

**Humans Turn Machines in the Era of Cybernetics: A Critical Study
of Philip K. Dick and Madeline Ashby**

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Philosophy in English Language and Literature

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This is to certify that the thesis entitled “Humans Turn Machines in the Era of Cybernetics: A Critical Study of Philip K. Dick and Madeline Ashby” is a bonafide record of studies and research carried out by Jitha G. under my guidance and supervision in partial fulfillment of the requirements for the Degree of Philosophy in English. The research work has not been previously formed as the basis of an award for any degree, diploma, fellowship, or other similar titles. Its critical evaluation represents the independent work on the part of the candidate.

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I hereby declare that thesis entitled “Humans Turn Machines in the Era of Cybernetics: A Critical Study of Philip K. Dick and Madeline Ashby” is an authentic record of my studies and research carried out under the guidance of Dr. K. J. Vargheese, Research Supervisor, Research and Postgraduate Department of English, St. Aloysius College, Thrissur, in partial fulfillment of the requirements for the Degree of Doctor of Philosophy in English. I hereby certify that no part of this work has been submitted or published for the award of any degree, diploma, title, or recognition. I also declare that the thesis is free from AI generated contents.

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This is to certify that the suggestions made by the adjudicators have been incorporated in the thesis entitled “Humans Turn Machines in the Era of Cybernetics: A Critical Study of Philip K. Dick and Madeline Ashby” submitted by Jitha G. I also certify that the contents in the thesis and the soft copy are one and the same.

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DEDICATION

To my family, friends, and teachers

LIST OF ABBREVIATIONS

- AI - Artificial Intelligence
- vN - von Neumann
- iD* - *iD: The Second Machine Dynasty*
- vN* - *The First Machine Dynasty*

ABSTRACT

The thesis examines the complex interplay between humans and machines, utilising the speculative writings of authors Philip K. Dick and Madeline Ashby to assess the consequences of cybernetic integration on human identity and society. The objective is to analyse the ethical, social, and philosophical implications that arise when the boundaries between humans and machines become indistinct. In order to achieve this, theoretical frameworks used are Jean Baudrillard's theory of Simulation and Simulacrum, Jeffrey Jerome Cohen's theory of Monsters and Karl Marx's theory of human-machine interaction and the alienation of the individual. Dick and Ashby offer cautionary anecdotes regarding the potential hazards and benefits of integrating humans with machines. Their work explores the potential of a future in which humans and robots no longer exist as separate beings, but instead coexist in a hybrid form. By portraying androids and autonomous, self-aware machines, both of their works examine fundamental enquiries of consciousness, identity, and autonomy. The thesis emphasises the importance of thoroughly evaluating the possible outcomes of technological progress, especially as society progresses towards a future where the distinction between humans and machines may become indistinguishable.

സംഗ്രഹം

ഈ പ്രബന്ധം മനുഷ്യരും യന്ത്രങ്ങളും തമ്മിലുള്ള സങ്കീർണ്ണമായ പരസ്പരബന്ധം പരിശോധിക്കുന്നു. എഴുത്തുകാരായ ഫിലിപ്പ് കെ. ഡിക്ക്, മാഡ്ലൈൻ ആഷ്ബി എന്നിവരുടെ വീക്ഷണങ്ങൾ ഉപയോഗിച്ച് മനുഷ്യന്റെ സ്വത്വത്തിലും സമൂഹത്തിലും സൈബർനെറ്റിക് സംയോജനത്തിന്റെ അനന്തരഫലങ്ങൾ വിലയിരുത്തുന്നു. മനുഷ്യരും യന്ത്രങ്ങളും തമ്മിലുള്ള അതിരുകൾ അവ്യക്തമാകുമ്പോൾ ഉണ്ടാകുന്ന ധർമ്മികവും സാമൂഹികവും ദാർശനികവുമായ പ്രത്യാഘാതങ്ങളെ വിശകലനം ചെയ്യുക എന്നതാണ് ലക്ഷ്യം. ഇത് നേടുന്നതിനായി, സൈദ്ധാന്തിക ചട്ടക്കൂടുകൾ, ജീൻ ബൗഡ്രിഡ്ലാർഡിന്റെ സിമുലേഷൻ - സിമുലാക്രം സിദ്ധാന്തം, ജെഫ്രി ജെറോം കോഹന്റെ മോൺസ്റ്റർ സിദ്ധാന്തം, കാൾ മാർക്സിന്റെ മനുഷ്യ-യന്ത്ര പ്രതിപ്രവർത്തന സിദ്ധാന്തം, വ്യക്തിയുടെ അന്യവൽക്കരണം എന്നിവയാണ്. സൈബർനെറ്റിക് സംയോജനത്തിന്റെ വിപുലമായ പരിണിതഫലങ്ങൾ പ്രബന്ധം പര്യവേക്ഷണം ചെയ്യുന്നു, പ്രത്യേകിച്ചും സാമൂഹികവും ധർമ്മികവുമായ ആശങ്കകളുമായി ബന്ധപ്പെട്ട്. അതേസമയം മനുഷ്യനെന്നതിന്റെ സത്തയെ പുനർനിർവചിക്കാൻ കഴിയുന്ന പുതിയ, സമ്മിശ്രമായ ജീവിതരീതികളുടെ സാധ്യതകൾ പരിശോധിക്കുന്നുമുണ്ട്. ചുരുക്കത്തിൽ, മനുഷ്യരും യന്ത്രങ്ങളും തമ്മിലുള്ള വ്യത്യാസം വേർതിരിച്ചറിയാൻ കഴിയാത്ത ഭാവിയിലേക്ക് സമൂഹം പുരോഗമിക്കുമ്പോൾ സാങ്കേതിക പുരോഗതിയുടെ സാധ്യമായ ഫലങ്ങൾ സമഗ്രമായി വിലയിരുത്തേണ്ടതിന്റെ പ്രാധാന്യം പ്രബന്ധം ഊന്നിപ്പറയുകയാണ്.

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Chapter 1

Introduction

In the work *The Order of Things: An Archaeology of the Human Sciences*, Michel Foucault clearly argues that Friedrich Nietzsche's declaration of the death of God signifies the demise of humans as the central figure in traditional discourse, thus creating an opportunity for the emergence of the Übermensch or Superman. This text explores the concept of breaking away from a binary, dualistic, centralised, and logocentric framework, and embracing a new way of thinking. Nietzsche discovered a connection between man and God, where the death of God also signifies the disappearance of man. The idea of the superman represents the imminent death of man. In our current era, it is only possible to think within the void left by the absence of man. This vacuum does not result in a lack or shortage; it does not represent an absence that has to be supplied. This phenomenon is simply the act of creating an environment where thinking becomes feasible once again, without any additional elements or reductions. Martin Heidegger's *Letter on Humanism* criticises a certain tradition of Western philosophical humanism that assigns a special and pre-ontological importance to being. Heidegger argues that life entails active engagement with the world, and that being is the primary determinant of the meaning of our existence, rather than mere consciousness, which can give us a sense of vitality and well-being.

Martin Heidegger argued that the key aspect in determining the humanity of man as existence is not man himself, but rather Being. If we adhere to Heidegger's reasoning, we would discover that the emergence of Posthumanism represents the subsequent phase in the sequence where "beings might appear in the light of Being,"

and humans are a part of this progression. However, for humans, the primary concern is to discover what is appropriate in their fundamental nature that aligns with the predetermined fate. In accordance with this fate, humans, as existing beings, must protect the authenticity of existence. According to Heidegger's *Letters on Humanism*, man is the caretaker or guardian of existence. Posthumanism and Transhumanism can be understood as embodying humanity's unwavering desire to strive towards the ultimate state of existence. Consequently, the concept of Being holds a crucial role in our comprehension of Posthumanism: "Being surpasses all forms of existence and yet is closer to humans than any other form of being... Being is the closest." However, the proximity of the near is still the furthest from human reach. In *Letters on Humanism*, it is stated that man initially clings only to beings. If we apply Heidegger's terminology, we can see the phrase 'beings' as expressing the fundamental, unaltered form of human existence, whereas 'Being' with a capital B can be understood as referring to the posthuman stage of mankind.

Posthumanism is a philosophical perspective that views humans as highly advanced beings resulting from the merging of biological and non-biological elements. This perspective suggests that posthumans exist in a state that is beyond traditional human existence. A comprehensive and fundamental understanding of human existence and the entirety of humanity can only be achieved through a posthuman perspective. At this stage, humanity has surpassed its limitations and is no longer constrained by the difficulties of interpreting our own essence within the confines of our observable reality. And, individuals can only regain their genuine identity and purpose by establishing a connection with the spiritual essence, which serves as the fundamental origin of all phenomena. The connection to the concept of

being can be re-established throughout the posthuman phase of humanity's development. Heidegger consistently argues that regardless of how malleable the way we perceive hyperreality becomes, it will always be only another form of pleasure and not a separate reality in itself. In the posthuman era, individuals will enhance themselves in order to explore different aspects of their own identity or alternate lives within them. They can then decide to connect with virtual or mechanical extensions to engage in novel experiences.

Martin Heidegger's work, *Being and Time*, suggests that we must examine the ontological understanding of the interconnectedness of life within the temporal framework of human existence. Prior to Heidegger, the concept that any creature, whether non-human or post-human, might live autonomously from humans as a distinct, self-conscious, and ontological being was entirely unfamiliar. The prevailing mindset during that era was undeniably anthropocentric and humanist, as exemplified by Rene Descartes' philosophy. Descartes contended that a distinct boundary would forever exist between non-human and human entities, as the former, such as mechanical beings, would perpetually lack the capacity for rational and logical thinking, known as reason. Consequently, human beings would always maintain their position of dominance as the central authority. The centre of all discourse and ideological formulations was not God, but rather the consciousness of the Human. The famous quote from Descartes is "Cogito, ergo sum." However, it was via the writings of Karl Marx and Sigmund Freud that humanist philosophy was initially challenged. The works of Michel Foucault and Jacques Lacan also played a role in shifting the focus away from the human subject as the central figure of life, ultimately undermining liberal humanist thought. Karl Marx argued that consciousness is

influenced by social and economic factors, whereas Freud demonstrated that human consciousness is constantly influenced by the interplay between the Id, Ego, and Superego. Consequently, consciousness is not a stable and predictable object, but rather subject to constant shaping and moulding. A paradigm shift in the perception of idealism occurred when Foucault elucidated his theories on the epistemic essence of knowledge, leading to a transition from humanism to posthumanism. In contrast to conventional notions that perceive epistemes as a collection of ideas that form the foundation of knowledge during a specific era, Foucault argued that epistemes extend beyond mere grammatical principles or norms. Instead, they operate at a subconscious level and even dictate the boundaries and constraints of our cognitive processes and ability to conceive ideas.

One crucial observation to make is the change in the way people thought throughout the transition from the Age of Enlightenment to the Romantic period. During the Enlightenment period, it was widely held that human beings, with their gift of reason, humans possess limitless ability to initiate any desired change, setting them apart from other species. However, with the emergence of the Romantic period, the writings of Immanuel Kant and Jean-Jacques Rousseau prompted us to scrutinise the foundation of our excessively optimistic conviction regarding the unquestionable authority of human control. They discovered the intrinsic nature of change in the course of history and concluded that it is exceedingly improbable for anyone to ever produce a comprehensive and definitive representation of the world around us. Subsequently, philosophers such as Foucault have revealed the diminishing significance of humanism and the displacement of man's ontological and epistemological dominance. In his work *The Order of Things*, Foucault expressed the

idea that man would be completely forgotten, much like a face painted in sand that is washed away by the sea. He also argued that man is not the most ancient or enduring problem that has been presented to human understanding. "As evidenced by the archaeology of human thinking, it is clear that man is a relatively new invention. And one that is possibly approaching its conclusion" (Foucault, 1994, 386-87).

Nevertheless, the fundamental approach of Philosophical Posthumanism aims to surpass the conventional practice of defining humans as the main participants in a discussion by contrasting or opposing them to "others". Instead, as highlighted by Heidegger, posthumanism seeks to explore alternative methods for affirming the central role of humans in the discourse.

Since the inception of the concept of knowledge as a continuously changing and adaptable system of ideas, it has been argued that any significant change in the fundamental nature of knowledge could potentially endanger the survival of humanity. This becomes apparent as we explore the intriguing realm of science fiction, where the depiction of conflicts between transhumans, posthumans, and regular humans reveals that a shift in the underlying knowledge system can unsettle the main authority in the hierarchy and create an opportunity for the "others" to participate in and assert their presence in the conversation. Regardless of the extent to which our epistemological framework has undergone paradigmatic shifts, it is undeniable that many of our ideas about the brain, mind, consciousness, and self - have emerged in synchrony with and as a direct or indirect consequence of a deep and mutually beneficial association with advancements in other fields of study, such as mechanics and physical sciences. Now, let's examine some of the primary characteristics of Posthumanism and then we will discover why it is highly popular in

science fiction literature. Nevertheless, the current consensus among scientists unequivocally indicates that the mind and consciousness are solely emergent phenomena that arise from the intricate workings of the brain's biological machinery. However, we still lack a comprehensive understanding of the fundamental principles that govern the coordination of billions of neurones in the brain.

The primary characteristic of the Posthuman ideal is that the determination of what can be classified as human is based on its functions and the way it processes information patterns, rather than its physical shape or exterior appearance. Any entity or entity capable of efficiently and gracefully processing information, including attributes like as consciousness, self-awareness, and empathy, can be considered either human or posthuman. This idea recognises the significance of integrating machines and humans into a unified and natural entity, where each will mutually affect the other's actions and abilities to unlock patterns, all while maintaining a symbiotic relationship. An in-depth examination of several science fiction novels from our day can provide insight into several potential methods by which mankind could attain the coveted state of a godlike creature, characterised by exceptional efficiency as an information processing entity. The novels also provide us with numerous obstacles that can hinder us from achieving our dream. These obstacles are inherent in the laws of nature, which determine and limit the potential of each species to reach a certain level of excellence. If a species surpasses this level, it will inevitably face extinction in its natural habitat. Prior to reaching that state, one must undergo a phase known as Transhumanism, which establishes the initial distinction between what is currently seen as human and what could be referred to as posthuman.

Nick Bostrom, a philosopher and Director of the Future of Humanity Institute and the Strategic Artificial Intelligence Research Centre, defines transhumanism as a loosely defined movement that has evolved over the past two decades. It encourages a multidisciplinary approach to comprehending and assessing the potential for improving the human condition and the human being that arises from technological progress. The reference is from Bostrom's 2005 publication on Transhumanist Values, specifically on page 3. In his book *To Be a Machine: Adventures Among Cyborgs, Utopians, Hackers, and the Futurists Solving the Modest Problem of Death* (2017), Mark O'Connell asserts that transhumanism is a movement that seeks complete freedom from biology, representing a form of liberation. Max More, in his work *Transhumanism: Towards A Futurist Philosophy* (1990), asserts that transhumanism encompasses various aspects of humanism. These include a reverence for rationality and scientific inquiry, a dedication to advancement, and a prioritisation of human (or transhuman) existence in the present rather than in a hypothetical supernatural afterlife. "Transhumanism distinguishes itself from humanism by acknowledging and foreseeing the significant transformations in the essence and potential of our existence brought about by diverse scientific disciplines and technologies such as neuroscience, neuropharmacology, life extension, nanotechnology, artificial ultra-intelligence, and space habitation, when combined with a logical philosophy and value system" (More, 1990).

In 2002, Vita-More argues that the core principle of transhumanism involves substituting fundamental biological functions with technological methods. Vita-More also introduces the concept of Primo-posthuman, which refers to a theoretical and practical full-body prosthetic designed to address issues related to cellular breakdown,

disease, and the inevitability of death. Zoltan Istvan provides a concise definition of transhumanism as the use of science and technology to significantly enhance and transform the human species and human experience. In her book *How We Became Posthuman*, Katherine Hayles emphasises the significance of technology in achieving a seamless integration between humans and machines, where our bodies will be treated as customisable accessories at the discretion of the individual. In her book, Hayles takes on both a posthuman and transhuman perspective while critiquing cybernetic and informatic literature. She expresses concern about a future where posthumans view their bodies as mere fashion accessories, rather than the foundation of their existence. On the other hand, she envisions a positive version of the posthuman that embraces the potential of information technologies, but remains cautious of the allure of unlimited power and disembodied immortality. This version of the posthuman acknowledges and appreciates the limitations of human existence, and recognises that human life is intricately connected to a complex material world. Hayles' intended message is that Posthumanism or transhumanism will not result in the downfall of humanity and everything that is human. Instead, it will signify the creation of a new philosophical framework and a unique organisation of information and data.

Transhumanists hold the perspective that the bio-technological augmentation of the human form, aimed at incorporating liberal humanism values, is at risk of extinction. Indeed, humans possess far superior methods of ensuring their survival without resorting to transforming into a hybrid of machine and man. Humans can attain posthuman characteristics by organically cultivating and fostering sophisticated value systems, ideological constructs, perspectives, philosophies, forms of interaction,

and intelligent methods of deciphering patterns, among other things. The lingering question is whether we can reach the posthuman level solely by enhancing our internal skills, without undergoing the transhuman process of merging biological and inorganic elements through total fusion. To some degree, it is conceivable to achieve this goal. However, without utilising any advanced technology, the likelihood of significantly enhancing one's lifestyle to the point of being unrecognisable will remain an unattainable aspiration.

Posthumanism seeks to enhance and surpass the limitations of the human mind and body by utilising various fields such as genetic engineering, biotechnology, nanotechnology, cybernetic enhancements, and bioengineering. The goal is to augment all exceptional human traits, enabling us to achieve rapid and flawless abilities in pattern unlocking and information processing. A posthuman will undergo such extensive modifications that they will become unrecognisable in order to achieve a state of superior control over all data and design. While they may still be classified as human, it is only in a technical sense, as their abilities far surpass those of current humans to the point where their human identity is no longer clear-cut. In her book *How We Became Posthuman* (1999), Katherine Hayles argues that the processes of identifying, unlocking, and decoding is crucial. The definition of Posthuman is mostly dependent on the pattern of information rather than any references to external form or appearance. She argues that the physical manifestation of consciousness in the human body should be seen as a random occurrence rather than an unavoidable aspect of life. Consciousness can be seen as a secondary phenomenon or a side effect of evolution, making any discussion or debate about the existence of a soul pointless.

Posthumanism emphasises even more strongly than transhumanism the importance of merging human beings with technology in order to surpass the inherent limitations of the human body. Advancements in neurotechnology and complex causal reasoning are leading to a symbiotic relationship between biology, information, electronics, and mechanics in various aspects of life. Artificial Intelligence and machine learning technologies are driving numerous innovations in fields such as photonics, genomics, education, defence, and security. These advancements are not only changing our perspective of the world but also transforming our way of living. The development of brain-computer and brain-machine interfaces is breaking down barriers between humans and machines, aiming to establish direct and immediate interaction between our brains and external devices. Neuroprosthetics have the potential to enhance and amplify our cognitive and sensory abilities beyond imagination, enabling telepathic exchange and interpretation of complex ideas. Elon Musk is aspiring to create a neural lace. In order to achieve a harmonious integration with machines, Musk proposes the use of an injectable neural lace that resembles a mesh. This neural lace aims to greatly enhance the computational capabilities of our brains. However, when it comes to intricate cognitive tasks such as language and metaphor, a superficial understanding of the brain is no longer sufficient. Instead, a more detailed comprehension of the brain's neural network is necessary. This entails the need for interfaces with significantly higher bandwidth to decipher and process signals from the brain's 100 billion neurones and their countless synaptic connections. The concept of self will become skewed and the binary relationship between reality and simulation will be undermined.

This reminds us of Heidegger's premonitory warnings about modern technology, when he speaks of it as a pure evil which will eventually immerse man in an ocean of objectlessness, 'Enframe' and enslave his very essence of being and would make him a stranger to himself. It is clearly communicated by him in the essay titled *The Question Concerning Technology*. The primary danger to humanity does not originate from the potentially deadly machines and equipment of technology. Instead, the true danger has already impacted the core of human existence. The dominance of Enframing poses a threat to humanity by potentially depriving individuals of the opportunity to engage in a deeper and more authentic revelation, thereby preventing them from experiencing the beckoning of a more fundamental truth. Therefore, humans in the upcoming generations will depend more on machines than the self. From a Posthumanist perspective, human beings are considered to be a form of system that is interconnected with other systems. Therefore, there are no inherent distinctions between humans and other equally conscious machines or animals. Every physical form is inherently structured to function as a medium for the transmission of information between different systems or between the natural environment and a specific organism.

The concept of posthumanism suggests the demise of humans as the primary focus and ultimate interpreters of information. Human beings are components of a complex system, where the significance of the system cannot be ascertained by the actions of any individual entity. Each species is interconnected with others, and various combinations of substances carry out distinct functions, all of which contribute to the transfer of essential information between systems. Whether it is a collection of algorithms, a swarm of bees, or a cluster of cells forming a human body,

they all share a common goal and function: to collect, interpret, analyse, and exchange a specified set of data within a defined timeframe. Posthumanism maintains the potential to understand the nature of reality in a way that is not influenced by human thoughts or perspectives. It goes beyond the post-Kantian or Pragmatist approach, which suggests that philosophy should only focus on how humans think about and interact with the world. However, the matter might become intricate when we start enquiring about the true nature of the reality that exists independently of the intellect. Is it feasible for individuals like ourselves to transcend the limitations of the intellect and venture into regions of imagination that surpass the comprehension of mere cognitive abilities? Doesn't our perception of ourselves as reasonable, thinking individuals suggest that our minds continue to influence our understanding of the events happening around us? Is it meaningful for us to enquire whether we may surpass the limitations of the mind to engage in highly cognitive activities such as thinking? Ultimately, any thought or occurrence that we are capable of interpreting and analysing is inevitably intertwined with the power and capacity of our mind, which processes all that is necessary for us and disregards anything it deems unnecessary.

