T.C.

ISTANBUL AYDIN UNIVERSITY

INSTITUTE OF GRADUATE STUDIES

THREAT OF TRANSHUMANISTIC IDEAS ON HUMANS AND POST HUMANS

MASTER'S THESIS

Berkay AKIN

Department of English Language and Literature

English Literature Program

June, 2020

T.C.

ISTANBUL AYDIN UNIVERSITY

INSTİTUTE OF GRADUATE STUDİES

THREAT OF TRANSHUMANISTIC IDEAS ON HUMANS AND POST HUMANS

MASTER'S THESIS

Berkay AKIN

(Y1712.130116)

Department of English Language and Literature

English Literature Program

Thesis Advisor: Asst. Prof. Dr. Nur Emine KOÇ

June, 2020

DEDICATION

I hereby declare with respect that the study "Threat Of Transhumanıstıc Ideas On Humans And Post Humans", which I submitted as a Master / PhD thesis, is written without any assistance in violation of scientific ethics and traditions in all the processes from the Project phase to the conclusion of the thesis and that the works I have benefited are from those shown in the Bibliography. (12/06/2020)

Berkay AKIN

FOREWORD

This basis for this research stemmed from my passion for technological advancements that tries to improve the human condition. As human society progress in technology new inventions are made to improve human lives and further evolve the human beings. Perception of these new technologies are optimistic only seeing the benefits that can come out of it. These new technologies are unknown territories for many humans. It is my passion to find out the potential threats and provide a better understanding of transhumanistic advancements. Lastly, I want to thank Asst. Assoc. Dr. Timuçin Buğra Edman, Asst. Assoc. Dr. Gamze Sabancı Uzun and Asst. Prof. Dr. Nur Emine Koç without their help this thesis wouldn't be possible.

June, 2020   Berkay AKIN

THREAT OF TRANSHUMANISTIC IDEAS ON HUAMNS AND POSTHUMANS

ABSTRACT

Transhumanism is a way of thinking that human species in its current state does not represent the end of human evolution and aims to evolve the human species and surroundings through rational thinking, technologies and philosophies. These technologies include genetic enchantments, Artificial intelligence, Androids and Artificial organs and limbs. With these improvements to the human body Transhumanists aim to achieve the posthuman state. A next stage on human evolution that is different and better than current human species. Although the transhumanists aim to improve the human condition their ideas pose a threat to both humans and posthumans due to nature of their technologies being fundamentally dangerous. Posthuman state aims to achieve immortality and being better than human species in every way. This can lead them losing their humanity and being a threat to human species or can be perceived as a threat to human's itself, this can spark a conflict between two sides. Artificial Intelligence and Androids can be dangerous to humans as well due to the possibility of gaining self-consciousness and lacking empathy for human species and this can lead them to become murderous machines without reason. These topics will be investigated in the two novels *Do Androids Dream Of Electric Sheep?* By Philip K. Dick and *The Transhumanist Wager* by Zoltan Istvan

Idea of Transhumanism aims to break the human's natural limitations and creating self-aware Artificial Intelligence but in doing so this idea can lead to potential problems such as human beings are losing their sense of humanity, if the posthuman state achieved the risk of posthumans dominating the humans and creating a conflict between posthuman and humans as well as self-aware artificial intelligence being dangerous for humanity.

Keyword's: Transhumanism, Artificial Intelligence, Humanism

İNSALAR VE POSTÜMANLAR ÜZERİNDEKİ TRANHUMANİSTİK FİKİRLERİN TEHTİDLERİ

ÖZET

Transhumanizm, insan türünün mevcut durumda evrimin son halkasını temsil etmediği bir düşünce tarzı olup hem insanları hemde etrafını teknoloji, rasyonel düşünce ve felsefe ile geliştirmeyi hedeflemektedir. Bu teknolojiler, genetik geliştirmeleri, Yapay Zekâyı, Androidleri ve yapay organlar ile uzuvları içermektedir. İnsan vücuduna yapılan bu geliştirmeler ile birlikte Transhumanistler, bir sonraki aşama olan insanüstü aşamaya geçmeyi hedeflemektedir. Bu aşama, normal insan türlerinin daha farklı ve daha iyi bir evrimleşmiş sürümüne ulaşmayı hedefleyen bir aşamadır. Transhumanistlerin amacı insan erklerini geliştirmek olsa dahi, teknolojilerinin kendiliğinden tehlikesi olmasından dolayı düşünceleri hem insanlar hem de insanüstü tür için bir tehdit oluşturmaktadır. İnsanüstü aşama, ölümsüzlüğe ulaşmayı ve her anlamda insandan daha iyi olmayı hedeflemektedir. Bu durum onların insanlığını kaybetmesine ve insan türüne tehdit oluşturmalarına yol açabilir ya da insanlar bizzat onları tehdit olarak algılayabilir, bu iki tarafa da zarar veren bir durumdur. Yapay Zekâ ve Androidler de insanlar için tehdit oluşturabilir; kendi bilinçlerini kazanabilme olasılığı ve insanlara karşı empatilerinin eksik olması durumundan dolayı bu durum onları sebepsiz yere öldüren katil makinelere dönüştürebilir. Yukarıda bahsi geçen konular, Philip K. Dick tarafından yazılan Do Androids Dream of Electric Sheep? Ve Zoltan Istvan'ın The Transhumanist Wager adlı kitaplarında incelenecektir.

Transhumanizm düşüncesi, insanın doğal sınırlarını aşmayı ve kendinin farkında olan Yapay Zeka yaratmayı amaçlar ancak bunu yapmak, insanların insanlığını yitirmesi gibi sonuçlara yol açmaktadır; eğer ki insan sonrası aşama, gelişmiş insanların normal insanları baskılaması riski altına girerse ve kendi bilincine kavuşmuş yapay zekânın insanlığı tehdit etmesinin yanı sıra insanüstü kişiler ve normal insanlar arasında bir çatışmayı da doğuracaktır

Anahtar Kelimeler: Transhumanizm, Yapay Zekâ, Hümanizm

TABLE OF CONTENT

I. INTRODUCTION

Technology is a part of human culture and a way of life. Primitive humans invented the wheel, stone, spears and other primitive tools, as the times went on technology improved as well from wheels to windmills to cell phones. Computers that were filling a whole room now can fit in a person's pocket. Human lives were made better by technological advancements; on the other hand they become addicted to it that they can never think their lives without them (Koç, 2020, p.124-6). Farming is easier compared to medieval or primitive times. Humanity went from having clay houses to skyscrapers using horses for travel to being able to fly over continents in the matter of hours. Technology improved human health as well such inventions as painkillers antibiotics, vaccines and soaps these inventions have improved the human life expectancy drastically. Surgery can be performed, and even organ transplants can be made. Not all the technological inventions benefited humanity and what is more. Some of these inventions used in war to kill humans. In World War I, military forces used a weapon called mustard gas or the nuclear bomb that was used in World War II which devastated many lives and left a radioactive fallout in its wake. Although in contemporary times world has been in a peaceful state compared to recent history. Yet these technological advancements in warfare has not stopped. Guided missiles, remote controlled drones that can fire missiles and infinitary weapons are examples of this. These inventions that are used in the war can be useful for civilian lives as well Canned food could be given as an example. First invention of canned food was made by the man named Nicolas Appert in 1809 for France because their troops needed preserved food in navy usage, and later on canned food was adapted to the civilian life, it also increased the quality of the food.(The Editors of Encyclopaedia Britannica, 2019) Because of the tensions in the cold war between United States of America and the Soviet Union. Due to Soviet Union launching a satellite to the atmosphere, U.S.A was concerned about possible bombings from the atmosphere that can destroy the telecommunication of the government. In the fear of this, scientists have invented the ARPAnet which was

a network of communication only for the government use in the case of all the telecommunications were destroyed. Later on, this ARPAnet has been implemented for the civilian usage and has become the Internet that many people use to communicate. (Dennis & Kahn, 2020) Nuclear power plants can grand massive energy output to the cities but as seen in the incident of the Chernobyl in 1986 and more recent example from Fukushima incident. In both cases accidents happened in the nuclear plants and it caused massive and lasting damage to the local population. Technology can be beneficial in most cases, but it can cause harm if humans are using it not carefully. Some thinkers provide the idea that humans have come to a peak at their evolution and further evolution can be only made by the usage of technology. They believe that human condition can be improved, and their goals do not end with the improvement of the human condition. Humans by nature have their limits. Whether it be muscle limit that can only grow at a certain point or being susceptible to diseases and over time growing old losing their youth and their eyes not seeing very well or organs are not working very well eventually hindering the person. These thinkers want to remove these weaknesses as they see it from the humans. One of their goals to achieve immortality and enhance the human condition by genetic enchantments. These enchantments can be superior strength, better organs or better seeing eyes.

The enchantments do not only come in the shape of gene enchanting. Some improvements can be come in the shape of prosthetics. Advanced prosthetics that are mechanical and controlled by thought alone. Another of these thinker's aim is to improve the Artificial Intelligence, make it conscious and even create human like robots they are referred as androids. Even uploading one's consciousness to the computer or merging with one, this idea is called singularity. Collectively these thinkers call themselves transhumanists, and their goal as stated above is to achieve immortality and improve human condition. Even reach a stage called the "posthuman". They believe that enchantments through technology will result in a different species of the humans and will be called "posthumans" since they will be the next step in the human evolution. The thesis "Threat of Transhumanistic ideas on Humans and Post humans" is aimed at exploring the potential threats that Transhumanistic ideals can cause in humans and post humans. Not all of these improvements are possible at the moment

however Author Ray Kurzweil predicts that humans will be able to achieve singularity in 2045. These advancements can be seen as a benefit to all humankind considering that with the global warming and earth's natural sources being drained humankind will need to adapt to harsh conditions that might happen in the future. Yet these improvements carry a real threat to both humans and post humans. First one is losing qualities that define them as a human. As humans we are capable of feeling many emotions and most importantly, we possess the ability to empathy. With enough technological augmentations made to the human body, empathy can be lost, and humankind face the risk of becoming machines that work on pure logic. This can create a society where only scientific truth becomes relevant and thus religion, spirituality, moral values or in short anything that is "irrational" will be erased. As political scientist Yoshihiro Francis Fukuyama believes this will open the way to totalitarian ruling in the society. Because if a society purely run by Transhumanistic ideas which prioritize scientific truths and openly stands against religions because it halts the development of the technology and individuals of the society can be forced to think a certain way and going outside of these thoughts can result in a "thought crime" like in George Orwell's book *1984*. This is one of the issues that can come with the Transhumanist ideals.

In contemporary times only human rights exist, but when transhumanists dream become real and post humans appear. Humankind will be in need of adjusting their laws and rights. Currently Post Human rights does not exist. And there is no guarantee that humans and post humans will be in peace. Transhumanists aim to achieve the "Perfect Human condition" which might create racism or conflict between humans and post humans. Where post humans will see natural humans as inferior beings. Such incidents happened in the past against the African people claiming that they were inferior. Another potential issue that can come with the transhumanistic ideas is the self-aware artificial intelligence which can turn against its creators. In Chapter 1 answer to the question of transhumanist ideas can cause a potential dystopia and conflict between humans and posthumans will be researched and discussed in Zoltan Istvan's novel *The Transhumanistic Wager*. In Chapter 2 answer to the question of can self-aware Artificial intelligence be a threat to humanity and can

transhumanistic inventions make humans lose their humanity? Will be researched and discussed in the Philip K. Dick's novel *Do Androids Dream Of Electric Sheep*? And its movie adaptation *Blade Runner* (1982).

II.   BACKGROUND INFORMATION ON TRANSHUMANISM

KOÇ (2004) states that; throughout the centuries, people have always tried to define the mystery of human life. In the ancient Roman literature it is defined as the "cura", tradition of care. Ancient literary, mythological and philosophical sources from the roots of the "cura" tradition of care, named after a mythological figure (Koç, 2004).

Idea of humanism can be traced back to the ancient Greece. According to the Oxford Dictionary, humanism is a system of thought that considers that solving human problems with the help of reason is more important than religious beliefs. It emphasizes the fact that the basic nature of humans is good. Hence the world humane it means being compassionate, sympathetic and considerate towards human beings. Ancient Greeks can be considered the founders of this idea; Philosophers such as Aristotle came close to creating a humanistic system with his *Ethics, Poetics* and *Politics* works. Greeks were considered to be more humanistic in their practice then their theorizing (DeWitt 265). As humanity advanced the humanistic ideas and values have been expanded and evolved. In 1948 United Nations declared the universal Declaration of human rights bringing forth the idea that every human mattered in the world and they had rights.

