

Human Enhancement – Searching the Perfect Human Being

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Подобряване на човека – търсене на съвършеното човешко същество

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Abstract: *The concept of human enhancement has turned into an extensive topic of debate, especially in recent years. The developments in science and technology indicate that human beings will soon be capable of reshaping and manipulating human biology, not necessarily for medical purposes. This article will briefly discuss human enhancement, its meaning and its scope. The main focus will be on the controversial biomedical interventions that aim to improve human form and functioning. The paper will point out the urgency to think about the notion and definition of a human being in the wake of the current biotechnological developments that promise a radical transformation of the human condition. The text will discuss the divide between pro-enhancement and anti-enhancement groupings, the intellectual and cultural movement of Transhumanism on the one hand and its critics on the other. The paper will touch upon the concepts of the human condition and human vulnerability while discussing Transhumanist beliefs about radically transforming ourselves through a wide range of enhancement methods.*

Keywords: human enhancement, technology, human condition, transhumanism, posthumanism, pro-enhancement, anti-enhancement

Introduction

Human enhancement is not a new concept; people have been working towards increasing their physical and mental capacities for centuries. Throughout history, we have been aiming to be smarter, to run faster, to be healthier, stronger, live longer and overcome the adversaries that our environment can bring. In this context, many things that we do in our day-to-day life such as; drinking coffee, going to the gym, reading books and using technology can be seen as enhancing activities. The question is, where do we draw the line? More importantly, why do we think human enhancement can be controversial and what makes it dangerous in the eyes of many thinkers?

This article will briefly discuss the controversial “biomedical interventions that aim to improve human form and functioning”. (Juengst and Moseley, 2015) In this context, it is important to differentiate the traditional enhancing activities such as; studying and training from controversial methods such as; pharmaceutical, surgical or genetic interventions. Yet, it is also important to point out that human beings have already been merging with machines and these interventions can be therapeutic. For instance; ear implant tools have been used to restore hearing. We can show similar technologies as an example especially when it comes to

treating disabilities. Then, what makes a biomedical intervention necessary, unnecessary, dangerous or liberating?

One of the main reasons why human enhancement is such a debated topic today is that these technologies are increasingly going beyond the medical - therapeutic realm and becoming more mainstream. Biomedical interventions used to be seen mostly as restoring something deficient or sustaining health in general (Masci, 2016). Hearing implants, chips that allow disabled people's muscles to communicate with computers and many similar technologies have been used with the purpose of treatment. Today we witness a further merge between human beings and machines, which brings endless possibilities for our being, self-identification and the future of humankind.

Escaping technology is almost impossible in the world that we live in. Connecting to the internet is now a daily human necessity. Today we communicate, work and socialise through digital technologies that increasingly become indispensable parts of our lives. Our smart phones have become more or less the extensions of our bodies. We live in smart houses with sensory detections and drive smart cars. Our watches can accurately detect our most vital bodily signals. We can show many other examples of these wearable technologies. Many people also use fitness trackers to monitor their heart rate, steps, speed and the calories that they burn. Today we even talk about smart clothing, our smart shoes can monitor our running and with head-mounted wearable technologies such as; smart glasses and we can manage location, images or sound. These technologies become smaller and more portable every day and the very personal and private data that is collected through them can be uploaded, transformed and stored in different devices as well as in the cloud. In this context, we can argue that we already live in the age of enhancement or that we are already enhanced.

We can also point out that all these technologies listed above are outside the body, although they are very linked or directly attached to the physical body. Yet, there are implantable technologies that can be placed directly inside the body as well. Using these types of technologies, however, require surgical operations. There are enhanced versions of hearing aids, such as cochlear implants, that can be placed inside the body. These technologies are enhanced with artificial intelligence. Yet, one of the main worries about merging biology with AI is the aim of achieving superhuman cognition. In the past years, a lot of research has been conducted regarding the information flow from the human brain to a machine. One of the main drives behind these developments is the belief that one day artificial intelligence will surpass human intelligence and for that reason, we need to enhance ourselves. In other words, we need to merge further with machines to compete with them.

All these advancements trigger both excitement and concerns. Today, the idea that a monkey playing video games by using its mind or the possibility of uploading our brains to computer systems are no longer mere science fiction. The rapid developments in science and technology promise to go beyond our biological limits and gain additional capabilities. The current direction indicates that there will be further and more heated debates about the ontological, ethical, political and practical day-to-day consequences of these technologies. Scientific and biotechnological developments promise a radical transformation of the human

condition, and consequently, they bring the urgency to think about the notion and definition of a human being (Ferrando, 2013, p: 26) as well as how we will be affected by these radical changes.