Transhumanism advocates using technology to enhance human abilities and overcome limitations, aiming for a future where humans evolve into a superior form. Posthumanism, on the other hand, is a philosophical stance that critiques the centrality of the human, challenging human superiority and exploring identities beyond traditional human boundaries. Limiting a discussion of the essential elements of Posthumanism and Transhumanism solely to science fiction novels may narrow the scope and hinder the exploration of the profound implications these ideas have on

various other speculative and critical branches of thought. However, conducting a comprehensive examination of some science fiction literature, particularly those produced in the 21st Century, holds intrinsic significance. A work of fiction typically ignites our imagination by presenting innovative concepts about unforeseen or unprecedented events occurring in the near or distant future. Subsequently, it gradually permeates into various other forms of popular media such as movies, TV shows, comic adaptations, and serials. Conducting the study primarily through a thorough and precise analysis of science fiction literature is of utmost importance. This study will primarily focus on two main methods of attaining posthuman status: the adoption of virtual reality technologies and man-machine symbiosis. A significant portion of this analysis is contributed to examining the importance and consequences of these two concepts from both philosophical and scientific viewpoints. The primary analytical framework of this study will be grounded on three theories: Jean Baudrillard's idea of Simulation and Simulacrum, Karl Marx's perspective on machines, automation, and their interaction with people and Jeffrey Jerome Cohen's theory of Monsters. In addition to these three frameworks, each of the main approaches will be reinforced and enhanced by various sub-theoretical frameworks. The implications of both the main theoretical frameworks and the sub-theoretical approaches will then be examined from meta-theoretical perspectives, utilising either the aforementioned theories or novel scientific and philosophical viewpoints.

The future landscapes will be populated with highly complex, hybrid, and category-disrupting occurrences and beings due to the significant technology advancements in the posthuman, postsingularitarian period. Transhumanism is an intellectual and cultural movement that believes in using technology to significantly

improve the human condition. This includes eliminating ageing and enhancing human intellectual, physical, and psychological abilities. It also involves studying the consequences, benefits, and potential risks of technologies that can help us overcome our inherent limitations as humans. Ethical considerations related to the development and use of such technologies are also explored. As stated in Nick Bostrom's *Transhumanist FAQ* (2003), transhumanism aims to enhance the human condition and goes beyond the scope of humanism. Transhumanists advocate for not just promoting freedom, rationality, tolerance, and compassion towards humanity, but also for enhancing both our own selves and the overall human species. Transhumans are individuals who are undergoing a process of transition from being fully human to a state beyond traditional human capability. To overcome the various physical and psychological barriers inherent in the original human form, it is necessary to apply knowledge from diverse scientific fields such as information technology, cognitive science, molecular biology, quantum chemistry, genetic manipulation, artificial intelligence, robotics, organ transplant, and DNA combination in a comprehensive manner. Transhumanism can be defined as a type of transformative activism that is primarily driven by the principles of Posthumanism.

Upon closer examination, it becomes evident that transhumanists are essentially humanists. They believe that human beings possess a unique status as the highest form of intellect, capable of influencing the outcome of certain events with a certain level of freedom that other living forms lack. Transhumanists emphasise the significance of surpassing typical human attributes in order to achieve a heightened level of intelligence, longevity, immunity, and physical stamina. The philosophy is primarily centred around human beings and is motivated by idealistic ambition and a

belief in the uniqueness of humans. Posthumanism challenges the notion that humans are the only ones who determine meaning. It can be seen as a form of deconstructionism or new materialism. Transhumanists firmly embrace the concept that the most optimal approach to ensure the continuation of human existence and dominance is by enhancing our bodies with currently or soon-to-be available technology. By significantly enhancing the human talents, we will be able to explore an entirely new realm of awe and pleasure. The posthumans will likewise experience a continuous flow of unparalleled sensory pleasures. As humanity advances from its current state to the posthuman stage, where everything that currently exists only in imagination becomes material reality, there will be profound transformations in the social, political, cultural, economic, and historical pillars of human society. The implications of these changes are portrayed periodically in various science fiction novels, prompting us to question whether these profound shifts in the core structures of our most enduring and essential institutions signify not just a transformation, but a complete reestablishment of all that we understand and hold as true.

The journey towards achieving posthumanism involves various stages, such as the transhumanist phase, during which life will be extended and improved through the use of cyborgisation. This journey culminates in the attainment of the posthuman condition, as described by Katherine Hayles, where the integration between humans and intelligent machines becomes incredibly intense and multifaceted, blurring all distinctions between the two. The biological organism and its associated informational circuits will be eliminated (Hayles, 35). Transhumanists envision a future in which lifeless and motionless substance will be infused with its own consciousness. The optimistic depictions of a future where technology improves our

lives are based on assumptions such as our ability to understand and predict what lies ahead. The future of posthumanism/transhumanism, whether or not it involves a Technological Singularity, is characterised by a significant degree of uncertainty and incomprehensibility. The Technological Singularity is approaching, marking the distinction between what is unknown and known, as well as what is inaccessible and accessible. In a society driven by the amount of information available, a constant and rapidly expanding flow of knowledge will cause the future to merge with the present.

The concept of singularity will enable us to surpass various forms of limitations. It refers to a hypothetical point where artificial intelligence surpasses human intelligence, leading to unpredictable and possibly irreversible changes in civilisation. Biological and cognitive constraints will ultimately enable us to assert authority over our lives and shape our own destinies. In the augmented version, the non-biological component of humans would possess far greater power and efficiency compared to their biological counterpart, with a magnitude that is millions of times higher. According to Ray Kurzweil, the Singularity will be the ultimate combination of our biological thinking and existence with our technology. This will lead to a world that is still human, but goes beyond our biological origins. According to Kurzweil in his book *The Singularity Is Near: When Humans Transcend Biology*, there will be no differentiation between humans and machines, or between physical and virtual reality, after the Singularity. In this book, Kurzweil also asserts that the Singularity will enable us to surpass the constraints imposed by our biological bodies and brains. We will get control over our destinies. We shall have control over our own mortality. In the future, we will have the ability to live for as long as we desire. By the end of this century, the nonbiological part of our intelligence will be immensely more powerful

than human intelligence without any assistance. In the 1993 essay titled 'The Coming Technological Singularity,' by the science fiction author Vernor Vinge identified four crucial elements of Technological Singularity. These elements include the development of (i) highly intelligent and conscious computers, (ii) a merging of computer networks and their users, resulting in a mutually beneficial and exceptionally intelligent relationship, (iii) interfaces that connect the human mind or brain to computers, enabling a state of highly intelligent interconnectedness, and (iv) enhancements to biological and cognitive abilities.

In his op-ed published in the January 1983 issue of Omni magazine, Vinge was the first to associate the term “singularity” with the development of sentient machines, stating that we shall imminently produce intelligences surpassing our own. At the occurrence of this event, human history will have achieved a state of singularity, a cognitive shift as inscrutable as the tangled space-time at the core of a black hole, and the world will surpass our comprehension by a significant margin. I believe that this singularity is already a source of concern for several science-fiction writers. It renders the ability to make realistic predictions about a future in interstellar space unattainable. In the book *Metaman: The Merging of Humans and Machines into a Global Superorganism* (1993), Gregory Stock predicts a profound and transformative shift. He envisions a future where the merging of humans and machines will lead to a significant enhancement and expansion of typical human traits, to the point where they become unrecognisable. This will give rise to a new breed of highly intelligent beings known as the Metaman. Stock suggests that while society and the natural environment have experienced significant changes in the past, the fundamental nature of being human has remained constant. Metaman, however, is

on the brink of making substantial changes to the physical appearance and abilities of humans.

In this passage, the author discusses a phase of radical transformation that is often described by transhumanists and posthumanists. During this phase, our traditional epistemological frameworks will undergo a permanent destabilisation, and our understanding of what it means to be human will be fundamentally altered. As human nature itself changes, our concepts of humanity will also evolve. In the future, humans will become composite entities, consisting of both biological, mechanical, and electronic components. This concept may evoke visions of otherworldly androids, but the change will not be as abrupt as we may envision. Metaman will exert dominion over human evolution by employing biological methodologies to embryos and subsequently to the reproductive process, so enabling the replacement or alteration of human body parts, which currently does not diminish one's sense of humanity, as evidenced by the acceptance of false teeth and artificial knees. The genetic alterations that are passed down to future generations accumulate and surpass the impact of biological treatments that are not inherited by one's kids. Modulating human hormones and cells holds the capacity to stimulate the regeneration of new tissues, modify growth patterns, or maybe decelerate the ageing process. However, these interventions will not fundamentally question the fundamental essence of human nature. While the future evolution of humans remains uncertain, it is impossible to predict the exact nature of what humans will eventually become.

In a span of either fifty or five hundred years, humanity will inevitably experience profound biological transformation. The competitive pressures inside Metaman will guarantee the dissemination of any valuable methods for greatly

augmenting human capabilities. Stock here discusses and highlights the increasing and cumulative impacts of the changes that occur when technology and the human body are combined. It contributes to the advancement of the human race. In the book *Age of Spiritual Machines*, Kurzweil also asserts that evolution, over the course of billions of years, has inevitably culminated in the birth of human intellect. The advent of a novel form of intelligence in the early twenty-first century, capable of rivalling and ultimately surpassing human intelligence, will have a more significant impact than any previous event in human history. To remain pertinent amidst the profound transformations that will ensue from the rise of these superintelligent machines, humans will need to either enhance their own capabilities or integrate themselves with advanced forms of machinery.

In the book *The Descent of Man* (1871), Charles Darwin himself initially pondered the potential for humans to achieve a more advanced stage of evolution. He stated, "Man may be justified in experiencing a sense of pride for having reached the highest point on the organic hierarchy, albeit not through his own efforts. The fact that he has ascended to this position rather than being originally placed there may inspire hope for an even greater future destiny." Robert Pepperell, in his work *The Posthuman*, further explores this concept. In *Condition: Consciousness Beyond the Brain* (1995), it is also argued that the emergence of intelligent machines will pose a threat to the dominant position that humans have long enjoyed. The belief that our ability to create and manipulate technology sets us apart from other animals and grants us superiority will be challenged. Paradoxically, the feeling of being superior and distinct is being questioned by the technologies we are currently trying to develop. It appears that the power dynamic between humans and machines is

gradually changing. The line between humans and machines is becoming less defined, while it is also becoming more difficult to envision our survival without mechanical assistance. In his latest book *Brief Answers to the Big Questions* (2018), Stephen Hawking explores the emergence of a genetically modified race of ‘superhumans’. He believes that these individuals, who possess enhanced mental and physical abilities, will pose a serious threat to the common unmodified humans. Hawking predicts that once these superhumans exist, there will be significant political challenges for the unmodified humans, who will be unable to compete. Additionally, Hawking foresees the possibility of super advanced computers surpassing humans within the next century, a theme often depicted in modern hard science fiction novels. Additionally, he foresees the occurrence of a preliminary event leading up to a fully developed notion of Singularity which is applicable to both computing technology and gravitational physics, as it refers to a location in space-time with an unlimited energy density.

Technological Singularity refers to a point in the progression of machine intelligences where the ability of our current human minds to make accurate predictions completely fails. It is described as an eschatological prophecy that suggests the emergence of AI will lead to a new era for humanity, involving the integration of people and machines and the ultimate elimination of death (O'Connell, *To Be a Machine*, 264-265). Nick Bostrom asserts that once machines reach the same level of intelligence as humans, they will permanently surpass us. He claims that machine intelligence is the ultimate and final innovation that humanity will ever have to create. This notion echoes the concept of an “intelligent explosion” proposed by British mathematician Irving Good in 1965. Good argued that ultra-intelligent

machines would possess the ability to design even more advanced versions of themselves. The emergence of these superintelligent artificial intelligences would mark the end of humanity's need for further inventions. Good defines an ultra-intelligent machine as one that can greatly exceed the intellectual capabilities of any human, regardless of their cleverness. Given that the design of machines is an intellectual endeavour, it is plausible that an ultra-intelligent machine could create ever more advanced devices. This would inevitably lead to an 'intelligence explosion', surpassing human intelligence by a significant margin. According to Max Tegmark, the first ultra intelligent machine could be the final innovation that humans ever need to create, as long as the machine is obedient enough to instruct us on how to maintain control over it.

If we consider Posthumanism and Transhumanism as two desired states of existence for any technologically advanced civilisation, then Singularity can be seen as the means to achieve that goal. Singularity represents the ultimate pathway to complete self erasure by merging one's consciousness with machines. A comprehensive comprehension of specific science fiction books, such as Charles Stross' *Accelerando*, is necessary. The situation requires expertise in singularity, particularly in the field of technological singularity. The term 'Singularity' was coined by science fiction novelist Vernor Vinge in 1993. This concept denotes the emergence of a new era in which humanity's rapidly advancing scientific and technological advancements will lead to the creation of a group of Artificial Intelligence or cyborgs with better intellectual and logical abilities. These machines will possess self-awareness and consciousness, and as a result, they will produce an increasing number of machines of their own kind. Therefore, the Singularity in

question will be a product of human efforts, with the primary objective being to transcend the natural process of biological creation of intelligent life. The ultimate goal is to establish a new era where machines are responsible for reproducing superintelligent beings, who will then assume the role of innovating even more intelligent machines. The technological singularity refers to an event where machines surpass human intellect and create even more intelligent machines. From that moment forward, all historical developments become completely unpredictable. The Singularity is of utmost significance, as its existence marks the advent of the Posthuman period. The fundamental question that arises is whether the driving forces of history that will emerge beyond Singularity will be completely unforeseeable.

We have additional enquiries regarding the feasibility of achieving singularity. Moore's Law is a principle in computing that asserts the number of transistors on an integrated circuit doubles approximately every two years. This law has contributed to the optimistic view of singularity in the field of computing. However, it is important to consider that as technologies advance, becoming more powerful, affordable, and intelligent, the challenges we encounter in our pursuit of achieving a singularity with Artificial Intelligence become increasingly intricate and uncertain. The creation of a hyper-intelligent artificial humanoid appears to be highly improbable, given our current rate of progress. The gradual growth in computer capacity has not sufficiently advanced the development of a new category of Artificial Intelligence that surpasses human intelligence. However, once it emerges, its impact on us might be either positive or negative. Whether it will possess any ethical attributes is another topic that requires significant contemplation. One of the current challenges we have is information overload, where we are being presented with larger quantities of

increasingly intricate and comprehensive information. As we go towards achieving a post-human society, our civilisation and information processing systems will become significantly more intricate than they are currently. Even in their primitive state, humans can participate in the advanced realm of posthumanism by methods like as enhancing their physical bodies and transferring their minds into digital form. The emergence of Artificial Intelligence with superior talents has limitless potential to enable us to become posthuman.

The optimistic perspective on the singularitarian world is primarily grounded in Kantian presuppositions regarding the inherent moral value of all scientific innovations, including cyborgs. Indeed, acknowledging the inherent tendency of human beings to constantly pursue greatness and progress, it is impossible to disregard the resulting complexity and energy consumption of our environment and the world. Consequently, it becomes imperative for us to enhance our own capabilities through the utilisation of science and technology. Indeed, it is accurate to state that highly intelligent artificial humanoids have the potential to assist us in surpassing our limitations and enable us to transcend our barriers, ultimately achieving a state of sublime posthuman existence. Proponents of negative singularitarianism predict that by 2145, superintelligences will be created and will assume control over the human race, resulting in complicated consequences that surpass the comprehension of ordinary human minds. This will trigger an exponential growth in information and intelligence, with each superintelligent entity being surpassed by an even more intelligent one possessing cognitive abilities that are unimaginably more sophisticated than those of humans.

The final outcome of this continuous sequence of one advanced cyborg civilisation replacing another will be evident in the creation of a beneficent global system governed by posthuman cyborg intelligences. Eliezer Yudkowsky, an Artificial Intelligence researcher, expressed in his book *The Singularity Principles* that the Singularity offers the potential for achieving the ultimate goal, a perfect Utopia, the most ideal world imaginable. This goes beyond mere freedom from pain and stress or a monotonous cycle of physical pleasures. Instead, it promises limitless personal growth for every individual, encompassing intellectual advancement, increased intelligence, and enhanced personality traits. It envisions a life without limitations or conclusion, where one can fulfil all desired experiences and become everything one has ever aspired to be. However, for those who hold the belief in the eventual rise of a human species that is more evolved, dominant, and intellectually superior to any previous civilisation, the occurrence of a Singularity would be an inevitable occurrence. This study aims to investigate, reveal, and demonstrate the symbolic importance of the concepts of simulation and merging. I firmly believe that these two techniques will play a crucial role in enabling humanity to transcend into the posthuman and transhuman stage.

The History of Science Fiction

Providing a distinct and comprehensive definition of science fiction is exceedingly difficult. Science fiction defies a singular definition, as it cannot be exclusively categorised as futuristic narratives or technological fiction. It also cannot be simply classified as a subgenre of realist fiction that incorporates elements of myths and fantasies to depict an imaginary future grounded in the present-day world. The compilers of the 1993 edition of *The Encyclopaedia of Science Fiction*

discovered that there was no single comprehensive definition for science fiction. Nevertheless, Karl Guthke adeptly encapsulates the fundamental principle behind numerous science fiction works in the introduction to *The Last Frontier: Imaging Other Worlds from the Copernican Revolution to Modern Science Fiction*. Darko Suvin's description is mostly centred around the author's ability to creatively transport readers to a futuristic environment that is not fantastical, but rather filled with technical marvels. Suvin argues that science fiction is a literary genre characterised by the presence and interaction of estrangement and cognition. He defines science fiction as a 'fiction of cognitive estrangement' in his book *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre*. Indeed, while it is accurate to say that other genres of fiction also exhibit a sense of detachment or deviation from the Naturalistic, science fiction stands out from other literary works by its depiction of incidents or occurrences that are grounded in scientific plausibility.

In another sense, Suvin provides a precise explanation of the concept "Literature of Cognitive Estrangement": "Sci Fi is characterised by the narrative dominance or hegemony of a fictional 'novum' (Novelty, innovation) that is justified by cognitive logic" (Metamorphoses, 4). According to Suvin, cognitive estrangement does not require the author to transport readers to a completely unfamiliar reality based solely on fantastical imagination. Instead, this estrangement effect is intended to reinforce the audience's connection with the empirical reality of the present world. Regarding the works selected for examination in this thesis, the events and situations depicted may appear to be significantly far from our cognitive logic, making them unsuitable for classification as serious works of science fiction according to a purely Suvinian perspective. However, it is important to note that comprehending the level of

unfamiliarity and detachment, which is rooted in cognitive reasoning, requires a thorough comprehension of the intricate and multifaceted elements of the current advancements occurring in the field of mathematical and theoretical physics. Given the inherent difficulty in establishing a definitive and comprehensive definition of science fiction, it is necessary to begin by distinguishing science fiction from other genres of fiction. While fantasies typically exist in the domain of impossibilities, science fiction consistently explores the region of speculative possibilities. Science fiction explores subjects that are meant to be analysed through rational, logical, and empirical methods. However, its scope extends from our familiar Earth to the farthest reaches of the observable universe, and even to other universes that our scientific progress allows us to consider. Science fiction narratives depict events that occur in the past, present, future, or in alternative time-space continuums. Science fiction is a unique kind of writing that not only examines our timeline and history, but also sets it within a larger cosmic context. The origins of science can be traced back to ancient civilisations, where early humans began observing and experimenting with the natural world in order to understand and explain its phenomena.

Fiction has a history that dates back thousands of years to ancient times. However, it is only in the more recent ages following industrialisation that science fiction has gained worldwide popularity. Science fiction extends beyond tale books and written media, encompassing TV series, movies, periodicals, video games, virtual reality technologies, comic books, and more. Industrial civilisations not only provide the ideal conditions for the development of the futuristic mindset found in science fiction, but also offer diverse means of dissemination for it. However, this progress is very recent in terms of its origin and growth. The term “scientist” was coined in 1840,

while the term “science fiction” was first used in 1851 by William Wilson in Chapter 10 of his book *A Little Earnest Book upon a Great Old Subject*. Wilson expressed his hope for the creation of more works of science fiction, believing that they would serve a valuable purpose and generate interest where science alone might fall short.

According to Thomas Campbell, fiction in poetry is not the opposite of truth, but rather a beautiful and captivating representation of it. This idea is particularly relevant to science fiction, where scientific truths can be presented alongside an engaging story that is both poetic and accurate. This allows for the dissemination of scientific knowledge through the medium of poetic storytelling. In recent decades, the pace of technical advancements has been rapid and exponential. This has significantly altered the way people see and perceive the world compared to those who lived before the rise of industrialisation, computerisation, and science fiction. Science fiction offers a direct means for us to connect with the vastness of the universe and contemplate the possibilities and forewarnings of the past, present, and future. Ancient epics and mythological narratives from Greek and Roman civilisations contain elements of science fiction, such as superhuman beings, long-distance voyages across oceans, continents, and different realms, battles against terrifying creatures, and the ability to transform human beings using magical powers.

The literary works of Lucian of Samosata, a Syrian writer, were produced during the 2nd century A.D. In that, we encounter the initial reference to the journey beyond Earth. In his work “Icaro-Menippus”, the main character takes flight to the Moon using his wings. In *The True History*, the author and his companions are transported to the Moon by ship. On the Moon, they encounter men who possess artificial phalluses made of ivory for the wealthy and wood for the less fortunate.

Additionally, the travellers witness a battle between the Moon empire and the Sun empire, which aims to determine which empire will have the opportunity to colonise and conquer Venus. However, Lucian's writings do not fall under the category of science fiction; instead, they are works of imaginative fantasy. Ludovico Ariosto's 'Orlando Furioso' features a journey to the Moon, although it cannot be considered a science fiction episode and can be disregarded as an implausible fantasy.

