



Research Article

The end of Education, or what do Trans-humanists dream of

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Abstract

Trans-humanism is a current of thinking that propagates the creation of technologies which serve to overcome human biological limitations. However, trans-humanists want to create not only technologies that make it possible to improve the man, but also to fully liberate their mind from the body. Their desire is to move the human mind to a machine and lead to the creation of super intelligence. What is more, it was revealed in the article that trans-humanists also propagate the elimination of traditional education. They believe that technologies which liberate from the body and increase intelligence are more effective than education.

Keywords: trans-humanism, post-human, future of education, technological singularity, nano robots, genetic engineering, man-machine interface

INTRODUCTION

Let us imagine a world where – when we are ready to have a baby – we go to a genetic supermarket where we choose the particular traits of the child. From one shelf, we select colour of the hair, from another the colour of the eyes, and yet from others – other genetically dependent features. Let us imagine a world where instead of bringing up and educating a man, we implant them appropriate chips or nano robots that bring forward suitable behaviour or traits. Thus, let us imagine a world where various types of technologies replace education. It seems that the world of this type can only exist in the imagination of science-fiction writers or fantasy film scriptwriters. But it goes beyond that! This is a world that is dreamt of by the supporters of the more and more popular contemporary thought current: trans-humanism.

Trans-humanism, or from the human to the post-human

Trans-humanists assume that it will soon be possible to overcome any biological limitations of a man through various types of advanced technologies (Bishop, 2010). To some extent, they are inspired by Nietzsche's idea of an over human – an individual who eradicated their own humanity (Sorgner, 2008). According to Nietzsche, however, an over human is a person who released their body from the limitations of the mind, and for trans-humanists overcoming humanity means liberating the mind from the limitations of the body (Blackford, 2010b). Thus, above all trans-humanists seek technologies that make it possible to transfer the human mind from the body to a machine (Jaokar, 2012). In a sense, trans-humanism makes reference to the Cartesian dualism, i.e. to an assumption that the mind can exist without the body, and to functionalism, according to which the non-biological system of a functional structure that is the same as the neurophysical structure of the man can “accomplish” the human mind (Geraci, 2010). This current also refers partially to the Enlightenment philosophy of humanism, as it assumes that human nature should be improved with scientific tools (Jotterand, 2010). In short, it can be stated that trans-humanists would like to create technologies that will make it possible for the human

mind to be liberated from biology and considerably improved (Farman, 2012).

According to trans-humanists, the final result of the process of overstepping biology with the use of various technologies should be transforming the man into a completely non-biological being, called post-human (Wolbring, 2008). The post-human has to be a mind existing without biological processes, uploaded to the machine (just like software is uploaded to any computer) (Mills, 2012). Called *mind uploading* by trans-humanists, such an upload of a mind to a machine is meant to lead to each man's achieving super intelligence, or intelligence that is uncommon even for the greatest geniuses (Bishop, 2010; Hauskeller, 2012).

Trans-humanist technologies or what to replace education with

The moment when the man becomes a non-biological and super-intelligent being is called *technological singularity* by trans-humanists (Cole-Turner, 2012). In order to bring technological singularity forward, trans-humanists propagate very intense development of technologies from the NBIC group, i.e. nanotechnology, biotechnology, information technology and cognitive science (*nano-bio-info-cogno*) (Wolbring, 2008) (see Figure 1).

