

AI in Education: Implications for Research

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This paper argues that the proliferation of AI in education has serious implications for contemporary education research.

In recent years, AI has begun to creep into education in a range of invisible and highly consequential ways – as ‘pedagogic assistants’, decision-making algorithms, or biometrically aided technologies to monitor motivation, behaviour and learning (Williamson, 2019). AI technologies are increasingly taking over activities and functions previously performed by educational institutions, such as teaching, invigilating, assessing, monitoring, tracking attendance and so on.

In the global south, technology is being embraced enthusiastically by governments as a strategy for leapfrogging over infrastructural deficits. The Indian government’s think tank NITI Aayog has developed plans under the banner #AIforAll for “augmenting and enhancing the learning experience through personalised learning, automating and expediting administrative tasks, and predicting the need for student intervention to reduce dropouts or recommend vocational training.” (NITI Aayog, 2018, p. 20). AI is also being used for career advice and to allocate education loans (Chamuah & Ghildiyal, 2020).

These developments raise a host of concerns, including the impact on privacy, the rise and normalisation of surveillance, and the amplification of existing biases and privileges by machines which learn from the past. Standardised AI products also ignore context and focus on a narrow set of issues.

Other developments not directly related to education nevertheless have implications for education. Lucinda McKnight (2021) points out that machines can now write coherent essays and fiction and argues that this has implications for schools’ writing curricula. In many professions, functions previously key to the profession, such as drawing up a will in the legal profession, are now performed by AI. Ethics curricula require updating in computer science to ensure engineers understand the ethical implications of the products they develop.

The use of AI is thus impacting curricula, pedagogy, assessment and learning; national and international policy; and indeed society itself. This paper argues that these developments force a focus on ‘politics by other means’ and requires research methodologies that acknowledge the agentic participation of these ‘intelligent agents’ – not in an anthropomorphic sense, but because they do things – they participate in ontological constructions. A new type of politics is now at play, requiring a different paradigm of research. New tools are also required since the phenomena and the type of data are also changing rapidly.