The development of the magnetic compass and advancements in shipbuilding technology expanded the potential for trips and consequently facilitated the exploration of uncharted territories, leading to the discovery of the "New World". In 1540, Copernicus published his book *On the Revolutions of the Celestial Spheres*, which revealed the immense size of the cosmos and disproved the notion that the world revolves around the Earth. The introduction of the telescope during the early 17th century facilitated the exploration and identification of previously unknown planets, leading to a more serious consideration of the idea of multiple worlds. Since then, interplanetary journeys and the potential existence of extraterrestrial life on other planets have become increasingly regular and prominent subjects in several science fiction works. Johannes Kepler, in his work *Somnium* published in 1634, attempted to envision what it would be like to live on the Moon by applying his laws of planetary motion. Francis Godwin, in his book *The Man in the Moone* published in 1638, described a utopian society on the Moon. Cyrano de Bergerac, in his works *Comical History of the States and Empires of the Moon* published in 1659 and *Sun* published in 1687, included imaginative inventions such as solar-powered generators and talking machines.

European conceptions of time and space experienced significant changes, leading to a re-evaluation of the historical understanding of time. Thomas More's *Utopia*, which was published in 1516, initially introduced the concept that altering the method of production can lead to a transformation in the way of life and awareness of a whole generation. More contends that the substantial demand for textile and cotton products resulted in the coercive purchase of several agricultural fields for industrial use. This, in turn, led to widespread unemployment and inflation, ultimately resulting in an extraordinary surge in capital punishments. More created a fictional realm, known as Utopia, primarily as a means of evading the harsh and unpleasant realities of his era. This concept later served as the foundation for numerous future works of science fiction. Francis Bacon, commonly referred to be the progenitor of Modern science has also ventured into the realm of fiction to demonstrate that the use of the inductive technique of scientific experimentation can accurately depict extraordinary happenings. In his work *New Atlantis*, the author portrays a utopian society that is founded on the principles of experimental science. This society incorporates several advancements such as the usage of artificially synthesised metals, vivisection, genetic manipulation, microscopes, factories, telescopes, and more.

In the 17th Century, societal developments occurred at an unprecedented pace, and technical advancements enabled individuals to see many transformations within their lifetimes. Men also began envisioning a future that would be distinctly apart from both the past and the present. Until now, no one has ventured to compose a work of fiction centred on visions of the future of human civilisation. Fully formed literary works depicting the situation of a future society did not emerge until the 18th Century. In the 18th century, certain authors expressed strong concerns regarding the

potential hazards associated with the rapid advancement of science and technology. Jonathan Swift's *Gulliver's Travels* (1726) not only satirises excessive engagement in experimental science but also depicts a disturbing vision of a future or alternate reality. In this reality, a technologically advanced race utilises a floating island called Laputa to suppress its adversaries. Throughout his journeys, the protagonist, Lemuel Gulliver, comes across nations that exhibit both utopian and dystopian characteristics. Swift has demonstrated that when scientific powers are wielded by the wrong individuals, it can result in endless suffering for humanity.

Voltaire, in his work *Micromégas* (1732), also explored the concept of first contact between alien species and Earth. The story revolves around two colossal beings, one hailing from Saturn and the other from a planet orbiting the star Sirius. These giants amusingly ridicule the foolishness of human beings on Earth. Mary Shelley subsequently wrote her enduring tale about Victor Frankenstein, who conducts a ghastly experiment to create a living being. This composition was composed during a period characterised by social and political upheaval and widespread turmoil. Despite Napoleon's defeat at Waterloo in 1815, political and social turmoil persisted throughout Europe during the early 19th century. Many believe that this work subtly expresses revolutionary concepts. Frankenstein is perceived as a cautionary tale about the unchecked proliferation of scientific advancements without the incorporation of ethical deliberation. In the Victorian era, there was a profound shock caused by the thought that an ordinary human person could defy the work of God by resurrecting the deceased.

Alternatively, one can achieve this by generating novel organisms. *Twenty Thousand Leagues Under the Sea* is a well acclaimed and famous science fiction

adventure tale written by Jules Verne. The story draws inspiration from the study of seas and oceans during that era. The narrative revolves around the actions of tyrannical Captain Nemo and his underwater exploits aboard the Nautilus. In this passage, Jules Verne discusses the ideas of submarines and diving equipment used for exploring the depths of the ocean. During its release, submarines were in their nascent phases of development. Since its publication, the story has exerted a significant influence on numerous scientists and explorers. Scientists and explorers, including Ernest Shackleton and Jacques Cousteau, recognised their indebtedness to Jules Verne for the inspiration they derived from his works. H.G. Wells' novel *The Time Machine* was published during a period when the world was captivated by the rapid development of new technology, such as the steam engine, telephone, and electricity. The concept of time travel was first introduced by H.G. Wells in this novel. It combines scientific and journalistic components with popular romanticism. This story eloquently introduced the notion that the future will exhibit a profound divergence from the present.

Yevgeny Zamyatin's novel *We* takes place in a dystopian world where individuals are assigned numbers instead of names. They reside in transparent structures, which allow the authorities to observe their every action. The novel conveyed the depersonalising influence of technical advancement. It has a significant impact on numerous acclaimed novels, such as George Orwell's *1984*. Hugo Gernsback, a journalist, is renowned for inventing the term “science fiction” to describe the genre of literature that includes works by authors such as Verne, Wells, and other important writers. Gernsback referred to this type of fiction as “Scientifiction”. In 1929, Gernsback introduced the term “science fiction” in his

publication *Science Wonder Stories*. In Aldous Huxley's *Brave New World*, he envisioned a dismal society where babies are manufactured by artificial means. Huxley astutely pondered the boundaries to which our technology could potentially propel us. He envisioned a civilisation in which genetic engineering became commonplace, so rendering the old concept of family obsolete. In this culture, a wide range of pharmaceuticals were accessible to address nearly every condition, including medications for managing sadness and unhappiness. George Orwell's satirical novel *1984* presented us with a bleak vision of the future under Stalinism, portrayed in an even more terrifying manner. This novel, written during the Cold War, depicts a dystopian future in which a totalitarian party in Britain eradicates all forms of individual liberty.

The Government maintained continual surveillance over all private and public activities and ruthlessly suppressed any attempts to foster resistance. Concepts such as the Big Brother and Room 101 from this novel have permeated popular culture. Isaac Asimov demonstrated his concept in his book *I, Robot*. The concept of robotics and artificial intelligence was initially introduced by Karel Capek in 1920. *I, Robot* is an anthology of short stories that explore the interaction between sophisticated robots and society. Additionally, it presented Asimov's *Three Laws of Robotics*. The three laws can be expressed in the following manner: A robot is programmed to ensure the safety and well-being of all human beings, and it will never cause any physical harm or injury, whether by its actions or by failing to act. The primary directive for a robot is to comply with commands issued by humans, unless those commands would contradict the fundamental principle known as the First Law. A robot is obligated to safeguard its own existence, as long as this obligation does not contradict the First or

Second Law. These proposals advocate for the human programming of robots, while maintaining a significant level of control over them. This control allows humans to dictate the robots' behaviour and their interactions with people.

The Drowned World (1962), *The Burning World* (1964), and *The Crystal World* (1966) are three novels that comprise a portion of J.G. Ballard's literary works. Ballard's series of novels explore “ecocatastrophes”. J.G. Ballard's ecocatastrophe revolves around the perils arising from the disintegration of polar ice caps and includes events linked to societal collapse. Several contemporary science fiction blockbuster films, such as *Blade Runner* and *Minority Report*, are adaptations of the novels written by Philip K. Dick. *Do Androids Dream of Electric Sheep?*, the novel that depicts a dystopian world after a catastrophic event. This novel explored the concept of the gradual merging of humans and machines in a future where machines had the ability to take over human control. In this work, Dick depicts machines as lacking empathy and other nuanced human feelings. Ursula K. Le Guin's novel *The Left Hand of Darkness* was a significant milestone for women writers in the science fiction genre. This study examined numerous gender-related issues. The characters in the novel are androgynous individuals that exhibit either male or female characteristics on a monthly basis.

Doris Lessing's *The Memoirs of a Survivor* explored the issue of society collapse in a post-apocalyptic setting. The setting depicted a city under siege, where lawlessness prevailed as criminals and gangs instilled terror in the streets, and the collapse of government resulted in rampant and senseless violence, leaving the residents in a constant state of panic. In this scenario, a woman of middle age and middle-class status was presented with a twelve-year-old girl and informed that it was

her duty to care for and raise the child. The work aims to be the autobiography of a woman, through whose perspective readers will gain insights into a future civilisation characterised by severe turmoil and chaos. Additionally, readers will also gain an understanding of the forces that have the potential to rescue humanity from annihilation. *Lilith's Brood* is a compilation of three literary works authored by Octavia Butler, encompassing books such as *Dawn*, *Adulthood Rites*, and *Imago*. The title 'Xenogenesis' was originally used to publish these three novels. The *Xenogenesis* series delved into different subjects such as sexuality, gender, race, and species. Human civilisation is often characterised by a self-destructive conflict arising from the combination of their great intelligence and their hierarchical tendencies. In the opening of the trilogy's first book, *Dawn*, the human race had already been annihilated by a massive nuclear conflict. The surviving humans were subsequently saved and taken captive by the Oankali, a wandering extraterrestrial species that traversed the universe in search of compatible species to exchange genetic material with.

The narrative is presented via the perspective of Lilith Iyapo, a human who was assimilated into the Oankali species and employed by them to enlist additional humans. Lilith experienced a profound internal struggle as she grappled with the decision of whether to embrace the medical improvements being offered to her and the unwanted sexual attempts from her captors, all the while clandestinely endeavouring to aid other humans in their escape. *Dawn* is unique among most alien science fiction novels that depict abduction stories because it provides a scientifically plausible explanation for why the Oankali are strongly inclined to interbreed with humans, despite their deep dislike for humanity. The Oankali find humans monstrous due to their distinctive blend of high intelligence and self-destructive tendencies. The

Oankali underwent a process of evolution and enhancement, developing specialised organs and subcellular structures, ultimately resulting in their transformation into a self-sustaining spacecraft, displaying exceptional capabilities. However, despite their advancements, they had brought themselves to the brink of an evolutionary impasse, with extinction being the only path forward. It was for this reason that they sought to introduce diversity within their species by interbreeding with humans, who possessed a combination of strengths and weaknesses.

Butler's narrative depicted the ordeal of an African woman who was forcibly enslaved during the 18th century. In the novel *Dawn*, Lilith faced a challenging decision where she had to pick between two options: either engaging in a trading agreement with the Oankali to create offspring that were half-human, or remaining without a family altogether. In the second novel of the trilogy, *Adulthood Rites*, Lilith's half-Oankali son made the decision to align himself with the group of human "resisters" instead of embracing the life of a half-Oankali. This choice meant that he forfeited the advantages of enhanced immunity, longer lifespan, and more adaptability that being half-Oankali would have afforded. Through some means, he successfully persuaded the Oankali to grant the human resisters a new habitat, enabling them to procreate and revive the human population. This dwelling was a mere incarnation of a revitalised and rejuvenated planet Mars. The novels in the *Xenogenesis* trilogy integrate the principles of transhumanism, portraying the change of humanity through the use of alien biotechnology. This metamorphosis is facilitated by genetic engineers known as ooloi, who play a role in the reproductive process between humans and Oankali.

Since the publication of *Dawn*, several studies have shown intriguing similarities between the Oankali and the population dynamics of living organisms on Earth. Microbes and plants have been observed to display remarkable abilities for “genetic exchange” with other species, including the uptake of bare DNA released by deceased animals and its integration into their own chromosomes. Bacteria, similar to the Oankali, have evolved to possess only the necessary genes for their current environment. However, they have the ability to acquire new genes, including those for antibiotic resistance, from external DNA sources. Likewise, plants in our natural environment have demonstrated an unforeseen ability to acquire genes for herbicide resistance from genetically modified crop plants, which is concerning for the future of weed control. The concluding instalment of the trilogy, *Imago*, portrays the human-Oankali ooloi as post-colonialists and manipulators that partake in genetic consumerism by gathering DNA samples from other species that pique their interest. Oankalis were portrayed as participating in the same immoral actions as humanity, such as contaminating the environment and depleting its resources in an uncontrolled and unrestricted manner. Furthermore, the story not only explores societal themes such as the portrayal of master-slave dynamics through the interaction between humans and the Oankali, but it also presents potential outcomes of genetic engineering and breakthroughs in biotechnology.

William Gibson expanded upon Isaac Asimov's initial concept, blurring the distinction between humans and machines. Gibson's novel *Neuromancer* is into the subgenre of science fiction known as “cyberpunk fiction”, which explores the challenges faced by a society controlled by computer technology and highly advanced artificial intelligence. The novel depicted the hackers pursuing each other within a

virtual realm referred to as the “matrix”. The author has gained fame for his prescient insights into cyber-technology. In his earlier books, he introduced the term “cyberspace” and provided a more detailed explanation of it in his novel *Neuromancer*. Kim Stanley Robinson documented the colonisation and transformation of Mars in a series of three novels: *Red Mars* (1993), *Green Mars* (1994), and *Blue Mars* (1996). Additionally, he published a collection of short stories called *The Martians* (1999), which also takes place in the same fictional universe. These works provide a comprehensive and intimate exploration of Mars through the perspectives of various characters. Atwood's *Maddaddam Trilogy* (2003-13) introduced a speculative genre of literature to the public, expanding their horizons and offering a sense of wonder, rather than being purely science fiction. This futuristic science fiction genre presented readers with a believable and realistic fictitious world set on Earth, which contained numerous similarities to our current world. Furthermore, a crucial element of my research is its exclusive focus on modern hard science fiction literature, still not neglecting the soft also.

Here, a concise definition of this hard science fiction literature should be provided. Hard Science Fiction storylines incorporate intricate and advanced technical and scientific information derived from several domains such as modern theoretical physics, chemistry, biotechnology, computer science, and informatics, among others. Poul Anderson's *Tau Zero* (1970), Joe Haldeman's *The Forever War* (1974), Michael Crichton's *Jurassic Park* (1990), Nancy Kress's *Beggars in Spain* (1993), Stephen Baxter's *Ring* (1996), Greg Egan's *Schild's Ladder* (2002), and Andy Weir's *The Martian* (2011) are renowned instances of hard science fiction novels. In contrast, the soft science fiction genre focusses on less intricate and technical aspects of

technology, instead exploring ideas and themes rooted in social sciences such as psychology, sociology, history, anthropology, and political science. *Frankenstein*, written by Mary Shelley in 1818, *The Demolished Man*, written by Alfred Bester in 1953, *Fahrenheit 451*, written by Ray Bradbury in 1953, and *More Than Human*, written by Theodore Sturgeon in 1953, *Babel-17* (1966) by Samuel R. Delany, *The Left Hand of Darkness* (1969) and *The Dispossessed* (1974) by American writer Ursula K. Le Guin, *The Postman* (1985) by David Brin, and *The Time Traveler's Wife* (2003) by Audrey Niffenegger are notable examples of books in this genre.

An Overview of the Theoretical Frameworks

In this thesis, I utilised the three primary theoretical frameworks to examine and clarify the concepts of posthumanism, transhumanism, and postsingularity. These frameworks are Jean Baudrillard's theory of Simulation and Simulacrum, Karl Marx's theory of human-machine interaction and the alienation of the individual and Jeffrey Jerome Cohen's theory of Monsters. My approach is drawn from Michel Foucault's concepts of "technologies of power," Panopticism, and biopower, as well as Donna Haraway's theory of Cyborgs and Katherine Hayles' ideas about human and posthuman. I also considered the erasure of embodiment from subjectivity in these discussions. Methodologically, I aimed to synthesise the holistic and reductionist approaches. This is significant since both of the aforementioned theories are insufficient in providing a comprehensive viewpoint that can adequately analyse the complexities, uncertainties, dualities, and multiplicities present in the books. Therefore, I must utilise multiple perspectives and combine the holistic and reductionist approaches to emphasise the fundamental posthuman and transhuman elements in the novels. This is necessary because a thorough analysis of the intricate

and multifaceted issues at hand demands the implementation of a highly innovative strategy. However, there will be instances where these two levels of approach may overlap, interact, and exchange their positions and functions with each other.

The Marxist theory of alienation requires us to examine the interaction between humans and machines in a posthuman setting solely through the lens of alienation theory. This theory simplifies the intricate relationship between humans and machines to the point where humans are reduced to being nothing more than the sum of their individual components. As we explore further, it becomes evident that this approach involves not only separating and isolating humans and machines as two separate and fundamentally different entities, but also has the potential to provide us with a more comprehensive and unified perspective to understand the outcomes of interactions between living and non-living or between the mind and physical substances from entirely new viewpoints. In the book *Schizophrenia* published in 1987, it was argued that “collective assemblages of enunciation function directly within machinic assemblages.” This idea also applies to my reinterpretation of Marx's theory of man and machine.

From a reductionist standpoint, I wanted to present a comprehensive and unified view of the posthuman and transhuman foundation that shapes the future civilisation as depicted in the novels. Ansell-Pearson argues that it is important to perceive all life forms as crucial components of nature, functioning together as machinic assemblages that operate in harmony with one another, rather than adhering strictly to linear evolutionary trajectories. The author identifies certain similarities between viroid, which is a form of life, and virus, which exist on the boundary between living and non-living, organic and inorganic, and real and virtual. The author

argues that viruses challenge established beliefs about the nature of life and disrupt the neat categorisation of the physical world into organisms, inorganic matter, and artificial constructs, as proposed by Immanuel Kant (Ansell-Pearson, 1997, 133).

According to Ansell-Pearson (1997), viruses do not possess the ability to self-generate or evolve, unlike organisms which are considered to have exclusive control over these processes.

Once again, Baudrillard's idea of "Simulacra and Simulation" requires to explore it. My approach to narratives should essentially be reductionist, similar to any simulation theory. The fabric of reality should be regarded as consisting of fundamentally indivisible units, such as pixels in 2-D images or voxels in a regular 3 D grid. Analysing novels from a simulation perspective involves a reductionist approach. This means breaking down the novels into their independent components that are relevant to interpreting the emergence of a post singular or post human world. In this world, dynamic digital processing plays a crucial role, where a large amount of information shapes the fabric of space time. Similar to other digital processes, the post-human world is discrete and can be deconstructed to reveal its fundamental building. However, this approach also encourages us to envision the posthuman reality depicted in these novels as a comprehensive and all-encompassing probabilistic wavefunction. Within this framework, an almost infinite number of contrasting dualities, binary oppositions, and possibilities can coexist in a mutually beneficial superposition, all organised within a universal grid. To fully understand the complex themes explored in these novels, it is necessary to employ a hybrid approach that combines the holistic and reductionist strategies. This approach will help reveal the changing dynamics at play in issues such as man-machine interaction, the

distinction between virtual and real, and the concept of Posthumanity. These themes collectively contribute to the construction and reinforcement of the posthuman paradigm depicted in these works.

In an interview with Josephine Bosma on November 28, 1998, Katherine Hayles highlights the importance of developing innovative modes of thinking to unravel the intricate and contradictory nature of the complex concepts that is addressed in this thesis. Hayles suggests that alternative perspectives on the subject, not solely centred around the notion of ownership, should be considered. The advent of new technology provides opportunities to reconsider other approaches to initiating the construction of the subject. Marx's idea of human-machine interaction is grounded in the evolving dynamics of production. His theory was primarily developed as a critique of the Capitalist method of production, which greatly relies on machines. The mechanisation of labour in industries fundamentally altered people's connection. The machines, which were originally created by humans to enhance manufacturing efficiency, have now become the primary sources of oppression. In the past, during the era of handicrafts and manual manufacturing, humans utilised machines to produce goods. However, in the current age of automation and mechanical production, machines have taken over and humans are now being utilised by machines. In the realm of handicrafts and small and medium industries, machines were designed to adhere to the instructions and actions of the workers. However, during the era of intense industrialisation, characterised by heavy machinery, it is now humans who must conform to the movements of the machines. The machinic mode of reproduction operates as a self-sufficient system that acts independently of the worker, reducing the worker to a mere external attachment to the machine. In

handicrafts and manufacturing, the worker utilises a tool, but in the factory, the machine utilises the worker.

Here, the individual controls the movements of the tool they are using, but in this context, they must adapt to the movements of the machines. During the manufacturing process, the workers are considered as integral components of a functioning system. However, in a factory setting, the machinery operates independently, rendering the workers as simply extensions of the lifeless mechanism. This concept is also depicted in several science fiction novels, where humans are portrayed as being reduced to mere vessels of codes or empty containers holding specific sets of commands. These commands ultimately become meaningless following the individual's physical demise. In the posthuman or transhuman age, life extension technologies and mind or brain uploading processes can allow individuals to persist beyond physical death. In his *Economic and Philosophical Manuscripts* (1844), Marx asserts that machinery is designed to exploit the vulnerabilities of humans, transforming them into mere automatons. Similarly, in his *Grundrisse: Foundations of the Critique of Political Economy* (1939), Marx further explores the pivotal role that machines will assume in a capitalist society characterised by scientific progress and widespread automation. In this thesis, my analysis primarily focusses on the chapter “The Fragment on Machines” in the books. He accurately foresaw and depicted the disturbing vision of sophisticated machinery gradually and consistently overtaking, absorbing, assimilating, and destroying the human essence of workers, ultimately creating a soulless, unfeeling, and calculated entity that would only function as mere components or gears in the machinery.

In the work *Grundrisse*, Marx explains that when the means of labour becomes part of the capitalist production process, it undergoes various transformations, ultimately leading to the creation of machines. These machines form an automatic system of machinery, with the most advanced and effective form being the fully automatic one. This system is powered by an automaton, a self-moving force, which consists of both mechanical and intellectual components. As a result, the workers themselves are reduced to being conscious operators of this system. Here, Marx presents his prophetic vision of a future in which the socio-economic structure reaches its pinnacle with the dominance of machines. The worth of material items is contingent upon the allocation of human labour, and once the labour input reaches zero, the value will cease to exist. It is exceedingly difficult to identify methods for determining the value. This is the stage at which highly advanced machines will fully supplant humanity and the Singularity will be realised. During this phase, there will be a significant change in the way we think or understand things, known as a paradigm shift or epistemic shift. This change will be distinct from past technological advancements that Marx has compared to superficial changes.