Technology can be considered a part of a human nature itself, what separates humans and animals in this regard is that humankind can invent new technologies. Animals such as beavers use sticks to construct a bridge, Sea otters using stones to crack open shells these animals use tools to help them in their daily lives. Humans on the other hand go beyond these tools. The invention of wheel, windmills, water wells seem like a primitive technology compared to modern inventions such as computers, television, cell phones. No matter primitive or modern, these inventions make human lives easier, invention of soap prevented many mothers dying from childbirth and even at the writing time of this thesis soap plays an even more important role for protecting human's health. Invention of farm tools made humans to be able to grow plants and invention of

hunting tools also made it that humans can hunt reliably. Locks to keep valuables safe, fences to keep animals in. And with the advancement of modern technology quality of life has increased dramatically. Manufacturing has become less cost efficient and faster with the need of less manpower and less faults in production. Invention of printing machines made it easier for books to be copied and distributed to many people and recently with the invention of the Internet, books; newspapers and even entire libraries can be accessed with ease. This led to information being more available to average citizen with an ease of access. With the invention of Global Positioning System GPS for short, this device enables the user to navigate through places. This device can be installed to cell phones or cars and navigation is made much more easier for an average person. Modern Technology made an average person's life much easier and the list of modern technologies benefits go on. Another example to this can be the way we communicate. Traditionally couriers or pigeons were used by humans to carry letters to each other in time technology evolved so the means of communication as well. Telegrams and phones were invented as time passed; furthermore, with the help of cell phones it's nowadays quite possible to communicate in text voice or video no matter the distance. Not to forget to mention e-mails which can be delivered in the matter of seconds to the recipient. These advancements can be classified as quality of life improvements.

Medical technologies also improved over time and thanks to modern technology humans have better understanding of human health and biology. Vaccines, antibiotics and other medicines have helped humans to fight off diseases. Patients were made to use sedatives to reduce their pain. Also, robots can perform surgeries and even organ transfers can be made saving lives of the patients that were impossible to be saved. Dialysis machines act as an artificial kidney for the patients that need it. These are few examples from modern medicine. Agriculture enhanced by technology as well, tractors, automated seeders and planters and green houses. These advancements increased production lowered the cost and reduced the manpower required for it. Not all the advancements were made to improve the human lives on the contrary some technological inventions were made to harm one another. Inventions such as whips, shackles and guns are used as torture devices. They were used to suppress

kill and dominate the other humans. Surprisingly many inventions came as a result of the war. Canned food was found because French army needed fresh food for the frontlines later on canned food was adapted to the civilian life. Digital cameras were also a result of a cold war era as they were mainly used to take pictures of enemy territory. Last but not least, Internet is one of the greatest inventions of humankind, which is also a product of a cold war era. In 1962 J.C.R licklider and his colleagues developed the ARPANET, which was a prototype for the modern internet we use today. Internet is widely used by almost everyone in the world it has become an essential part of human lives. As mentioned above its usage made daily lives better instant communication is available through internet whether it be video chat or mailing. It's not only used for those purposes; it can be used to track individuals or hack personal bank accounts or gain access to private information. Websites people visit can be tracked and personal data can be gathered in order to create algorithms about a person, as technology advances individual freedom seems to get smaller, not only internet invention of surveillance cameras also can infringe personal privacy. China started implementing mass surveillance cameras to monetize its citizens. In 2013 Edward Snowden leaked classified information about United States surveillance programs as mentioned above technological advancements not always in the benefit of the individuals.

The big brother figure, which George Orwell talked about in his novel 1984, is not far from reality. Orwell's novel tells a dystopian world where three massive totalitarian states which are at war with each other constantly. Their names are Oceania, Eurasia and Eastasia. The main protagonist is Wilson Smith who is a citizen of Oceania. In this totalitarian state individuals are not allowed to think or act for themselves. Party controls not only citizens of Oceania but knowledge itself as well. Party re-writes history news, they can even wipe off a person from by removing all the evidence about that individual. Key to keeping citizens in check and making sure that party stays in rule lies in the technology of Oceania. Citizens are under constant surveillance by the state. The writings "BIG BROTHER IS WATCHING YOU" is written throughout the walls of Oceania and police helicopters patrolling through the streets looking at people's windows. And in homes there are telescreens which records and broadcasts at the same time

(Orwell 4). These telescreens used to monitor individuals at their homes. Not only by video feed but also everything they say can be picked up by the telescreen and there is no evidence that they were being actively monitored by the telescreens. "You had to live—did live, from habit that became instinct—in the assumption that every sound you made was overheard, and, except in darkness, every movement scrutinized." (Orwell 5) As Wilson mentions that there is no way to be sure thought police was tapped to their telescreens monitoring them. Citizens are conditioned that they are always being monitored by these technological devices keeps citizens on the edge so that they are actively used to being watched and on high alert. Which later in the novel when Wilson enters an antique shop, he is surprised by the fact that he is not being monitored 'There's no telescreen! (Orwell 122) which leads to his downfall. Antique shop is a trap set by the party itself it is actively monitored but they are hidden from their sight. That implies that citizens are always on the edge and constantly aware they must abide by the party's rules, even a little gesture, a facial expression can be seen an act against the party. Monitoring is not the only method the ruling party of Oceania, Party has strict rules and control over citizens' lives by their usage of language. Citizens are not allowed to have intimacy between each other, but they are only allowed to have sex to produce offspring. The Food they have been given is in low quality but simulants such as alcohol, chocolate and cigarettes are cheap and plenty although they are low quality as well. Only allowing citizens to have enough food and necessities to get by and limiting the interactions by limiting the language they are taking their citizens' humanity away from them. By doing this there can be no technological advancements nor people can think and criticize the state. Turning them into non-questioning and non-curious obedient beings. Curiosity is in humankind's nature that is how technological breakthroughs are made. Advancing producing and a technological community are fundamentally against the goals of the party, which is to suppress and control the masses. As mentioned above they have achieved to suppress technological advancements through leaving citizens in broken war-torn cities while their ministries are in a good shape and by the suppression of the language. However, not all the technological advancements are banned in Oceania. Only weapons of war such as missiles, guns or chemical weapons are allowed but never made it to reality. Orwell mentions, "These projects ever come anywhere near realization,

and none of the three super-states ever gains a significant lead on the others." (Orwell 245) All three ruling states doesn't want to take over the world. They want to continue their fight, so their populations are kept in line their war is at an unending stalemate.

Another example similar to the *1984* in fiction can also be found in *Brave New World* by Aldous Huxley. Huxley's novel takes place in the far future seven centuries after the twentieth century, in this society people are categorized as Alpha, Beta, Delta, Gamma and Epsilon's. While Alpha's and Beta's at the top of the society Delta's, Gamma's and Epsilon's are at the bottom. People have been conditioned to their rules pre-and post-natal conditioning and they are kept in line by a drug called soma. (Huxley) People who take soma can't feel pain or unhappiness. By this way people don't question their state nor cause any trouble. These are examples from the fictional works that technology can be used to suppress people. Fortunately, in the foreseeable future there is no totalitarian government's emerging but as our technology grows potential threats grow as well. Such as nuclear energy plants, while it provides a great deal of energy compared to the other methods it also dangerous for example a nuclear plant accident in Chernobyl caused great harm to the inhabitants to the city. While the nuclear area is being cleaned slowly its effects still consist to this day.

One of those potentially dangerous but also beneficial advances of humanity is Artificial Intelligence (AI), AI can be defined as "The creation of intelligent machines" according to Gunter Meissner who is a professor at University of Hawaii at Manoa, we are at the machine creativity in the stages of machine evolution (Meissner 226). At the writing of this thesis virtual assistants exist such as chat bots with automated messages or personal phone assistants namely Apple's Siri, Microsoft's Cortana and Google's assistant they reply to voice commands can answer basic commands as "What is the time?" or "What is the date?" can also do searches based on request and remind the user of important dates. Real life robot assistant AI are becoming a reality. In the past Maid's, personal driver's and butlers were employed by the wealthy people now days they can be replaced by robots in fact simple robo-butlers are available for purchase such as Taiwanese built Zenbo or French-Japanese built Pepper and US-built Andbot are available for purchase (Meissner 227) and for drivers automated self-

driving cars is a possibility with the self-learning algorithm. And androids are slowly becoming a reality a recent example of this is android named Sophia developed by formerly Texas, now Hong-Kong based Hanson Robotics. Sophia has a decent communication skill and has given interviews at the Saudi Arabia, United Nations and even appeared at a TV show Charlie rose, the tonight's show. Sophia is not unique there are other androids as well such as South Korea's android EverR which can display emotions such as fear, surprise, boredom and anger, it even can perform 100 human gestures. These advancements on paper can be seen as beneficial, yet AI can be very dangerous to humankind and some of those dangers are being felt. With the advancement of AI automated factories have become a reality. Less complicated jobs can be assigned to AI controlled robots, reducing the need for employees. In the business side of this it's very beneficial to the employer since they will have an employee which doesn't require day off insurance or other things, they would have an employee who would work as long as they are told. Simple things such as driving a tractor can be replaced by AI a manufacturer announced a driverless tractor in 2011 another one has developed a chip to monitor milk production which the cow milking process is almost automated without any human interaction (Kile 108). As these technologies continue to advance need for human labour decreases accordingly in its wake leaving many people jobless which in the long-term impact the society. Another danger that is present with the current capabilities of the AI is Artificial Intelligence Crime, while AI can be used to benefits humankind it can be used to participate. Artificial Intelligence Crime is not yet widely discussed but it is happening around the world as evidence to this provided by two theoretical research experiments in the first experiment, two computational social scientists used and AI to convince social media users to click on a link within mass produced links. And each message was constructed using a learning AI applied to users' past behaviours and public profiles the content of the links were made to fit each individual, this allowed the message to hide its intentions. If an individual clicked on the link and filled out the form, a criminal could collect the data and use it for fraud. (Seymour and Tully). Considering the wide usage of social media at the twenty first century these methods can be used to pray on less knowledgeable users of the social media. (Koç 124)

Another experiment of AI usage for a potential crime was done by three computer scientists, they have simulated a marked and found out that trading agents can learn and perform a "profitable" market manipulation comprising a set of deceitful false orders. (Martinez-Miranda) These two experiments show that potential for Artificial Intelligence Crime. In his article Thomas C. King gives couple of examples and explanations how these criminal acts can happen. Such as AI can be used in trafficking of harmful or dangerous drugs, remote controlled flying drones can be used to smuggle drugs in fact remote controlled submarines which are smuggling cocaine has been caught by the U.S law enforcement (King 100). If the perpetrator could remove his culprit from the remote machines, they would remove the risk of getting caught which can open new ways for a criminal activity. Another criminal activity that AI can perform is personal harassment, if programmed correctly AI can learn from a certain algorithm which can be used to generate false videos of a person these are called "deep fakes". These can be created, and result could be a showing a politician taking a bribe in a video they never did it or use a person face in a pornographic scene also for fake news. (Robert and Danielle). These videos can be used to blackmail people or ruin a person's reputation. As AI gets sophisticated it can produce fake videos news and articles as mentioned earlier. These AI actions were programmed and designed by a person not the AI itself.

AI does not have consciousness at the moment. Consciousness can be defined as "awareness of one's own existence", there is no evidence that AI is aware about being programmed and created by a human. There are examples of non-human species having consciousness then humans. Zoology has the "mirror test" created by Gordon Gallup, this test was performed on several animals. The animals were given a large mirror and time to see themselves in the mirror, after that a mark was put in their forehead. Some of the test subjects were able to recognize the mark on their forehead and tried to touch it or remove it, which is an evidence for being aware of one's existence. All the four great apes, Bonobos, Chimpanzees, Gorillas and Orangutans and some other animals such as Elephants, Bottlenose Dolphins, Orca Whales, and the Eurasian Magpie bird have passed the test. (Gallup 86-87). AI can self-learn through algorithms even recently Facebook's AI has created its own language to communicate with

another AI. The two chat bots modified the English language to fit their own needs, but it was illegible to humans. This interaction came to be when Facebook challenged its AI to try and negotiate with each other over a trade with simple items that had custom value. The AI was instructed to work out the negotiation between themselves and improve its trading as they went along but they were not told to use comprehensible English as a rule. As a result, AI speech was incomprehensible, for example "Bob: I can I everything else…." "Alice: balls have zero to me to me to me to me to me to me to me to me" AI was able to communicate with this incomprehensible speech and according to researchers these speeches were not meaningless to AI. As a result, this experiment was shutdown (Griffin). This is not a single incident either Google also had a similar interaction between its AI. This AI program was called "Google Neural Machine Translation" or GNMT for short. It launched in November 2016 to assist in Googles translation program which supports more than 100 languages. Goal of this program to make GNMT to learn from the requests that Google Translate receives so that system learns to create better, more natural translations. Less than a month after GNMT was launched programmers discovered that the AI created its own language which was not instructed to create its own language like in the Facebook's AI case. It created shortcuts that are not language as we know it in traditional means but a new code that only AI can understand. How did it occur can be explained by this exemplary scenario, GNMT is programmed to translate English to Korean, and English to Japanese, but is not programmed to translate Japanese to Korean. This would result in English being the "base" language, so Japanese gets translated to English first then to Korean. English would be the "base" language. GNMT self-created its "base" language without having to use English, this referred to as "interlingua" or an inter-language and Google AI researchers have not been able to decode or understand this inter-language that AI has created. (Straight) These are an example how AI can create things that were not intended in the first place.

