ETHICS AND FUTURE IMPLICATIONS OF CYBORGS

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ABSTRACT: With the rapid acceleration of technological development in society, humans are now able to perform tasks that were once deemed impossible; for example, being able to easily find and communicate with new people over the internet was made possible within just the last forty years. If society continues to progress at this rate, extreme changes will soon overtake humanity. For instance, the existence of cyborgs is becoming more plausible as time progresses; in fact, scientists have already developed the first human cyborg, Neil Harbisson, as well as cockroach cyborgs. Given historical occurrences, humanity has always had a tendency to act violently when two different groups first learned of the existence of the other. The best way to prevent this problem concerning cyborgs is to anticipate the problems that arise with the birth of cyborgs and regulate them early on. However, the issue with developing laws for cyborgs as a general group is that cyborgs are too diverse, and certain laws may not be applicable or safe for every cyborg. In order to understand which populations of humans and non-humans specific laws should be applied to, there should first be a formal definition of the term "cyborg". Then, the fact that there will be different classifications of cyborgs in the future must be recognized in order to establish cyborg classes. This way, equitable and just laws can be developed.

KEYWORDS: Cyborg; Ethics

With the rapid acceleration of technological development in society, humans are now able to perform tasks that were once deemed impossible; for example, being able to easily find and communicate with new people over the internet was made possible within just the last forty years. If society continues to progress at this rate, extreme changes will soon overtake humanity. For instance, the existence of cyborgs is becoming more plausible as time progresses; in fact, scientists have already developed the first human cyborg, Neil Harbisson, as well as cockroach cyborgs. Given historical occurrences, humanity has always had a tendency to

act violently when two different groups first learned of the existence of the other. The best way to prevent this problem concerning cyborgs is to anticipate the problems that arise with the birth of cyborgs and regulate them early on. However, the issue with developing laws for cyborgs as a general group is that cyborgs are too diverse, and certain laws may not be applicable or safe for every cyborg. In order to understand which populations of humans and non-humans specific laws should be applied to, there should first be a formal definition of the term "cyborg". Then, the fact that there will be different classifications of cyborgs in the future must be recognized in order to establish cyborg classes. This way, equitable and just laws can be developed.

In order to understand the concept of cyborgs deeper, one must delve into the history and origin of cyborgs. In 1960, Manfred Clynes and Nathan Kline coined the term "cyborg" as "a portmanteau of cybernetics and organism" (Sayem, 'Digital fashion innovations', p.139). During the time when the term "cyborg" was first coined, the idea of cybernetics and organisms seemed far-fetched, and the broad definition was acceptable for science-fiction literature. However, even in the present day where cyborgs already exist, the broad definition has stayed the same. Author Ramoğlu asserted that anyone who wears a device, such as a smartwatch, that enhances human ability is considered a cyborg. His argument is that whether the device is worn or implanted, "there is a communication between human and computer, so [implantation] is not critical for cyborg definition" (Ramoğlu, 'Cyborg-Computer Interaction', p.1217). However, the definition must be altered in order to fit with a realistic perspective as the purpose of cyborgs changes. If everyone wearing a watch is considered a cyborg, then regulations for cyborgs who have the capability to commit unethical crimes would unfairly be imposed on people whose dependence on technology is harmless. This is why, for ethical purposes, there should be different classifications of cyborgs.

When cyborgs are presented in literature, they are often presented as being noticeably different from humans with respect to their inhumane abilities as well as physical appearance. For example, in the cyborg presented could have metal covering half of the character's face. This stereotypical representation of cyborgs, with facial modifications and an eye transplant, is commonly noticed in other forms of TV cartoons as well. This demonstrates that much of society is under the impression that there is a somewhat standard "look" at how a cyborg

compares to humans. However, the concept of a cyborg is less obvious and more complex than what is portrayed in popular media since cyborgs are not standardized with respect to their looks and capabilities. In reality, cyborgs are more diverse than most people think, and classifying cyborgs would be more appropriate than placing all cyborgs under a single category. This way, cyborgs that pose a more serious threat could be regulated to a higher extent than other cyborgs.

But why should cyborgs be a concern in the first place? Although technology has greatly aided in the advancement of human society, there is a debate on whether humans will eventually reach a point when the consequences of technology will outweigh the benefits. In truth, the effect of the integration of technology into human anatomy is unpredictable; it could lead to either "opportunity versus exploitation, utopia versus dystopia, [or] emancipation versus extinction" (Fox, 'Cyborgs, Robots and Society', p.1). The possibility that biotechnology could cause humanity to transform into an extreme utopia or extreme dystopia has especially been emphasized in past research. If a "techno-utopia", which is a futuristic utopia caused by technological innovation, were to come into existence, then humanity as a whole could progress much quicker, and individual humans could transcend the restraints of biology and even become post-humans. On the other hand, this rapid, man-made evolution could bring about a "techno-dystopia", which is a futuristic dystopian society caused by technological innovation. Of course, a change in society this drastic would most likely be a gradual change. This is why it is possible to take necessary actions, starting with cyborg classification, earlier on.

