

## 1.1

It can be argued that the concept of artificial intelligence came about during World War II tho not known by that name. Alan Turing who played a major part in making the enigma machine in World War II to break the encryption code the nazi troops used when sending messages wrote in the London Times of 1949 "I do not see why [the computer] should not enter any one of the fields normally covered by the human intellect[...]"(Grudin 2009). This was followed by more people talking about the potential of a computers computational power. " The term artificial intelligence first appeared in the call for participation in a 1956 workshop written by American mathematician and logician John McCarthy" (Grudin2009). In the 1960s to 1970s AI became a popular field to research. Tho in the mid 1970s AI lost popularity as people meant that AI was oversold and HCI started to be a more popular aerie for research. In the early 1980s AI got another bump as the US got wind of the fact that Japan had made an advancement in AI technology with a "Fifth Generation" AI. Then came the 1990s where AI once again met a wall because there had been a lot of resources allocated to develop AI and not enough results.

*SNL* - defines AI to be "Kunstig intelligens er [informasjonsteknologi](#) som justerer sin egen aktivitet og derfor tilsynelatende framstår som [intelligent](#)." TL: Artificial intelligence is information technology that adjusts its own activities and therefore appears to be intelligent. It's hard to determine exactly when this definition was formulated but it is based on the editing history of the online Encyclopedia I'd say it's from a time between 2016 and 2020. This definition is taken from the encyclopedias definition of "kunstig intelligens" TL: Artificial Intelligence.

*Oxford Dictionary of English* - defines Artificial Intelligence as "the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages" I can't determine when this defined was formulated but it is the current definition in the dictionary. This definition is a definition that is agreed upon by the University of Oxford.

*B.J. Copeland* professor of Philosophy at the University of Canterbury writes for Britannica that "Artificial intelligence (AI) is the ability of a computer or a robot controlled by a computer to do tasks that are usually done by humans because they require human intelligence and discernment. Although there are no AIs that can perform the wide variety of tasks an ordinary human can do, some AIs can match humans in specific tasks." The latest update is 2020.

I would define Artificial intelligence as "A digital system that is able to perform a task that normally would require human intelligence to be performed and as such is able to mimic an aspect of what we commonly think of as intelligence such as image recognition, speech recognition, and decision making" my definition is based on what i personally think of when trying to explain AI to someone else. It is obviously colored by the tree definitions listed over as these are fresh in my memory as I'm making this definition but it has the essentials I think of as AI that it is able to appear to mimic intelligence.

Google work with AI and on their web page they presents AI as a product that everyone should have access to and that will help you in your everyday life with things such as live translation of tekst with the use of a camera, recognizing different plants and animals, and being something anyone that so desires can use for their own projects. It's also about how AI can help Google organize the world's information and make it accessible to everyone.

In the computer game Portal 2 the interaction between human and AI is in some sense that of a tester and a test subject in the sense that an AI is putting the player/human through a bunch of tests and giving the player/human condescending comments on their performance. There is however also another AI that tries to help the player/human escape from the "evil" AI and here there is the representation that most people would like an AI that works with the humans to fix something whilst the prior interaction of tester and tested presents an "evil" AI that does anything to achieve their goal even if that ends up hurting the human.

## 1.2

The word Robot comes from a play of the name Rossum's Universal Robots (1920) written by Karel Čapek where he presents a company that produces a machine that can do anything a human can do, but does not have a soul and such don't have human emotions.

*Oxford Dictionary of English* - defines Robot as "a machine capable of carrying out a complex series of actions automatically, especially one programmable by a computer"

*SNL* - defines Robot as "Robot, en datastyrt enhet som ved hjelp av sensorer kan motta data fra omgivelsene, bearbeide disse og reagere ved å iverksette handlinger i henhold til forhåndsprogrammerte regler." TL: Robot, a computer-controlled device that, with the help of sensors, can receive data from the environment, process it and react by taking actions in accordance with pre-programmed rules.