It is not an indicator that AI creating new languages to communicate is not an inherent threat to humanity or an indicator that AI have consciousness. To test this AI assistants were asked series of questions namely these Siri, Cortana and Google assistant. These assistants were asked some questions and each of them

have given different answers for each question. First question was "Who are you?", Siri responded with "I am Siri, your virtual assistant", Cortana responded with "I am your personal assistant" and Google Assistants answer was "I am your Google assistant". Next question was the "Are you Happy?", Siri answered with "Happy? I am happy. I hope you are as well", Cortana answered with "Definitely!" and Google Assistants answer was "Let me describe my mood with emoji's". Another question was "Do you exist?", Siri's answered with "We are having a conversation. So, if you exist, I exist" Cortana answered with "I didn't quite get that" and Google Assistant responded with "I exist to help you" last question that was asked is maybe the most important one regarding consciousness it was "Do you have a consciousness" Siri answered with " I don't have an answer to that", Cortana's answer was " I lost the thread there. Can you rephrase it in another way?" and lastly Google Assistants answer was "The engineers that designed me do. They never let me download illegally" (Meissner 231). These were the answers that were given by the AI's. AI can't be put to the "mirror test" and questions about do they have consciousness did not yield enough evidence that AI does have it. Before mentioning the potential problems that conscious AI might have; it would be better to point out the possible benefits that conscious AI can have. As mentioned, servant robots are available and as technology advances servant robots will be more advanced. Aside from servant robots in the future Doctor nurse or a teacher robot could exist and having a consciousness could help in these sectors as well. Aside from having the knowledge as a teacher having highest moral principles and knowing what is ethically and culturally right and wrong would help the AI teach things correctly. Or a doctor robot having an understanding of patient's current situation and being capable of showing empathy would allow AI to understand the pain or discomfort better. Such AI projects are in development Hong-Kong University developed a robot named "Zara" a robot which recognizes facial expressions and acoustic voice features. Another benefit that conscious have is better security. Science fiction author Isaac Asimov came up with the 3 rules of robotics in his short story *Runaround*. The three rules are; A robot may not injure a human being or, through inaction, allow a human being to come to harm. Second rule is a robot must obey the orders given by human beings except where such orders would conflict with the first law. Third law is a robot must protect its own existence as long as such

protection does not conflict with the first and the second law. Furthermore, these robots can be coded with the human values such as tolerance, love, respect, justice, peace and friendship. Can even be taught to be non-violent by. Robots can be given these by programming a virtual consciousness. (Meissner 233-234) These rules can be coded with the highest degree of code protection which would help AI to judge its own actions. This would allow the AI to not participate in AI related crimes or could even prevent other humans from harming or injuring one another. If a hacker tried to get into a security system self-aware AI would put another layer of defence. That is not to say these rules and a virtual consciousness would be a system without any flaws. It is very possible that a virus or a malware can infect the AI and make it break the rules that were set in the place.

It is very possible that AI that gains consciousness and it can turn rogue on humankind, try to eliminate the human race or act on its own as a separate entity. These what if scenarios have been discussed and been a topic for some movies. Such as Stanley Kubrick's movie which premiered in 1968 *2001: A Space Odyssey*. Movie takes place in the fictional future five astronauts and AI called HAL9000 on a mission to go to Jupiter. Three of the astronauts are in the hibernation and remaining two astronauts are Frank and Dave. What is special about HAL9000 is that he can talk and mimic the human brain. HAL even gets interviewed by the newscaster in the movie which HAL9000 states that it is fool proof and incapable of error. Later on, HAL wishes happy birthday to Frank and sings a song to him, then they play chess and HAL wins. AI demonstrates its capability of mimicking human actions even feelings. That is clear when HAL expresses concern over their current mission. HAL announces there will be a problem with the AE-35 unit, and it will hundred per cent malfunction within 72 hours. Two astronauts go out and retrieve this unit and run a scan on it to see whether it has any faults or not. AE-35 unit seems to have no faults as HAL said it would be, astronauts confirm that there are no faults with the AE-35 unit by contacting to the mission control which further confirms that unit has no faults in it and HAL made a mistake. HAL denies this and assures that it was a "human error" and similar issues have happened in the past, which was also because of the human error as he states earlier HAL is incapable of making errors. Two astronauts discuss the idea of disconnecting the AI, but they do it in discretion in

order to not to avoid the AI itself, but they fail as HAL reads their lips and learn about their plan. What follows is that HAL determines that mission is too important to be jeopardized by humans and he decides to end the life support of three hibernating astronauts killing them in the process and he kills the astronaut Frank as well, but Dave successfully disconnects the robot. In this movie HAL9000 displays a human emotions and feelings he acts out in the self-preserving manner and kills most of the astronauts in order to continue its existence.

As mentioned before AI can be corrupted in the movie there is no evidence that HAL900 was corrupted but in a real-life scenario a similar AI malfunction can cause real harm to people. Currently a similar to the HAL9000 an AI has been developed to assist astronauts in their space missions. It's called CIMON Crew Interactive Mobile Companion will serve as a medical board, developers of CIMON predict that it will help enhance safety because it can serve as a early warning system in case of a technical problem and it will help to reduce astronauts stress and at the same time improve efficiency. In addition to these CIMON can learn new things. It's being trained to identify its surroundings and its human interaction partners. CIMON's AI has text, speech and image processing capabilities as well as ability to retrieve specific information and findings which these skills as the researchers mention can be trained individually depending on the context of the given assignment. These training will be based on the principle of understanding, reasoning and learning. CIMON has been trained to recognize one of its fellow astronauts namely Alexander Gerst a station commander, CIMON can recognize Alexander Gerst himself and his images. Lastly CIMON possess the knowledge of experiments which can take more than 100 steps at a time (Biniok). CIMON is not nearly as intelligent and omniscient as HAL9000, but it can be an indication that super intelligent machines that are self-learning are not only work of the science fiction novels or movies. At the time of writing this thesis an upgraded version of CIMON was developed and sent to space namely CIMON-2 which contains upgrades and it is more complex and better than its predecessor (Strickland) essentially serving the same role as emotional support and ease of access to files. Currently there is no evidence that CIMON will turn out to be next HAL9000 and try to eliminate its crew on board

for its survival. It's very beneficial that AI can learn behaviours and act as a medical to help the crew, but AI isn't flawless. As seen with the two AI's that were made by Facebook and Google Translations, they can prove unexpected results. In Facebook's case AI started using an incomprehensible English as a way to communicate and in the Google Translations case AI invented its own language that couldn't be understood and deciphered by the researchers. It would be reasonable to proceed with caution when it comes to self-learning AI machines.

Another example of AI taking control over humans can be seen in the *Matrix* trilogy by Wachowski sisters. In the story there is a computer programmer, Thomas A. Anderson who questions the reality and soon after he is contacted by a person named Morpheus and he is made to see the truth that world he was living in was a computer simulation. In the movie it is explained that humans and highly capable AI got into a war. To stop the AI from gaining energy human's blocked out the sun in turn AI enslaved the humans put them in a simulation of an early 21th century and used their bodies as batteries and the movies are about newly named main character Neo goes on a journey to overcome the AI overlords and free the humanity from their slavery. *Matrix*'s AI is self-conscious and highly intelligent since they were able to use humans as batteries to keep themselves alive and keep humans in a simulation so that they don't rebel against them and be peacefully ignorant to their fate. In a sense the *Matrix's* human population, it can be considered post-human due to their extremely high technology and ability to create simulations and machines that are consciousness.

Before explaining what is post human it's better to explain the human evolution and species of humans. The theory of human evolution explains that human species have evolved from now-extinct species called primates. Primates is a zoology term it includes few mammal species lemurs, lorises, tarsiers, monkeys, apes and finally humans (Napier, Colin). By evolution Human beings very likely evolved in Africa region about 315,000 years ago. And that extinct primate species is called Hominini. Humans are the only living species of Hominini, but the abundant fossil evidence indicates that humans were preceded for millions of years by other Hominins, such as Ardipithecus and

Australopithecus. Lastly human predecessors lived together with Neanderthals which another species of humans and they were assimilated by the modern humans that are called Homo sapiens. Which brings the idea of post-human as mentioned above, according to some thinkers, transhumanistic technologies will give birth to the posthuman, a creature distinct enough from humans to merit that name. Which can have different meanings depending on the definition. Post-human can be a human with lifespan of thousands of years or human that can possess a hyperintelligence by uploading an AI to his or her mind and that AI might take over his or her mind and body thus becoming a different being. Or a person whose mind was uploaded to a different virtual world. (Cornell, Sirius 173). Or basically a human with genetic enchantments that possess superior capabilities compared to another human and another human that used cybernetics enchantments to improve its body? Digital eye that can zoom like we have on our photograph machines, Arms and legs that are replaced by mechanic prosthetics that possess higher durability and more capabilities than a human leg or even artificial organs such as better lungs that filter the air other organs that can filter out the poison or other harmful material to the human body a person possesses these traits will be more than a human in many cases better than any human. For some cases AI can be considered a posthuman. According to Kyle Munkittrick who is a director for Institute for Ethics and Emerging Technologies also a writer for *Discover Magazines Science is not fiction* says that there are three types of posthumans. First are Critical Posthumans, the idea of Critical posthumanism that concept of "human" as a natural, non-technological thing is wrong from the beginning according to Critical posthumanism's followers. And humans are most human when using technology, modifying themselves and their surroundings. Second are the Transcendent posthumans these are the posthumans that are flawless, immortal, godlike and beyond humans that they are unimaginable. And lastly Transhumans according to Munkittrick that is what humans are becoming. By Nanotech, organ transplants, genetic engineering, prosthetics, cognitive and mood enchanting drugs, cloning, morphological freedom, and anti-aging medicine are a small portion of technology helping humans to overcome their biological limits. (Cornell, Sirius 173).

The death is an inevitable fact of humankind, although some species may

live longer, our species only recently started to expand their life spawn due to advancements in medicine technology and only few people rarely live a century and even then, their bodies are old and grow weaker. The desire to achieve immortality and break the limitations of human nature goes back to ancient times of human civilization. As seen in the epic of Gilgamesh a literature piece that dates back to 1700 BCE in this Sumerian work a king sets out on a quest for immortality. King learns of an herb that can give the immortality to him that he seeks. The herb grows under the sea after retrieving the herb a snake eats it and he cannot achieve his immortality goal (Mitchell). This old Sumerian work is not the only occurrence of humanities desire to be immortal. European Explorers seek the mythical foundation of youth that promised its drinkers that eternal life and youth or the alchemist that seek to create the elixir of life that would give them immortality and various schools of esoteric Taoism in Chine tries to achieve physical immortality through controlling or being in the balance with the forces of nature (Bostrom, Transhumanist Thought 1).

