## "Human, all too Human?"

## Transhumanism, Posthumanism and the "End of Education"

In 2045 it will be possible to cheat death. This, at least, is the future vision of Ray Kurzweil, engineer in chief at the Google Corporation, leading thinker of the transhumanist movement and eventually the most renowned researcher in the field of artificial intelligence (AI). In this technoutopian vision, either 'Nano-bots' - minuscule robots circulating in our bloodstreams - will be able to fight diseases and help overcome the finiteness of human existence. Or the progress in AI-related research will push the amalgamation of man and machine and, in fact, allow humans "to be a machine" (O'Connell, 2017). The latter and most extreme end of transhumanist vision is closely connected to the upcoming of the computer age. As exemplified in robotic professor's Hans Moravec early scenario, the dream is to upload the human mind into a computer (Moravec, 1988). A digital, meliorated copy of one's self, an 'upload' of our own proper identity, would enable a life without dying in a disembodied space of immortality (Wiedemann, 2015).

Far from being a uniform movement (Loh, 2018), transhumanism also "in its more modest forms "wishes" to supplement and augment human cognition and biology" (Danaher, 2015). In all of its varieties, the aim of transhumanism is to create a better than human being by way of physical, mental and reproductive enhancement. It is therefore closely connected to the age-old idea of (self-)optimisation (for an overview see Röcke, 2017), to today's digital practices of self-tracking and life-logging (Lupton, 2014; Villa, 2012; Selke, 2014; 2016; Schulz, 2016; Lupton, 2016; Swan, 2013; Wolf, 2010), and the algorithmisation of late modern culture and late modern life in general (Beer 2016; Galloway 2006; Striphas 2015; Amoore & Piotukh, 2016).

The educational chances and challenges posed by transhumanism seem to be immense: Especially in societies which increasingly rely on "smart" technologies, algorithms, big data and artificial intelligence, the technoutopian visions and their consequences for learning, schooling and pedagogical conceptions are enthusiastically embraced as the ultimate possibility to

overcome the fallibility, irrationality and unpredictability of human beings, thereby allegedly enhancing success, productivity and happiness of individuals as well as societies. But there are also critics who fiercely hold out against the supplementation or substitution of education as traditional cultural practice by science and technology. It is the fear of many that a new "technological totalitarianism" (Schirrmacher, 2015), a "smart dictatorship" (Welzer, 2016) or "the end of humanity" is near (Open Letter, 2015).

Both positions, however, are deeply rooted in (modern) humanist and anthropocentric conceptions of mankind. It is a hotly debated question whether or not they lack theoretically appropriate "instruments" to critically analyse the deep and fundamental changes of the educational and pedagogical field, sometimes deemed as "the end of education" (Wimmer, 2014). In contrast, philosophical posthumanism(s), new materialism(s) and techno-scientific feminism(s) of all kinds seek to break with the modern line of thought by opening up spaces for conceiving of the technical as part of the human and vice versa (Haraway, 2016; Latour, 2017; Braidotti, 2013; Barad, 2007). These philosophical currents inspire a very important question: what if our educational discourses and practices in the face of challenges posed by transhumanism and rapid technological progress were ill prepared, because they are "human, all too human" (Nietzsche, 1878)? The issue addresses this question by inviting scholars and public intellectuals to critically assess current technological developments in education (big data, algorithms, "smart" schooling), the pedagogical and anthropological conceptions (of man) associated to it, and the theoretical challenges posed to educational research and current philosophy of education.

We are looking forward to a lively debate and cordially invite our readers to comment on and reply to the essays of the second issue of On\_Education.

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The Editorial Team

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## **Recommended Citation**

On Education (2018). "Human, all too Human?" Transhumanism, posthumansim and the "End of Education". On Education. Journal for Research and Debate, 1(2). https://doi.org/10.17899/on\_ed.2018.2.0

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