## Learning in the age of algorithmic cultures

Petar Jandrić, Zagreb University of Applied Sciences, Croatia

During the past decades, algorithms have become ubiquitous actors in the global economy as well as our social and material worlds. Slowly but surely we have entered the age of algorithmic cultures which, following Daniel Dennett's (2017) analysis, affords the possibility of the transmission of material and social culture through language into the cultural arena in which cultural artefacts take on agency. In education studies, algorithmic cultures signal a shift away from the centrality of individual or social concerns and toward the complex relations between the human and nonhuman agencies that proliferate in our digitally networked activities. Research in this context is likely to foreground what algorithms do rather than what they describe or analyse, and recant calls for critical studies in this area have highlighted the need for multi-faceted approaches that examine both the production of software and code, and their influence 'in the world' (Kitchin, 2017: 25). Educational concerns are growing, where critical research has the capacity to surface the 'cultural and political tendencies that are enfolded in the drive for efficiency that pervades institutional education' (Knox, 2015: 5).

Just a few months before this talk, Petar Jandrić, Jeremy Knox, Hamish Macleod and Christine Sinclair published a co-edited Special Issue of E-learning and Digital Media entitled 'Learning in the age of algorithmic cultures' which explores some of these issues. Throughout the five papers in this Special Issue, the authors used various approaches: analytical, historical, numerical and even fictional. Such richness and variety of resources may indicate lack of maturity of educational data science; it may also point towards a deeper postdisciplinary logic in the field (see Jandrić, 2016 and 2017). As a new research area, studies of algorithms and learning carry potentials to confirm our existing ideas and surprise us with fresh insights; to destroy old dogmas and create new ones. In this session, Petar Jandrić will briefly present editors' initial ideas behind the Special Issue, analyse authors' response, and point toward future research opportunities in the field. The presentation will be followed by an informal discussion.

## References

Dennett D (2017) From Bacteria to Bach and Back: The Evolution of Minds. New York: W. W. Norton & Company.

Jandrić P (2016) The methodological challenge of networked learning: (Post)disciplinarity and critical emancipation. In: T Ryberg, C Sinclair, S Bayne, et al. (eds) Research, Boundaries, and Policy in Networked Learning. New York: Springer.

Jandrić P (2017) Learning in the Age of Digital Reason. Rotterdam: Sense.

Kitchin R (2017) Thinking critically about and researching algorithms. Information, Communication & Society 20(1): 14–29. DOI: 10.1080/1369118X.2016.1154087

Knox J (2015) Digital cultures and education. Springer Encyclopaedia of Educational Theory and Philosophy. Available at: http://link.springer.com/referenceworkentry/10.1007/978-981-287-532-7\_124-1 (accessed 7 July 2017).

**Petar Jandrić** is an educator and researcher. He published five books, several dozens of scholarly articles and chapters, and numerous popular articles. Petar's works have been published in Croatian, English, Ukrainian, Spanish and Serbian. He regularly participates in national and international educational projects and policy initiatives. Petar's background is in physics, education and information science, and his research interests are situated at the post-disciplinary intersections between technologies, pedagogies and the society. Petar worked at Croatian Academic and Research Network, University of Edinburgh, Glasgow School of Art, and University of East London. At present he works as professor and director of BSc (Informatics) programme at the Zagreb University of Applied Sciences, and visiting associate professor at the University of Zagreb. Personal website: <a href="http://petarjandric.com/">http://petarjandric.com/</a>.