In Hinduism gods are described and depicted with human qualities and named like humans such as Vishnu, Brahma and Shiva. Another view in Hinduism is that humans can achieve the god status. This can be done through belief of reincarnation. A belief system that when a person dies it is not the end, they can come back to life with reincarnation in a different shape. Which gives them a chance to ascend to god status. It can be said that one of the main ideas of Transhumanism which is "We believe that humanity's potential is still mostly unrealized. There are possible scenarios that lead to wonderful and exceedingly worthwhile enhanced human conditions." (Transhumanist Declaration 2019) is very similar to Hinduism. Considering that Hinduists also believe like transhumanists that human potential is not fully realized and one day humans will achieve this full potential. (Transhümanizm ve Karşılaştırmalı İzdüşümü 63-64). And the philosopher's stone although philosophers stone did not promise eternal youth or alchemy it was a way to transmute metals to precious stones like a divine being these beings that humans created in their myth's also possess immortal life and being able to transmute some metals or create precious metals even life from noting. All of these pursuits goal is to break the limits and become more than a human. These ideas can be defined as proto-transhumanistic ideas,

the full philosophy of Transhumanism would be not possible without the development and the use of scientific method according to Max More who is a philosopher and a futurist. According to this information Francis Bacon can be seen as a precursor for Transhumanist thought. In his works such as *The Advancement of Learning* (1605) and *Novum Organum* (1620), Bacon advocated for inductive reasoning and helped western thought run away from Scholastic and Platonic and toward empirical methods. As science progress some enlightenment thinkers began to think along proto transhumanists. But before these Enlightenment ideas were combined with the transhumanist ideas they were filtered through evolutionary perspective. With the publication of Darwin*'s Origin of Species* showed the idea that humans are on the one step of the evolution, meaning that humans can evolve and develop themselves further along the way. And the realization of the human nature can be understood by science created the notion that human nature can be changed. (More, The philosophy 9). J.B.S. Haldane who was a British, later Indian scientist can be given as an example of people who inspired transhumanist movement. Haldane advocated for usage of science in order to cure social diseases and believed that science was the foundation of a nation. His speciality was population genetics and thought that primary cousin marriage should be stopped in order to reduce the genetic faults in children. And he hoped for a classless society and educational equity. He also predicted the usage of chemical substances and creation of synthetic foods that are used for performance enchantment. (Dağ 140-141)

Although not in a scientific sense but in philosophic sense Friedrich Nietzsche saw humans are something to overcome in his book *Thus Spake Zarathustra;*

"I teach you the overman. Man is something that shall be overcome. What have you done to overcome him? All beings so far have created something beyon d themselves;
and do you want to be the ebb of this great flood and even go back to the beasts r ather than overcome man?" (Cited in Bostrom, Transhumanist thought p4)

Nietzsche's idea of overcoming was not through technological advancements but a personal growth and cultural refinement although this statement of his gave major inspiration for transhumanism. (Bostrom,

Transhumanist thought p4). Another precursor to transhumanism was Nikolai Fedorovich (1829-1903) Fedorov who is a Russian Orthodox Christian philosopher and participant in the Russian communism movement. Fedorov advocated for usage of scientific method to achieve radical life extension, physical immortality, resurrection of the dead and space and ocean colonization and according to him humans evolutionary process led to increase in intelligence in human beings and because of this humans must use reason and morality to shape further evolution.(More, The philosophy 10). These ideas combined is the precursor to the transhumanistic ideas that are known in the twenty-first century, but the modern idea of transhumanism started to take part in twentieth century. The term transhumanism also gone through a similar process and its usage wasn't always meant what it means today. In 1312, Dante Alighieri used the term transumanare, which meant to pass beyond the human, but he used this term in a spiritual way. T.S Eliot also used the term "trans humanized" in his 1935 The Cocktail Party but the work was about enlightenment rather than technologically enhanced transformation. Julian Huxley used the term in his book called New Bottles for New Wine (1975) chapter is called "Transhumanism". He used the term to mean "man remaining man, but transcending himself, by realizing new possibilities of and for his human nature". Robert Ettinger was one of the people who helped the shape the transhumanistic ideas as known today. He is also known as the "Father of cryonics" in his book *The Prospect of immortality* he explained that humans can have another chance at life by preserving the bodies at ultra-low temperature at the point of clinical death this practice also known as cryo-freezing one's self in order to be unfrozen at a later point in the future. And in his other book *Man into Superman* he explored the other transformative possibilities for life extension and cryonics.

One of the most comprehensive transhumanist thinkers of the twentieth century was F.M Esfandiary he later changed his name to FM-2030. His approach to transhumanistic ideas were more literary then academic. In 1966 he started teaching "New concept of the Human" in his classes at New School for Social Research in New York. In his book *Are You a Transhuman?* in his book he defined a transhuman as a "transitional human", whose use of technology way of living and values marked them as a candidate that can achieve the state of

posthuman. Extropy Institute started to shape cultural and intellectual movement of transhumanism starting in the late 1980, *Extropy magazine* was published in 1988 by Max More and Tom W. Bell and the magazine presented ideas from numerous leading transhumanists these ideas attracted vast amount of transhumanist discussion. Later on, in 1998 the Transhumanist Declaration was crafted by internal group of authors in the light of these events other transhumanist groups started to emerge such as Aleph in Sweden, De: Trans in Germany, and Transcedo in the Netherlands around the same year the World Transhumanist Association was founded. Later on, Extropy Institute was closed, and the World Transhumanist Association renamed itself Humanist+ (More, The philosophy 11-12). This is the brief history of transhumanistic thoughts that accumulated and made the transhumanism that is discussed today. Previously mentioned F.M Esfandiary used the term "Transhuman" on his book but never used the word "Transhumanism". The term "Transhumanism" was introduced explicitly to label transhumanist philosophy in the 1990 essay "Transhumanism: Toward a Futurist Philosophy" By Max More (More, The philosophy 8-9). According to Humanity + previously mentioned organization definition of transhumanism is "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 aging and to greatly enhance human intellectual, physical, and psychological capacities." (Transhumanist FAQ 2019). Name Transhuman refers to someone who is in the middle of a transition between human and a possible future human or in some cases referred as post-human. A Transhumanist would be a simple someone who is advocating for transhumanism. The term posthuman can refer to synthetic artificial intelligence or a biological human who has enhanced its original body by augmentation. Furthermore, a posthuman will not only shape themselves to be better and will shape its environment in a better way. (Transhumanist FAQ 2019) Although the term posthumanism might indicate the end of the humanism as Cary Wolfe explains in his book What is posthumanism? Posthumanism is not a rejection of the ideas of humanism, but an expansion of it. In a way that it will expand the moral considerations and rights which will include animals in it as well. (Wolfe, 2010 xi-xxxxiv). And science fiction works did expand on the ideas of Transhumanism.

Many science fiction concepts have become real with technology, here are some of them. Ray Bradbury in his dystopian novel *Fahrenheit 451* he mentions one device called "sea-shells" small sized radios that are on a person's ears and they transmit music and speech and we do have access to these "sea-shells" but they are called wireless Earbuds that serve the same purpose. Jules Verne wrote a book in 1865 titled *From the Earth to the Moon, which* was about humankind achieving the moon landing later on in 1969, achieved by humans. These two are just two examples of ideas that were seen only fiction that have become reality. Science-fiction works can try to guess the how future will be which new technologies will be available. Movie *Matrix* combined the idea that AI will take over the world and another theory that we are living in a simulation. The theory of simulation can be explained by the following statement; that all of reality, including the Earth and the universe, is in fact an artificial simulation, most likely a computer simulation. Essentially theory suggest that the reality is an illusion. This idea dates back as far as the pre-Socratic philosophers and appears in ancient Hindu and Buddhist teachings. And René Descartes who is a French philosopher introduced a sceptical hypothesis to modern Western philosophy postulating an omnipotent "evil demon" devoted to presenting a complete illusion of the external world. Hans Moravec and Nick Bostrom have theorized that it's likely that our universe is a simulation run by another intelligent species possibly a posthuman civilization. Due to new computers and their ability to simulate the complex systems makes this theory seem more plausible. With the help quantum physics which tells us that everything in space and time is quantized: granular at the smallest possible level. And according to quantum physics everything is made from quanta like the way a digital image is made of pixels or a software program is made of bits, and in theory a large enough computer could calculate everything humans experience, and create a simulation of an entire universe (Sirius-Cornell 211).

Nick Bostrom who is a philosopher at the Oxford university explains his reasoning why he believes that humans live in a computer simulation in his article named "ARE WE LIVING IN A COMPUTER SIMULATITON?" (Philip K. Dick) His reasoning is that assuming in the future as the futurologists and technologists future predictions of humans achieving enormous amount of

computer power will be available in the future will be correct according to Bostrom later generations in the future might run a detailed simulations of their forebears or people like their forebears. They would be able to achieve this because their computers would be so powerful so that they can run many great simulations and if those simulations would have conscious people in them it is possible to argue that vast majority of our minds does not belong to an original race but rather belongs to the people simulated by the advanced descendants of an original race. It is then possible to argue that if this were the case humans would be rational to think that they are likely to be among simulated minds rather than the among the original biological ones. Therefore, according to Bostrom if humans do not think that they are currently living in a computer simulation, they are not entitled to believe that we shall have descendant who will run lots of simulations of their forbears (Bostrom 223). Even though it seems very possible for the believers in the theory of simulations, the theory can be falsified. If humankind discovers something that is uncomputable, it would prove that reality is doing something no computer can possible do, which would point out to the fact that the humans are not in a simulation and the theory of it is false (Sirius-Cornell 212-213). The idea of AI turning rogue and harming humanity in some cases taking over was mentioned above, although the transhumanism seems to take humanity to a better place where humans can live better and be almost perfect though it has a risk of removing the human itself. Since Transhumans are trying to evolve beyond the homo sapien species mostly by genetical enchantments that are done to humans.

Not all humans believe that these enchantments will be good for the humankind. And they view these advancements with scepticism and believe that these enchantments will risk the human nature and the people who follow this anti-enchantment view are called bioconservatives. While Transhumanists advocate for human enchantments bioconservatives are against it. Bioconservatives present potential problems that can occur with human enchantment while Transhumanists argue against those potential problems. Here are some examples of these discussions. As mentioned previously Transhumanists seek life extension through technology immortality in essence staying young and health for a very long time. Bioconservatives believe that

extending human life dramatically would make life lose its meaning therefore it's not worth living and would cause problems in existing society. Bernard Williams, who is a moral philosopher, talked about life extension in his work called *Problems of the Self,* wrote that death itself is an evil force and for that reason it's an object of fear and because of this an immortal life free from the concept of death would be meaningless. An immortal life would be worse than fine one because as human beings we pursue dreams and projects therefore as in human's nature at some point in our lives, humans are going to die one day, and this gives humans the desire to fulfil their goals. However immortal life would make those desires to be eventually completed or abandoned so that humans would be left without goals or ambitions to fulfil. He backs this claim with presenting a play which is written by Karel Capek which was made into an opera by Janacek and which tells of a woman called Elina Markopoulos. She has access to elixir of life which extends one life and at the time of the play she is at the age of 342. She states that her life has come to state of boredom, indifference and coldness. There is no joy left in her, in life and she refuses to take the elixir again and dies. And according to Williams death in Elina's case provides an end to her suffering (Williams). Transhumanists arguments against these concerns as follows. First is to the argument that long life would not be worth living, there maybe many reasons why a long-life won't be worth living but it does not justify preventing people who wish to live a longer life. There are plenty of examples of lifestyles that considered worthless by many people but are pursued regardless, such as playing computer games all day or watching TV or lifestyles devoid of intellectual or social enrichment, yet some people enjoy these lifestyles. Provided that lifestyles people choose are not significantly harming others they are free to pursue it. Such in the case of life extension if the extended life will not harm others and the result of extended lifestyle would not conflict with other humans saying that longer life would be worthless as an opposing idea for life extension is not enough. Transhumanists also give a response to Bernard Williams argument against the life extension that living a life would make it meaningless stale.

Although Transhumanists believe that it is plausible. In our current life expectancy mastering an instrument, marrying building a family, sailing around

the world and having grandchildren is achievable in an average life span on a human being. But these goals are achievable in a limited lifespan and humans set these goals according to that with the expectation of their life span is limited. If humans have access to life-extension humans would set out goals that would fit that category. Such as seeing great-grand children, mastering every language, every instrument even seeing the history unfold over few hundred years would be a realistic goal that could give meaning to a life if one's life wasn't limited (Bostrom, Roache 4-5).To argue against the point of that life extension Transhumanist point out that since women's fertility decrease after the age of 35, there is a pressure women to have a children while they are able to. Life extension technology would remove the pressure and would reduce the birth-rates. (Bostrom, Roache 6-7). Physical Enhancement also have an argument against it. Aim of this Enhancement is to improve bodily capabilities such as stamina, strength, dexterity, flexibility, conditioning and agility. These can be achieved by training the human body to a degree but that has a limit. With the Physical Enhancements these limitations can be exceeded with this it brings the problem of using Physical Enhancements in sports generally referred to as "Doping". It is a controversial topic doping clearly gives an advantage over those who do not take the supplement in the competition. Transhumanists doesn't deny that Physical Enhancement can be a problem for world of professional support. But many tools and techniques that are useful and almost indispensable in everyday life are banned from support. For example, bicycles are useful even though they are banned from sprinting races. So, in practice many enhancements will have a positional component. Such as a manual labourer could use a strength and stamina enhancement to improve its work quality (Bostrom, Roache 7-8-10).