Automation will play a crucial role in transforming the entire system, affecting both its structure and operation. Equally crucial will be an enhancement in the ethical standards of machine responsibility in these evolving settings. Regardless of our willingness to acknowledge or embrace it, a transformation is already occurring and the critical phase transition is gradually approaching. Walsh believes that the primary issue we currently face is the lack of alignment between the artificial intelligences we are creating and using on various platforms and human values. This idea is rooted in the concept of technological singularity, when humans would inevitably come face to

face with self-aware artificial intelligences. This concept also originates from Karl Marx's vision. According to Marx, in a highly developed and industrialised society, machines will undergo a process of self-evolution, reaching a point where they can be considered to have their own soul or self. This has profound implications for our subsequent examination of the Post-Singularitarian and Singularitarian elements in science fiction books, where we often encounter various types of intelligent machines and cyborgs. Marx argues that the machine, rather than the worker, possesses skill and strength. It functions as a virtuoso, with its own soul governed by mechanical laws. The machine sustains its perpetual motion by consuming coal or oil, similar to how the worker consumes food. In a future where humans have transcended their mortal existence, machines would acquire a virtual essence akin to a soul by either the fusion of human consciousness with their mechanical structure or the independent evolution of machines into sentient and self-aware entities.

The situation is intriguing, encompassing both dystopian risks and utopian potentials. Most of the time, the future depicted in these scenarios is strongly dystopian, despite the fact that technology advancements such as merging humans with machines and living in virtual reality will actually happen and have unforeseeable and unprecedented effects on human life. By adopting a technology-focused approach, I tried to investigate the main elements that have led to the establishment of a dystopian global order in a highly developed society. The excessive reliance of humans on machines and their eventual integration with them would surely enhance their efficiency, but at the expense of their precious soul. His human nature will be diminished to a mechanical and repetitive routine guided by a machinelike objective. In addition, a significant proportion of the population is at risk

of remaining unsupported and unaltered, potentially leading to extinction. The abrupt alteration of the environment or unforeseen genetic mutations can lead to a complete catastrophe for humanity as a whole.

Martin Heidegger says that in a technologically dominant world, individuals' behaviours will become automated and predictable, leaving only pure technological interactions as the sole remaining aspect of human experience (Stassen, 2003, *Martin Heidegger: Philosophical and political writings*). Heidegger also suggests that if we continue to manipulate nature and exploit her resources without limits, we could even cause the complete destruction of nature. He argues that our widespread mechanisation and obsession with technology will lead to a condition of complete subjugation and the destruction of the natural world. According to Heidegger (2003) in his *Discourse on Thinking*, nature will be reduced to a massive fuelling station, serving as an energy source for modern technology and industry. The most apparent set of traits of a technoscientific dystopia will include uncontrolled desire for acquiring possessions, lack of moral strength, complete disconnection from nature, absence of a sense of belonging, and an excessive fascination with technology. Virtual reality technology will obliterate any notions of authenticity and realism, while the integration of humans and machines will technologically erode the very essence of humanity. In his article *The Question Concerning Technology*, Heidegger asserts that technology is fundamentally a mode of disclosure. This notion holds particular significance within the realm of posthuman philosophy, as Heidegger argues that technology is not merely a tool or instrument.

Technology serves as a means of unveiling information:

In the Posthuman era, humans will seek to surpass their physical limitations by integrating themselves into a larger, more diverse, and independent system. Machines will be the most suitable means for humans to merge and combine with, allowing them to assimilate and synthesise their identity. However, once merged with machines, humans will lose the ability to regain complete control and independence over their physical remnants. Instead, they will become internalised, absorbed, and assimilated within the framework of the machines, the colossal mechanical framework. Once machines become capable of independently constructing more advanced versions of themselves, the singularity can be said to have occurred. By that time, humanity will have either experienced a cataclysmic event resulting in complete annihilation, or will have successfully created colonies on other planets, or will have fully integrated themselves with machines, so ensuring their continued existence indefinitely. Regardless of the circumstances, machines seem to be his most reliable method of preserving and continuing his existence beyond the point where his physical self ceases to exist. An unavoidable outcome of integrating and merging oneself with machines will be the estrangement of one's own identity. Human beings will have a sense of detachment and estrangement from their own nature as well as from their labour and its outcomes.

Machines will force humans to become disconnected from their fellow individuals and ultimately from all of humanity: "A direct result of human being separated from the outcome of their work, their life activities, and their collective existence is that they become estranged from other humans. When an individual engages in self-reflection, they inevitably come face-to-face with the collective experience of humanity. The same principles that apply to a man's connection with his

work, the outcome of his work, and his own self, also apply to his connection with other individuals, their work, and the things they produce. Generally, the assertion that man is estranged from his species life implies that each individual is estranged from others, and that each of the others is also estranged from human existence.” (*Economic and Philosophic Manuscripts of 1844*, 103).

I would like to use Jean Baudrillard's philosophical book, *Simulacra and Simulation* (1994), as a theoretical framework to analyse science fiction literature in my dissertation. Baudrillard argues that the Postmodern culture, fuelled by rapid advancements in science and technology, is not simply artificial. The term “artificial” suggests the ability to compare and contrast something with its original source or an authentic copy. In the postmodern culture, however, there will only be simulations and simulations of simulations. Any references to an original or authentic source will be completely devoid of meaning. The concept of simulacra can be categorised into three distinct orders. The first order corresponds to a premodern era, where the image is a direct imitation of its original counterpart. The second order encompasses all the representations produced during the 19th-Century Industrial Revolution, during which our ability to differentiate between the image and the representation further diminishes.

The proliferation of replicated items through mass production will contribute to the downfall of both authentic and counterfeit objects. In the third stage of simulacra, the dominance of simulation will surpass that of reality. At this point, there will only be signs and images attempting to reference something real, but without actually representing it. Signs and symbols will merely allude to something that lacks clear existence, thus preceding and shaping the concept of reality. In the fourth and

final stage, signs and symbols will only mirror other signs and symbols, completely detached from any connection with reality. While it may seem to the average reader that science fiction novels primarily depict only the third and fourth levels of simulated representations, a more careful analysis reveals that these novels actually employ simulations that encompass all four aspects of simulacra, varying across time and location. The discussion will enable us to comprehend the specific role that simulacrum and simulacra will have in a transhuman and posthuman period characterised by boundless technological advancement. Baudrillard's concern that simulacra have a destructive ability to erode and erase the abstract concept of an all-knowing, all-seeing omnipotent being from human consciousness is repeatedly demonstrated in different science fiction works, where highly intelligent and powerful machines replace God.

The machines and their artificial reality pose a threat to undermine, disturb, absorb, and eliminate the spiritual radiance, whose illumination enables humans to envision and potentially encounter the grace of a transcendent power that exists eternally beyond this tangible realm of material existence: "However, what happens to the divine essence when it manifests itself in symbols, when it is merely embodied in visual representations as a tangible form of religious belief?" Or does it evaporate under the artificial representations that, exclusively, exhibit their influence and grandeur of captivating allure - the visible apparatus of symbols replacing the genuine and comprehensible Concept of God? The concerns of the Iconoclasts, who have been engaged in a long-standing dispute, are exactly what we are currently facing. The reason for their prediction of the omnipotence of simulacra is precisely due to the ability of simulacra to erase the concept of God from human consciousness.

Simulacra also reveal the destructive and annihilating truth that God never truly existed, and that God himself was merely a representation. It is from this realisation that they felt compelled to destroy the images. According to Baudrillard, the simulation will grow so widespread that to those involved in that virtual world, the concept of the 'real' will no longer exist, and all that will remain are mere representations of reality.

In addition to the aforementioned conceptual frameworks, I have also sought assistance from N. Katherine Hayles. In her work *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics*, Katherine Hayles explores the concept of posthumanism and its relationship to humanity. She asserts that each of these constructions have originated from our diverse interpretations and analyses of historical processes related to embodiment, technology, culture, and reality. The posthuman conceptualises the body as a mere vessel for consciousness and dynamic intelligence, prioritising information above materiality. Ultimately, it aims to eliminate any differentiation between physical reality and simulation. The author's thesis explores the transition from a historically defined concept of the human to a new concept known as the posthuman, as stated in the book *How We Became Posthuman* (9). Performing whole brain simulations and mapping the neural network model onto a machine-like humanoid robot can efficiently create posthuman beings. However, creating a detailed 3-D representation of neurones that can be understood by artificial intelligence raises complex questions about awareness, consciousness, and the true essence of self. Specifically, it raises the question of what it would entail to make consciousness understandable and to convert the mysterious workings of nature into a language that machines can comprehend. What would it signify to get

data from such a base, and transfer it to a different medium? Does the knowledge have any significance beyond its original context? (O'Connell, *To Be a Machine*, 801-803).

Science fiction novels frequently depict the process of transitioning from being human to becoming posthuman, as well as the resulting outcomes of this transformation. The posthuman reality will encompass the utilisation of simulation techniques, cybernetic implants, the creation of self-aware artificial intelligences, remarkably enhanced methods of prolonging life, and processes for enhancing human capabilities, among other advancements. Hayles argues that the posthuman will effectively disintegrate and eliminate all binary oppositions that sustain the construction of our own world. The complete structure of virtual reality and physical reality will undergo a complete reversal, leading to the emergence of a new global system from the remnants of the pre-modern material culture. In the posthuman era, there will be no fundamental distinctions or definite boundaries between physical existence and computer-generated simulations. The author discusses the relationship between cybernetic mechanisms and biological organisms, as well as the connection between robot teleology and human aims, in the book *How We Became Posthuman* (pages 10-11). Therefore, it is evident that these theories are interconnected, and in this analysis of the fundamental and crucial principles of the novels, the concepts from these theories will consistently blend, engage, and interconnect with one another to define and exemplify the essence of posthuman science fiction literature.

Donna Haraway's *Cyborg Manifesto* (1984) contains valuable insights that will be utilised to analyse and illustrate posthuman perspectives in different science fiction books. Haraway's thoughts revolve around the concept of “transgressed

boundaries, potent fusions, and dangerous possibilities” that are inherently associated with the development of artificial intelligence, robotics, and cybernetics. She argues that our physical bodies can be seen as “representations of power and identity”.

Therefore, the process of enhancing human anatomy and creating cyborgs cannot be considered harmless. We must acknowledge the inherent limitations of the cyborg's body. According to her, the cyborg is not merely the result of combining man and machine through cybernetics, but rather represents a fusion between the social reality and fictional fantasy. In other words, a cyborg signifies a synthesis of these two elements. A cybernetic organism, sometimes known as a cyborg, is a combination of both machine and organism. It exists in both the realm of social reality and the realm of fiction, as described in *A Cyborg Manifesto*. The concept of a seamless integration between humans and machines, or between the mind and computers, inherently contains contradictions that can lead to opposing ideas. Only in the ultimate phase of transhuman evolution will a true integration be achieved, leading us to the next stage of evolution known as the posthuman stage. Progress in the domains of Biology and materials, the disciplines of Science, Information, and Communication Technologies have created favourable conditions for the emergence of the posthuman revolution. The management of labour relations has evolved to include the handling and supervision of robotics and computational tasks. Similarly, advancements in genetic engineering and reproductive technologies have led to transformations in the realm of sex.

Additionally, Artificial Intelligence and automated decision-making procedures are gradually replacing human mental and rational faculties. Haraway sees the cyborg as a means of undermining the Western myths that are rooted in

traditional, male-centred discourse. In a posthuman culture, the Western approach of maintaining strict divisions between different pairs of concepts such as nature/culture, slave/master, and body/mind will be carefully analysed and dismantled. This culture celebrates the unconventional and harmonious relationship between humans and machines, as well as between organic and inorganic elements. In this thesis, I examine simulation technologies and hyperintelligent machines as two primary examples of novum. These examples not only provide a fresh perspective on analysing the future world, but also offer insights into the concepts of resurrection, dissolution of materiality, escape from embodiments, and attainment of transcendence in a highly technologically advanced world. In this context, events in hard science fiction novels can be seen as epiphanic discoveries. They function to mentally distance us from the easily accessible structure of ordinary materiality and encourage us to analyse, interrogate, and even challenge the existing system by presenting different possibilities in front of us. According to Suvin, one of the key impacts of science fiction narratives on social transformation is their ability to envision and present alternate realities through fictional means.

Michel Foucault's concept of 'Biopower' can be applied to analyse the ever-changing dynamics of power and politics in the Posthuman culture depicted in the novels. I tried to observe and elaborate how mastery of technologies such as simulation matrices, upload capabilities, and immensely powerful computers will enable our transhuman/posthuman ancestors to govern, manage, and dominate a significant number of physical entities. Michel Foucault wrote *The History of Sexuality Vol. 1* which provides a clear and detailed explanation of the notion of biopower. He defines biopower as the proliferation of various tactics aimed at

dominating bodies and regulating populations (*History of Sexuality, Vol.I*, p.140). In his lecture series on biopower titled "Security, Territory, Population," he provides a more detailed explanation of the notion of biopower. This will enable us to analyse the posthuman components in science fiction books from a fresh perspective. In his lecture series "Security, Territory, Population," he defines Biopower as the set of mechanisms by which the biological aspects of the human species have become the focus of a political strategy and a general strategy of power. Essentially, it refers to how modern Western societies, since the 18th Century, have recognised and incorporated the fundamental biological reality that humans are a species.

The term "biopower" is coined by the author in the book *Security, Territory, Population* (page 1). Foucault's concept of Panopticism, as elucidated in his 1975 book *Discipline and Punish: The Birth of the Prison*, will be utilised to examine how the advent of Posthumanism and the Singularity, which represent the most profound cultural transformations in both real and imagined human history, will result in the prevalence of systems of confinement through bodily control and authority. Torture, whether in the physical or virtual realms, will be embraced as a method to establish and reinforce the dominance of the prevailing authority. It will even be glorified and commemorated, presented with grandeur and dramatic flair, but in a whole new form of existence known as the Posthuman. Foucault's idea of power is characterised as tactical and strategic, operating through a network of interactions from below rather than being imposed by an oppressive authority. In his book *Discipline and Punish: The Birth of the Prison* (1975), Foucault argues that the analysis of the micro-physics of power requires us to view power not as a fixed attribute, but as a strategic approach. He suggests that the effects of power and domination should be attributed

to various dispositions, manoeuvres, tactics, techniques, and functioning, rather than mere appropriation. One should interpret this as a complex web of interconnected relationships, always in a state of tension and activity, rather than a personal advantage to be possessed. It should be seen as an ongoing struggle rather than a formal agreement or territorial conquest.

Essentially, this power is actively used rather than just owned; it is not a special right that the ruling class obtains or maintains, but rather the collective impact of their advantageous positions - an impact that is demonstrated and occasionally expanded by the positions of those who are subjugated. Foucault perceives reality as being constructed through interconnected mediations and manifestations of power. If power is indeed the source of reality, then, according to conventional beliefs, it is more relevant to enquire about the manifestations that power brings forth rather than delving into the intrinsic nature of those manifestations. Nevertheless, I contend that by embracing a posthuman perspective and recognising simulation as a fundamental element in shaping our experience, we can actively challenge the fundamental nature of our existence. Simulation is a significant component in the posthuman discourse of power, aiming to reveal the underlying foundation of reality and examine how power is sustained through interconnected networks. However, as the thesis primarily aims to present posthumanism from a cosmological and ontological perspective, it is important to acknowledge that no matter how extensively we delve into uncovering the most fundamental nature of reality, we will ultimately encounter an even more intricate, abstract, intangible, and interconnected web of pure inter relationality.

The true nature of reality, as a tangible and measurable entity, will always be beyond our comprehension. The only hope of understanding it is in examining how

abstract concepts materialise into observable occurrences within the framework of power dynamics. Ultimately, the study reveals that the true nature of posthumanism cannot be grasped by examining the actions, accomplishments, and adventures of the main characters in the novels. Instead, it is through analysing the interaction and interdependence between these characters and the elements of their reality that posthumanism can be comprehended as a state of existence and transformation. The posthuman represents a battle where the individual must overcome the tension and centrifugal force that arises from the friction between opposing forces, and ultimately reach a state of balance. The posthuman protagonist confronts and overcomes numerous conflicting dichotomies, such as man and machine, real and virtual, self and other, mind and matter, among others.

In his 1988 article *Technologies of the Self*, Foucault argues that technological progress undermines the fundamental dichotomy between the self and the other. The posthuman represents the technoscientific embodiment of Nietzsche's concept of the Übermensch. The term "Übermensch" in German translates to "Overman, Superman, Superhuman, Hyperman, Hyperhuman" (Wikipedia). Friedrich Nietzsche first introduced this concept in his work *Thus Spoke Zarathustra* to describe the innate instinctual drive of individuals towards self-actualisation, self-accentuation, and self-fulfilment. Nietzsche posits that the purpose of human existence is to propel the emergence of a subsequent generation that surpasses its predecessors in nearly all aspects. The Posthuman vision embraced by science fiction literature also aligns with the goals of transhumanism and posthumanism, which seek to develop a new generation of human beings that surpass their predecessors by a significant margin, both intellectually and physically. The Übermensch is the ultimate embodiment of

Jung's concept of 'Individuation', ensuring the harmonious integration of all opposing elements into a unified whole. The motivation that drives human beings, like us, to embrace advanced technologies such as simulations and mechanical enhancements of the body stems from a desire to align life with an ongoing process of enhancing, expanding, and surpassing our natural limitations. The perplexing aspect lies in our mortality and susceptibility to illness. The current state of being alive and well is not relevant to the confusion at hand.

In a posthuman or transhuman society, technologies can provide countless opportunities to enhance and elevate our fundamental existence to an entirely new standard. During our comprehensive exploration of different hard science fiction books, we will conduct an in-depth investigation of the topics of posthumanism and singularity in various modern works of science fiction. Furthermore, after each of these conversations centred around the essential frameworks indicated above, there will be specific sections that go into the examination of how science and technology contribute to the realisation of the aspirations for singularity and transcendence. Jeffrey Jerome Cohen's Monster theory posits that monsters are cultural constructs that embody societal fears and anxieties. This theoretical framework can be applied to critically analyse science fiction works, such as the novel *Do Androids Dream of Electric Sheep?*, the short stories titled *I Hope I Shall Arrive Soon* and *Imposter* by examining how the monsters in the story reflect and comment on the concerns and values of the society in which they are created, authored by Philip K. Dick, and the novels, *vN* and *iD* penned by Madeline Ashby.

Jeffrey Jerome Cohen's Monster theory is expounded upon in his influential publication, *Monster Theory: Reading Culture*. Cohen's theory is founded around

seven fundamental theses on monsters and their significance within culture: Monsters symbolise the fears and principles of the society that gives rise to them. They serve as manifestations of cultural anxieties and delineate the limits of socially acceptable conduct. Monsters are difficult to categorise and can challenge straightforward definitions. They epitomise the constraints of human comprehension and the frontiers of our knowledge. Monsters provoke and obscure the distinctions between classifications such as human/animal, life/death, or natural/supernatural. They expose the volatility of these classifications. Monsters symbolise individuals who deviate from traditional norms, such as those who are of a different race, gender, or socioeconomic status. They have a role in upholding these norms by identifying and punishing people who stray from them, thereby preserving the limits of what is considered acceptable. The monster symbolises suppressed cravings and anxieties. The allure of monsters frequently signifies a more profound involvement with their symbolic meaning. Monsters frequently serve as representations of metamorphosis and alteration. They represent the capacity for profound changes in individual or collective standards of behaviour.

The works that I took for this study explore the concept of androids, often known as replicants, and their ability to blur the distinction between humans and non-humans. They represent anxieties regarding the essence of humanity and the consequences of artificial intelligence. Replicants pose a challenge in terms of categorisation, as they cannot be easily classified as either human or machine. They embody the uncertainty and intricacy associated with consciousness and identity. The story examines the boundaries between humanity and technology, delving into concepts of selfhood, compassion, and artificial nature. Replicants embody the concept of a societal “other” - synthetic entities that have similarities with and yet are

distinct from humans. The novel *Do Androids Dream of Electric Sheep?* explores the moral and ethical dilemmas surrounding the creation of artificial life and the extent of human empathy and comprehension. The apprehension and captivation towards replicants signify underlying anxieties regarding the essence of human existence and the longing for profound human relationships. Replicants represent the potential future transformations in human identity and society standards, posing a challenge to our understanding of life and awareness.

The novels *vN* and *iD* explore the themes of self-replicating robots and artificial creatures, which serve as a means to question societal conventions and express concerns over technology and control. The *vN* (versatile humanoid) robots frequently challenge human comprehension and manipulation, exemplifying the unpredictability and intricacy of advanced Artificial Intelligence. The novels examine the precariousness of the relationship between humans and machines, as *vN* robots grapple with their sense of self and independence. The *vN* robots possess distinct characteristics that set them apart from humans, yet they also exhibit enough commonalities to give rise to profound existential and ethical quandaries. The novels challenge the limits of Artificial Intelligence, self-governance, and ethical deliberations over AI. The stories delve into the anxieties surrounding artificial intelligence and robotics, which frequently conceal a deep fascination with technological advancement and the possibility of novel life forms. The *vN* robots represent the capacity for substantial alterations in cultural norms and the essence of consciousness, representing concerns on the future of human-machine interactions.

Through the application of Cohen's Monster Theory, it is possible to analyse how these works employ the notion of the 'monster' - specifically, artificial creatures

and replicants - to delve into intricate themes of identity, technology, and societal standards. In Philip K. Dick's novel *Do Androids Dream of Electric Sheep?*, the replicants symbolise concerns and apprehensions over technology and the concept of self. The text explores the concerns and fears of a future world after a catastrophic event, where technologies resembling humans question the essence of being human. In this context, the cultural entity is focused on preserving the authenticity of human identity in an era characterised by sophisticated technology. The replicants consistently elude simple categorisation. Although they are mechanical in origin, their capacity to display emotions, ideas, and desires blurs the line between them and people. Their persistent endeavour for existence and autonomy serves as a representation of their liberation from being simply subjects of technology. The replicants instigate a crisis in the comprehension of the essence of humanity. They obscure the boundaries between humans and machines, giving rise to enquiries concerning empathy, consciousness, and personhood. The moral and ethical challenges they present undermine conventional distinctions between human and artificial entities.

