

Abstract for Momentum Praxisbericht

Title: Click intelligence forever

Subtitle: The hidden role of human intelligence in AI

My main idea: I want to give visibility the “human factor” in AI by analyzing the division of work of humans and machines.

The historical starting point is *Mechanical Turk*. *Mechanical Turk* was supposed to be an automated chess playing machine in the 18th century. But it turned out, that at the end, there was a human in the machine playing the game. This example shows, that humans somehow like to trick themselves and hide their own domination and responsibility by creating autonomous machines on the one side. And on the other side, no one is talking about the person in *Mechanical Turk*, who actually did a pretty good job in beating historical figures in chess.

I wonder why some machines and programs are made “smarter” than they are. And I do wonder, why there isn’t a greater focus on the work division of humans and machines. *Under a perspective of work division ChatGPT for example could be rather labeled as a collective artificial intelligence trained by millions of humans (at least in the last iteration) and not be reduced to it’s user interface as very smart chatbot. Human workforce (putting well paid Software Developer aside) is crucial for supervised learning and reinforcement learning.* This fact is important to evaluate the “hegemony of machines” and show,

- 1) machines are tools and humans decide how to use them and;
- 2) human labor is crucial for AI.

To evaluate my assumptions, I will take a detailed look at three examples and outline the relationship of machines and humans. And I will need to take a closer look at what is meant by “humans” and take a power analysis into consideration.

Example 1: Amazon Mechanical Turk

Example 2: Chat GPT

Example 3: Industrial Robotics

Conclusion: Lets talk about power, which Humans are in Command?

Example 1: Amazon Mechanical Turk (Clickworker “better than a computer)

AWS is one of the biggest Cloudprovider. “[...] the Mechanical Turk online service uses remote human labor hidden behind a computer interface to help employers perform tasks that are not possible using a true machine.”

Use cases:

- **Building, managing, and evaluating Machine Learning workflows**
- **Human-subject research**
- **API to include humans in applications**

*“Amazon Mechanical Turk is a web service that provides an on-demand, scalable, **human workforce to complete jobs that humans can do better than computers, for example, recognizing objects in photos.** For more information about this product go to the Amazon Mechanical Turk.”*

“MTurk can be a great way to minimize the costs and time required for each stage of ML development. It is easy to collect and annotate the massive amounts of data required for training machine learning (ML) models with MTurk. Building an efficient machine learning model also requires continuous iterations and corrections. Another usage of MTurk for ML development is human-in-the-loop (HITL), where human feedback is used to help validate and retrain your model. An example is drawing bounding boxes to build high-quality datasets for computer vision models, where the task might be too ambiguous for a purely mechanical solution and too vast for even a large team of human experts.” <https://www.mturk.com/>

Workers invisibility in Amazon Mechanical Turk:
<https://escholarship.org/uc/item/10c125z3>

Example 2 Chat GPT

- Dive into machine learning models and explain supervised learning and reinforcement learning from human feedback

Example 3 Robot in the industry?

- Explore relationship of workers and the most sold industrial robot