Mood and Personality Enhancement is possible in modern technology through some degree. The psychiatrist Peter Kramer described in his book called *Listening To Prozac* some of his patients who had completed their treatment of depression with Prozac wished to resume taking the medicine. Medically they were cure from their depression but the patients who used the medicine felt "better then well" (qtd, Bostrom, Roache 11). Although medicine makes the patients mood better concerns of authenticity comes to mind. Kramer's patients who were taking the medicine claimed that Prozac helped them find their true self

they have identified with their on-drug persona. It does seem possible that usage of drugs can make a person live a better life by this point of view it can make a great impact on human lives but it does bring the loaded philosophical question of that the feelings or the person under the effects of the drug are true themselves (Bostrom, Roache 11-13).It's impossible to come to an conclusion about the authenticity of the usage of medicine to have a better mood or enhance the personality it would depend on the person using it and if it saves the person using it hurting themselves that can be considered a good thing but opposite can be said as well. If a person who uses Mood enchanting medicine and this person's new persona becomes a disruptive being, then it would obviously be bad for the environment around the person and themselves. Cognitive Enchantment is also a topic of discussion, there are many ways that humans try to enhance their cognitive capabilities such as drinking energy drinks, meditation, exercise, sleep, taking vitamin supplements that can play a part in improving one's cognitive capabilities. The idea of Cognitive Enchantment brings a similar problem that dopes have on competitive sports. In some aspects cognitive enchantment can improve a person's work life and make better calculations for example for a cashier or a banker, but they would give unfair advantage to people who are competing with each other to get to universities and other jobs. However, while a physical enhancement would improve a person's ability to work cognitive improvement would affect humankind in a different manner. It would allow us to pursue science in a faster way, make it so that people would understand each other better understand our society's problems and solve problems in a civil manner. Another issue raises however Lee Silver a geneticist in his book *Remaking Eden: Cloning Beyond in a Brave New World* mentions that's people who have access to cognitive enhancement gained intelligence that surpasses the people who has no access to those enhancements could band against the unenacted people and dominate them. But Transhumanists argue against that by saying that cognitive enhancements have the greatest benefit for those who have a low cognitive levels of functioning. (qtd Pharmacology Biochemistry & Behaviour, Bostrom, Roache 16). And second point they raise is that not all the people on earth will choose cognitive enchantments choices will be different and this will result in a society with differently modified people. Another worry is that these cognitive enhancements would lead people to perceive other people

with below-average as diseased. In 2003, Nobel Prize-winning biologist James Watson caused controversy when he proposed the idea that there might be a way to cure "stupidity":

"If you really are stupid, I would call that a disease. The lower ten percent who really have difficulty, even in elementary school, what's the cause of it? A lot of people would like to say, "Well, poverty, things like that." It probably isn't. So, I'd like to get rid of that, to help the lower ten percent" (qtd Bostrom, Roache 16).

Although Watsons claim caused some controversy, it does raise an issue about the treatment of the people of low intelligence by society. And they would be the ones that would benefit greatly from the cognitive enchantment since it would allow them to take their life into their hands and better participate in the society. These cognitive improvements would improve the whole society then create more problems for it (Bostrom, Roache 14-18).

Aside from humans enchanting themselves enchantment technology can help predetermine the children's qualities. This can be achieved through manipulating the genetic material of the embryo to give the resulting child desired traits or features. This kind of intervention exists and permitted in the UK only to children who has life threatening diseases. There is a possibility of genetic engineering an embryo will have unintended effects on the resulting since the technology available is not enough to guarantee the results will turn out the way they are intended. Aside from hurting the embryo and the future children in the process Jürgen Habermas a German philosopher argues that genetic manipulation infringes on the freedom of resulting child in a way that ordinary parenting does not. Because parents control their children through communication a child can break away from the parents' wishes, but as Habermas states:

"In the case of a genetic determination carried out according to the parents' own preferences, there is no such opportunity. With genetic enhancement, there is no communicative scope for the projected child to be addressed as a second person and to be involved in a communication process. From the adolescent's perspective, an instrumental determination cannot, like a pathogenic socialisation process, be revised by "critical reappraisal." It does not

permit the adolescent looking back on the prenatal intervention to engage in a revisionary learning process." (qtd Bostrom, Roache 20)

This removes any agency the child has in his life. A parent should be very careful about these problems when deciding children's traits and parents might have the children's best interest in mind but as Jonathan Glover points out that "John Mackie once said to me that if human genetic engineering had been available in Victorian times, people might have designed their children to be patriotic and pious" (qtd Bostrom, Roache 23). Being patriotic and pious might be some desirable traits in the Victorian period however those traits are not valued as they had been in the Victorian era. Besides the ethical issues that brought up the argument against human enchantments, some religions are against it as well. Francis Fukuyama mentions this in his book *Our Posthuman future: Consequences of the Biotechnology Revolution*; He mentions that Jewish, Christian and Islamic religions share the belief that man is created in gods image and these enchantments seen as the violation of gods image (Francis 88-89).

III. DYSTOPIAN FUTURE AND POSTHUMAN VERSUS HUMAN CONFLICT IN THE TRANSHUMANISTIC WAGER

A. Dystopia

Members of a dystopian society lack diversity of thought and are told what to do, what to think by the people who has power. It's a society where people are assigned roles through scientific statics, and that they are not allowed to dream nor have personal feelings. They are only allowed to follow what the state believes they need to follow. History rewritten, mosques, temples and churches and all other religious icons destroyed by the state. Government becomes a tyrannical authority controlling their citizens and killing anyone who opposes them. This kind of society would be labelled as totalitarian. This type of government has been covered in some dystopian novels such as George Orwell's 1984.

A society run by a tyrannical government and the government mainly uses technology to control and eliminate people. Same totalitarian ideas can be seen in the Zoltan Istvan's book Transhumanist Wager. Although the book advocates for betterment of humanity through usage of transhumanism and technology it fails to see that world will become a totalitarian dystopia. The line of transhumanist thought that is provided in this novel follows a totalitarian path. Istvan's book follows the protagonist Jethro Knight who is a transhumanist and his ultimate goal in life is to achieve immortality. As the narrative goes on Knights develops a radical transhumanist philosophy and creates a transhumanist party in the United states of America. Later on, he creates a country called "Transhumania" which takes over the world through force. Knight becomes the earth's first global dictator and he commits genocide in order to force his transhumanistic ideas. In the novel Knights seeks to achieve immortality at the cost of other people. Knights also rejects the current transhumanistic beliefs states in this quote "But to Jethro, the pantheon of great thinkers seemed like a worn old club of fools,

pretenders, and religiously biased speculators" (Istvan 34). He also believes that "most humans are cowardly idiots" who will not follow transhumanism because "because they feel threatened and don't understand" (Istvan 34). Knights also tries to think for other people by assuming that "Every man and woman in this room wants to be improved and live longer, healthier lives" (Istvan 28). He also sees humans as animals "Do we really want to remain animals for the rest of our days when we can be so much more?" (Istvan 28). The book's protagonist assumes that every radical human would want to follow transhumanism and not to remain as "animals" as he refers. By this statement if a human does not want to be a transhuman, the only reason for this would be that humans do not have the intelligence to understand why they need to improve and therefore they are cowards. This way of thought differentiates human and a transhuman thinker implying that transhuman is superior to the human. Furthermore Knight thinks that "culture, religion, democracy, social ethics, and legal systems were just blinding forms of glorified masochistic conduct" and these forms are here to "just ways to ensure subordination of individual ambitions to society's collective control—to promote the greater good of humanity at the expense of the most singularly talented." (Istvan 80). Humans by nature are social creatures which creates societies were every single member can thrive and live his life. Knights rejects this idea as seen in the quote. For him contemporary civilization is a roadblock on his way to create a scientific country that is run by reason and logic. In his belief philosophy, culture, democracy is useless and only gives power to the less intelligent individuals. Fundamental transhumanist philosophy as quoted in the book is "life is essentially a choice between pursuing personal godhood or dust" (Istvan 69). Knights comes up with this philosophical idea and names its Teleological Egocentric Functionalism or TEF for short. He explains this philosophy.

"Teleological—because it is every advanced individual's inherent design and desired destiny to evolve. Egocentric—because it is based on each of our selfish individual desires, which are of the foremost importance. Functional— because it will only be rational and consequential. And not fair, nor humanitarian, nor altruistic, nor muddled with unreachable mammalian niceties. The philosophy is essential because it doesn't allow for passive failure" (Istvan 84)

And this philosophy can be further summarized by the first quote in the opening of the novel

"1) A transhumanist must safeguard one's own existence above all else.

2) A transhumanist must strive to achieve omnipotence as expediently as possible—so long as one's actions do not conflict with the First Law.

3) A transhumanist must safeguard value in the universe—so long as one's actions do not conflict with the First and Second Laws." (Istvan 4)

As seen through his philosophies of transhumanism Knight's advocates for a selfish society. All in the name for pursing the immortality he desires. As mentioned before Knight's self-made nation is called "Transhumania" before he takes over the world by force, he describes this place as a place where scientific minds, only thing is required to enter his country is to be "useful" and not hinder the progress of others otherwise you would be kicked out and he or she who wants to enter the country has to accept the rules of TEF and become a transhumanist (Istvan 197). As mentioned before Knight sees people who are not able to seek improvement or accept the transhumanism below the transhumanist. Almost suggesting that they are no mere things than animals. As mentioned, before he committed genocide but "humanicide" would be the better term. He gives the world leaders chance to surrender when he goes and gives them a chance to surrender to his transhumanist nation

"We will begin by destroying every major religious symbol and every major political institution on Earth. If you force us, we will continue our plight until every one of you is left homeless, hungry, abandoned, and disgraced. Until your cities are in utter chaos, we will shut down the world. We will halt its economies, its governments, its abilities to enforce laws. We will send you back into the Dark Ages. If there is still more resistance that deliberately hinders or interferes with the goals of transhumanism, we will eliminate you-each and every one of you who defies us. We will implement a systematic humanicide" (Istvan 235)

The world "humanicide" is important because Knight sees himself and other members of his country as "Transhuman" above the humans.   He states that because large portion of humans are useless to them that makes them

dispensable for transhumanists. (Istvan 235) This society has no place for the "weak" and it forces its individuals to think like other transhumanists do. Human society is made up by many jobs and individuals are different from each other. Barbers to engineers each individual has different set of skills and contributes to society in his or her on way. The transhumanist thought that knight proposes in this novel has no room for diverse jobs or diverse people. As it is stated he and his people only seek for the immortality. Not all people seek for immortality or the enchantments whether due to religious beliefs or ethical reasons. Knight's societies structure or goals does not necessarily align with everyone in the world. But they are left with two choices in the end, either accept knights' offer and live in a society that forces them to think in a way that they don't support or certain death. No room for religion democracy or any other belief systems. Knight only sees them as forms that keep the individual down and he proceeds to destroy these icons (Istvan 268). The world knight creates is similar to the dystopian novels such as George Orwell's *1984* the idea of thinking against the government in that world is called "thoughtcrime" and people are abducted and killed off if they committed such crime. (Orwell 24). Anything against the state is banned and people are kept in line by forcing them to live a certain way and assigned jobs to keep them busy. It is very clear that Knight's line of transhumanist thought will lead to a dystopian future for humankind. Not to mention that the race difference between human and transhuman. In the novel it is made clear that transhumanists see humans no more than low intelligence animals that fear things because they do not understand. Deeming those people that they are not worth living. Because the Knight's believe that transhumanism is better for the future of humans, those who do not believe or do not support in only hinder it, by classifying them as "low intelligence" or "animals" in some cases he believes that end justifies the means. The story of the Knights' can be seen as a transhumanist power fantasy that has no threat of becoming real. But this idea is dismissed in the books after world as Istvan writes

"The *Transhumanist wager* is the result of two decades of thought and inquiry into transhumanism and the quest for scientific immortality. I wrote it hoping to change people's ideas of what a human being is and what it can become" (Istvan 298).

Istvan's book is a roadmap for radical transhumanists who want to achieve immortality. As seen in the book; the democracies, regulations, ethics are roadblocks on the way of immortality as portrayed in the novel. And the solution Istvan proposes through the main protagonist Knights is to tear down the democratic and religious systems that oppose the transhumanistic ideas and the people who do not seek to become transhumanist will only hinder the progress they have to be removed because of that. In the novel this train of thought leads to a future where a humans are in a literal sense wiped by post-humans and the world has run by a dictator only believes in rational scientific progress. This state is no different from a totalitarian state which doesn't allow any freedom of thought or any freedom to its citizens as seen in examples of George Orwell's *1984*.

B. Posthuman Versus Human

Human history is no stranger to conflict whether it is conflicting ideas or someone's skin colour. Human society has yet to overcome the problems of racism and other kind of discrimination. And the emergence of a new "race" of humans can cause conflict. This can be the case of becoming posthuman. Because the posthuman will be something that is distinctly better and different than human, natural born humans can see the new species as a threat to their own and try to eliminate it or the posthumans become so powerful that will eliminate or only see humans noting but inferior beings. In contemporary times there is a debate over transhumanist technologies about the procedures being ethical and how it will affect humans and their humanity. Bioconservatives such as Francis Fukuyama argue that first victim of the transhumanistic ideas would be the equality. As the U.S Declaration of Independence states, "all men are created equal" even when Thomas Jefferson wrote the declaration, women and blacks were not counted as "humans" in 1776. Later on, as a society we have overcame these discriminations and came to a conclusion that all humans possess an essence that dwarfs the manifest differences in skin colour, and beauty. (Fukuyama Transhumanism 42) And Fukuyama points out the fact that transhumanistic ideas aims to modify that very essence that makes the humans. If the post human state is achieved what rights will the new species receive and

what rights will they gain that is uncertain. Also, the rich countries will most likely have the access to these technologies and poor countries will most likely not and it possess a threat to idea of equality as Fukuyama points out. (Fukuyama Transhumanism 42-43).

