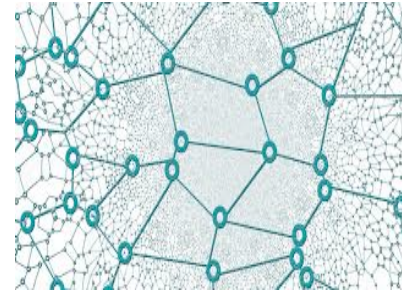


NEURAL NETWORKS & ALL THAT

The New Artificial Intelligence

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Summer 2019



An initial question and its answers

(FN 15 April / 6 May 2019)

Please, read the following questions and answer it by writing into the rest of the page. Use the reverse, if needed.

1. **What do you think: can machines learn? Please, also indicate your reasons for your belief.**
2. **Please, describe what you would tell an older person, who you know, what "Artificial Intelligence" is or may be, what it is good for, or what it is not so good for?**

Here follow the answers. I have tried to type them up from the hand-written form as truly as possible.

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- 1 No need for machine learning. Active discovery / stuffing the sausage
Machine has no desire, only passive —> stuffing the sausage
 - 2 Good: to save workload; not so good: individuality
Industrial revolution for software
physical work: traditional industrial revolution
intellectual work: the new digital revolution
both meeting: transform, automatize
body is the machine / mind is the software

[This sheet was more like a sketch, therefore a bit hard to render here.]

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- 1 It depends on how we define "learning". I don't know the biological term, but I believe machines can collect data on previous decisions and consequent failures or successes, and later make new decisions based on that experience. I suppose that then we can say that, yes, machines can learn.
 - 2 AI, as far as I understand, is a machine that can develop and "learn". It can not do some things, then people give it a lot of data and algorithms about how to deal with that data, and then the machine can do new things. For example, it can learn how to understand what is on a picture, or what a human is saying. AI is good for working with huge amounts of data, learning a human's preferences and making recommendations. However, it makes mistakes, so I suppose it should not be used in cases where a human life or health is at stake.
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- 1 I think with "general purpose AI", machines can learn anything that can be specified well enough, and has enough data to train it with. Also, now they are learning how to navigate the world physically as well. Also, the word "learning" here maybe needs some rethinking, because they're not learning the same way we are (in that they're not conscious) even if somehow we are the reference.
 - 2
 - Artificial Intelligence (I believe) is to mental power what the steam engine was to muscle power (maybe a not totally accurate analogy but, yes, ...)
 - It is good for helping us with nuances we might not be skilled enough to spot, like in medical diagnosis, and with saving time in its ability to train fast (maybe millions of times overnight) where it would take a human much longer to get the same training experience.
 - What it is not so good at, is to explain (rationalize) its decisions.
 - It's also not good that militaries are already intertwining it with warfare, or that now you have an AI that can detect with (81%) accuracy someone's sexual orientation.
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- 1 If we understand learning as the ability to repeat or replicate a task. Somehow, the term "machine learning", which I do not totally understand, but I guess it is a way machines can learn tasks by themselves; but who decides which are these tasks? Is there a limit? Can they learn the basics and then find ways to improve them in a better way compared to a human? Will the machines always need some sort of input that humans or, maybe, other creatures can provide in order to learn?
 - 2 Artificial Intelligence is the ability of a machine to have process of thoughts and behaviours that, for now, we would assume are proper of a living creature, this creature could be a human or a non-human (maybe even an alien?) It might be good if then humans don't have the obligation to work for a living because then the machines will work and humans will receive their profit and have free time to do whatever they want.
Might be bad if used for destroying the earth, living creatures, for example if it's used as a weapon.
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