

Walter Ganz, Fraunhofer IAO »SmartAiwork« 3. July 2019

Using AI to raise productivity and quality on business processing

The »SmartAiwork« cooperative project

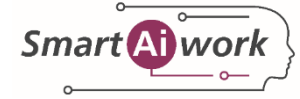
- Explores the impact of AI on operation processes
- develops design options for AI-supported office work
- designs pilot solutions in three SMEs
- transfers guidance and recommendations

The SmartAiwork cooperative project is running from 01 Nov. 2017 to 31 Oct. 2020 and supported by the German Federal Ministry of Education and Research (BMBF) under the subsidy ID 02L17B00ff.



»SmartAIwork« Cooperative Project

Project definition: Artificial Intelligence (AI)



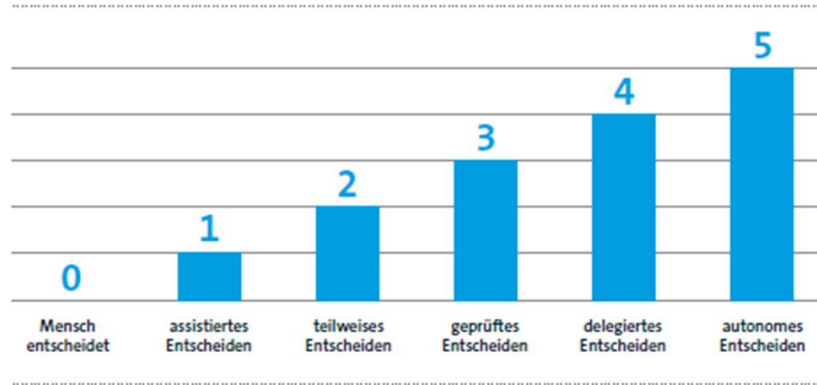
IT solutions and methods that perform tasks independently, whereby the rules underlying the processing are not explicitly defined by humans.

Until now, these tasks required human intelligence and dynamic decisions. Now, AI takes over and learns how to improve orders and workflows based on data.



How about the challenges and potentials?

1. How about the decision architecture of human being – machine collaboration?



Source: Bitkom (editor) 2017; Künstliche Intelligenz verstehen als Automation des Entscheidens. Leitfaden, p. 14.

2. How about the idea that employees being ruled by machines?

The Cyberboss – Algorithms as superiors.

The challenges might be the legal framework and the acceptance of the employees.



3. How about New Roles Induced by Artificial Intelligence?

Occupation	Tasks
Trainers/teachers	
Teacher for AI speech systems	AI systems are taught semantic meanings beyond literal meanings
Model-maker for AI interaction	Machines are taught human behaviour patterns
Trainer for cultural aspects	Machines are taught cultural aspects
Explainers	
Context designer	AI decisions are taught extended global aspects (e.g. corporate culture)
Transparency analyst	Classification of various types of transparency of algorithms
AI strategist	Determine whether AI implementation is useful or not
Sustainability experts	
Automation ethicist	Evaluation of opportunities and risks of AI
Automation economist	Assessment of costs of low AI performance
Machine relations manager	Addressing the question of which algorithms are good and which ones are detrimental
Other jobs	
Data scientist	Analysing and processing of large data volumes in real time from different sources ('big data')
Interface designer	Development of user interfaces for computer systems
Systems engineer	Planning, developing and designing complex technological systems
Game programmer	Programming for scenery and operation of computer, video, and smart phone games

Outlook: Seeing a brighter Future – Augmenting not replacing!!!

»We're already seeing indications that this brighter future is achievable.

The first part of the counter-narrative tells the story of how the most forward-looking organizations are using technology to augment (not replace) humans, freeing up their capacity to leverage what makes them truly human (...).

(Titus, A.; Ackerman, C.; Clugage, J. 2019, S. 2.).