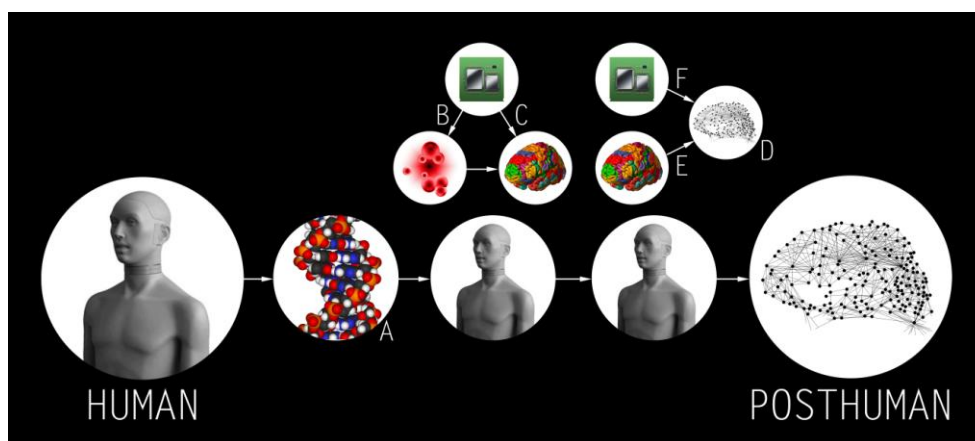


Figure 1. Trans-humanist process of eliminating education. Trans-humanists believe that the human mind can be improved and that it can exist without biology. Thus, they look for technologies that will make it possible to develop the human mind and upload it into a machine. Initially, they want to (A) modify the man genetically, and build (B) nano robots (circulate – firstly – in the human blood circulation system and – secondly – in the brain) and (C) the man-machine interface. Through nano robots and the interface, they want to upload the man directly with computer data that will reflect the neurostructure of the desired knowledge and skills, at the same time radically enhancing intelligence. Later, they plan to create (D) a machine that is functionally identical with the human neurophysiology that will make it possible to (E) upload it with the mind, so that it becomes possible to (F) improve it even more radically. Finally, they want to lead to the creation of a non-biological and super intelligent man (post-human) who grows with no educational interactions whatsoever.

In the context of nanotechnology, trans-humanists believe that very soon it will become possible to build and implant the man with nano robots, i.e. robots of the size of a single atom. Initially, nano robots will circulate in the human blood circulation system, destroying pathogens and eliminating toxins, then they reach the human brain, expand human intelligence considerably and improve the emotional functioning of a man. Soon, they will replace traditional forms of teaching by providing the brain with patterns of interneural connections and neurotransmitters that reflect the neurostructure of the desired skills or knowledge. At last, nano robots will help rewrite the human mind into a code that will be legible for the machine (Kurzweil, 2013).

With regard to biotechnology, trans-humanists postulate intense development of genetic engineering aimed at the physical and intellectual improvement of the man. Trans-humanists want the full bloom of the strategies for genetic modifications of the man, consisting in, among others, improving the human DNA by introducing alien genetic material into it (the material may come from people or animals, but it can also be artificial) (Coker, 2012). It has to be underlined that for trans-humanists there is no ethical difference between genetic modifications directed at creating a certain positive feature and educational activities with the same aim (Blackford, 2010a). As the intentions of both actions are identical, namely: to create a good man, trans-humanists do not notice any moral contrasts between genetic modifications, and parent or teacher's influence. According to trans-humanists, however, the effectiveness of these activities is different. Education is a communication activity, which is why its results are difficult to foresee. Things are different with genetic modifications, which in a way serve us to break into a man and carry out their precise transformations. For trans-humanists, genetic modifications are more efficient than education (Song, 2006).

In the trans-humanists' point of view, the development of the last group of technologies (*info-cogno*) will lead to the creation of a man-machine interface thanks to which it will be possible to upload the man with anything that is available in the memory of the machines (Tennison, 2012). Thus, a communication bridge will be created between the biological and electronic worlds, between neurons and the computer. Trans-humanists think that all the knowledge and skills will be uploaded to the man (instead of teaching them), and finally they will be uploaded in the code of the post-human mind (Saniotis, 2009; Hof, 2013).

CONCLUSION

As we can see, trans-humanists want to question the basic laws of the human world in a certain way. Above all, they are trying to undermine the existing strategies of acting through which humanity looks after the development of future generations (Bess, 2010). Education is one of the most important types of these strategies, and it is also the meaning of traditional education that trans-humanists want to negate by assuming that there is no ethical difference between changing the man through education and modifying them through the NBIC group technologies, and underlining that these technologies are more effective than education (Greely et al., 2008). According to trans-humanists, in the world of "genetically modified" and "technologically enhanced" people education will be on the decline, and in the reality of non-biological and super intelligent beings that they dream of it will come to a definite end. Obviously, to a large extent trans-humanists' dreams have no scientific background and will probably turn out to be mostly impossible to fulfil. However, it seems important to realise that in this more and more popular thinking current procedures that are meant to lead to the "apocalypse of education" are designed with great commitment.

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