In "The Language Machines", Matthew Hutson undertakes a critical analysis of Large Language Models technological advances and the potential societal and ethical risks associated with their use.

The author discusses the outstanding language fluency of an LLM but he describes the characteristics of its process as purely mathematical. It

works by observing the statistical relationships between the words and phrases it reads, but doesn't understand their meaning (A remarkable AI can write like humans — but with no understanding of what it's saying. By Matthew Hutson, 2021).

The lack of reasoning or understanding labeled as "nonsensical answer" which he observed in the results yields by prompting such LLMs has raised concerns amongst the AI community describing the models as "stochastic parrots" (Bender *et al.*, 2021).

This inequality is exemplified as an inherent bias named the "coded gaze" by Dr Buolamwini. As a student, she reported a facial recognition software failure while working on a university project. After researching the cause of the glitch, she deduced that companies had introduced bias in their models by training their neural networks with uniform data. As a result, the lack of diversity in the data rarely exposed the models to similar complexion and the software wasn't able to detect her face. (Buolamwini, 2023)

The benefits in using artificial intelligence in healthcare has proven to be a logical course to take globally, particularly for the NHS. The UK Government is investing in the National AI Strategy, investing money into research for the sake of progress and cost effective budgeting. The introduction of a smart stethoscope has been used to identify patients with suspected heart disease, the results proved to be accurate in its detection of heart issues; the results are promising so far, giving a strong indication leaning favourably for GPs to use the stethoscope in order to spot disease well in advance, in turn not only saving time but money spent on referrals, thus improving diagnosis time for the patient as well. Artificial intelligence has not only shown its capabilities in diagnosing lung cancer earlier, (as opposed to using the Brock score), but it has shown that it can detect early signs of other conditions and disease.(*Artificial intelligence: 10 promising interventions for healthcare*, 2023)

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