Book review

Algorithms of Education: How Datafication and Artificial Intelligence Shape Policy, by Gulson, K. N., Sellar, S. and P. Taylor Webb, University of Minnesota Press, Minnesota, London, 2022, £23.00 (paperback)

Guy Roberts-Holmes

Published online: 10 Jan 2024.

Submit your article to this journal ⌐

Article views: 41

View related articles ⌐

View Crossmark data ⌐

BOOK REVIEW

Algorithms of Education: How Datafication and Artificial Intelligence Shape Policy, by Gulson, K. N., Sellar, S. and P. Taylor Webb, University of Minnesota Press, Minnesota, London, 2022, £23.00 (paperback)

This important monograph explores how new forms of datafication solidify market-based hyper-competitiveness within all education sectors from early years education to universities for profit. The book's main proposition is that contemporary educational governance of already highly datafied systems is being further intensely governed through the advent of algorithms and artificial intelligence (AI) so that 'the instrumental, market rationalities underpinning education today will likely be reinforced by machines' (p. 143). The book comprises a critical introduction to algorithms and AI in education followed by seven other chapters; three conceptual and methodological chapters, three empirical international case study chapters based on a network ethnographic approach and a concluding chapter. The introduction articulates the concept of *synthetic governance*, that is, the amalgamation of human classifications, rationalities, values and calculative practices with emergent computational algorithmic and AI rationalities. 'Synthetic governance traverses and conjoins machines and bodies' (p.4) so that synthetic governance is the combination of human agency combined *with* machine generated data. Such synthetic governance, however, creates a tension when such automated information is more highly valued than teacher's own professional experiences and judgements.

Chapters One, Two and Three argue that predictive and pre-emptive automation is beginning to enable data-streams of mass surveillance of school populations and anticipatory interventions to ensure a predetermined trajectory remains on course. These opening three theoretical chapters also explore the growth of algorithmic behaviour modification that enables personalized and precision data to monitor and measuring children's, emotions 'helping' the 'underperforming' child to make 'better' emotional choices, such as grit and perseverance, that are more compliant to the performative interests of the school. Here, we are seeing 'new iterations of behaviourism, based in behavioural economics and commonly referenced as "nudging"' (p. 33).

Chapter Four, the first empirical international case study, critically explores the impacts of the Australian government's establishment of the National Schools Interoperability Program (NSIP) in 2010. The chapter suggests that the NSIP generated opportunities for commercial providers to engage in Australian education governance, and as of 2021, the NSIP has expanded into a complete platform digital ecosystem. Chapter Five discusses international case studies of developing facial recognition systems in Sweden known as 'Future Classroom' and in Chinese classrooms called 'Class Care System'. These systems rely on facial 'pattern-matching'

leading to identity decisions and evaluations about learning but raise unresolved ethical dilemmas and tensions leading the authors to question 'where is the human in the loop'? Chapter Six critically explores the emergent influence of commercial AI systems into education its unknown impacts upon education governance. Through a case study analysis of AlphaGo, this chapter suggests that AI's pursuit of prediction opens new and unfolding business opportunities. Within all these three case study chapters, the pursuit of prediction (and profit) is presented as the (commercial) desire 'to establish new forms of control and surveillance and to embed anticipatory foresight in governance' (p.113).

In conclusion, the book suggests that the Anglo models of competitive and performative accountability overlap with algorithmic and AI rationalities of optimization, efficiency and instrumentality. Within this intensification of existing neoliberal rationalities, it is entirely possible that algorithmic governance could potentially 'accelerate technocapitalist development that is anathema to human values' (p.5). Algorithmic governance has the potential danger of extending, embedding and solidifying 'existing inequities and practices such as sexism and racism' (p. 139) and classism. The potential for such algorithmic bias and harm is entirely possible given that algorithmic decision-making is often hidden within the 'black boxing' of digital systems. Nevertheless, despite these well-founded reservations, the book remains optimistic suggesting that what is needed is 'a politics that does not formulate the problem poorly by opposing human values, agency, and interest on the one hand, and technology on the other' (p.143). What is urgently needed, the book suggests, is the development of a sophisticated and equitable 'synthetic politics' of education. This book is a significant step in that direction.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Guy Roberts-Holmes
UCL, Institute of Education
✉ g.roberts-holmes@ucl.ac.uk
http://orcid.org/0000-0002-8122-0499

Check for updates