The Transhumanist Movement

Today, there is a growing “intellectual and cultural movement, whose proponents declare themselves to be heirs of humanism and Enlightenment philosophy” (Bishop, 2010, p:700) They argue that, up until now, human beings were only able to shape and control their exterior environment, because simply they were unable to do more. According to Transhumanists; “people will eventually be able to control and fundamentally change their bodies and minds with the help of new technologies”. (Masci, 2016)

The term “transhumanism” was first coined by the English biologist Julian Huxley. (Münch, 2014, p: 205) At this point, we can also mention that Julian Huxley was the brother of the famous writer Aldous Huxley, who wrote “*Brave New World*”. Aldous Huxley was a pessimist regarding technological developments and in his scientific dystopian novel, he depicted what could go wrong. By contrast, his brother Julian was a scientific optimist, who was “amazed by the opportunities for self-improvement and growth” and he believed that “human beings can hold off their biological destiny”. (Masci, 2016). In this context, Julian Huxley can be considered as one of the pioneers of contemporary transhumanism. (Münch, 2014, p: 205)

Contemporary Transhumanism is considered to be a growing field of study. In the “Transhumanist Reader”, where we can find the goals, core values and principles of the movement, Transhumanism is defined as “the intellectual and cultural movement that affirms the possibility and desirability of fundamentally improving the human condition through applied reason, especially by developing and making widely available technologies to eliminate ageing and to greatly enhance human intellectual, physical and psychological capacities” (More and Vita-More, 2013, p: 3)

As an heir of the Enlightenment, the Transhumanist movement “rejects faith and worship and embraces science, reason and progress”. Overall, Transhumanists have a strong faith in technology, as they believe technology can help us to overcome biological and genetic limitations. According to them, in the future, we will no longer be defined only as humans, but we will become post-humans thanks to technological developments. For Transhumanists, this means that we will be able to exceed the limitations of the “human condition”, as “we will no longer suffer from diseases, ageing and inevitable death”. (More and Vita-More, 2013, p: 4)

Transhumanists have “the conviction that human beings in their current biological state are at a relatively early stage of their development and transformation”. (Münch, 2014, p: 205) Overall, “they believe humans are limited with regards to their abilities and possibilities and

therefore they believe humans are open to improvement. They see these improvements mainly in four areas:

Firstly, they focus on the lengthening of the health span. They believe people can become fitter mentally and physically. For them, ageing and diseases can be prevented and health can be improved radically through emerging technologies. Secondly, they argue that human cognition can be increased considerably. They mainly focus on improving logical reasoning, memory, concentration and mathematical understanding. Thirdly, they focus on increasing emotional capacities. For example, negative emotions such as; aggression, hate, contempt can be eliminated and people can enhance their mood and personality through positive feelings such as; joy, fun, enthusiasm and sensual pleasures. The fourth area that they focus is on increasing physical abilities. This area can also be examined under the area of health span. Gaining further strength and endurance can be shown as the main goals under this category.

Overall, Transhumanists believe that information technology, nanotechnology and artificial intelligence have a great potential to enhance the human condition, which is limited by the evolutionary development". (Münch, 2014, p: 206) According to them, human beings are currently in a state of evolutionary transition; from ape to human and from human to post-human. "The post-human is a future being, who constructs herself out of various technologies". (Bishop, 2010, p: 701) Being post-human means, according to Bostrom, "possessing a general capacity (health span, cognition, or emotion) greatly exceeding the maximum attainable by any current human being" (More and Vita-More, 2013, p: 2)

Bostrom depicts a picture where human beings are resistant to diseases, negative moods, they do not get irritated about unimportant things, they have a sharper focus, better memory, they are physically and mentally stronger, healthier, smarter, more able, more inclined to pleasure, love, artistic endeavours and positive feelings. In his vision, human beings live a lot longer and they are not strictly categorized, human beings can exist in different forms.

Overall, Transhumanists want to improve human beings in every possible aspect, with the use of technology. At some point, this vision requires biomedical intervention to the human body, which can be achieved through genetic engineering, therapies, neural interfaces and even enhancing drugs. The main aim is to overcome the limitations of the physical body, as they believe that will have a liberating effect on human possibilities, capabilities and existence.