I would define a robot as "A device that can move in our 3 dimensional space on its own with the help of information it gets for a computational device. The computational device takes in signals and sends signals to the limbs of the device so it moves." I think this is a good description of a robot as my perception of a robot is something able to move in our 3 dimensional space to writing degrees with the help of a digital "brain" controlling its movements. This corresponds to the fact that "there are many ways a robot can move" (Schulz, T., Herstad, J., & Torresen, J. 2018) indicating that it doesn't have to move in a specific way.

AI and a robot can work well together seeing as they are mainly made to mimic something a human would originally be doing, a robot is mainly made to do the physical actions a human would normally be doing, and AI is mainly made to do work a human normally would have to do in the sense of “thinking”. But a robot does not need an AI to work. A robot such as a drone does not need a AI to work it’s controlled by the human with the remote and such it does not have” A digital system that is able to perform a task that normally would require human intelligence to be performed and as such is able to mimic an aspect of what we commonly think of as intelligence such as image recognition, speech recognition, and decision making”. Seeing how a robot and ai are different based on the one fact it is also different in that an AI doesn’t need to be “A device that can move in our 3 dimensional space on its own with the help of information it gets for a computational device. The computational device takes in signals and sends signals to the limbs of the device so it moves.”

In the assembly lines of Toyota there are loads of robotic arms that do one specific action over and over again. These robots are being monitored and configured from an office in the building so the human robot interaction is mainly done over a computer except those that interact indirectly with the robots when delivering the parts to be assembled where they deposit the materials in a designated place and the robots come to pick them up later.

### 1.3

*DO IT* -defines “Universal design is the process of creating products that are accessible to people with a wide range of abilities, disabilities, and other characteristics” I understand this description of universal design towards the fact that it is meant to be accessible to as many people as possible regardless of whether they have reduced abilities or an disability. With this it is meant to include as many people as possible.

AI can be an amazing asset for people such as speech recognition and speech synthesis that gives us the ability to talk to the AI and it is able to answer which can make people think that the machine is more human than when we just have a keyboard, mouse, and screen. AI is also a huge help for people with problems with sight and/or reading making the system accessible for them to use with their voice.

I mean that “understand” is the static understanding of something like what you can get from reading a book while “understanding” is more the capability of reflecting upon something and recognising similar situations and working upon them. I personally mean that a computer can understand something, but it can’t have an understanding of something. This meaning is based on how I mean that to understand is more a fact than a thought whilst understanding is what requires a deeper knowledge.

## 1.4

Microsoft's Guidelines for Human-AI interaction 1. "Make clear what the system can do" is about letting people easily understand what the AI is able to do and what it can't. I chose one of Norman's Seven Principles "Make things visible." which is about making all the functionality of the stem known to the people that are to use the system. There are similarities between these two which are that you should let you user know what the systems are able to do. They are also different in that one is to make it visible and the otter make it known not necessarily visually.

Jonathan Grudin (2009) AI and HCI: Two Fields Divided by a Common Focus

<https://aaai.org/ojs/index.php/aimagazine/article/view/2271>

SNL definition of AI

[https://snl.no/kunstig\\_intelligens](https://snl.no/kunstig_intelligens)

B.J. Copeland definition of AI

<https://www.britannica.com/technology/artificial-intelligence>

Google AI

<https://ai.google/>

Schulz, T., Herstad, J., & Torresen, J. (2018). Classifying Human and Robot Movement at Home and Implementing Robot Movement Using the Slow In, Slow Out Animation Principle. International Journal on Advances in Intelligent Systems, 11, 234–244.

[https://www.uio.no/studier/emner/matnat/ifi/IN5480/h19/undervisningsmateriale/schulz-et-al\\_2018\\_classifying-human-and-robot-movement-at-home-and-implementing-robot-movement.pdf](https://www.uio.no/studier/emner/matnat/ifi/IN5480/h19/undervisningsmateriale/schulz-et-al_2018_classifying-human-and-robot-movement-at-home-and-implementing-robot-movement.pdf)

DO IT

<https://www.washington.edu/doiit/what-universal-design-0>