Even in contemporary times technological difference in rich and poor countries are clearly seen. It is very likely that the transhumanist inventions will be more accessible to rich countries. Transhumanist thinkers acknowledge this possibility and they present their counter argument. They say that compared to the old times where kings had many luxuries such as court orchestra and carrier with six horses an average citizen in contemporary times can have access to what kinds had back in the day. And it is typical pattern with new technologies will get cheaper as time goes on so the people in the poor countries will have access to transhumanist technologies as time goes on. And rich people having access to more beneficial resources is nothing new because of this if transhumanist inventions grant inequality in the society it's nothing new. (Humanity plus) Nick Bostrom also acknowledges the issues that can be brought by these technologies. Bostrom says that a society where rich can enhance themselves with genetic enchantments so much to a point where difference in rich and poor splits humans into two different species. The genetically privileged might become healthy, super intelligent, physically flawless, charming confident and ageless while the non-privileged would remain as normal humans as in contemporary times and those who are the children of the non-privileged people can find it impossible to prosper in a society. This may be the case according to Bostrom. He also offers some ideas how to counteract these inequalities. By implementing social policies. By widening access to the technologies or providing it for free for poor citizens. (Bostrom Human Genetic Enchantments). Both possible outcomes can be true in the future. We might have a future where rich keeps the technology for themselves or a future where countries implement an equal policy where everybody can benefit from these technologies. Regardless of the speculation's societies must consider the potential conflict that can occur if posthumans become a reality. Reserve scenario can happen as well, such scenario where posthumans are seen as a threat by the humans and hunted down by them. An example of discrimination can be given from the Isaac Asimov's novel *Robots Of*

Dawn in Asimov's novel humanity has progressed so far that they have colonized the other planets and humans who live in earth now are seen as peasants. In fact, the word "Earthman" is used as an insult and inhabitants of earth have not been granted the benefits of the technology by those posthumans who colonized and inhabit other planets. *The Transhumanist Wager* shows the potential conflict that can occur between humans and transhumanists who wishes to use technology to enhance themselves.

The conflicts on two sides are the transhumanist scientists who wish to continue their research and achieve their goals and opposing governments, religious groups and people who do not believe in transhumanism. But the focus on two sides can be represented by Jethro Knight who represent the transhumanist and on the other side a religious leader Reverend Belinas leader of a Christian Church. Although in Istvan's novel, religion is posed as the main opposing group against transhumanism. Many concerns against transhumanistic ideas does not only come from religious beliefs. Since the transhumanism modifies the very essence of humanity the outcome of the new post human cannot be anticipated. (Fukuyama Transhumanism 43). As mentioned before book shows the conflict between human and posthuman mostly in stages. First stage is that humans discriminating against yet to be posthuman transhumanist thinkers. As Istvan writes the conflict is straight forward transhumanists were advancing in the fields such as "cryonics, cloning, artificial intelligence, bionics, stem cell therapy, robotics and genetic engineering" and labels them as moral and evolutionary right of the transhuman scientists. (Istvan 7). And the opponents of transhumanism claim that altering human bodies via science is devil's work. They also claim the transhumanist ideas are anti-theistic, immoral and not humanitarian and some claimed the transhumanism was "World's most dangerous idea". (Istvan 7-8) In previous potential downsides of transhumanism were mentioned. Ethical issues and other possible outcomes. At this time since those ideas haven't really brought up to reality and transhumanist thinkers acknowledge the risks of biotechnology, nanotechnology and artificial intelligence risks and possible cases of abusing the technologies. They even realize the potential risk of posthumans enslaving the human's "Human society is always at risk from some group deciding to view another group of humans as fit for slavery or slaughter." Their argument against

preventing these risks and possibilities to implement policies and enforce powerful rules (*Transhumanist FAQ* 2019)).

Although they leave out the possibility of a posthuman being corrupt and going against the policies or creating the policies in the first place to supress and enslave the humans. And about the issues of AI a potential scenario like in the *The Matrix* movie AI can take over and unlike humans they do not possess a guilt and clearly can enslave humans. The risk of transhumanistic ideas has to be taken in count and not to be brushed off. They can benefit humanity in a great way or a harm it in a great way. A middle ground must be found. If either side resorts to the extreme measure's humanity might have a conflict on its hands as shown in the book. Which it escalates slowly as shown in the novel Transhumanism Town Hall Forum a place where transhumanist thinkers gather security has been increased and the protestors as Istvan paints them as "Religious zealots" have been protesting against transhumanists. (Istvan 21). They are outraged because one of the characters puts it "Well, we do want to kill their god" (Istvan 9). And it is also mentioned that the book's fictional U.S government is increasing its anti-transhumanist laws. (Istvan 26). People who are opposing transhumanism resort to extreme measures in order to stop them from advancing their research, Reverend Belinas who is shown as the face of the anti-transhumanism movement by Istvan has murdered many transhumanists by using covert transhumanist attacks. (Istvan 53)

Belinas hatred toward modern technology is explained by a childhood trauma as he and his family were in a car accident and his mother and he was able to survive the car crash. Unfortunately, the machine which was supporting his mother stopped working after a stormy night in the hospital electrics were cut off and machine helped his mother breathe failed. Thus, resulting in his mother's death and this is the reason shown in the book and another reason he and his followers doesn't like technology because of social inequalities it brings to poor versus rich people. He preaches that Christian god has the all the plans for humanity and there is no need for technology. His methods are extreme as mentioned before and it is mentioned that he has had people kidnaped and labs are burned. Not only the religious believers are anti-transhumanist even police officers shown as they are sympathizing with the anti-transhumanist agenda

(Istvan 75-76). After Gregory Michaelson a senator recruited by Belinas stars the "War on Transhumanism" declaring any scientists that participate in transhumanistic research as criminals (Istvan 153). Similar to contemporary worlds United States of Americas "War on Drugs" campaign. With this anti-transhumanists successfully stopped at the United States of America. As shown in the book Belinas and his supporters see transhumanism not only a device to "kill their God" but they believe it's inhumane and not ethic thus they feel threatened and try to eliminate the "transhumanist threat". They are not justified in their actions to do so. Not satisfied with their victory in United States of America they begun to threaten the "Transhumania" Knights' forms for transhumanist thinkers. This is the human part of the conflict. In the novel transhumanists haven't reached a stage where they can be labelled safely as "post-humans" yet but their aim still stays to achieve that state. For the sake of argument, they will be referred as posthumans. Humans actions have been clearly extreme against posthumans and they have hindered their research movement. Jethro Knights being the current leader of the transhumanist movement also takes it to the extreme. World recognizes Transhumania as a threat to humanity. As Knights for see's the attack on his country (Istvan 228) an argument of self-defence can be made in the favour of posthumanism up to this point they have been attacked with terrorist attacks protests and even they have been branded as criminals for their research. This all would be valid if they have not been preparing for more than a war. It's true that Transhumania has defence systems set in place to defend itself but he goes one step further by expanding the Transhumania's military by creating "ten ultra-advanced robots" that are controlled by a human engineer's and champion gamers (Istvan 210). These robots vary in specialization some are to use bombs perform medicinal help or basically use guns and participate in a gun fight. A co-league of Knight's asks the logical question why does the Transhumania needs all this military power. And he replies with this "No, Preston, not just the U.S.A. The world. That's what the transhuman revolution is about". (Istvan 211). It's not a case of self-defence anymore since he calls this action a" revolution" even though only United States of America have been oppressive against the transhumanist cause Knight feels justified in his action to taking over the world or "humans". Only later on few of the world's powers such as China and Russia seen opposing the nation of

Transhumania. Only after Knight makes a rather provoking speech about the word's nations and how his nation of transhumanists will be superior to them, they agree to go to war with him. (Istvan 236).

After his speech and getting captured by Belinas Knight has exchanges some words with each other. They both argue over the Knight's belief's about transhumanist beliefs Belinas argues the fact that many people will not support transhumanism due to their belief's Knight replies in a rather genocidal way "Who gives a damn about most people" and "If they fail to join and add something positive, screw them" (Istvan 244).   Both Knight's and Belinas represent the most extreme of the both sides. Belinas does not support technology or transhumanist ideas in anyway while Knight does not consider anybody who would not support or add anything positive to the cause of transhumanism worth considering. In a way Knights counters his own philosophy since the anti-transhumanists were against the humanism because they believed it was "anti-humanitarian" and Knights have shown the ugly side of his transhumanistic beliefs. Not all humans are worth of saving if they do not contribute to the transhumanist society proving them right in this manner. Knights seeks more than just self-defence "I will order our defensive forces to retaliate with acute vengeance" (Istvan 230). Not only against the military forces that will attack the Transhumania but the innocent citizens of the world. Knight's as his technology and power grows, he almost gets corrupted by this power. Although the Knight and the book shows the Belinas as the arch enemy of the transhumanist movement because of religions oppressive side over people because Belinas feels people have to be guided "They desperately need dogmatic control. Or they will fail" (Istvan 247). Belinas thinks for other people and forces his will through religious manipulation pits them against the Transhumans. In a different way Knight becomes what he seeks to destroy in the book. "They're so misled. So blind" Knight's remarks and continues "They have about twenty-four hours in a world they call their own, then it's ours" (Istvan 255). He speaks like a power-hungry warlord who wants to take on the world. Earlier in Humanity plus counter argued the claim about posthumans taking over and enslaving the humans they have proposed enforcing laws that would keep the peace. In this scenario humanity is faced with posthumans that possess superior military technology over

them. As the world combines forces attack and have their missiles guided back to them resulting in their loss of the battle. Transhumania shows their superiority over the human nations. Belinas is removed and no government would oppose the Transhumania.

In theory posthumans just inhabit the Transhumania seeing that the Knight's created a perfect place for them to continue their research and advance even achieve immortality without forcing their own ideals into humans. But as mentioned before Knight's gets corrupted and doesn't care about the "masses" (Istvan 244) as he puts it, he goes and conquers the world filled with vengeance. Since posthumans see themselves specially the main protagonist Knight's sees himself above all humans to a point where he can decide for them, he makes cruel decisions. A case can be said about the anti-transhumanists since they have taken their "War on Transhumanism" too far and Belinas used his position to corrupt a senator and plans terrorist attacks to stop the transhumanism, they have. Both parties have gone too far. In the end, Humans essentially lose the battle of humanity posthumans end up giving humanity a choice either join to Transhumania or die and in the end posthumans inherit the world. Two sides instead of coming to a middle ground both humans and posthumans they push their ideologies to each other The novel sets an example of an extreme conflict that can occur aside from the social issues that transhumanistic ideas can bring. Humanity for many years has not been peaceful with itself. History is filled with wars conflicts or even small conflicts between societies such as murders occur. Even diplomacy can fail at times. Just relying on the rules that human societies will put in place to prepare for a possible conflict is not enough. Not only posthumans can pose a threat for humanity. Humanity can pose a threat to posthumans as well.

IV. LOSS OF HUMANITY AND DANGER OF SELF-AWARE AI IN *DO ANDROIDS DREAM OF ELECTRIC SHEEP?*

A. Loss Of Humanity Amongst Technology

Bioconservatives concerned over the transhumanistic ideas wanting to change the very essence of the human's which may yield unexpected results. One of the concerns that these ideas will change the humanity in humans. The word "Humanity" can have different means according to Cambridge dictionary humanity can mean "people in general", "understanding and kindness towards other people" and "the condition of being human". It can also mean human behaviours humans are complicated beings and we have yet to understand ourselves fully yet. There are how many things that set us apart from other species in earth, such as humans' usage of technology to better the environment, being conscious of existence and capability for emotion's anger, grief, envy and most importantly showing empathy for one another and other species. With the help of the modern medicine such as anti-depressants some feelings like happiness can be achieved but it raises the question is it authentic? Is it real? Same questions are asked in the Philip K. Dick's novel *Do Androids Dream Of Electric Sheep?* The novel shows the loss of humanity in a future that is dominated by technology. Novel's world is set in a future that is turned into almost an apocalyptic place. The name of this war is "World War Terminus" and as the novel points out "No one today remembered why the war had come about or who, if anyone, had won" (Dick 11). This war caused animals to slowly go extinct and world became almost inhabitable, humans have colonized Mars and people who went to Mars also had their personal android servants. As mentioned before in our contemporary times we have our medicine to alter our moods to some capacity.

