelligence in Practical Use

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Introduction

- Using Artificial Intelligence (AI) generates opportunities and risks that need to be managed.

- Instead of often referenced Silicon Valley companies, we developed a case study that enables students to learn how European companies implement AI.

- The case study was published at "The Case Centre": http://casecent.re/p/174165

Gartner Hype Cycle for Artificial Intelligence, 2019

Three AI concepts were chosen for case study:
• Machine Learning
• NLP: Natural Language Processing
• RPA: Cobots

Reasons:
• MIT Online course
• Interviews with 13 companies

Artificial Intelligence – a teaching case study

Definition of AI concepts used in Case Study

- **Natural Language Processing** deals with the interaction between computers and humans using natural language

- **Machine Learning** is an AI concept that enables systems to automatically learn from experience and improve without being explicitly programmed to do so.

- **Robotic Process Automation / Cobotics** deals with the intelligent control of collaborative robots or Cobots. A Cobot is a robot that works together with humans and is not separated from them by protective devices.

Three use cases

- **Natural Language Processing** in the **BKW** call center process

- **Machine Learning** in the Predictive Maintenance of the mechanical engineering company **Imoberdorf AG**

- **The use of Cobots** (Collaborative Robots) from **F&P Robotics** in nursing homes

| Raw part | imo-compact 20 stations | 18x 200 series units | Finished part |

- **Production quantity:** 6 Mio parts/year
- **Cycle time:** from 2,5 to 5 s/part
- **Retooling time:** < 2 hours
- **Precision:** // 0.03mm | Ø ±0.007mm

Nursing cobots: Form?

Japan

Switzerland

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Outline of Case Study

Preparation

▸ Students prepare in groups presentation for

  ▸ definition of «Natural Learning Processing», «Machine Learning» and «Cobots»

  ▸ the three use cases, mainly

    ▸ In which processes of use case could artificial intelligence be used?

    ▸ Which are the benefits and challenges of Artificial Intelligence in the use case?

Benefits of Case Study

▸ Students need to form an opinion about how and when to use AI

▸ The interface of «business» and «IT» is discussed – one of the main challenges of using IT solutions in companies

▸ AI is discussed based on three real use cases and real business processes

> no Silicon valley fad

Thank you!

For questions, please contact
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