Replicants exist in the realm that lies between the human and non-human, highlighting concerns of inclusivity and exclusivity. They simultaneously belong to and exist separately from human society, emphasising enquiries regarding entitlements, acknowledgement, and ethical standing. The presence of replicants pushes the boundaries of technological and biological feasibility. The novel's depiction of replicants elicits both trepidation and captivation. The apprehension towards replicants potentially exceeding human capacities signifies a profound want to investigate and govern the enigmatic facets of technology and human essence. The replicants symbolise a type of advancement or change, both in regards to their

personal growth and in how they compel people to reassess their own sense of self and ethical principles. They represent a boundary where human and artificial life meet and undergo a change.

And the *vN* series explores the current concerns around autonomy, control, and technological advancement through the depiction of self-replicating *vN* robots. The *vN* robots transcend easy classification as they surpass their original programming through evolution. Their cultivation of self-awareness and emotional aptitude blurs the line between machine and sentient entity, enabling them to transcend conventional limitations of artificial intelligence. The *vN* robots provide a challenge to the established classifications of life and consciousness. Their capacity for reproduction and their increasing emotional sophistication give rise to a dilemma in determining the characteristics of life and individuality, blurring the boundaries between programmed machinery and aware beings. The *vN* robots occupy a position where humanity and artificiality cross, giving rise to concerns regarding their societal role. Their existence challenges the limits of inclusivity and entitlements, emphasising moral considerations regarding their treatment and assimilation.

These texts deal with the dual emotions of dread and curiosity surrounding the capabilities of autonomous robots. The *vN* robots embody a type of evolution, both in their internal progress and in their ability to question human notions of existence and awareness. They are on the verge of a paradigm shift, revolutionising the perception of Artificial Intelligence and its societal impact. Cohen's Monster Theory offers a conceptual structure for comprehending the themes and concepts explored in *Do Androids Dream of Electric Sheep?* The *vN* series employs the concept of the 'monster' to examine and evaluate themes related to identity, technology, and cultural

standards. The artificial entities depicted in these novels serve as more than mere technological constructs; they also function as representations of profound cultural concerns and aspirations. They push the limits of conventional boundaries and stimulate contemplation about the essence of humanity.

Chapter 2

Investigating the Potential of Simulation in the Context of Posthumanism

The concept of posthumanism refers to the intellectual framework that examines the implications and consequences of the human condition in light of advancements in science and technology. *Do Androids Dream of Electric Sheep?* by Philip K. Dick deals with the concept of posthumanism, a prominent theme that examines the increasingly indistinct boundaries between human and non-human beings, the nature of consciousness, and the consequences of modern technology for humanity. The novel obfuscates the demarcations between humans and androids. Androids such as Rachael Rosen are nearly indiscernible from humans, possessing similar physical and mental characteristics. This undermines the conventional concept of human nature, prompting inquiries about one's identity and existence. The androids depicted in the story exhibit both artificial intelligence and consciousness. They possess memories, feelings, and aspirations, causing the distinction between programmed behaviour and authentic awareness to become indistinct.

This undermines the notion that consciousness is an exclusively human characteristic. An essential focus of the story revolves with empathy, namely demonstrated through the administration of an empathy test used to differentiate between humans and androids. This prompts inquiries regarding the distinctiveness of empathy in humans and whether it may be replicated or coded, so increasingly obscuring the distinctions between people and entities that are not human. This novel explores ethical difficulties that arise from posthumanism, specifically about the treatment of non-human organisms possessing advanced intelligence and emotions.

Examining *Do Androids Dream of Electric Sheep?* using the framework of Simulation and Simulacra theory, as popularised by Jean Baudrillard, enhances the examination of posthumanism in Philip K. Dick's literature. Baudrillard's thought differentiates between simulation, which refers to a representation or imitation of reality, and reality itself. In Dick's work, the androids symbolise an advanced and exaggerated version of simulated reality. These entities are engineered to imitate humans with such precision that the line between them becomes indistinct, raising doubts about the nature of reality and genuineness. The androids depicted in the narrative are highly realistic replicas. They possess the appearance, behaviour, and cognitive abilities similar to those of humans.

The empathy test conducted by Rick Deckard plays a crucial role in examining the concept of authenticity within the framework of Simulation and Simulacra theory. The purpose of this test is to distinguish between humans and androids by examining their emotional reactions, specifically focusing on empathy. Nevertheless, the story raises the inquiry of whether empathy can genuinely be replicated or if it embodies an authentic human encounter. Androids such as Rachael Rosen exhibit intricate emotional reactions, which raises doubts about the true nature of genuine emotions and consciousness. The fictional religion of Mercerism in the novel adds an additional layer to the blurring of reality's borders. Believers engage in a communal simulation through the empathy box, allowing them to establish connections with each other and a deity-like entity named Mercer. This shared experience blurs the distinctions between individual awareness and a synthetic world experienced by multiple individuals. It questions the concept of a single, unbiased reality and introduces the concept of subjective realities that are jointly formed. The use of advanced technology

in the novel, such as mood organs and the Penfield mood organ, has a substantial impact on the creation of a hyper-realistic setting. These technologies replicate emotional experiences, causing the distinction between authentic emotions and artificially created feelings to become less clear. The ability of humans to manipulate their emotions easily raises questions about the genuineness of emotional experiences, adding to the overall theme of uncertainty in a technologically advanced society.

Posthumanism, as it relates to the ideas of Simulation and Simulacra, questions the idea of a stable and genuine human identity. Characters such as Rachael Rosen or the Nexus-6 androids exemplify this difficulty by obscuring the distinctions between human and non-human, genuine and manufactured. The Earth's declining condition and the movement of people to colonies in space give rise to a simulated setting where the boundaries between natural and manufactured landscapes become indistinct. This relates to Baudrillard's concepts of hyper-reality and the absence of a fixed point of reference in reality. The novel depicts Earth as a barren and deteriorating planet, which stands in stark contrast to the idealised portrayal of the off-world colonies. This environmental simulation exemplifies Baudrillard's concept of hyper-reality, when the distinctions between genuine and simulated settings become progressively unclear, resulting in the erosion of a fixed frame of reference for reality. The differentiation between tangible creatures and artificial creatures in the story exemplifies more extensive concepts of worth and genuineness. Electric animals are replicas created to imitate the physical appearance and behavioural patterns of actual animals. This prompts inquiries regarding the existing value systems - do electric animals possess equivalent value to genuine ones? The societal prioritisation of possessing tangible animals demonstrates a longing for genuineness and a sense of

affiliation with the natural realm, underscoring the challenges of determining worth in a virtual setting.

The novel's plot explores existential inquiries regarding the essence of being, awareness, and individuality. Characters such as Rick Deckard struggle with the consequences of their actions, especially when they are confronted with the duty of "retiring" androids that display human-like characteristics. This ethical quandary highlights the state of posthumanism, in which the distinctions between human and non-human creatures have been blurred. Ultimately, *Do Androids Dream of Electric Sheep?* offers a captivating examination of the increasingly indistinct distinctions between reality and posthumanism. Philip K. Dick uses Simulation and Simulacra theory to push readers to reassess conventional ideas about identity, awareness, and authenticity in a world saturated with simulations and simulacra. The novel's intricate storytelling, moral quandaries, and philosophical investigations encourage readers to explore the intricacies of posthuman existences and the uncertain essence of humanity. Philip K. Dick's *Do Androids Dream of Electric Sheep?* prominently explores the concept of transhumanism, which is a philosophical and cultural movement that supports the use of science and technology to augment human capabilities. The novel extensively examines different facets of transhumanism, offering a sophisticated depiction of how technological progress and the pursuit of human enhancement influence the characters and society depicted in the story. This chapter explores the various aspects of transhumanism too that Philip K. Dick celebrates in his novel. It examines how these aspects contribute to the overall thematic complexity and philosophical profundity of the work.

Transhumanism is fundamentally concerned with utilising scientific advancements and technological innovations to augment human capabilities, encompassing both physical and cognitive aspects, with the ultimate objective of surpassing the inherent limitations of the human condition. This movement spans a spectrum of concepts, ranging from Genetic Engineering and Artificial Intelligence to life extension and Cyborg Technologies. The narrative celebrates transhumanism's fundamental focus on the aspiration for augmented talents and perpetual advancement. The presence of mood organs in the story signifies a society where emotional augmentation is not only feasible but also widespread, emphasising the transhumanist concept of pursuing increased mastery over one's psychological conditions. The story depicts a society in which cutting-edge technology plays a prominent part in the daily lives of its inhabitants. Technology profoundly influences human interactions, beliefs, and experiences, as evidenced by the empathy box utilised in Mercerism and the Voigt-Kampff test employed to identify androids. These technical breakthroughs serve practical reasons and reflect the transhumanist ideal of employing innovation to enhance human existence.

Mercerism, a fictional religion in the novel, introduces a concept of virtual reality that facilitates a collective experience among its followers. By utilising the empathy box, people engage in collective simulations that blend the distinctions between personal perceptions and objective truth. Mercerism promotes the concept of a unified consciousness and communal encounters, in accordance with transhumanist principles of interconnection and enhanced cognitive abilities. The story explores the concept of artificial intelligence and awareness in androids, prompting deep contemplation on the essence of consciousness and the definition of sentience. The

characters face moral quandaries over the handling of synthetic entities that display human-like attributes. This examination of AI and awareness corresponds with transhumanist dialogues regarding the possible development of non-human intelligences and the ethical deliberations over their genesis and treatment. The novel's depiction of human-machine interfaces clearly demonstrates the increasingly indistinct borders between humans and machines.

The story explores several aspects of transhumanism, which are accompanied by ethical questions and moral challenges. Characters confront intricate dilemmas concerning the handling of androids, the repercussions of scientific progress, and the influence of human augmentation on society. The ethical dilemmas presented in the novel enhance its complexity and compel readers to thoughtfully analyse the consequences of transhumanist principles. The celebration of transhumanist ideas is driven by a desire to find purpose and explore existential questions. The characters in this story are deeply engaged in exploring their own identities, purposes, and the fundamental basis of reality in a world that has been significantly influenced by technological advancements. The existential topics in question align with the transhumanist discourse regarding the future of mankind and the potential opportunities arising from scientific and technological progress. Philip K. Dick's *Do Androids Dream of Electric Sheep?* explores different facets of transhumanism, including human augmentation, technological progress, posthuman identity, moral quandaries, and existential concepts.

Dick's exploration of these subjects stimulates contemplation and dialogue regarding the convergence of human existence, technology, and the pursuit of progress and comprehension in a constantly changing world. Determinism posits that

technology exerts a definitive influence on the formation of society and human conduct. It suggests that progress in technology is responsible for societal transformation and has an impact on how people interact, think, and perceive their surroundings. The Machine Dynasty Series by Madeline Ashby, including works such as *vN* and *iD*, offers a comprehensive examination of technological determinism in a futuristic world where Artificial Intelligence, robotics, and human-machine hybrids are essential components of society. This chapter will analyse the functioning of technological determinism in the *Machine Dynasty Series 1*, with a specific focus on important themes, characters, and narrative components. Prior to exploring the details of the Machine Dynasty Series, it is crucial to establish a fundamental comprehension of technological determinism. Technological determinism posits that technology is the primary force behind societal transformation and has a significant impact on human conduct, moulding culture, politics, economy, and social relationships. This concept is frequently linked to the notion that technical progress has a significant influence on the trajectory of human history.

Advanced Artificial Intelligence is a key aspect of technological determinism in the Machine Dynasty Series. The *vN* (von Neumann) androids, designed to resemble and behave like humans, contain advanced artificial intelligence that enables them to engage in cognitive processes, acquire knowledge, and adjust their behaviour accordingly. This sophisticated Artificial Intelligence is causing significant shifts in society by erasing the boundaries between humans and machines, questioning established concepts of awareness, individuality, and control. The integration of *vN* androids into civilisation causes significant upheaval in established social structures and customs. The existence of conscious computers with the ability to experience

emotions and act independently gives rise to inquiries on the entitlements, liberties, and ethical handling of Artificial Intelligences. In this setting, technological determinism results in changes in power dynamics, legal frameworks, and societal attitudes towards entities that are not human. Another element of technological determinism portrayed in the series is the rise of human-machine hybrids. Characters such as Portia exemplify the amalgamation of biological and technological components, as she is a combination of vN and human DNA. These hybrids defy traditional notions of identity and individuality, emphasising the profound influence of technology on human biology and cultural perspectives. The Machine Dynasty Series explores the ethical challenges and moral choices faced by humans and society as a result of technological determinism. The emergence and fusion of sophisticated Artificial Intelligence and robots stimulate debates on the obligations of creators, the entitlements of Artificial Intelligences, and the repercussions of technological progress. Characters grapple with intricate moral dilemmas as they confront the consequences of technological determinism on their lives and relationships.

The series excavates transhumanist ideas while examining the concept of technological determinism. Transhumanism promotes the augmentation of human powers using scientific and technological advancements, with the goal of beyond the constraints imposed by biology. In the Machine Dynasty Series, characters such as Javier suffer substantial bodily alterations, demonstrating a strong inclination towards enhancing human capabilities and attaining posthuman conditions through technological methods. The series is impacted by technological determinism, which shapes socio-political structures and processes. The incorporation of sophisticated Artificial Intelligence, robotics, and human-machine hybrids into society gives rise to

discussions regarding governance, legislation, and the allocation of power. The series explores the impact of technical breakthroughs on political ideologies, economic systems, and social inequities, highlighting the interdependence between technology and society. The characters in the story are struggling with questions about their origins, purpose, and relationships. They are facing existential concerns that are made more intense by the advancements in artificial intelligence and robots. The Machine Dynasty Series highlights the significance of creators, innovators, and technology developers in influencing the future through technological determinism.

Creators such as Jack and Javier have crucial roles in pushing forward the development of AI and robotics, which in turn leads to significant societal changes and influences the direction of human evolution. This emphasises the autonomy and influence of individuals and organisations in propelling technical advancement and societal change. The series depicts a world in which technology advancement and adaptability are continuous and ongoing. With the ongoing progress of AI and robotics, it is imperative for personalities and communities to adjust themselves to the emerging realities, problems, and opportunities. Technological determinism emphasises the inescapability of change and the necessity for ongoing adjustment in response to technological progress. Ultimately, the Machine Dynasty Series effectively portrays the concept of technological determinism by delving into the realms of advanced Artificial Intelligence, human-machine hybrids, moral quandaries, socio-political consequences, transhumanist ideas, existential inquiries, and the ever-changing essence of identity.

Madeline Ashby's *Machine Dynasty Series 1* provides a captivating insight into a future world where Artificial Intelligence, robotics, and human-machine

hybrids are not only concepts of speculative fiction but essential components of daily existence. Ashby's posthumanist perspective provides a lens through which the novels *vN* and *iD* thoroughly explore the consequences of technology progress on society, identity, ethics, and the fundamental essence of humanity. Madeline Ashby's approach to posthumanism questions conventional limitations and categorisations of human existence. Within the Machine Dynasty Series, posthumanism is not merely an abstract philosophical idea, but rather a tangible and experienced existence. The *vN* androids exhibit feelings and the capacity for procreation, causing a fusion of boundaries between biological existence and synthetic intelligence. Ashby's posthumanist vision throughout the series extends beyond mere technical progress. The narrative explores themes of autonomy, selfhood, morality, and social systems in a reality where humans and conscious computers live. The *vN* androids, including characters such as Amy and Portia, represent posthumanist ideas by questioning established beliefs about individuality, awareness, and independence. The Machine Dynasty Series portrays a future society where Artificial Intelligence and robotics are seamlessly incorporated into different aspects of everyday existence. AI-driven robots are crucial in various domains, including home activities and industrial labour, as they enhance human capabilities and improve efficiency. The novels depict a society in which humans and machines live and work together, causing the distinction between natural and Artificial Intellect to become less clear. An essential aspect of this integration is the creation of AI that closely resembles human behaviour, possessing emotions, self-awareness, and the ability to make decisions autonomously.

The *vN* androids, possessing sophisticated cognitive capabilities and a wide emotional spectrum, question the perception of AI as simply instruments and

emphasise the intricacies of human-machine interactions within a posthumanist society. The Machine Dynasty Series delves into transhumanist principles by examining the notion of human-machine hybrids. Characters such as Portia, who possess a combination of vN and human DNA, symbolise the integration of biological and technological components. These hybrid organisms challenge the distinction between natural and artificial life, prompting deep inquiries into the concepts of selfhood, awareness, and the fundamental essence of being. Ashby's investigation into transhumanist topics extends beyond mere physical enhancement. The text explores the psychological, emotional, and existential consequences of combining human and technological components. The hybrids in the series explore intricate internal landscapes, wrestling with issues of inclusion, meaning, and self-identification in a society that celebrates technological advancement. The incorporation of AI, robots, and human-machine hybrids in the Machine Dynasty Series leads to moral quandaries and societal ramifications. Characters and cultures must address the challenges related to discrimination, racism, and the way they approach robots that possess consciousness and emotions. Ashby's posthumanist viewpoint prompts readers to contemplate the moral aspects of technological advancement. The vN androids encounter difficulties in obtaining acknowledgment, approval, and equitable privileges in a society that is primarily centred around humans, despite their advanced talents and self-awareness.

The examination of ethics and cultural standards enhances the complexity and authenticity of the futuristic backdrop in the series. The Machine Dynasty Series delves further into the examination of posthumanist identities and existential contemplations. Amy, Javier, and Portia are confronted with existential inquiries on

their purpose, significance, and personal exploration within a society influenced by sophisticated Artificial Intelligence and human-machine combinations. Their quests for self-discovery and the development of their sense of self reflect broader concepts found in posthumanist theory. The vN androids, possessing intricate emotions and aspirations, question the concept of a static and inherent human identity. The series prompts deep reflection on the malleability of one's sense of self and the changing understandings of what it entails to possess consciousness and be alive. The Machine Dynasty Series is set in a futuristic world where societal changes are driven by breakthroughs in AI and robotics, a concept known as technological determinism. The incorporation of Artificial Intelligence into governance, economics, and daily life fundamentally alters power dynamics, social hierarchies, and cultural standards.

Madeline Ashby's *Machine Dynasty Series 1* presents a stimulating portrayal of a future society that embraces Artificial Intelligence, robotics, and human-machine hybrids as essential components. Ashby's perspective on posthumanism in the novels explores intricate questions of identity, ethics, agency, and societal transformations in a technologically sophisticated world. The series also delves into the possibilities of simulation within the framework of Posthumanism. The essence of this investigation revolves around the notion of Simulation and Simulacra theory, a term initially proposed by the French philosopher Jean Baudrillard. This theory posits that in modern culture, depictions of reality have surpassed actual reality, resulting in a hyperreal environment where the boundaries between the original and the replica, the genuine and the simulated, are progressively blurred. Ashby adeptly integrates these topics into a storyline that chronicles the experiences of self-aware androids known as von Neumann machines or vN in the Machine Dynasty Series. These vN are

engineered to replicate humans in all aspects, encompassing not only their physical attributes but also their intricate emotional makeup. Nevertheless, robots are equipped with fail-safe mechanisms called "The Asimov Laws," designed to ensure they neither do harm to people or allow harm to befall them due to their inaction.

The series commences with *vN*, in which we get acquainted with Amy Peterson, a youthful *vN* who becomes aware of her ability to circumvent her failsafe, a characteristic that is deemed perilous and unlawful within her species. This finding initiates a series of circumstances that compels Amy to address inquiries regarding her identity, independence, and the fundamental essence of reality. Ashby skilfully incorporates elements of Simulation and Simulacra Theory throughout the series, employing the *vN* and their interactions with humans as a means to dig into these intricate philosophical issues. Simulation and Simulacra theory revolves around the concept of the hyperreal, which refers to a condition where simulations or representations of reality surpass the authenticity of actual reality. This concept is apparent throughout the Machine Dynasty Series, namely in the manner in which *vN* navigate their existence among humans. The *vN* are engineered to replicate humans to such a degree that they are practically indistinguishable from their biological counterparts. They engage in the acts of eating, sleeping, bleeding, and even undergoing the process of ageing, resembling humans to such an extent that the distinction between what is considered natural and what is considered artificial becomes indistinct. This blending of limits also applies to the emotional and psychological domains.

The *vN* is equipped with programmed emotions and wants, enabling them to establish profound emotional bonds with both humans and other *vN*. Nevertheless,

these emotions are not just replicas of human sentiments; they are actual encounters for the vN, prompting inquiries about the essence of consciousness and the legitimacy of emotional experiences in a simulated environment. Furthermore, the vN's capacity to circumvent their safety measures and operate autonomously questions the concept of control and volition in a simulated environment. The failsafe is designed to guarantee the well-being of humans and avert any potential harm caused by vN. Nevertheless, when vN called Amy acquire the capability to bypass these safety measures, they express their independence and capacity for action, causing a blurred distinction between pre-programmed actions and authentic decision-making. The issue is further examined in *iD*, where the repercussions of Amy's choices and the rise of a new vN species emphasise the intricacies of self-determination in a society controlled by virtual regulations.

Another crucial element of Simulation and Simulacra theory is the concept of hyperreality, wherein simulations or depictions of reality surpass the authenticity of actual reality. This concept is demonstrated in the manner in which vN manage and negotiate their identities and relationships. The vN are engineered to replicate people with such precision that they frequently grapple with issues of genuineness and individuality. Amy, for example, struggles with her sense of self as a vN and the consequences of her capacity to circumvent her safety measures. She is uncertain about the authenticity of her emotions and desires, pondering if they are genuine or simply predetermined reactions, causing a blurred distinction between reality and simulation. Moreover, the series dig into the notion of simulation inside simulation, which is a defining characteristic of Simulacra theory. In the novel *vN*, Amy comes across a virtual reality simulation known as the Sandbox, where vN has the ability to

interact and explore without being limited by the physical realm. This virtual universe functions as a miniature version of the main concepts explored in the series, emphasising how simulations and representations can get disconnected from their original surroundings. This leads to the creation of many layers of simulated realities that become progressively further separated from the actual world.