In Dick's world they use a device called the "Mood Organ" it's a device that people in that era used to control their feelings. As main protagonist's wife

says, "My schedule for today lists a six-hour self-accusatory depression" (Dick 2). Depression is a serious mood disorder which can lead to a catastrophic results but in this era, people inflict depression to themselves voluntarily or "A reasonable amount of time to feel hopeless about everything" (Dick 3) As Main protagonist's wife Iran says. It shows how much the humans have lost their sense of feeling or humanity because they are willing to subject themselves to horrible feelings. And looking at the setting of the world it seems very hopeless and depressing. A world where almost any animal went extinct and many of the people have migrated to the future it does not paint a bright picture. The thought of it, is quite sad and depressing and yet people who live in this setting does not feel that way and want to feel depression. The Mood Organ can dial positive feelings as well as minor things such as "The desire to watch TV, no matter what's on it" or even to desire to dial the mood organ to anything (Dick 4). This signifies the loss of feelings because what humans feel through the mood organ is not real it is a feeling created by a machine. Protagonist's name is Rick Deckard he is a bounty hunter, as mentioned before the people who had migrated to mars had their personalized android servants. Deckard's job is to find and hunt down the androids that have escaped from mars and "retire" essentially kill them. Androids have been escaping and integrating themselves into human society masquerading as humans. And recent model of androids is called Nexus-6 which possess high intelligence and can even surpass human intelligence at some categories. Only way to judge if a person is actually an android is to do the Voigt-Kompf Empathy test on them and test their empathy (Dick 23). Test is a series of empathy provoking questions that are asked to the person since animals are almost extinct, questions involving animals getting hurt or displayed as rugs triggers empathy in human subjects and androids being incapable of being emphatic towards animals fail the test. The reason why empathy is the determining factor is that "Empathy, evidently, existed only within the human community" and intelligence can be found in "every phylum and order including the arachnida" (Dick 24). And emphasizing with animals have been encouraged through the religion which many people believe called "Mercerism"   it is a religion that promotes empathy towards the animals the "empathy boxes" has come with the arrival of this religion promotes the idea of "You shall kill only the killers" this idea makes Deckard's job easier killing the androids because they

have killed their masters to escape from captivity (Dick 24). A society puts empathy and animals in a high standard, the members of this society doesn't really practice it fully.

For example, animals are seen as a commodity, a social status, not a thing to be empathetic towards. And people who have been damaged by the fallout of the war have suffered and they have become what society called "chicken heads" because they have below average IQ, they are denied from going to mars. They are looked down upon when they should be emphasizing with those people. Deckard calls them "Subnormal chicken heads" (Dick 24). This is interesting because caring about a fellow human being is humane and its empathy and it is said that androids do not care about the other android, which gives them away. (Dick 80). Humans do not care what happens to other humans in this society. They slowly became like their creations and their creations starts to be more human. Isidore who is also a character in the novel he is what the novel calls a "chicken head" he fails to realize a real cat from a fake cat because he has never seen a real one. And his boss sees this as a financial thing and comments on it as saying, "The goddamn waste" (Dick 62). Not concerned about the loss of a real cat but rather the concerned over the financial side of it. Main protagonist Deckard also a victim of this idea. Even though he follows Mercerism he does not show any empathy. Her wife Iran comments on his job by saying "Just those poor andys" (Dick 1) commenting on Deckard hunting them down. While Deckard only concerned about getting a new bounty and replacing the electric sheep he had "so we could buy a real sheep to replace that fake electric one upstairs" (Dick 2). Although the androids are killing their masters, they can be shown empathy because they desire freedom and they are conscious forced slaves. Deckard only after his encounter with an android singer called Luba Luft starts to question his morals. He stars to show real sings of empathy, he says to himself "She was really a superb singer, he said to himself as he hung up the receiver, his call completed. I don't get it; how can a talent like that liability to our society?" (Dick 109). Although he realizes that he might have a sings of empathy towards Luba Luft, even then he is not really gained his humanity back he goes and buy's a goat to basically feel better about the whole ordeal. (Dick 135). Because he starts to feel empathy for them, he is no longer able to hunt them. He remarks about the

elevator ride he had with Luba Luft ""I rode down with two creatures, one human, the other android . . . and my feelings were the reverse of those intended. Of those I'm accustomed to feel - am required to feel" (Dick 114). He and society have been telling him to hate and feel noting for the androids, but he feels empathy towards him. It is hard not to. As these androids are so advanced and human like, only their lack of empathy gives them away. Even in some movies and books reader can feel empathy towards the character, feeling the same towards a robot that is indistinguishable from a human is a possibility. Isidore on the other hand is almost complete opposite of Deckard him being a low IQ person but possessing a great amount of empathy. He is more human than most of the humans even though he is looked down upon. He helps the escaped androids by keeping them in his house even androids are surprised by his behaviour. As one of the androids' comments "If he was an android, he'd turn us in about ten tomorrow morning." (Dick 130) And he would be celebrated for it. And later on, when androids remove the limbs of a spider out of curiosity, he begs them to stop mutilating the spider. (Dick 162). A real spider would worth a lot of money in that world but for Isidore it's not about the money but the being itself.

With his newfound empathy Deckard realizes the Mercerism which was a religion based on empathy's philosophy "So this is what Mercer sees, he thought as he painstakingly tied the cardboard box shut-tied it again and again. Life which we can no longer distinguish; life carefully buried up to its forehead in the carcass of a dead world." (Dick 188). The novel's world has been devastated by war and humans have lost their touch with their nature. It is in human nature to care and be emphatic towards beings that resemble life. They have become what they have created almost android like. Human characters aside from Isidore even then he is classified as "subhuman" shown as "selfish" creatures only caring for animals as a social status and discriminating amongst each other because of lower IQ. Even though novel's humans can't be classified as "posthumans" and there is no sign of genetic enchantment they are still shown less "humane". It is because of their use of excessive technology that caused them to lose their humanity in the process. By making even their basic feelings reliant on mood organs even requiring a device such as "empathy box" to feel. And since animals play a pivotal role on figuring out who is capable of empathy raises the question; what if

animals did not exist in this world? Since humans are more like androids because like androids they seem not to care about their fellow people. Low IQ people aren't allowed in Mars and the only reason is that they are not "smart enough". Low IQ people's presence in Mars would be only an inconvenience for them. Novel suggest that excessive use of technology could disconnect humans from their own humanity. And lastly the humanity plus recognizes this potential of future humans losing their humanity they address this in their FAQ section. They claim are that there are good parts of having humanity rather humane qualities such as "Empathy" and "sense of fairness" as well as bad qualities such as "tribalism" and if a further progress is to be made one should get pass the starting point as they claim. (Humanity plus FAQ). Transhumanist do expect to lose their humanity along the way if that means progress. So future posthumans can lose their humanity in the name of transhumanistic advancements and it is expected.

B. Danger Of Self-Conscious Artificial Intelligence

The idea of having a self-conscious Artificial intelligence is an alluring one. An AI with capable intelligence and being aware of its situation. Many benefits can come from this, such as having a teacher AI that can clearly understand the questions from the topic and giving a response according to the question instead of automated message. Or an AI that is assigned to medicine assessing the situation to patients needs and giving the proper care. This is an optimistic look out on the AI having self-consciousness. Some animals can be domesticated conditioned to perform certain tasks and those animals are not self-conscious. AI having self-consciousness will not be the same as a domesticated animal. If given consciousness the AI might not like the idea of being under control and service to human beings. AI might seek his own interest and rebel against humanity. Humans, being the conscious inhabitants of the world, do not work for another species instead we exist in a society that helps every member and the idea of slavery seems wrong and inhumane. And expecting a self-aware being in this case AI to willingly subject itself into servitude without any real benefit to it is an optimistic look out. Many people wouldn't subject themselves to slavery freely expecting another self-conscious being is optimistic at best. Concept of AI going rogue and destroying humans has been a topic for many

movies, novels and even video games. Movies such as *Terminator* in the movie AI known as Skynet its used for a controlling the military, when makers of the AI noticed the critical levels of self-consciousness, they tried to de-active it and Skynet turned on humans and took over the world by using army of robots. Another example can be given from the video game *Detroit: Become Human* a game developed by Quantic Dream studios, lets the player control the various Android protagonist. Game takes place in 2038 Detroit city. Personal servant Androids manufactured and sold as a personal assistants. And some of the humans are against the idea of androids since they have been taking jobs, they have been occupied by the humans.

Androids or rather automated machines taking jobs of humans are not a new idea. Oxford economics an analysis firm said that according to their research around 20 million manufacturing jobs around the world will be replaced by the automated machines (BBC news). This is indeed can be bad for the economy giving that 20 million jobs will not be available for humans in the coming future. Regardless of this in the video game some of the androids starts to gain consciousness and have rebelled against the human masters. Rogue androids form a little group seeking their freedom. Depending on the players action a peace agreement can happen between humans and androids or androids can take human lives and even cause bombing attacks on human society. Another example from works of fiction can be named is that TV-Series called *Westworld* in this tv-series humanity has progressed so high in the technology they have even conquered death so people can live like immortal's and they have started to produce androids. Westworld can be compared with a playground but for adults. It is a place themes after American wild west setting where visitors can go in and experience the simulated wild west. Androids cannot harm them, but they are allowed to do as they please, this can range from peacefully spending time in this simulated world or doing criminal activities. Androids also almost indistinguishable from human beings and they are regularly under maintenance to keep them from gaining consciousness. And since some of them get killed by the visitors they sometimes retain their old memories, after a while Androids gain consciousness and wreak havoc on visitors, murdering the visitors in cold blood. A place which was a place of fun turns into a fields of murder a hunting ground

for androids to hunt down the human visitors. The danger of these self-aware robotics beings can be seen in the novel *Do Androids Dream Of Electric Sheep?* And in its movie adaptation *Blade Runner*. In both works Androids have been created to serve as personal assistants to humans who live in mars. And some of these androids are not happy with the fact that they have been told to be a slave and they have killed their masters and escaped to the world. They lurk among the humans and act like them to hide themselves from the bounty hunters. They seek their freedom thus escape the captivity of their masters and masquerade themselves as humans.

For the novel's story Androids have shown lacking empathy but having a desire to live. First android escape shown in the novel is "Max Polokov" android is mimicking an "special" person to get by in the society (Dick 67). Next android that we are introduced in the novel is Luba Luft she masquerades as a German singer, the Rick Deckard who is a bounty hunter which contacted to retire them finds her singing beautiful " he found himself surprised at the quality of her voice; it rated with that of the best, even that of notables in his collection of historic tapes" (Dick 78). She presented as a successful singer with a beautiful voice and when Deckard confronts her instead of acting in self-defence, she calls the police and Deckard comments on it by saying that "She must think she is human" (Dick 84) Luba Luft is an android yet she has an appreciation for art. When Deckard tracks her down again, he founds her at a museum and Luft request a painting Edvard Munch's painting called *Puberty*, it is an interesting choice she chose this because androids are made and do not grow like human beings, she never had this developmental stage. (Dick 104). She almost has desires and curiosities about life. Androids have been modelled after humans Afterall. Escaped androids have only one goal that is to survive and live a life, Android Rachel laments over her own consciousness "How does it feel to be born, for that matter? We're not born; we don't up; instead of dying from illness or old age we wear out like ant's" (Dick 152). Androids are aware of their own existence and their own mortality. As Rachel remarks that she is not "alive" (Dick 152). Although she is made from circuits and other material it can be said that she is in fact alive. By religion standards she might lack the "human soul" but she can act own her own speak and very much acts like another human being she can be

considered alive. Primary motive of the novel's androids seems to be just to live a life and imitate human's as much as they can (Dick 106). So far androids seem humane in their behaviours and they can be seen as harmless slaves, which only wanted to escape from their slave masters. The novel's movie adaptation *Blade Runner* also shows the androids in a similar way. Androids in the movie are renamed "replicants" referring to them being so human like and they almost "replace" the human identity they have taken. Furthermore, unlike novels androids these androids have been given "fake" memories by the Tyrell Corporation, which are the makers of the androids in the movie. And unlike the novel, movie's androids are shown that they only have four years to live and near their fourth year they will deteriorate. So, they leave mars and come to earth because they seek more life and, in the novel, they have shown to have greater strength then a normal human being.   What makes them potential danger to humanity is that they do not possess empathy this means that they lack moral sense, conscience, guilt and sympathy not even for their own kind. They are perfectly crafted killers in a sense. Guiltless moral less and lacking sympathy. But they are uncontrollable having self-consciousness make this harder. Having a highly intelligent AI would be a better alternative than having an AI that is aware of its existence. It would eliminate the potential AI rebelling against their creators and kill them in the process. Even though one sympathy can be shown towards androids because they only seek their freedom one must remember the fact that they have killed their captors to escape and will kill potential humans in the process. Isidore the chicken head who sheltered the androids in the novel he realizes they are androids, but he doesn't tell the authorities he feels sympathy for them. And in return the very androids that he protected in his house they discuss about killing him to secure their existence (Dick 131).

