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# Will recent advances in AI result in a paradigm shift in Astrobiology and SETI?

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## Abstract

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## Abstract

For some years there has been concern that the capacity and ability of computers would overtake that of the human brain, an occurrence which has been termed "The Singularity". This has been based on the steady advances in computer strength and in programming. From the comparison of the size of the human brain (mass or neuron number) to the advance in computer capacity, the Singularity has been estimated to occur within a few decades. As a caveat, neurologists have pointed to the poor relationship between brain size and intelligence, which is based upon sophisticated programming, of which we know little.

However, in the last few years there have been rapid advances in Artificial Intelligence (AI). Suggest leaving it in, as it close to the undefined "AI" in the title. There are already programs which carry out pattern recognition and self-learning which, in at least certain limited fields, such as game playing, are superior to the best human players.

It now seems inevitable that the Singularity will arrive, if not in the near decades then within the foreseeable future. There may be advanced life forms which have evolved elsewhere in the universe, that are older and more advanced than us, and have long passed their Singularity. Post Singularity probably means life based not on biochemical reactions but on electronics. If this is so, then astrobiology should be redirected accordingly, especially in the field of SETI (the Search for Extraterrestrial Intelligence).

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