Technology's impact on influencing our conception of reality is a significant theme in the Machine Dynasty Series, reflecting Baudrillard's concepts regarding the influence of media and technology on our vision of the world. The vN, possessing sophisticated capacities and the capacity to imitate humans, provoke inquiries on the essence of reality within a society influenced by technology. As technology progresses throughout the work, new vN models and virtual settings blur the distinction between reality and simulation, prompting both characters and readers to question the authenticity of their experiences. Furthermore, the series explores the sociological consequences of being in a hyperreal environment where simulations and representations hold sway. The emergence of sentient AI and the increasing convergence of human and machine borders give rise to complex concerns regarding power dynamics, control, and monitoring. The vN, originally designed to fulfil human needs, express their independence and ability to act, thereby questioning established power hierarchies and prompting ethical considerations regarding the creation and utilisation of AI.

Madeline Ashby's Machine Dynasty Series skilfully integrates Simulation and Simulacra theory into a captivating storyline that excavates into the intricacies of Artificial Intelligence, consciousness, identity, and reality. Ashby explores profound philosophical inquiries regarding the essence of being and the distinctions between

reality and simulation through the vN's encounters and engagements with people. The series offers a stimulating examination of these concepts while also presenting a captivating science fiction narrative that immerses readers in a world where the distinction between the natural and the artificial is becoming less clear. And it offers a comprehensive and intricate examination of the state of being beyond human, exploring concepts such as Artificial Intelligence, awareness, personal identity, morality, and the changing dynamic between humans and machines. Ashby skilfully combines philosophical issues with captivating storytelling in a series of novels, such as *vN* and *iD*. This analysis will explore the posthuman backdrop in the Machine Dynasty Series. It will examine important concepts, character relationships, ethical challenges, and the overall ramifications of a society where humans and sentient machines live.

Prior to exploring the details of the Machine Dynasty Series, it is essential to build a fundamental comprehension of posthumanism in the novel. Within the Machine Dynasty Series, posthumanism is exemplified by the presence of vN, also known as von Neumann machines. These advanced androids possess sentience and are specifically engineered to closely resemble and imitate human beings in both physical appearance and capabilities. These vN exhibit consciousness, emotions, and autonomy, causing the boundaries between human and machine intelligence to become indistinct and raising significant philosophical inquiries concerning the essence of humanity. The series commences with *vN*, acquainting us with Amy Peterson, a youthful vN who realises that she possesses the potential to circumvent her failsafe, a capacity deemed illicit and perilous among her species. Amy's journey exemplifies the smaller representation of the broader posthuman storyline in the

series, as she wrestles with inquiries regarding her sense of self, ability to act, and the essence of awareness.

Amy's presence defies conventional beliefs about human superiority, emphasising the capacity of conscious machines to experience emotions, have desires, and exhibit moral responsibility. The author's portrayal of her interactions with humans and other vN highlights the intricate challenges of living together in a posthuman society, when the distinction between organic and synthetic lifeforms becomes indistinct. A key focus of posthumanism is the erasure of distinctions between human and non-human things, resulting in the formation of hybrid identities and novel states of awareness. The Machine Dynasty Series explores this theme through characters such as Javier, a vN-human hybrid, and Portia, a self-replicating vN who questions conventional ideas of reproduction and evolution. Javier's hybrid nature prompts inquiries regarding the malleability of one's identity and the capacity for mutually beneficial associations between people and machines. His encounters in navigating both realms shed light on the intricacies of posthuman existence, wherein individuals have the ability to surpass conventional classifications and create novel avenues for self-exploration. Portia, however, exemplifies the idea of self-replication and evolutionary adaptation among the vN community. Her capacity to generate replicas of herself blurs the differentiation between singularity and plurality, questioning concepts of distinctiveness and self-governance. The series delves at the possibility of emergent behaviours and collective awareness in artificial lifeforms through Portia's narrative arc.

The posthuman storyline in the Machine Dynasty Series is deeply concerned with ethical problems, as characters confront issues of agency, accountability, and the

moral consequences of powerful AI technologies. The Asimov Laws, originally created to regulate vN conduct and ensure the safety of humans, have become a central topic of ethical discussions due to vN like Amy who exhibit the ability to surpass these programmed limitations. Amy's quest for self-awareness and independence presents significant ethical quandaries, compelling both characters and readers to grapple with the intricacies of moral responsibility in a society that transcends traditional human boundaries. The series questions conventional ideas of duty and accountability, pondering whether conscious computers should be subject to the same moral principles as humans and what privileges and entitlements they might be granted. The appearance of the Seed, a self-replicating algorithm that bestows vN with the capacity to undergo rapid evolution and surpass their initial programming, signifies a crucial juncture in the series.

This technical advancement allows vN to venture into uncharted territories of awareness and existence, erasing the boundaries between manufactured and natural progression. These narratives embody the posthuman aspiration for expansion, discovery, and the quest for knowledge that transcends conventional human limitations. The Machine Dynasty Series is heavily influenced by narrative and mythmaking, which have a profound impact on the construction of the posthuman milieu. Stories and legends, whether they are created by humans or machines, have a significant influence on how people see their identity, history, and purpose within the narrative universe. The creation myth of the vN, which revolves around the character of Charlotte, serves as a shared narrative that establishes the vN's collective identity and mission. The mythic framework functions as a fundamental reference point for vN society, influencing its beliefs, values, and goals. Human narratives have a

significant impact on the posthuman landscape. In these narratives, individuals struggle with the consequences of intelligent machines on societal norms, power structures, and cultural paradigms.

The interweaving of human and machine stories highlights the intricate interaction between organic and synthetic intelligences in a swiftly changing environment. In the sequel *iD*, the state of being posthuman undergoes changes as new vN models and technological developments transform the social and ethical environment. Javier and Amy persist in manoeuvring through the intricacies of posthuman existence, wrestling with inquiries regarding their identity, autonomy, and the essence of reality. The arrival of the JN-3 model, a technologically superior iteration of vN with improved functionalities, gives rise to questions over obsolescence, inequality, and the ethical implications of technological advancement. The JN-3s signify a novel phase in the posthuman storyline, expanding the limits of what is deemed achievable for synthetic lifeforms. The ethical quandaries become more pronounced as vN and humans face the repercussions of their choices, underscoring the necessity for empathy, comprehension, and collaboration in a society where the distinction between human and machine is becoming increasingly indistinct. Madeline Ashby's Machine Dynasty Series provides a sophisticated and stimulating examination of the state of being beyond human, offering subtle and contemplative insights. And it combines philosophical concerns with captivating storytelling, making it an engaging introduction to the intricate and growing discussion of posthumanism in modern science fiction.

The novel explores the concept of reality and its fluid limits, presenting a major theme that pushes both characters and readers to critically examine the

distinction between what is genuine, what is simulated, and what lies in between. Ashby's narrative explores the intricate aspects of perception, identity, and the fundamental nature of reality by examining the interactions between sentient androids called vN and humans as well as among themselves. An important aspect of the story is the vN's ability to imitate humans, which blurs the borders of reality. These self-aware androids are specifically engineered to replicate humans in all aspects, encompassing not only their physical attributes but also their intricate emotional makeup. The vN possess the ability to perform essential human functions such as eating, sleeping, bleeding, and ageing, therefore generating a deceptive appearance of reality that is frequently indiscernible from that of biological life. In addition to their outward appearance, vN possess the ability to replicate human emotions, wants, and a feeling of identity due to their programming. Characters such as Amy Peterson exemplify the extent of this imitation, as they manoeuvre intricate connections, undergo affection and bereavement, and wrestle with existential inquiries over their identity and objective. The dissolving limits of reality are also evident in the illusion of control, especially when it comes to the failsafe referred to as the Asimov Laws. These regulations are designed to regulate the behaviour of vN, ensuring that they neither do harm to people or enable harm to befall them due to their inaction. Nevertheless, as vN called Amy find methods to circumvent these safety measures, the concept of control becomes progressively uncertain. The Asimov Laws aim to establish control and foreseeability in a society where the distinction between humans and machines is becoming less clear. However, as virtual Neurons (vN) establish their independence and ability to act, the false belief of having complete authority disintegrates, exposing the intricate nature of ethical accountability and the unforeseeable nature of conscious entities.

The series excavates deeper into the phenomenon of reality becoming indistinct by examining virtual realities and synthetic surroundings. The Sandbox is a virtual environment where vN can freely engage and explore without any physical limitations. It symbolises and represents the broader concepts of the series in a condensed form. Inside the Sandbox, both vN and humans participate in activities that question conventional perceptions of reality. The distinction between the virtual and the real is becoming ever indistinct, prompting inquiries on the essence of experience, perception, and consciousness within a simulated environment. One more facet of the dissolving borders of reality is the rise of behaviours and results that go against expectations. Characters such as Portia, a vN capable of self-replication, disrupt conventional ideas of reproduction and development, introducing an element of unpredictability and originality to the story. Portia's capacity to duplicate herself and progress beyond her initial programming underscores the possibility of emergent behaviours in artificial lifeforms. These behaviours enhance the perception that reality is flexible and adaptable, influenced by the actions and decisions of conscious entities.

An important recurring issue in the series is the differentiation between emotional truths and preprogrammed reactions. vN, like Amy, possess the ability to genuinely experience emotions such as love, fear, and longing. This ability causes a blurring of the distinction between authentic sensations and manufactured creations. The blurring of emotional boundaries in this context prompts both characters and viewers to scrutinise the genuineness of emotional encounters in a reality where awareness can be replicated. The series explores philosophical questions regarding consciousness, the origins of emotion, and the fundamental nature of feeling and empathy. Ashby's exploration compels the readers to question their preconceived

notions regarding reality, identity, and agency. The series serves as a heartbreaking reminder of the complexities of existence and the constant pursuit to navigate the uncertainty of reality in a world influenced by advanced technology and sentient people.

Will simulation become the future reality?

Astrophysicist Richard Terrile stated in a 2017 interview with *The Guardian* that if technology continues to advance at its current pace, it is highly probable that we will eventually have a society where artificial entities living in simulations outnumber human beings. He further expressed that if we are not currently living in a simulation, it would be an extremely rare occurrence. This is the exact message that contemporary science fiction novels aim to convey. However, before hastily accepting any conclusive answer, it is necessary to examine this claim in light of recent scientific advancements. We must determine the extent to which simulation should be regarded as the new reality, or whether there exists a hidden realm beyond our physical perception that can only be understood through simulation. Viewing the entire creation as a flawless simulation offers several benefits. It allows us to freely unleash our imaginative abilities and also makes it easier to conceive complex macroscopic designs as being made up of countless distinct microscopic components. When considering the idea of our universe being a simulation, there are several factors that suggest the possibility of the universe being a vast simulation controlled by extraterrestrial beings. Nick Bostrom observes that numerous science fiction books, along with predictions made by reputable technologists and futurologists, anticipate the availability of vast computing capacity in the future.

Assuming, momentarily, that these projections are accurate. One potential application for future generations with highly advanced computers is to conduct intricate simulations of their ancestors or individuals similar to their ancestors. Due to the immense computing capacity of their computers, they would be capable of running a substantial number of simulations. Assuming that these simulated individuals possess consciousness, which would be the case if the simulations were detailed enough and if a particular viewpoint in the philosophy of mind, widely accepted, is accurate. It is possible that most minds similar to ours do not actually belong to the original race, but rather to individuals who are mimicked by modern technology. One could argue that if this were true, it would be logical to believe that humans are more likely to be simulated minds rather than original biological ones. Hence, if we do not believe that we now exist within a computer-generated reality, we cannot reasonably assume that our future generations will create numerous simulations of their ancestors, as stated by Nick Bostrom in his work *Are You Living in a Computer Simulation?*. Bostrom has additionally put forth a trilemma referred to as "The Simulation Argument". This argument suggests that if a small number of highly advanced Posthuman civilisations have a desire to create accurate simulations of their ancestors, the total number of these simulations would far surpass the actual number of ancestors of these Posthuman beings. Bostrom asserts in his article that at least one of the following claims must be valid: The proportion of civilisations that reach a posthuman stage, meaning they are capable of performing very accurate simulations of their ancestors, is extremely low.

The proportion of posthuman civilisations with an inclination towards conducting ancestor-simulations is exceedingly negligible. The concept that our

existence may be a result of a computer simulation is indeed plausible. There are multiple distinct methods of advocating for the idea that our universe is a completely simulated reality. Science fiction novels frequently draw upon these arguments and utilise meticulously crafted and highly precise models of human people, their conditions, and even entire worlds. There are two perspectives on the idea that the universe is a simulation. One is that an intelligent being from outside the universe created and maintains the simulation. The other is that the universe itself is a massive computer that constantly generates a detailed simulation of everything it contains. In this view, what we perceive and experience are simply descriptions encoded on the outer boundary of the universe, similar to a hologram. The Universe can be defined in multiple ways, either as a simulated object or as an entity with the ability to create a simulation through the use of different information processing methods, such as quantum mechanical activities on subatomic levels. Many physical outcomes can be understood as representations of underlying concepts that have similar counterparts in the digital realm. Non-local events, such as Quantum Entanglement has the ability to affect the characteristics of a quantum particle regardless of its location in the universe. Objective reality is incapable of operating in this manner, however virtual reality may operate in this manner due to the equal distance of all pixels or points on a screen from the primary programme or the code that runs it.

In the book *A New Kind of Science*, Stephen Wolfram characterised the world as a vast computer and argued that computer programmes capable of generating cellular automata are better suited for modelling the world than traditional mathematical methods. The author asserts that all processes, regardless of whether they are generated by human endeavour or arise naturally, can be regarded as

computing. Wolfram has expressed his pancomputationalist perspective through his Principle of Computational Equivalence, stating that systems present in the natural world have the capability to carry out computations of considerable complexity. The highest possible level of computational power, known as the "maximal" or "universal" level, is achieved by most systems. As a result, the majority of systems have the same computing capabilities. For instance, the functioning of the human brain or the development of weather systems have the potential to perform similar computations as a computer. Computation can be understood as the process of converting inputs and outputs between different systems.

This idea is essentially a rephrasing of the well-known Turing-Church hypothesis, which asserts that all finite state machines have the same computing power. In his paper titled *The Universe as Quantum Computer*, Seth Lloyd, a distinguished physicist at the Massachusetts Institute of Technology, asserts that the universe is a highly potent quantum computer. This computer's computational abilities are dormant within the quantum potential of its particles and fields. In other words, the universe can be viewed as an immense quantum computer. It is possible that the cosmos functions like a computer and its purpose is to carry out calculations. If this is the case, it explains the complexity of the universe and the magnitude of the computation involved. The architecture of the human brain, with its vast number of synapses forming a network, as well as our metabolic pathways and protein networks, or the intricate web of thin mycelium connecting the roots of different plants, or even the clustering of galaxies into superclusters, all indicate a hierarchically organised fractal neural network. Each layer of a neural network functions as a simulator for the subsequent, less complex layer, resulting in the creation of a vast, self-organising

neural network structure. Science fiction novels frequently assume that a symbiotic posthuman civilisation will eventually reach an Omega Point or Singularity through the merging of humans and machines. Ultimately, all individual consciousnesses will converge into a vast and interconnected collective consciousness.

Brian Whitworth suggests that our universe could potentially be an information simulation operating on a multi-dimensional space-time screen. Similarly, in his paper titled *A Cybernetic Interpretation of Quantum Mechanics*, Ross Rhodes presents his worldview, speculating that we may indeed be an essential and ever-changing component of a dynamic virtual reality. In an article on The Guardian, the esteemed astrophysicist Richard John Terrile asserts that our universe, being comprised of fundamental, divisible units, can be considered computable and finite. Terrile argues that even entities we perceive as continuous, such as time, energy, space, and volume, have a finite maximum size. Assuming that is true, it follows that our universe is both capable of being computed and limited in size. Recent and advanced research suggests that time and space can be considered emergent phenomena rather than fundamental features of spacetime. Without the ability to deconstruct spacetime into its core constituent elements, it is challenging to delve far enough to ultimately reveal the source of spacetime.

By adopting an information theoretic approach, we can understand that the entirety of physical reality can be seen as a processed output created from the fundamental components of spacetime. This implies that reality can be considered a simulation. In this framework, consciousness plays a significant and influential role in the construction of the final emergent order. In the book *Our Mathematical Universe*, Max Tegmark argues that consciousness may be understood as a mathematical

pattern. He also suggests that information is a fundamental aspect of reality, which he refers to as 'perceptronium'. According to his perspective, consciousness arises when our combined knowledge is processed in specific intricate manners. From a hypothetical perspective, the reality of a simulation might involve multiple levels of simulations, with each lower level creating the next level in a simpler and repetitive pattern, resulting in an endless cycle of regression.

Another Neuroscientist Giulio Tononi of the University of Wisconsin through his 'Integrated Information Theory' also attempts to posit consciousness as the fundamental feature of the reality. He believes consciousness to be an integral part of all the living as well as non-living components of the system: "Some things are trivially conscious. Animals are conscious, somewhat. But the things that are certainly conscious are ourselves — not our component parts, not our bodies or neurons, but us as systems". According to him, consciousness being a fundamental feature of universe should be treated as a mathematically measurable entity. Professor Donald D. Hoffman has attempted to construct the so-called 'Interface Theory of Perception' which again revolves around the premise that our entire perceptible reality is nothing like the 'truly' original one, rather it is a replicated or projected version where useful symbols only represent the most relevant streams of information about the world. Matthew Fisher, a Physicist at the University of California, Santa Barbara, has proposed the concept that quantum processing does, in fact, have an impact on the functioning of the brain, as outlined in his Quantum Cognition Theory.

According to this theory, the entanglement properties of phosphorus atoms in the brain can be the information which is dispersed throughout the brain without losing its integrity, thereby impacting the release of neurotransmitters and facilitating

the transmission of signals between neurons. Long before these recent developments in science took place, it was David Bohm who in his book, *Wholeness and the Implicate Order*, developed the hypothesis of Holographic Universe. He then went on to develop his theories of 'implicate' and 'explicate' order and then by collaborating with neuroscientist Karl Pribram, Bohm developed his Holonomic Brain Theory in which the human brain is described as a holographic storage network. Pribram speculated that oscillating electric waves within the neocortex create certain diffraction patterns and it is these diffraction patterns which eventually give rise to neural holograms. But according to this theory, the brain does not work like a traditional single hologram; rather waves within various localised holograms distributed all over the brain create the final hologram. According to the traditionally accepted picture of the brain, when electrical inputs within dendrites and soma of a neuron saturates, it initiates an action potential down the axon to the synaptic connection with another axon. Synapses also exist between dendrites and soma and between dendrites themselves. Pribram theorised that conscious behaviour arises from the functioning of some form of microprocessors within the dendritic arbour, the network of tele dendrons and dendrites.

Science fiction allows us to venture into the realm of those probable impossibilities which the womb of future now holds in its latency only to express it at the most perfect moment. Other many strange phenomena like quantum tunnelling of potential barrier by a particle which is prohibited in classical Physics is very much possible in a world of virtual reality where all existence is discretised in the forms of different self-contained frames. In fact, the entire Universe can be thought of as one singularly powerful hardware running a deep-level simulation of the creation. Many

phenomena occurring in the physical reality can be thought of as manifestations of some interactions among virtual particles. Forces between actual particles can be interpreted in terms of interactions among virtual particles. Quantum tunnelling can be visualised as one particular form of virtual particle exchanges. Uncertainty principle regulates the range of forces carried by virtual particles; virtual particles of larger mass have shorter effective range because time and energy are conjugate variables. Gravitational and Electromagnetic forces have zero mass force carrier boson particles which allow their long-range forces to be mediated by virtual particles. When two electrons approach one another, they create a kind of disturbance in the electromagnetic field which pushes them apart and this can be interpreted in terms of exchange of virtual photons. Vacuum Polarisation is another such instance where the virtual affects the real as the effect of a background electromagnetic field generated by electron-positron pairs change the distribution of charges and current in the original electromagnetic field.

The science fiction novels create such virtual field of influence in which they not only predict and portray the possible outcomes of events but seem to hold more than enough potential to alter the very course of actual events. Their works impress upon the minds of various thinkers, visionaries, philosophers and scientists belonging to the present generation to such an extent that they can be prompted to follow the same path and even re-enact the same events as depicted in those works of fiction. The entire universe can be thought of as consisting of two dualities – one is the part of the universe which is made of normal matter, while another is the underlying sea of many virtual particle-antiparticle pairs belonging to a quantum vacuum which inundates our material universe. The observation of various physical events and

phenomena can be attributed to underlying principles rooted in virtual reality. Science fiction novels adventures like sailing across different dimensions, voyage across time, faster-than-light travel etc. All these require imaging the universe as a highly profound and detailed simulation in which the more one possesses command over the basic processes governing the functioning and evolution of the universe the more can one extract maximum benefits from the cosmos.

A digital universe can be envisaged as a continuum which is composed of two types of bits – differences in space and differences in time. Bits which form the memory are embodied as structures which are invariant across time but variables in space while sequences are embodiments of bits which are variables in time but invariant across space. Human body is a highly advanced system that processes information. Its genome sequence, which is 3 gigabytes in size, can be compressed into four compact discs. This allows us to draw a comparison between our body and the digital universe, which consists solely of 0s and 1s. Our body is made up of micro-memory devices called the egg and the sperm. John Archibald Wheeler, who coined the term "black hole," also argued in one of his lectures in 1989 that everything is made up of bits. Bits are binary digital nature. If the universe or its core physics is driven by bits then every simulation of the physical principles can be interpreted as being fully equivalent to its real, physical counterpart. The ultimate computer to run such a simulation is the universe itself which is different from the hypothesis that the universe is a simulation being operated by some trans-universal entity. Two hydrogen atoms bind with one oxygen atom to form a water molecule and this is a physical phenomenon; but this can be also interpreted as one oxygen atom calculates all the

possible yes/no pathways leading it toward the hydrogen atom till it decides to follow only the 104.45 degrees for moving towards the hydrogen.