A techno-dystopia could result by integrating technology into the human body since it would inevitably lead to even more classifications and divisions in society, and the gap between "enhanced 'haves' and unenhanced 'have-nots' living in societies [would become] more polarized than before widespread human enhancement" (Fox, 'Cyborgs, Robots and Society', p.6). In the past, interaction between different groups of people has resulted in various discrepancies. In the early 1800s, the Greek War of Independence occurred between the Ottoman Empire and the Greeks—two different cultures. Even in relatively recent times, issues arose between the whites and the colored that eventually divided the country into the North and South, resulting in the Civil War. But the American

Revolution differs from these examples since one side of the war, the Americans, once identified themselves as British. When they traveled to the New World, they lost their British roots and developed their own American culture as well as their own ideas. Eventually, the two cultures varied so greatly that the Americans sought to free themselves of the British, and the American Revolution resulted. Similarly, cyborgs would have once identified themselves as human. Once they have the power to discover a "new world" of possibilities, they may develop their own culture and ideas. Eventually, they may lose their humanity and become a new species altogether. Given past occurrences, it is likely that the non-humans would see the flaws that are apparent in human society and eventually turn against humans. This idea of hate against one's original kind is explored in The Three-Body Problem by Cixin Liu. In this novel, a group of humans lost all hope for humanity and turned to extraterrestrial organisms for help. They were so disgusted by their own race that they even "cherished their highest ideal the elimination of the entire race, including themselves and their children" (Liu, *The Three-Body Problem*', p.317). If cyborgs or non-humans are left unregulated, the gap that would form between non-humans and humans could lead to a situation of similar unrest and conflicts between two polarized groups.

Another issue that arises from the existence of cyborgs is that, by being capable enough to perform inhumane tasks, cyborgs may take advantage of their capabilities in a negative manner. The imbalance of power may lead to a techno-dystopia; For example, bio-hackers may be able to hack into someone's body, causing them to perform tasks that aren't their own. This way, bio-hacking could be a newer way to facilitate crimes such as murder. Additionally, numerous concerns about privacy are inevitable. Already, the Google Glasses technology was discontinued due to privacy concerns. If the government was given the potential to track technology implanted in people, societies similar to autocracies may rise. Granted, any new technology that is invented has the potential to be used for either malicious or benevolent intents, but the risk of cyborgs is high enough that changes should be made in the law itself.

Given the exigence that cyborgs have already started to exist and that their population will most likely rise in the near future, it is imperative that action is taken earlier on before the consequences that come with cyborgs get out of hand. There are multiple possibilities of how cyborgs can be incorporated into law, but

cyborg classifications should be incorporated in order for just laws to be developed. Past researchers have already stated that different types of cyborgs exist. For example, in author Kevin Warwick's paper, "Routes to cyborgisation are introduced and different types of Cyborg are considered" (Warwick, Cyborg Morals, Cyborg Values, Cyborg Ethics', p.131). Applying this concept to the real world, requiring cyborgs to disable their technology before entering a plane, for example, may be detrimental for those who require the technology for safety purposes. Another possibility is that they may not need to disable their technology due to the low risk of that particular technology. Because of this, cyborgs should be categorized based on how risky their technology is to their safety or the safety of others. This is because cyborgs using technology for safety purposes, such as people with pacemakers, are usually a lower risk to others when compared to other classifications of cyborgs. An example of incorporating this outlook into cyborg classification could be to place cyborgs who require their technology for health purposes into Class A. Cyborgs who elect to incorporate a certain piece of technology into their bodies that do not pose much harm to others could be classified as a Class B cyborg. An example of this is Neil Harbisson, the world's first cyborg, who implanted antennae so he could hear color since he was color blind. Finally, Class C could comprise cyborgs who implanted technology due to defense purposes or because they are a part of the military. These technologies could pose a threat to those surrounding cyborgs. These classifications are based on current, realististic possibilities of future cyborgs. In reality, the future of technological innovation is unpredictable, and classifications could vary due to newer possibilities.

While the paperwork for cyborgs and every piece of new biotechnology that come into existence may seem tedious, the net profit could even deter a techno-dystopia. The implications of this classification system will be driven by both how much the technology would help the cyborg and how much it would interrupt the safety and welfare of others. In different scenarios, the classifications will determine how the cyborg will be handled and maximized for their efficiency. For instance, in the military, Class C cyborgs would be useful since biotechnology would act as weaponry to aid soldiers in defending the country. In medicine, technology that gives rise to Class A cyborgs will save lives. Even shoppers could use Class B cyborg technology to determine the lowest price of an object within

a 5-mile radius simply by looking at it. The general quality of life and society would bolster with minimal consequences when cyborgs are properly classified based on their utility and risk.

Cyborgs are the inevitable future of society. Although many people have different views on cyborgs, it is widely agreed that they have the potential to either help or harm society. One should not escape technological innovation but rather harness the potential of advancements to create generations more advanced than the previous ones. Humanity has always strived to obtain a state of utopia, and although a utopia is not practical, society will reach fairly close if innovation progresses with minimal consequences. Cyborgs will improve society as a whole and improve the quality of life of individuals. In order to foster a progressive environment, classifications would aid in cyborg regulation in order to prevent the possibility that arises with the existence of cyborgs.

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