Wayne Holmes, Lecturer, Lecturer, Institute of Education Technology, The Open University

Biography: Dr. Wayne Holmes has been involved in educational technologies and education research for more than 25 years. He is now a Lecturer in the Institute of Educational Technology (IET) at The Open University and the Author of “Artificial Intelligence in Education: Promise and Implications for Teaching and Learning.” He has received his PhD (DPhil) in Education (Learning and Technology) from the University of Oxford and has degrees in Film (BA Hons), Philosophy (MA (Distinction)) and Education (MSc Oxon). He also has a fellowship of The Higher Education Academy. Before joining the IET, Wayne was a researcher and taught at the UCL Knowledge Lab, UCL Institute of Education. He was also a Senior Teaching Associate at the University of Bristol.

SUMMARY OF EVIDENCE

The potential for AI applied in educational contexts is well known: “It promises to reduce barriers to access education, automate management processes, analyse learning patterns and optimise learning processes with a view to improving learning outcomes.” Audrey Azoulay, Director-General of UNESCO. In fact, whether it is welcome or not, AI is already impacting on education. However, at the recent UNESCO event “Artificial Intelligence for Sustainable Development” (March 2019), where we heard from AI experts and education experts from around the world, it became clear that there exists a gulf in understanding. Many AI experts, although undeniably well-intentioned, shared stereotypical models of education and learning; while many education experts think of AI as just ‘another’ technology, not realising how it is poised to permeate everywhere and is constantly evolving. As a consequence, currently most AI developments in education are student-facing. That is they aim to “improve upon” human teachers by providing automated “personalised learning”, without acknowledging the potential implications (no wonder teachers are beginning to fear for their jobs!). In addition, currently there is little evidence of these systems’ efficacy, and little consideration of their long-term impact on students (if only because of the reduction in human contact) or on educational contexts (what about classroom management of students at different places in the curriculum?). In any case, this approach, using AI to reproduce and attempt to improve upon teachers’ practices, is profoundly unambitious. Instead, why are so few investigating the
potential of AI to reinvent – not reproduce – teaching and learning? Why are we not leveraging the power of AI to support – not replace – teachers, potentially creating AI-powered superhuman teachers? Why are we not developing tools that release us from the dominance of 19th century-style examinations, by enabling a more nuanced and informative approach to assessment and accreditation? And why are we not already teaching our students (and, frankly, everyone in the country) about what AI really means for all of us? Finally and critically, as Audrey Azoulay comments, “the penetration of AI in education comes with concerns about ethics, security and human rights” – which is why we need a global framework for the ethics of AIED, which goes beyond the ethics of data and algorithms, by being firmly rooted in the ethics of education.