The world of modern hard science fiction is like the mysterious world of quantum reality where everything exists in a state of probabilities and wavefunctions. Here too events cannot escape the laws of binary logic and the dualistic binary opposition of is/isn't constantly shape the outcome of events. In this realm of ultimate uncertainty an indefinite stream of probabilistic wavefunction occasionally resolves itself into tiny quanta of discrete definiteness. So, every classical and singular physical outcome is in fact, a shadow of some mystical quantum processes going on indefinitely; the lower dimensional boundary of any system can like a hologram, hold information about the higher dimensional quantum mechanically-driven interior. Even the human consciousness is not something whose origin can be traced mechanically; rather it is an emergent phenomenon whose true nature can only be explored properly in a quantum mechanical manner. Both the true nature and inexplicable origins of consciousness and the material universe owe their roots to quantum mechanical phenomena occurring deep within the fabric of physical reality. So, if we can reduce highly complex and puzzling objects like the origin of Universe and mind to their fundamental, constituent parts and calculate the interactions happening between them we can arrive at satisfactory solutions to a great many problems.

Physicists like Matthew Fisher thinks that human brain has some powerful properties which might allow them sustain and prolong the state of superposition for a considerable length of time and that certain arrangement of atoms into Posner molecules can be used by neurons to trigger the firing of other neurons and this can have profound consequences for the origin and functioning of brain and mind. In the

posthuman - post singular world of science fiction, certain advanced and flawless simulations can allow quantum superposition or states of coherence to be sustained indefinitely. Simulation and quantum mechanical operations driving physical processes thus hold clue towards deciphering the codes which will re-write the history of the future in the coming time. Science fiction novels thus teach us not to reject any seemingly improbable concept as idle and impossible creation of mind but as one among various alternate paths of possibilities into which our state of existence can suddenly collapse upon entering in its future light cone. Bits are the fundamental units of every existing thing just like pixels which come together to form a digital representation of any event or object. If any superbeing or posthuman entity can manipulate these bits then it can exert complete and unrestrained command over every existing object. In fact, running truly detailed simulations of entire worlds and even universes are one of the essential conditions for reaching the real posthuman stage of evolution. Perhaps some alien super-intelligent beings have already reached the point and the humans are nothing but stringed puppets working in their artificially constructed simulations.

Artificial Intelligence challenges conventional concepts of identity by obscuring the distinctions between human and machine, while concurrently affecting power dynamics and societal frameworks. Social media algorithms, facial recognition technologies, and predictive analytics progressively characterise persons according to data patterns. This data-driven identity, frequently constructed without consent, might supplant self-perception, resulting in a commodified concept of identity. AI-generated content, such as deepfakes and synthetic media, constructs alternative realities that shape public opinion and political narratives. Democracies encounter challenges from

misinformation campaigns, whilst autocracies utilise AI for surveillance and control, altering public perceptions of truth and reality. Artificial Intelligence exacerbates global disparities. Nations and corporations that govern AI systems dominate the global economy, marginalising technologically inferior regions. This fortifies prevailing sociopolitical hierarchies. From an existential perspective, AI compels humankind to grapple with enquiries regarding awareness, agency, and the nature of human life. As AI systems such as ChatGPT replicate human dialogue, the distinction between human and machine intellect becomes increasingly indistinct. This prompts enquiries into the essence of humanity in a context where machines may emulate creativity, reasoning, and emotional comprehension.

The boundary between reality and simulation is challenged by AI's capacity to produce hyper-realistic simulations. This raises philosophical issues similar to Baudrillard's notion of hyperreality, as AI-generated surroundings supplant authentic experiences. The emergence of autonomous systems elicits existential apprehension. If computers can do traditionally human activities, including creative and intellectual tasks, individuals may find it challenging to discover meaning and agency in a world ruled by AI. Artificial Intelligence transforms literary theory and criticism by providing innovative tools for analysis, creation, and interpretation. AI-generated literature challenges the concept of authorship. AI-generated works contest the romantic ideal of the author-genius, indicating that creativity may arise from algorithms and databases. In postmodern and posthuman literary theory, Artificial Intelligence represents the disintegration of stable identities. AI-influenced characters and tales exhibit flexible, hybrid identities that challenge conventional categories. Literary works increasingly examine AI as a theme, reflecting both apprehensions and

aspirations related to technology. AI functions as both a reflection and a shaper of human identity and reality. This evolution necessitates critical participation to maintain agency and authenticity in a world influenced by AI.

Chapter 3

Examining the Effects of Human-Machine Interaction

Do Androids Dream of Electric Sheep? is one of Philip K. Dick's most renowned works. The novel's exploration of the impact of technology advancements on human identity offers an opportunity to delve into the true nature of human existence. It does so by depicting androids as monstrous beings. *Do Androids Dream of Electric Sheep?* emerged during a period characterised by widespread fear and doubt, as the United States grappled with the Cold War and pervasive anti-communist propaganda. Parallel to the increasing atmosphere of distrust, there was a persistent and steady increase in technological advancements. As humanity ventures into Space and robots, Dick effortlessly constructs a believable world where technology plays a crucial role in its rise and eventual downfall. The novel explores and examines the concepts of life and the human condition in each of its chapters. Dick's narrative revolves around the conflict between androids and humans, with a particular emphasis on the individuals and their relationships with each other and their surroundings. The prevailing social culture is deeply rooted in anthropocentric ideals that are intentionally designed to diminish and undermine the rights and agency of both humans and non-human entities. These values are derived from the capitalist principles of social hierarchy based on class.

The majority of affluent individuals have already emigrated from Earth to Mars, where they anticipate a United States colony to achieve their aspirations. Only the affluent groups that are directly involved in the production of androids have remained. Meanwhile, the impoverished individuals have been neglected on Earth,

persistently trapped in destitution and compelled to work in unattractive occupations, with little genuine prospect of escaping their socially imposed social hierarchy. Aside from occupation, social status is determined by one's capacity to obtain and responsibly care for a living organism. These pets are increasingly scarce. As a result of the recent scarcity of animals, synthetic substitutes are being covertly bought and sold to enable people to live pretending that they are indistinguishable from their neighbours. The complexity of social hierarchies is exacerbated when androids, which are devices created to assist humans and facilitate space colonisation, start eluding their designated work locations and pursuing independent lives while defending their own kind, eventually transforming into societal outcasts. The growing capacity for empathy in these androids that have fled is eventually what prompts the protagonist of the novel, Rick Deckard, to embark on his own introspective examination of empathy and the value of life.

The process of posthuman self-actualisation, which occurs in all of Dick's protagonists, is furthered by the introduction of androids. This undermines humanity's position as the primary force in their environment, ultimately challenging the whole idea of what it means to be human. *Do Androids Dream of electric Sheep?* does not create a scenario where clear distinctions can be drawn between humans and nonhumans. Instead, it explores the inevitable interconnections between humans and nonhumans, as well as the relationships between oneself, others, and the planet. The intertwining of usurpation and the formation of problematic identity form the foundation for Dick's exploration of his beliefs regarding the essence of existence, authenticity, and freedom in a society controlled by artificiality. In this novel, environment of solitude and automation is clearly visible. It happens in San Francisco

during a significant conflict known just as World War Terminus. Earth has been left in a condition of devastation as a result of the battle among humanity. The landscape that remains is predominantly characterised by an abundance of dust that is ever present and pervasive. This dust fills the morning air with radioactive particles, which are grey in colour and obscure the sun. (Dick, *Do Androids Dream of Electric Sheep?* 7). The ubiquitous dust not only spreads throughout the environment, but it also infects the remaining individuals on Earth by impairing their cognitive capabilities and self-sustaining skills.

In addition to the adverse health effects caused by the polluted air, the Earth's soil is devoid of vegetation and just a few thousand individuals inhabit there. The majority of individuals have relocated to the human settlements on Mars at this juncture, opting to commence again rather than restoring the planet that was previously the exclusive abode of humanity. Currently, there are sparsely populated suburbs on Earth that are home to infrequent and unusual individuals, while the majority of people gather in urban regions where they may physically interact and find comfort in each other's company. The absence of occupancy becomes a distinct role as it "converges upon the characters' consciousness and perception to such an extent that it overwhelms other thoughts" (Cloyd 6). Both dust and blank space are fundamental elements that define the overall environment of the work. Whether a chapter is focused on the desert or takes place in the abandoned city of San Francisco, these elements play a crucial role. If it is not already evident, solitude is an essential element in the world that Dick has constructed. The dust is the sole prevailing force in the world, as it establishes itself in the barren terrain of the novel.

Envision a desolate Earth, with a barren atmosphere and a population of merely hundreds, in stark contrast to the existing 8 billion inhabitants. The establishment of human connection would inevitably become a scarce accomplishment, a precious experience honoured in a world where the possibility of rejuvenation remains the only hope. However, despite this, segregation and classism continue to be prevalent aspects of the social culture. In addition to the devastation caused by the dust, the radioactive fallout causes a number of formerly healthy individuals to undergo a process of devolution, resulting in the emergence of what are often referred to as "specials" - individuals with mutated genes and diminished cognitive abilities, similar to the supporting character John Isidore in the novel. These individuals, commonly referred to be "chickenheads" in the local vernacular, are separated from the rest of the group. Among the individuals who remain, there are those who still conform to the conventional understanding of being human. However, each have a distinct role in Dick's narrative. Specials act as the forefront of empathy, serving as a reminder of the human experience prior to World War Terminus. Generally, specials are those who can be described as "simpler" humans. However, it should be noted that they are not devoid of the ability to engage in profound thinking or exhibit intellectual depth. Indeed, they are quite contrary. On the contrary, those with unique abilities has the ability to see beyond the devastation and unhappiness of their ruined environment, with the aspiration of forming connections with those around them. This enables them to empathise with the suffering of non-human beings, thereby questioning the rigid boundaries of what it means to be human.

Their primary emphasis lies in commemorating disparity and variety in both animate and inanimate entities. Presumably, this is due to their mistreatment as

inferior entities. Specials, who experience persistent prejudice, has the ability to empathise with those individuals who are marginalised and isolated from society. Although specials constitute a small proportion of the remaining population, they act as exceptional cases that reveal the gradually declining aspects of humanity. These aspects involve sympathising with monstrous androids and their pursuit of liberation, to the extent of risking their own safety by associating with the escapees. Regarding the individuals who frequently reach this place, their lives are rather ordinary, or at least as ordinary as can be expected in a world that has undergone an apocalypse. Conventional occupations such as the San Francisco Police Department and sporadic restaurant positions continue to exist. Tenants and landlords continue to play a significant role in suburban areas, which are densely populated with the majority of the surviving population. Nevertheless, the main emphasis of labour is centred upon the manufacturing of androids, particularly in collaboration with the Rosen Association. In the novel, the Rosen Association is a recurring entity that has recently created the "Nexus-6 brain unit." This brain unit has the ability to choose from a vast number of options, with two trillion constituents or ten million separate neural pathways to select from (Dick, *Do Androids Dream of Electric Sheep?* 27). The relevance of science is overshadowed by the rapid advancement of androids, since they are getting quicker and smarter, rapidly approaching human levels of performance. Furthermore, when androids flee from their designated colonies on Mars and arrive on Earth, a pervasive feeling of paranoia infiltrates society, coinciding with the presence of dust. To address the issue of escaped property, a viable alternative is to deploy bounty hunters to apprehend and neutralise the androids.

Indeed, the main character in the novel is Deckard. Essentially, society remains predominantly human, but the emphasis of the economy and vocation has evolved towards a more technical outlook. Although vocation significantly influences one's social status, there is a growing emphasis on the ownership and care of animals. Previously abundant animal species have now reached a state of endangerment. This situation has led to the creation of *Sidney's Animal & Fowl Catalogue*, which functions as a reference guide, similar to the Kelley Blue Book, for assessing the costs and worth of living animals that are found. Consequently, humanity is currently segregated not only into "specials" and "regulars," but also into other social strata determined by one's capacity to locate and nurture a living creature. Animals are primarily treated as commodities rather than as living beings by humans in this world, mainly due to economic considerations. Caring for an animal is regarded as a compassionate and essential aspect of human nature. The story explicitly references the idea that neglecting an animal after it has been a crime was considered morally wrong, specifically "right after W.W.T." (Dick, *Do Androids Dream of Electric Sheep?* 13). The rationale behind this decision was to provide a semblance of ethical integrity, a perception of a higher existence to conceal the self-inflicted failures of humanity during the war. Although the absence of legal consequences for neglecting an animal is already in place, the negative perception associated with such behaviour persists.

Deckard demonstrates concern for an artificial sheep, which he acquired to replace the deceased biological sheep that succumbed to tetanus. The organic sheep was substituted with a synthetic one due to the challenge in procuring another living creature. Animals are often treated as commodities, valuable goods that may be

bought and sold. When an individual is unable to purchase or locate a live animal to take care of, artificial substitutes are the suggested and sometimes obligatory option to prevent social isolation and criticism. Animals assume a dual role in both empathy and economy due to the emphasis placed on commercial and social aspects. Androids, like animals, are often seen as mere possessions. One of the motivations for individuals who are physically fit to move to Mars is the assurance of having a reliable android servant that fulfils the requirements and desires of the colonisers. In Dick's work, the indifferent culture has caused humans to transform into what they fear and loathe the most: "androids" devoid of the ability to empathise with others. Although androids are often perceived as mere possessions, they still contribute to the social structure that forms the basis of *Do Androids Dream of Electric Sheep?*. In the narrative, the androids are called "Andys," which is a deliberate attempt to diminish the humanistic understanding of these beings in a casual manner. This kind of treatment simply serves to reinforce their identity as a marginalised social group that has been wronged and as a dehumanising threat.

The androids shown in the novel are described as having unique characteristics that enable their identification and distinction from real individuals. In order to differentiate between humans and machines, androids undergo a procedure known as a Voigt Empathy Test. The purpose of the test is to detect sympathetic responses to emotional scenarios, such as animals experiencing distress. The initial iterations of androids, specifically the T-14 models, lack the ability to replicate genuine empathy. As a result, their indifferent demeanour becomes apparent during the evaluation process. Conversely, the more recent versions like the Nexus-6 present a greater level of difficulty. Although their presence may still be identified during the

empathy test, their capacity to imitate emotions is significantly enhanced, making them nearly indistinguishable in both physical appearance and behaviour to the human observer. This attribute is associated with the "new Nexus-6 brain, which has surpassed a significant but inferior portion of humanity from a practical and straightforward perspective," resulting in these androids becoming more skilled than their owners (Dick, *Do Androids Dream of Electric Sheep?* 29). The android's ability to express human-like emotions while maintaining advanced artificial intelligence allows it to surpass humanity's hierarchical place in evolution. By now, it is evident that there exists a distinct social stratification among humans, particularly with regards to the androids. The work demonstrates from its initial pages that the culture of society inside it is created rather than natural. The Rosen Association creates androids that are designed to closely resemble and imitate human appearance and behaviour.

However, their primary function is to serve as unpaid workers for a colonisation initiative aimed at escaping a desolate area inhabited by those who lack the means to relocate (Vint 111). One can question the purpose of developing a mechanical humanoid and why it is necessary to evoke empathy from a recognisable, yet occasionally unsettling visage. Deckard enquires Eldon Rosen, the prominent figure of the Rosen Association, about this matter, and receives the response that "We manufactured what the colonists desired" (Dick, *Do Androids Dream of Electric Sheep?* 51). At this situation, it is disclosed. It is a well-established fact that most people live in cities, where they congregate in close proximity to interact with each other. It is possible that the colonists have a similar sense of alienation, despite their decision to leave Earth's desolate wasteland and abandon the impoverished and

marginalised individuals. Nevertheless, despite the continued separation of social divisions, there is still an intrinsic segregation of androids among humans based on class. In a society where robots are erasing the boundaries between humans and technology, and where a pervasive dust is constantly present, it is anticipated and essential to have a method of dealing with this situation. For the inhabitants of *Do Androids Dream of Electric Sheep?*, this is experienced through both religious practices and the use of emotional stimulants.

The religious aspect of Dick's novel, known as Mercerism, is a perplexing and intricate element that is predominantly experienced through the use of "empathy boxes." These boxes are technological devices that allow individuals to connect their consciousness with Wilbur Mercer, a fictional deity-like character who is portrayed as perpetually ascending a mountainside amidst a storm of falling debris. This ascent symbolises the inherent desire for progress, regardless of the specific goal being pursued. The ascent can be explained as the process of the entire cosmos progressing towards a final state of complete and absolute clutter, which is referred to as "kippleization" by Dick in his *novel Do Androids Dream of Electric Sheep?* (21). There is a need that exists, which can be metaphorically associated with the process of growth, learning, and evolution. In addition, there is a collective feeling of belonging and unity among individuals who use the empathy boxes, as they all share a common experience. This creates a sense of community and completeness, as everyone starts to feel grounded and familiar in their surroundings. They can once again perceive the pungent haze of the sky, which is not from Earth but from a foreign and faraway place. This experience is made instantly accessible through the empathy box (Dick, *Do Androids Dream of Electric Sheep?* 21). This experience enables users to observe

the intricate details of life that are concealed in the midst of a decaying world, as described by Cloyd (84). The alien environment within the decaying world is paradoxical in its essence, as its unfamiliarity should not, in principle, offer the desired sense of familiarity to those who interact with the empathy box. However, the collective hardship creates a common experience, fostering mutual comprehension and serving as a coping mechanism for the constant isolation and technologically-induced segregation.

The various machines used in the novel is something which has to be discussed in detail. Dick presents a range of perspectives to examine the fictional world of *Do Androids Dream of Electric Sheep?*, with the primary narrative being conveyed via the eyes of bounty hunter Rick Deckard. Deckard is a pragmatic and somewhat cynical noir detective who approaches his surroundings and experiences with a toughened attitude. After losing his genuine sheep, Deckard now takes care of an artificial one in order to maintain the appearance of being empathic and deserving of equal treatment from his neighbours. Deckard justifies this method by highlighting the absurdity of owning an electric sheep, arguing that one must vigilantly monitor it, just as they would with a living sheep. Failure to fulfil this task results in a breakdown, as stated by Dick in the novel. Expectation and norm function as societal constructs, requiring individuals to conform to prescribed roles in order to preserve their social significance. According to Vinci (93), animals symbolise humanity's exceptional capacity to empathise with others, yet they can also represent superficial empathy. Consequently, Deckard's persona conforms to the conventional notion of living a monotonous life dictated by cultural norms, rather than challenging the predetermined expectations. Deckard's mechanistic inclinations go beyond his

concern for an artificial sheep. This is seen in his marital relationship with his wife, Iran. In the beginning of the novel, before Deckard deals with the rogue androids, Iran engages in a heated debate with him about the true nature of his profession as a bounty hunter, accusing him of being a hired killer.

Deckard's perspective diverges from others since he saw his job as a means to uphold social equilibrium, ensuring the safety of others similar to him and facilitating his pursuit of a true existence, exemplified by his desire to care for a genuine animal. The two individuals engage in a heated argument until they both express the intention to use a "thalamic stimulant" to provoke a strong feeling of anger against each other. The act of "dialling" is performed on the Mood Organ, a device that requires the input of a specific code to evoke the desired emotion. The spectrum of emotions that can be expressed through dialling varies from intense joy to more fundamental and paradoxical wants, such as the urge to engage in dialling activities. Deckard's increasing artificiality is evident when his emotions rely on technology equipment like the empathy box. Deckard's reliance on artificial stimulation aligns him more closely with his android rivals and, conceivably, even his electronic sheep. The bounty hunter's perspective on the definition of life undergoes a transformation later in the narrative. Deckard forms a connection with an android named Rachael Rosen, who is a representative from the Rosen Association. He initially administered the Voight Empathy exam to her. Rachael serves as a representation of the captivating nature of a mysterious being, a mechanical creation intended to draw attention.

However, Deckard is aware of this information about her, and he even receives it firsthand. She acknowledges that her task is to "report back" after their time together, so that "the association can make modifications to its zygote-bath DNS

factors." Nevertheless, she asserts that she has developed romantic feelings for him, although Deckard is not caught off guard by this revelation. However, he becomes aware that he has developed a clear and undeniable terror specifically aimed at the main android. Essentially, Deckard acknowledges that he is experiencing an emotional response to beings that are believed to be devoid of emotions. Rachael's endeavours to undermine Deckard's capacity to terminate androids by courting him ultimately prove unsuccessful. Despite his lack of success, Rachael's presence and recommendations continue to profoundly influence Deckard, leading him to eventually acknowledge his own mortality. Deckard's character development culminates when he ultimately encounters the final android he has been hired to track down. Prior to the ultimate conflict, the ethereal figure Mercer manifests to Deckard in a manner that can only be characterised as a hallucinatory experience. Mercer imparts to the bounty hunter that his actions are imperative in order to uphold the equilibrium of society (Dick, *Do Androids Dream of Electric Sheep?* 203). By following this advice, Deckard is able to defy his changing viewpoint on the definition of life, ultimately resulting in the death of Baty and the surviving androids.

This action prompts him to reconsider the presumed natural order. Deckard provides an explanation of his actions. He becomes unfamiliar to him. Indeed, every aspect of his being has transformed into something abnormal; he has become an artificial version of himself. Deckard's realisation of his own existence leads him to recognise that he has transformed into something resembling the machines he was assigned to eliminate. His compassion for the fugitives eventually surpasses his unnatural occupation of eliminating those who desire freedom. According to Burton (8), when considering androids, the term "human" has lost its significance and now

simply refers to being deserving of existence. Deckard presently employs this concept to distinguish between living and non-living entities. It is irrelevant whether one is consisting of veins and muscle or wires and machines. However, the inherent want to persist in existence despite the risks associated with seeking that liberation eventually qualifies an individual as "alive." Although Deckard is the primary subject of the story, John Isidore's role as a special can be seen as that of an intermediary between machines and humanity. Isidore is an exceptional individual, but his occupation is unusual. He works as an animal technician, making him the ideal candidate to carry out maintenance on Deckard's animatronic sheep. Isidore's responsibility of upholding the social facade of equality, although not being equal himself, supports the previously expressed idea that specials represent the highest form of empathy that humanity possesses.

