

Philosophy (26/09/2025): Report by Pete Redgrave

Machine Consciousness ?

Will machines ever become conscious ? Never say 'never' especially after watching the movie *Ex Machina*, (currently streamable on Amazon Prime – it's good). However, despite optimistic projections of Silicon Valley, I don't think we need worry about conscious machines any time soon. Why not ? Because the wilder notions of machine consciousness are usually made without reference to the complexities of biological consciousness. In our August meeting we discussed some of the obstacles that would have to be overcome if a conscious machine was somehow constructed.

First, the state of consciousness would have to be more reliant on the computational algorithms being implemented than on the hardware, or wetware (e.g. the brain), doing the implementing. Given both computers and brains operate according to laws of physics and chemistry, this possibility cannot be ruled out as a matter of principle.

However, assuming consciousness is a software issue, a conscious machine won't happen by accident, it will have to be built, by humans – so what might it need to be conscious of ? Necessarily, it would be based on known aspects of biological consciousness, otherwise it would be called something different. First, the machine would be subjectively aware of its external environment – i.e. given sensory perception. We know when we get hungry, so maybe it should also be aware when its batteries need charging. We do things, and know what, when, where and why we do them – a conscious machine would need behavioural volition. We are conscious of our ideas and memories – no problem there for the machine, but it would need its idea generator and memory banks available for subjective introspection. A conscious machine would also need selective attention – to stop it trying to do incompatible things at the same time. Moreover, if it can learn it would need to be consciously aware of good and bad outcomes. Finally, would a machine need to be conscious of itself – if so, maybe it could be embarrassed !

Insofar as the latest artificial intelligence still has problems understanding abstract concepts that humans find easy, our view was that a fully-fledged conscious machine is further over the horizon than contemporary computer scientists think. Whatever, problem of how a machine could be recognised as conscious, as opposed to being a functional zombi, will remain....especially as current chatbots are brilliant at simulating consciousness – “if it talks like us, it must think like us”.