Yet, Transhumanists do not only aim to free us from human limitations, but they aim to relieve us from the "human condition" itself. They take the origin from the current form and functioning of human beings and they aim towards a post-human condition. They overemphasize rationality and they use the logic of scientific and technological developments. Bishop points out that this logic is as old as the Enlightenment and that they repeat the same dogmas (Bishop, 2010, p: 702) of unlimited progression with scientific and technological development.

Overall, "Transhumanists aspire to a post-human goal of infinity: an engineered being; that no longer dies, possesses unlimited intelligence, and does not experience suffering. Through

redefining and re-engineering human beings they try to turn Homo sapiens into gods: Homo Deus". (Ross, 2019, p: 9)

Critical Views

Transhumanist views face a serious amount of philosophical and religious opposition. For example, the prominent political scientist and neoconservative thinker Francis Fukuyama identified Transhumanism as "the world's most dangerous idea". Overall, thinkers from many different disciplines oppose the ideas that Transhumanists put forward.

Various faith traditions also raise their concerns and argue that with these changes human beings will no longer be humans physically or mentally. According to them, enhancements can do more harm than good, as these radical changes can bring us to a critical point in terms of the future of humanity. The technological enhancements can create further inequalities and injustices within societies and nations as they will widen the gap between those who have enhancement and those who have not.

Some thinkers also point out that there might be hidden dangers in these experiments. Privacy of personal data is already a huge problem with emerging technologies and privacy can be even more problematic when these technologies are implanted inside our brains.

As many would acknowledge, humans are extremely complex beings and our understanding of the human organism and especially the human brain is still rudimentary. Attempts to enhance such a complex system that is poorly understood can fail. (Bostrom, 2009, p:26, p: 385) Although privacy and data ethics constitute a major problem, the main fear is that these developments have the potential to end disastrously. There is a common belief that there is wisdom in nature and disturbing the balance could backfire. (Bostrom, 2009, p:26)

Other thinkers such as; Michael Hauskeller focus on the topic of death and argues that what matters is not how long we live, but how we live – what matters is how we make our lives meaningful. (Hauskeller, 2019, p: 2) It is undeniable that humans are vulnerable beings. We can be easily attacked, injured or killed. We are vulnerable because we are mortal; this is the animal, the flesh side of human beings. We are vulnerable because we are emotional beings, we are not rational machines. Human life is full of suffering and pain, but perhaps that is what makes it meaningful. Overcoming obstacles, striving for goals; suffering, feeling emotional and physical pain, gaining endurance through dedication, increasing our mental and physical capacities through hard work is perhaps what makes us humans.

Conclusion

Enhancing activities can vary from wearing glasses to taking fitness courses. In other words, any activity that aims to improve us, or perfect us, can be seen as an enhancement. Yet, what makes human enhancement controversial are the non-therapeutic biomedical interventions that aim to improve human form and functioning. Today, the developments in science and technology herald the beginning of an era of enhancement and our technological devices increasingly become a part of our bodies. All these developments make us question how we relate to technology and what our place in the world is.

In the early stages of humankind, human beings were mostly controlled by natural forces and the common belief was that they were controlled by Gods. As *Homo sapiens* gained more technical abilities, they grew more confident and began to control violent nature. Today the emergence of these technologies, particularly AI, challenges the confidence of human beings, who doubt their abilities against technologies that they may not potentially understand or control. (Pepperell, 2003, p: 158)

Transhumanists point out that the modern environment that we live in brought new challenges to our lives. They argue that evolution takes a very long time and biology is limited in what it can build. (Bostom, 2009, p: 398) As our conditions change rapidly, Transhumanists believe we should enhance ourselves for our well-being as well as for the well-being of the overall society. They believe certain traits in individuals can promote social good and human enhancement can help us achieve these goals.

Whether we should employ a particular enhancement depends on the individual choice. In this context, it is hard to say that enhancement is a yes or no question. At this point, we should bear in mind that there can always be unpredicted side-effects, especially when we try to enhance complex beings like humans.

The modern world indeed brings its challenges and today we deal with problems such as; obesity and stress disorders. We can also argue that our jobs increasingly require higher levels of cognitive ability, yet we cannot underestimate the power of will, determination and hard work, in other words, the traditional methods of enhancement, which take patience and time.

Overall, we can argue that Transhumanists aim to overcome human vulnerability and prevent death. They see tend to see technology as a tool for creating a utopia where there is no longer pain, suffering and death, but only happiness, rationality and positive feelings. Yet, we can argue that our relation to death and our very human vulnerability makes us ethical beings. It is our choices, crucibles, imperfections, sacrifices and actions that make us who we are. They differentiate us from machines and give meaning to our lives.

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