**Definitions on AI**

**Initial thoughts**

Using ways to computer programming (ML) human thinking capabilities. To see problems in a math form, logic behind it as a way to perceive. AI using a lot of data. More in the human thinking way to simulate. A computer which can think by itself, without a specific definition of thinking.

Simulating human behaviour? Only with data input there is some kind of output. But you can also think about this in the human way. A bunch of things that we can perceive and then it makes connection and output things. A manipulation of data to simulate the logics of humankind.

**And after watching the videos**

Some parts were strictly defined, but no one can answer the question on only one definition. Its quite philosophical. And also really depends on the field on how you define it what part is important.

**Where does it stops to be math and starts to be intelligent?**

* An algorithm which can determine if it's a leap year

It’s math because you can describe it in a very logical way and it only uses a couple of lines of code. But you can give it a definition/ label and it depends on your training data is what makes it an AI.

* A robot which can kick a ball into a goal

If its designed to only kick a ball it’s intelligent. But if it’s more complex and it can recognizes surroundings and translate that in different outputs its AI.

* An agent playing chess

The game chess it’s pure mathematics if you can make an optimized step each time. It’s about how its trained and what data is used what makes it AI.

* A vacuum robot

If its based on complex input, trained and can adapt in new environments its intelligent. But if its only responding on direct surroundings its not.

* A robot opening a door

If its specifically for one door than its not AI, but if can simulate human thinking about opening a door (recognize every different door, grab a doorhandle etc.) it’s AI. If it learns from previous experiences and can adapt to new things.

* An algorithm predicting the next item in a numbered series

It completely depends on the subject and training data. If it could identify different types of patterns/ abstract relations. If it’s a bit more creative (but can a computer be creative?)

**Goal or technique?**

* Search

If you define it as a cognitive process, a behaviour or kind of thinking, it’s an outcome/goal. To search for the best route.

* Classification

It’s context dependent (if you use classification as a goal to distinguish between a cat and a dog). But if your goal is to have emotion recognition, classification can be used as a technique.

* Emotion recognition

If your goal is emotion recognition it can be described as a goal but if your goal is to have a good conversation it can be described as a technique emotion recognition to fulfil that goal.

* Formal reasoning

In many approaches it can be the goal of an AI system as a cognitive process. But if you train an AI with logic/ formal reasoning and you have another goal than it can be described as a technique.

**Getting people out of the fire building**

* Philosopy

Which people are prioritized over others? Kids or adults? Sick people first because they have to go to the hospital? Would people ethically approve that robots assist? Can the robot be held accountable for a mistake? Persons may be more acceptable instead of robots to help people. Can machines be truly empathetic enough to calm people down during the rescue?

* Psychology

Understand pain level of people to rescue them from fire/smoke? Noise levels? Perceptive of levels of smoke/ noise from fire? Applying help to people who need it? Predictions of human behaviour to where they are hiding/ going?

* Mathemathics

Fastest rescue route/ route optimization. Probability of safety of the building/ safety for the firefighter.

* Logic

Prioritization for people. Take into account decisions of firefighters (help in other places) or go to more dangerous places that is inaccessible for the firefighters. Remove obstacles for rescue to clear the path before getting the persons.

* Biology

For applying first aid when necessary. Knowledge on environmental factors that could be involved. Knowledge on human anatomy/strengths. Identifying the persons that need rescue.

* Linguistics

Talking with people, maybe they have another language than the firefighter. Clear instructions instead of long stories.

* Economics

Decision making, prediction human behaviour on how they react and interact.

* Control theory

Optimizing the best possible outcome, the most rational decision.