

Review of: "Artificial Intelligence and Digital Technologies in the Future Education"

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AI in education is a very timely topic. However, for a fruitful discussion it is necessary with a strict definition of AI. The recent buzz is associated with the generative AIs like ChatGPT that generate content, whereas discussions of AI in the previous years or even decade or two have revolved around the predictive AIs. These typically use machine learning; that is, they use a large amount of data to create algorithms, which can then predict a classification, an optimal value etc. This paper is not restricted to either or both of these two types of AI. It instead focusses on 'devices mimicking human reasoning' which is something entirely different. In fact, recent AIs (predictive or generative) are so efficient and fast when performing tasks that they clearly are not mimicking human reasoning. Human reasoning is simply too slow.

In the 1980s and 1990s AI was about mimicking human reasoning but AI back then was hard coded computer code. For example, algorithms that could play chess thus acting as a human opponent. Such hard coded AI has largely been superseded by predictive AI – for example a chess AI trained on data from a very large number of chess games making the AI able to predict the optimal move in each game setting. It becomes so fast and efficient at playing chess that, while the AI can be said to substitute a human in a task (playing chess), the AI will likely not be mistaken for a human opponent.

The above may be a digression but it serves to highlight the importance of succinctly delimiting the topic before engaging in analysis and discussion.

Generative AI in particular has potential to change education. 1) New learning objective or entire courses can be added to existing curricula so students learn to use it. 2) It can be leveraged as a tool in teaching to improve the teaching of current curricula. 3) It can be used by teachers to prepare teaching by writing cases, coming up with assignments etc. And 4) it can be used by students to 'cheat' at some types of exams as it can write their exams papers for them. In short, there are many interesting discussions to be had.

The present paper does not deal with them. Except for the introduction, the paper hardly deals with AI at all. It mostly repeats traditional definitions and concepts from computer science and the theory of science or didactics, and adds a few nice anecdotes. The paper kicks off the debate, and hopefully a later version of the paper will contribute more to the actual debate.

