

On AI

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It is easy to understand the A in AI. It refers to artificial. What is not straight forward is the meaning of the I in AI. *Intelligence of the human kind* incorporates an intimate knowledge of three-dimensional space and time and their interaction with other physical parameters such as gravity, mass, and temperature. Add to this electromagnetic radiation and we approximately have the plethora of physical phenomena that shape and nurture human intelligence (HI). Physically, HI is supported by some 100 000 000 000 interconnected neurons and each of these neurons can include up to 1 000 000 000 microtubules (Hameroff and Penrose 2014). Thus, each neuron by itself is a potential quantum processor (see, for example, Duarte (2022)). It is the interaction of all these wonderful elements, as a whole in our brain, with the surrounding physics, that lead to human consciousness and what we experience as HI.

Certainly, HI \gg AI. The I in AI is mainly based on a massive memory (MM) of 'facts', right or wrong, harvested from the very internet where it exists. Assuming that the facts are correct and that the software programs utilizing this MM have been written by ethical humans this AI can be quite useful to society in areas such as medicine, for instance. However, if this MM is being used in software designed by nefarious actors then the situation changes radically. By itself the available AI is a somewhat neutral tool of enormous usefulness if applied for good. The real issue is 'who' controls it and to what end.

The best insurance against the malevolent control of AI technology is to encourage as many versions of AI as possible, by as many developers as possible, to preserve and protect competition and neutralize the monopolization of AI.

References

- Duarte F J 2022 *Fundamentals of Quantum Entanglement* 2nd ed (Bristol: Institute of Physics)
Hameroff S and Penrose R 2014 Consciousness in the universe: a review of the 'Orch Or' theory
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