

## **Human Vs Machines**

### **Intro:**

In order to discriminate between the human intelligence and the artificial intelligence we must understand first what is intelligence so we can define the human intelligence and the artificial intelligence and how humans think and how machines think and here the points we are going to discuss:

1. Definition of human intelligence and artificial intelligence
2. Comparison between human intelligence and artificial intelligence
3. Could a machine emulating a self which includes a concept of the ToM, be regarded as a true individual with actual ToM capabilities, comparable to humans
4. Importance of theory of mind

So, the first question to answer is what is intelligence??

### **Intelligence:**

Intelligence can be defined as the ability to learn, adapt, predict and overcome different challenges may be new based on past knowledge or experiences

### **Human intelligence:**

Human intelligence is general intelligence so humans can learn many different skills and abilities not just mathematical intelligence but also other types:

- Verbal linguistic intelligence: the ability to express thoughts and emotions using words and phrases
- Logical-mathematical intelligence: the ability to solve problems and decision making based on numbers a logical equation
- Intrapersonal intelligence: understanding yourself, who you are, what you can do and how to react things

- Musical intelligence: the capacity to think and hear music defining and recognizing patterns
- Visual-spatial intelligence: the capacity to represent spatial world in mind and think in terms of physical space
- Bodily-kinesthetic intelligence: the ability to use your body to solve problem
- Interpersonal intelligence: the capacity to understand intentions, motivations and desires of people

These intelligences that is mentioned above like the base or the root of tree of intelligences that human have

### **Machines intelligence:**

- The dependency of machines
  - Machines intelligence is as good as the intelligence of the machine designer which means the more intelligent a human become the more the machine becomes because the machine intelligence depends on the facts and the knowledge that is given by the designer and how it is represented for example the calculator that solves many complicated equations is made by intelligent engineer who represented the way of solving these equation to the machine in easy way and the facts that these ways are based on
- The new machines
  - But in the new age or as we can say these days the days of artificial intelligence the machine intelligence is based on experience of testing, trying and optimization of algorithms that can represent one of the human intelligences so the machine can classify, predict and design as human not in general but only in one point for a dedicated goal

## **Who is better:**

- Why machines if humans are better?
  - Since the machine intelligence is based on the humans and the human intelligence is general otherwise machine intelligence is not we can say that human intelligence is better?
  - This could be fact that the human intelligence is much better than the machines intelligence but if it so why are we creating these bots and robots? the answer is machines is way better than human in other field like speed or accuracy you can't ask machine to solve equation and give you wrong answer unless you gave it the wrong values so human brain is superior but also not perfect machine is fast, precise and strong but also not on her own in fact machine in the new artificial intelligence concept does commit mistake because the lack of some natural abilities or the lack of representing some information
- Can machines emulate self?
  - the machine may overcome intelligence of human? or can the machine think like human in other words can the machine grow a self-awareness of its own? these questions is not likely to be answered soon because some of the facts about the human beings is still not known some of the deep secrets is still not measurable or quantifiable like human morals and conscience how to emulate these feelings to machine? Maybe we can't maybe we will and if did we may create a machine that has a self-awareness or morals or consciences

Can psychology answer these questions?

## **Theories of mind (ToM):**

- What is theories of mind?
  - Psychology defines it as the ability to attribute the mental state of ourselves and others so we can understand their feelings, thoughts and their behavior

- Why it is important to AI?
  - The problem is no more about solving or prediction or classifying it is more about making machines more humans so we can ease the life for humans without fear of the lack of some factors that makes us humans
  - In order to do so we need to make the machine mimic the human motions and understand the body language and know the mental state of person by analyzing its facial expression and read the true words behind his tone of voice while speaking because the truth of our mental and emotions not always described in words but in the behavior (we understand the unobservable by analyzing the observable)
- How ToM helps AI?
  - In simple words ToM try to attribute the mental state, better understanding of the human brain and intelligence of humans so if we could transform this into some patterns or information and represent it in a good manner it is consider as a step towards making machines more humans

**Personal opinion:**

I think humans are more than just intelligence they are many other things so we can't just hope to create it that easily by giving computer data and test it we have to define what makes us aware of our selves or what makes us feel that this is right or wrong because some of the human intelligences are not based on facts or numbers or rules it is based on feelings also sometimes it is not about numbers or what is the highest it is about kind and acts of mercy that is also an human intelligence if want to create the machine that aware of its own then these concepts are also important so what makes us human? Is not the only question to ask the other questions is:

1. How do we formulate these concepts for the machine?
2. how to ably the answers to a machine?
3. how do we mold them in their reality?

## **References:**

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