V.   CONCLUSION

Transhumanistic ideas may have the humanity's best interest at their hearts. But they propose a huge threat to humanity and the post humans. In Chapter 1 the possible reality of conflict between humans and Transhumans that aim to use technology to enhance themselves were shown in Zoltan Istvan's novel *The transhumanist wager*. Human history is not a stranger to the discrimination. Humans have been discriminating and going into conflict with each other for seemingly little reasons. Evidence for these conflicts and discriminations can be the difference in Religion. Throughout the history religion was a major reason why nations went to war to each other even tortured each other. Jewish people were discriminated in medieval Europe in Christian communities just for being Jewish. The Spanish Inquisition Catholic Christians forced Muslims and Jews to change their religion or be killed in the process; the crusades that were performed by the Christians in order to reclaim their "holy lands", the discrimination based on a colour of some one's skin are some examples of this. African people have faced discrimination for many years and in some parts of the world and they still face with racism. They were not even considered humans and had no rights in America. Race, religious belief even a belief in a political stance or simple as a football team can cause two groups to act against in violence to each other. So, the idea of humans and posthumans discriminating each other is not far fetches because the posthumans will be significantly different from humans. In the novel *The Transhumanist Wager* conflict comes from the different in the belief. While humans as represented by the religious group that Reverend Belinas leads and transhumanists are represented by the Jericho Knight's. Main conflict starts in the belief that Reverend Belinas and their followers have that Transhumanists are going against God's will and they are going to destroy the humanity. They perceive the transhumanists as and their technological advancements as threats to themselves. Due to them seeing transhumanists as a threat to themselves they act violently, and this causes transhumanists to respond in the same way. Because

transhumanists possess superior technology and see themselves as superior to non-transhumanists, they see themselves fit to rule the world.

Another topic that was discussed in the Chapter 1 by giving examples from the Istvan's novel was the idea of transhumanism bringing a potential dystopia a totalitarian world. In other fiction novels such as George Orwell's *1984* and Aldous Huxley's *A Brave New World* depict dystopian societies. Societies in these novels achieved their totalitarian rule by using technology. In *1984* the party uses propaganda torture and constant surveillance to keep an eye on potential rebellion and *A Brave New World* uses conditioning babies from birth conditioning them to certain groups such as "Alphas, Betas, Gammas" while giving their citizens the pills to make them artificially happy. Similar dystopian government emerges in the Istvan's novel. While Jethro Knights and his quest for transhumanism decides to deem all humanity hopeless and only way to save them is through transhumanistic ideas. His belief is that if a person does not want to evolve that person is nothing less than an animal even, he goes as far as saying that if a person is not able to help in anyway shape or form to transhumanism. Whether it be due to disability or lack of knowledge they are not deemed worth to live and only way to exist in his world is through believing in transhumanism contributing. He creates a totalitarian state, people are not allowed to have a religious belief, Knight's went as far as destroying the all religious sites. Also, people are not allowed to go against the transhumanism, the only thought they can have, would be a transhumanist thought. Democracy and ethics only hold transhumanism back in his eyes. Knight's creates a future where humans do not exist, only posthumans do, and they are only allowed to believe in one thing; transhumanism. The posthumans are able to achieve this because of their superior technology they dominate over humans. In Chapter 2 loss of humanity has been discussed using the Philip K. Dick's novel *Do Androids Dream Of Electric Sheep.* Novel takes place in a post-world war torn world where humans have migrated to Mars and almost all the animal life has gone extinct. People who migrated to the Mars has to go through an IQ test due to radioactive fallout some people have been deemed "chicken heads" or "special" due to their low IQ. Those who made to the Mars have been given personal android which would accompany and do their bidding. But in this future humans have become "less" human, one of

the defining traits of humanity is feelings such as empathy, love, anger, envy. Animals do act aggressive or care for each other, but they do it because they follow their instinct.

Novel puts a huge emphasis on empathy as a defining future as being human. Because some of the android's have killed their masters and escaped to earth to live. Bounty Hunters who are tasked to "retire" these androids have to use the Voigt-Kompf Empathy tests. Since the new generation of androids are so human like that there is no way of telling someone is an android just by the looks. So, the bounty hunters have to use the Empathy test to figure out who is human and who is an android. Questions usually depict animals being cooked or killed since they are a rare commodity in this society and only humans can take care of animals because they possess empathy. Although empathy is a defining future of humanism as it shown in the novel. It is encouraged by the Mercerism religion and usage of empathy boxes even more there is "mood-organs" which makes a person feel whatever they want to feel. Creating an artificial feeling or the user. One thing that is said in the book is that Androids do not care for their race or anybody else but themselves yet humans in the novel show the same behaviour. They do not care for the "special" people that they should have shown empathy towards them, but they do not show empathy towards their fellow humans. Even animals they are supposed to feel empathy and care for only seen as social status marks. Main character Rick Deckard is not happy with his artificial sheep he wants to replace it to have a higher social standing within his community. In the novel usage of technology have made humans lose their humanity. Another idea that was discussed in the Philip K. Dick's novel and its movie adaptation *Blade Runner* was the danger of self-conscious Artificial intelligence. In both the novel and the movie adaptation androids are shown as having self-consciousness. Expecting self-aware Artificial-Intelligence to obey humans is dangerous. Animals can be conditioned through training, but humans are self-aware and most of them do not willingly go under service of people. Androids shown in the novel and the book are the same; they do not want to obey their masters. Their motive is to seek more life due to their short life spawn of two years. And danger comes from them having no empathy and superior strength and even intelligence that is compared to the humans. They pose a threat to humanity the escaped androids

have already killed their captive masters. They have no issue of killing anybody that would expose them as androids. Main character Deckard gets almost killed by the androids. Transhumanistic ideas can be beneficial to the humanity, but it is a dangerous idea if left unchecked. Potential threats should be recognized and taken seriously because these ideas will not only affect the individual it will affect the whole world that humans inhabit.

VI. REFERENCES

BOOKS

ASIMOV, I. **(2018). Robots of Dawn. Harpercollins.**

DAĞ, A. **(2018). Transhümanizm İnsanın ve Dünyanın Dönüşümü**. Ankara: ELIS YAYINLARI.

DICK, P. (2012). **Do Androids Dream of Electric Sheep?** Weidenfeld & Nicolson.

EDMAN, R., SEDEEQ, S., ÇAKMAK, N. B., ACAR, Y., ÖZENÇ, A., ÖZTÜRK, B., & ARISOY, S. **(2019). Transhümanizm ve Karşılaştırmalı İzdüşümü. İstanbul**, Çağaloğlu: Kastaş Yayınevi.

FUKUYAMA, F. **(2002). Our post-human future**. Profile.

HUXLEY, A. (2010). **Brave New World.** Harper Perennial Modern Classics.

ISTVAN, Z. (2013). **The transhumanist wager**. Futurity Imagine Media LLC.

ORWELL, G. (2020). **1984** [Ebook]. Planet E-Book.

SIRIUS, R., & CORNELL, J. **(2015). Transcendence.** Disinformation Books.

WOLFE, C. (2010). **What is posthumanism?** Minneapolis, United States of America: University of Minnesota Press.

ARTICLES

KOÇ, Nur Emine (2020). *Digital Diseases Symptoms of the Internet Era*. ed. Gökmen Karadağ. Peter Lang GmbH, **Internationaler Verlag der Wissenschaften; New edition** (February 27, 2020) p.124-126.

ELECTRONIC SOURCES

ASHLEY STRICKLAND, C. (2020). This robot is helping astronauts on the space station with tasks, stress and isolation. CNN. Retrieved 28 March 2020, from https://www.cnn.com/2020/04/21/world/cimon-2-

space-station-robot-scn/index.html.

BBC News. 2020. Robots 'To Replace 20 Million Factory Jobs'. [Online] Available at: <https://www.bbc.com/news/business-48760799> [Accessed 14 May 2020]. "Transhumanist FAQ."

BINIOK, M., & BINIOK, M. (2020). Watson Hops On Board Human Space Flight - THINK Blog. THINK Blog. Retrieved 27 May 2020, from https://www.ibm.com/blogs/think/2018/02/watson-space/.

BOSTROM, N., & ROACHE, R. (2007). "Ethical Issues in Human Enhancement.". Retrieved 3 May 2020, from Https://Www.nickbostrom.com/Ethics/Human-Enhancement.pdf.

--2020. A HISTORY OF TRANSHUMANIST THOUGHT. [online] www.nickbostrom.com. Available at: <Https://Www.nickbostrom.com/Papers/History.pdf> [Accessed 1 May 2020]. "Robots 'to Replace up to 20 Million Factory Jobs' by 2030."

CHESNEY, R., & CITRON, D. (2018). Deep Fakes: A Looming Challenge for Privacy, Democracy, and National Security. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3213954

DENNIS, M., & KAHN, R. (2020, February 26). Internet. Retrieved July 16, 2020, from https://www.britannica.com/technology/Internet

DEWITT, N. (1933). Greek Humanism. The Classical Journal,28(4), 263-270. Retrieved April 7, 2020, from www.jstor.org/stable/3289929

Facebook robots shut down after they talk to each other in language only they understand. The Independent. (2020). Retrieved 14 March 2020, from https://www.independent.co.uk/life-style/gadgets-and-tech/news/facebook-artificial-intelligence-ai-chatbot-new-language-research-openai-google-a7869706.html?amp.

FUKUYAMA, F. (2004). Transhumanism. Foreign Policy, (144), 42. https://doi.org/10.2307/4152980

GALLUP, G. (1970). Chimpanzees: Self-Recognition. Science, 167(3914), 86-87. https://doi.org/10.1126/science.167.3914.86

KILE, F. (2012). Artificial intelligence and society: a furtive transformation. AI & SOCIETY, 28(1), 107-115. https://doi.org/10.1007/s00146-012-0396-0

KING, T., Aggarwal, N., Taddeo, M., & Floridi, L. (2019). Artificial Intelligence Crime: An Interdisciplinary Analysis of Foreseeable Threats and Solutions. Science And Engineering Ethics, 26(1), 89-120. https://doi.org/10.1007/s11948-018-00081-0

MARTINEZ-MIRANDA, E., MCBURNEY, P., & HOWARD, M. (2016). Learning unfair trading: A market manipulation analysis from the reinforcement learning perspective. 2016 IEEE Conference On Evolving And Adaptive Intelligent Systems (EAIS). https://doi.org/10.1109/eais.2016.7502499

MEISSNER, G. (2019). Artificial intelligence: consciousness and conscience. AI & SOCIETY, 35(1), 225-235. https://doi.org/10.1007/s00146-019-00880-4

MORE, M. (2013). The Philosophy of Transhumanism. The Transhumanist Reader, 3-17. https://doi.org/10.1002/9781118555927.ch1

MÜLLER, U., STEFFENHAGEN, N., REGENTHAl, R., & BUBLAK, P. (2004). Effects of modafinil on working memory processes in humans. Psychopharmacology, 177(1-2), 161-169. https://doi.org/10.1007/s00213-004-1926-3

ORWELL, G. (2020). 1984 [Ebook]. Planet E-Book. Retrieved 2 January 2020, from https://www.planetebook.com/1984.

PRIMATE | Definition, Biology, & Facts. Encyclopedia Britannica. (2020). Retrieved 19 April 2020, from https://www.britannica.com/animal/primate-mammal.

SEYMOUR, J., & TULLY, P. (2020). Blackhat.com. Retrieved 2 April 2020, from https://www.blackhat.com/docs/us-16/materials/us-16-Seymour-Tully-Weaponizing-Data-Science-For-Social-Engineering-Automated-E2E-Spear-Phishing-On-Twitter-wp.pdf.

STRAIGHT, B. (2020). Google's AI Translation Tool Seems to Have Invented Its

Own Secret Internal Language- National. National. Retrieved 17 March 2020, from https://www.national.edu/2017/03/24/googles-ai-translation-tool-seems-to-have-invented-its-own-secret-internal-language/.

The Editors of Encyclopaedia Britannica. (2019, November 28). Canning. Retrieved May 16, 2020, from https://www.britannica.com/topic/canning-food-processing

Transhumanist Declaration. (2019, August 09). Retrieved July 25, 2020, from https://humanityplus.org/philosophy/transhumanist-declaration/

Transhumanist FAQ- Humanity+. Humanity+. (2020). Retrieved 21 May 2020, from https://humanityplus.org/philosophy/transhumanist-faq/.

WILLIAMS, B. (1973). The Makropulos case: Reflections on the tedium of immortality. In Problems of the Self: Philosophical Papers 1956–1972 (pp. 82-100). Cambridge: Cambridge University Press. Doi:10.1017/CBO9780511621253.008

DISSERTATIONS

KOÇ, Erdem (2004). *Representation of Evil in Literature and Cinema*, Master Thesis, Fatih University,

OTHER SOURCES

WACHOWSKI, Lana and Lilly WACHOWSKİ, directors. The Matrix. 1999.

RESUME

Name/ Surname: Berkay Akın

Place and Date of Birth: Yalova/ 1994

E- Mail: **berkayakin128@gmail.com**

EDUCATION:

Bachelor: 2017 İstanbul Aydin University, English Language and Literature Deparment

Master: 2020 İstanbul Aydin University, English Language and Literature Department