Will AI be sinister or singular?

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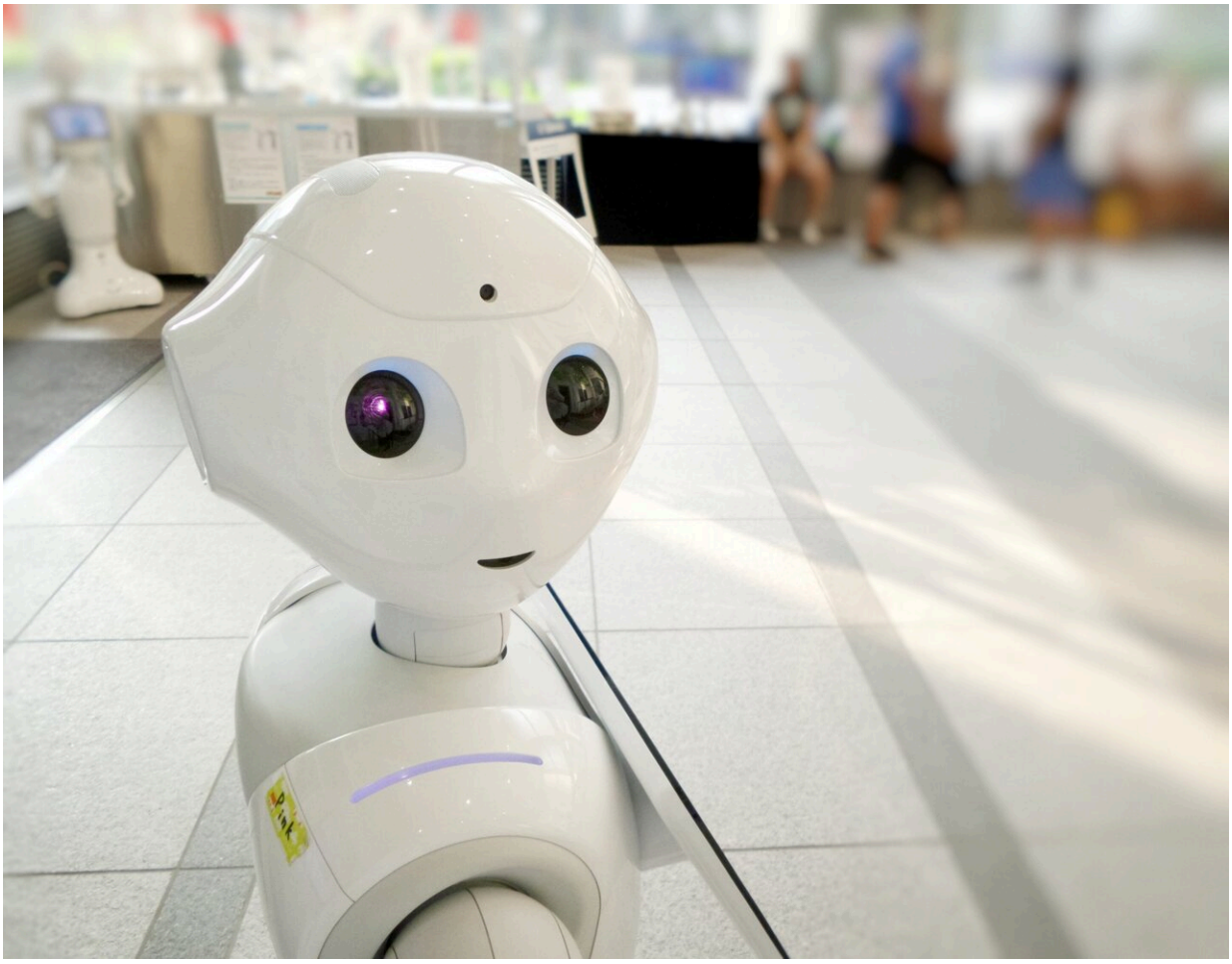

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What we might loosely refer to as artificial intelligence (AI) has become a part of our daily lives, from mobile phone voice assistants to self-

driving cars. That said, many of the tools and technologies we refer to as AI, while seemingly intelligent are actually computer algorithms trained on large amounts of data to perform in a certain way. The chat bots and image generators that are frequently in the news are models that simulate neural networks to create apparently novel content from a prompt or question. We are certainly a long way from the sci-fi notion of artificial intelligence as meaning sentience in machines.

Nevertheless, researchers writing in the *International Journal of Smart Technology and Learning* have looked at how the concepts of artificial intelligence sit alongside what we perceive as human intelligence. We commonly think of the brain as being the most complicated object in the known universe. It is the result of billions of years of evolution, is self aware and capable of incredible creative and destructive thoughts all seemingly emerging from the interactions of billions of nerve cells within our so-called gray matter.

We know that human intelligence encompasses a wide range of abilities, including problem-solving, learning, creating new ideas, and remembering details…and critically being aware of all of this. In contrast, what we consider to be AI at this point in technological history is defined as systems that can perform tasks that are typically done by experienced humans or can be used to assist less experienced individuals perform certain tasks more efficiently. There is not yet any allusion to sentience in AI.

However, as AI becomes more and more sophisticated could it perhaps advance towards the notion of the singularity put forward by author Vernor Steffen Vinge and later discussed in depth by futurologist Ray Kurzweil? The singularity being the point at which technology does indeed become sentient and then perceives humanity itself as redundant to its wants and needs. As such, there are pressing ethical and moral questions to be answered in terms of whether AI will always be our

helpful guide in so many tasks or whether it could eventually lead us to darker place from which humanity might not return.

Even experts in the field are uncertain about how to answer the questions. Of course, if history teaches us anything it is that regardless of whether we answer the moral questions, there will always be people willing to take us down the path that divides us morally and ethically.

In his paper, Jonathan Michael Spector of the Department of Learning Technologies at the College of Information at the University of North Texas in Denton, Texas, U.S., points out that while the human brain may well be the product of millions of years of evolution and is highly adaptable to the "modern" problems we face and capable of finding solutions, physically it has changed very little in many millennia. We are born with the same physiology as our prehistoric ancestors, after all. By contrast, we are almost at the point where AI tools are beginning to improve other AI tools…which some observers see as the next step towards the technological singularity.

Spector hopes his article will trigger conversations about the future of AI and human intelligence. As we continue to develop and integrate AI into our lives, it is, he suggests, very important for us to consider the implications and impact it will have on us as individuals and as a society.

More information: Jonathan Michael Spector, Human and artificial intelligence in education, *International Journal of Smart Technology and Learning* (2023). DOI: 10.1504/IJSMARTTL.2023.10054697

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https://techxplore.com/news/2023-03-ai-sinister-singular.html