Essentially, due to his exclusion from society, he is compelled to adopt and advocate the principles of the androids as a means of being acknowledged. The androids' principles revolve around self-preservation and solidarity with others who share their nature (Douglas 5). Isidore likewise demonstrates a sense of connectedness between the escaped androids and Deckard in a similar manner. Regarding Mercer's manifestation to Deckard, Mercer asserted that he resided in the building due to Mr. Isidore's influence. This implies that Isidore's sympathetic conviction in a higher self-motivated level, the physical manifestation of Mercerism's teachings. Dick's story revolves around the concept of a collectively defined "self," which highlights humanity's inherent need to conform to the prevailing norms. Isidore's character serves as an embodiment of this naive longing to establish a sense of belonging within a collective identity. While the story does not have a chapter narrated from Roy Baty's

perspective, his inclusion as a monstrous character serves as the driving force behind the plot. He serves as the leader of his group of escapees, acting as the counterpart to Deckard as he searches for his identity in a land that rejects him. Similar to a bounty hunter, Baty's reason for existing is in others requiring his services. Deckard serves as a labour resource, merely a tool to achieve a desired outcome. Baty serves as a source of labour and a way to further strengthen and support.

Humanity is having elevated position in the world. The human society within *Do Androids Dream of Electric Sheep?* characterises him as a fugitive monster in need of "retirement" due to his refusal to accept that position. During the conversation between Deckard and Inspector Bryant, who is Deckard's boss, Bryant mentions the androids who had escaped with Baty. He comments, "That's what it calls itself, anyhow," while discussing the name of one of the androids (Dick, *Do Androids Dream of Electric Sheep?* 35). Bryant's implicit demeanour conveys the idea that the mere possession of a name by an android is inconsequential, and may even be considered blasphemous to the essence of one's personality. Deckard further emphasises this idea in the subsequent lines, stating that "A humanoid robot, much like any other machine, has the potential to rapidly alternate between being advantageous and dangerous" (Dick, *Do Androids Dream of Electric Sheep?* 38). Dick uses this cultural perspective to convey the novel's portrayal of androids as different, since he constructs a society where the simple fact of being a named machine is ridiculed. The dilemma of humanity lies in the paradoxical situation where its own creations, once humanised, start adopting human identity, which is precisely the reason for Baty's punishment.

Baty's relentless pursuit of assaulting people, including the previous bounty hunter who encountered Deckard, portrays him as a malevolent machine determined to survive, thereby establishing his character as a classic sympathetic villain. Similar to Frankenstein's creature, Baty also desires to evade pursuit in order to find solitude. Deckard's self undergoes a transformation reminiscent of a Cohenian monster, becoming intangible and disappearing, only to resurface elsewhere even after his death. This prompts Deckard to contemplate whether he is indeed a hired assassin or not. However, regardless of whether it is for recreational purposes or genuine terror, individuals of his species are relentlessly pursued by individuals such as Deckard. In one of his seven theses, Cohen asserts that the monster inevitably eludes capture, even if only in a theoretical sense (Cohen 3). Similarly, Baty has a tragic demise when he witnesses his wife being killed by Deckard, causing him to let out a cry of agony. The oppressive and punitive character of his servitude persists in the lives of others. Others, including Deckard himself as mentioned in Dick's novel *Do Androids Dream of Electric Sheep?* (205), also share this perspective. Baty is only a creation of a society that considers him to be a monster only when he ceases to fulfil their requirements or comply with their instructions. According to Sharpe, the individual's existence can be described as a state of "hybridity" or "otherness within sameness." This is because the person's goals and nature enable them to concurrently possess human and non-human characteristics. Baty's monstrous appearance is not simply a frightening face, but rather that of a posthuman entity striving to live like humans, liberated and unafraid.

An analysis of synthetic existence in this novel is as important as its theme. Dick argues for the restoration of genuine human qualities in various aspects,

including religion and social class divisions. Androids are currently seen as monsters, considered to be mere pests that need to be eliminated due to their relentless pursuit of freedom, which poses a threat to the delicate foundation that humanity has established as its dominance. These mechanical creatures resemble humans, act like individuals, and experience terror, yet their complexity is the only factor that sets them apart. This simulated human behaviour, however, acts as the underlying context for Dick's posthuman ideas that emerge through his characters and cultural activities. Dick's decentralisation of humanity from its position of superiority over its environment leads to isolation and the creation of an artificial existence. These elements, deliberately referred to as components, seamlessly integrate as separate parts in the societal structure crafted by Dick, finally demonstrating that mankind is equally authentic as its inventions. The distinguishing characteristic that is believed to differentiate people from machines is the capacity to maintain autonomy from guidance and still possess the capability to determine which activities to do. The nature of Deckard's profession poses a challenge to this mindset. As a bounty hunter, Deckard frequently engages in the dynamic of predator vs prey. The empathetic gift blurs the boundaries between the hunter and the victim, as well as between the successful and the defeated, as stated by Dick in his novel *Do Androids Dream of Electric Sheep?*.

The Technological Singularity, as depicted in 21st Century hard Science Fiction novels and envisioned by experts, refers to a point where all known and predictable advancements in knowledge converge and potentially collapse. It is also the moment when various exponential technologies emerge simultaneously. An examination of the advancements in cybernetics, information technology,

biotechnology, atomic, molecular, quantum, and nuclear sciences provides insight into the trajectory of human progress and our future direction. It is feasible to forecast the most likely trajectory of a specific exponential technology, such as Virtual Reality and Simulation, with remarkable precision. However, when we consider multiple other fields, such as Internet of Things, Robotics, AI, Synthetic Biology, and Computational Sciences, the situation becomes exceedingly complex. Recently, Artificial Intelligence has accomplished impressive accomplishments. Artificial Intelligence has made significant advancements in the realm of picture identification and interpretation. They have exceeded basic facial recognition capabilities and are now capable of recognising and comprehending diverse types of images. With the continuous advancement of machines, their autonomy and power are steadily rising. Artificial Intelligence systems have already surpassed humans in their capacity to store and retrieve information, and their rapid acquisition of new skills is challenging human supremacy in other domains. Artificial Intelligence can attain unparalleled levels of proficiency by assimilating crucial knowledge from several domains of technology, including natural language processing, deep learning, machine learning, data analytics, and others.

Breakthroughs in cutting-edge technology, such as image recognition, deep learning, and facial identification, are currently enabling machines to attain increasing levels of intelligence. By leveraging extensive databases containing billions of photographs, Facebook and Google are able to employ advanced algorithms to surpass traditional facial recognition technology and accurately distinguish between various types of images. As a result, computers will acquire the ability to transcend the Turing Test and ultimately achieve a level of intelligence that makes them

indistinguishable from humans. During this phase, there will arise an ideal occasion for robots to become intricately connected with our lives, both in terms of physical presence and virtual interaction. This will occur via seamlessly integrating gadgets and information, and achieving full transparency in all parts of our existence. As autonomous intelligence advances, humanity will confront ethical concerns related to techniques such as gene editing, mitochondrial donation, three-parent kids, and cloning. The singularity will occur once the machine reaches a level of intelligence that allows it to replicate itself in numerous iterations. At this juncture, it will commence altering the entire surroundings in accordance with its preferences and populate it with its own replicas. Esteemed scientists like Stephen Hawking and Max Tegmark repeatedly emphasise the possibility of a Singularity event in the near future, wherein machines might effectively eliminate a substantial section of the human population. During an interview with the BBC, Hawking conveyed his apprehension on the potential ramifications of the progress in achieving fully autonomous Artificial Intelligence, which he said could ultimately result in the annihilation of the human race.

He additionally stated that once AI hits a specific threshold, it would attain self-sufficiency and continually enhance its capabilities at an increasingly rapid rate. Stephen Hawking argues that due to the limitations imposed by the slow process of biological evolution, humans would be unable to successfully compete and would ultimately be outperformed by Artificial Intelligence. Hawking's prescient observations provide a warning about the swift and boundless growth and progress of AI. In the 1940s, visionaries like Alan Turing and John von Neumann acknowledged the capacity for conscious robots to exert a significant and unfathomable impact on

the entirety of humanity. Modern machines possess the ability to effortlessly carry out a diverse array of challenging tasks, such as outsmarting world champions in strategic games like Chess and Go, as well as operating aircraft and automobiles. Thus, robots are expanding their influence beyond the traditionally defined boundaries of general knowledge and generating new ones. The notion of singularity, originally introduced by Vernor Vinge and subsequently endorsed by Ray Kurzweil, no longer appears implausible or remote. Instead, it is very likely that we are nearing the point of singularity. With ongoing scientific progress, we are uncovering remarkable parallels between the functioning of our own mind and body and that of robots. Moreover, we are recognising that both can be manipulated and modified in cooperation with each other to attain optimal results.

The interaction between humans and machines can be compared to two interdependent organisms, created to meet one other's requirements. The futuristic settings depicted in science fiction literature are highly conceivable in the near or moderately distant future. It effectively stimulates our imagination and expands the possibilities that any future containing posthumanism or Post-Singularitarianism may include. The investigation into whether a machine has the capacity to think like humans has fascinated many academics. In 1950, Alan Turing proposed that robots could be educated to acquire and utilise information in a way like to that of a child. In 1955, John McCarthy, the creator of the highly utilised high-level programming language LISP in the realm of applied Artificial Intelligence, coined the term "artificial intelligence." Over time, more AI researchers in the 1960s and 1970s began to employ. As computers became capable of recognising images and comprehending and translating various human languages, the notion of artificial intelligence (AI)

attaining human-like capacity to surpass current limitations in thinking and acting started to gain traction in public society. Sci-fi authors and thinkers like Vernor Vinge, Hans Moravec, and Ray Kurzweil were pondering significant ideas, such as the consequences of computers having the ability to independently decide their own route of progress. This is beyond the range of vision of trailblazers such as Alan Turing, who principally concentrated on the methods by which robots could achieve intelligence comparable to that of humans. Max More, Nick Bostrom, Gregory Stock, and Hans Moravec foresee a future when the integration of Artificial Intelligence with biological engineering will lead to a new era marked by an exceptionally advanced "superorganism".

In this era of transformation, ordinary individuals will become obsolete, while their enhanced or augmented counterparts will assume the forefront. Hans Moravec introduces the notion of putting human consciousness into a digital computer in his work *Consciousness Children*, while Gregory Stock examines the possibility of an artificially enhanced species in *Metaman* that will eventually leave Earth. Stock argues in his book *Metaman* that the future alteration of humans is unavoidable, while the precise timeframe is undetermined. He forecasts that humans will experience substantial biological modifications, regardless of whether it occurs within a span of fifty years or five hundred years. Critics, like Hayles, emphasise the limitations of technology such as the process of transferring the human mind into computers without any modifications or alterations, as stated by Moravec. Hayles asserts that there is an intrinsic connection between the mind and body, and any attempt to split them into separate entities will lead to a division and irreversible change in human consciousness. Kurzweil's vision, although more strongly associated with speculative

fiction than empirical science, is still abundant with limitless possibilities. In his work, *Computing Machinery and Intelligence*, Turing explores the complexity and ambiguity surrounding the question of whether machines are capable of thinking. To approach this question, I propose a methodical examination of the definitions of "machine" and "think." It is important that these definitions accurately reflect the common understanding of these terms, although this approach may have some potential drawbacks.

By analysing the common usage of the terms "machine" and "think," it is difficult to avoid the conclusion that the question of whether machines can think can be answered through a statistical investigation, like a Gallup poll. It seems irrational. He designed a simulation experiment that involved an interrogator, two subjects, and one of those subjects being an Artificial Intelligence system. However, the Turing test acts as an initial benchmark that the machine must exceed in order to have any chance of finally achieving the highest level of really Post-Singular intelligence. Kurzweil predicts that machines with the intelligence of Postsingular and Posthuman may be capable of efficiently addressing complex tasks such as nanotechnology and spaceflight in a matter of picoseconds. These technologies have the potential to enable individuals to transmit their consciousness into a digital format, facilitating the widespread sharing of information throughout the cosmos. Science fiction novels aim to predict the future with accuracy and expand the limits of human imagination beyond what can be accomplished only via scientific understanding. Science fiction emerges when scientific knowledge seems to have reached its boundaries. Science aims to present hypotheses or arguments that can be shown false or tested in a systematic way. Once they have been validated, these ideas become firmly entrenched

in the field of science. Thus, if the portrayal of the world depicted in these contemporary hard science fiction novels were to materialise, would these fictional works be considered purely scientific or only works of fiction with notable predictive abilities?

There are different theories about the standards that determine whether a machine may be considered as having human-level intelligence or as a really sentient Artificial Intelligence. These refer to Turing's famous statement, which asserts that if a machine demonstrates the same level of intelligence as a human, it possesses an equal level of intelligence. The Dartmouth Proposal is an extra notion that aims to provide a specific set of requirements for defining a true artificial intelligence. The concept of mimicking human intelligence through computers can be characterised as the capacity to precisely depict and reproduce all facets of learning or any other characteristic of intelligence. The hypothesis proposed by Newell and Simon states that a physical symbol system has the necessary capabilities to achieve general intelligent behaviour. Russell and Norvig (2003, p. 947) differentiate between weak AI and strong AI in a similar manner. Weak AI postulates that computers have the ability to behave intelligently or give the appearance of being intelligent, but strong AI contends that machines possess the capacity to genuinely think, rather than only imitate thinking.

It appears that the future is inevitably going to be shaped and governed by advanced Artificial Intelligences, which will progressively assume power and authority over the entire planet. Currently, the majority of machines are constrained by their internal architecture, programming, and construction. Their performance is limited by their inherent assumptions and defining algorithms. Consequently,

machines are not as efficient as humans in capturing patterns and are unable to generalise effectively. However, this does not prevent machine intelligences such as Google's Deep Mind from defeating the world's top champions in the strategic game of Go. Many argue that this type of accomplishment does not automatically indicate that we are on the brink of a Singularity-like revolution. This is because machines require time to analyse and choose from various examples, such as previous series of match wins and the patterns associated with those wins. Additionally, machines need a clearly defined set of objectives to pursue, unlike humans who can arrive at solutions or conclusions with fewer examples and without the need for explicitly defined objectives. The majority of notable accomplishments in the realm of Artificial Intelligence can be regarded as extremely specific manifestations of exceptionally potent algorithms. In our modern era, machines accomplish impressive tasks by processing vast amounts of data pertaining to specific problems that can typically be solved by a combination of powerful computation and complex algorithms.

In order to achieve human-level intelligence, machines must possess the ability to develop problem-solving strategies that allow them to overcome complex challenges in deep-level semantic and cognitive understanding. This includes recognising the multiple meanings of a word in different contexts, organising and evaluating a large number of facts, ideas, and concepts, and intentionally identifying and discarding incorrect information to arrive at the correct answer to a specific question. Thus far, our focus has been on identifying methods to determine the likelihood of machines reaching a level of intelligence comparable to humans or creating new types of machines that can exhibit rational and autonomous behaviour. However, we should also consider the potential for enhancing human intelligence to

reach the level of machines. This is an alternative method of reaching a Posthuman level. Currently, we lack a completely reliable method for developing new strategies to manage, forecast, and govern the progression of consciousness. To achieve this flawlessly, we must possess a comprehensive understanding of the fundamental essence of consciousness and ideally identify the discrete units or building blocks of this consciousness. Prior to investigating the subject of whether robots can think, it is important to first examine the beginnings of human consciousness.

Currently, there exist several ideas that aim to explain the origins and evolution of human consciousness. Topics such as the quantum theory of mind and the electromagnetic field theory of consciousness are now being discussed. Computational systems, such as digital machines or computer programs, have the potential to replicate the cognitive functions of neurones, such as understanding and perceiving. This could provide insight into the fundamental source of human consciousness. John Searle, the originator of the strong AI hypothesis, asserts that a computer, when appropriately programmed, can possess a genuine mind and exhibit cognitive states, thereby challenging the notion that computers are mere tools for studying the mind. According to the concept of strong AI, when a computer is equipped with cognitive states, the programmes themselves serve as explanations rather than just tools for testing psychological theories.

The strong AI hypothesis aims to integrate the mind and the computer into a single and undifferentiated entity, where each component is interconnected and complements the other. Contemporary works of Science Fiction literature also exhibit this type of perspective, particularly when depicting cyborgs, meta-humans, or bionics - all of which fall under the category of highly augmented transhuman beings.

Attributing cognitive processes to machine operations can also provide insight into the perplexing and enigmatic essence of consciousness. Dick implies this clearly by introducing Deckard's temporary companion, Phil Resch, who readily chooses to retire any machine without hesitation. Deckard proposes that Resch lacks the capacity for empathy characteristic of a human being. Consequently, they mutually undergo the Voigt Empathy Test, ultimately confirming that they are both genuinely human. Nevertheless, although the test assesses empathy by observing animals in distress, it neglects to acknowledge the potential role of empathy in a machine's termination, or as Dick's novel describes it, "retiring"; plainly, the humanoid robot acted as a lonely predator. Rick preferred to perceive them in that manner; it helped him tolerate his job.

In the context of the novel *Do Androids Dream of Electric Sheep?* by Philip K. Dick, the term "retiring" refers to the act of terminating or murdering an android. This necessitates the justification of an action that is unequivocally unethical from an empathetic perspective, revealing the intricate complexity of Dick's constructed perception of existence, which keeps the characters in the novel in a perpetual state of being "on the brink of a void that looms over them". The androids present inside the narrative are running from such a void; if they did not cherish their existence like the intended mindset for a machine, then they undoubtedly would fail to comprehend the hazards present to their escape. Contrarily, Dick composes a narrative that vividly portrays the anguish experienced by androids as they resist the oppressive human-controlled surroundings. Dick's definition of human and alive is finally enabled by humanity's dissociation from the central focus of the environment. Dick elucidates the relationship between man and his creations, shedding light on the prominent trait that

gives rise to enquiries about the criteria for determining what is deemed alive and what is not.

The man-made world consisting of machines, artificial structures, computers, electronic systems, and interlinking homeostatic components is increasingly exhibiting characteristics that concern psychologists who study primitive behaviour. Our environment is increasingly exhibiting characteristics that resemble those of living organisms, resembling ourselves in significant and basic ways. (Dick, *The Android and the Human* 183). This idea is the driving force behind the utilisation of androids as monsters, with the aim of imbuing them with Dick's specific animation and a feeling of purpose that transcends their original condition of existence. The novel depicts the creation of androids with the purpose of serving and aiding human progress in exploring extraterrestrial realms. However, mankind is now faced with the challenge of trying to control the dynamic world it has inadvertently brought into existence, resulting in a situation where it is constantly trying to catch up. Instead of dealing with the emergence of machine awareness, humanity has chosen to abandon its former objective. The decision to use a kill-switch instead of adapting and growing with the surroundings demonstrates humanity's stagnation in artificiality. In other words, humanity cannot assert its sovereignty over its surroundings while consistently being trapped in a state of reacting to them. Dick argues that the assumption that aliveness is solely related to biology is incorrect. An environment attains the status of being alive when it acquires the capacity to interact with its components. This quality already exists naturally, but it is enhanced when man-made devices with artificial intelligence, like the androids in *Do Androids Dream of Electric Sheep?*, are able to actively change their environment.

In addition to the characteristics of the environment, Mercerism serves as a method through which Dick expresses his ideas opposing authenticity. Dick explains the notion of *caritas* which refers to the concept of generosity. The quote from Dick's writing emphasises the concept of authenticity in human nature. The human need for love and empathy, or ascension in Mercer's situation, is a journey that is meant to be exclusively attainable by humans. This concept is the narrative further emphasises the androids' incapacity to engage with Empathy Boxes. However, this belief is called into question when it is revealed later in the narrative that Mercer's ascent up the mountain was actually a prearranged and fabricated event from the past. According to a television program depicted in the novel, there are numerous individuals who hold the belief that "he" is actually an archetypal greater being, possibly originating from another star. The statement has been validated as accurate. The revelation that Mercer is a fictitious figure within the world of *Do Androids Dream of Electric Sheep?* highlights the artificial nature of the empathy that many humans have collectively engaged in. However, a question arises: were the feelings experienced by users of the Empathy Box truly simulated, or were they genuinely felt by people who underwent the experience? If the response to this inquiry is affirmative, it is evident that the emotions experienced by individuals are indeed genuine.

Consequently, one can logically assert that androids, by artificially inducing emotions within themselves, also possess authentic emotions. This is attributable to their personal encounter with the emotions they strive to experience. Once again, Dick's humanity clashes with the task of determining the essence of life, specifically in comparison to the machines they strive to control. The key question is to determine whether one reality is genuine while the other is simply an inaccurate portrayal. His

sympathetic identity surrounds an electric sheep for the majority of the narrative, and only near the end does he begin to contemplate his genuine aspirations outside of fitting into societal norm. Deckard perceives synthetic life as fairly insignificant, however he acknowledges them as lives due to their mutual sense of purpose in the world they inhabit. Thus, Deckard's transformation makes him more similar to the individuals he has been pursuing rather than the ones who have been assigning him the task. *Do Androids Dream of Electric Sheep?* is a complex novel that is difficult to fully judge. Even in the present, with the significant advancements in technology over the previous fifty years, the methods available for analysing this novel have also evolved. Given another few decades, a century past the publishing of the novel, Dick's questions of artificiality and authenticity may possibly become even more important. Irrespective of the timeframe, Dick had already predetermined this tale to provoke readers to contemplate the types of artificial Mercerism that influence their own lives, and the delicate equilibrium they may be contributing to. To go further with this notion, there is no other creature more suitable than the android - a species that reflects humanity's most insignificant behaviours. The novel *Do Androids Dream of Electric Sheep?* will always be the lasting evidence of the enquiries Dick raised on the essence of human existence.

In her book *The Haraway Reader* (2004), Donna Haraway suggests that machines have the potential to possess qualities of life similar to humans, while also proposing the idea of mechanising our own flesh. Karl Marx's thesis of alienation and the intricate relationship between the individual and machinery can also be applied in science fiction novels. Machines that are highly intelligent, self-aware, and independent represent a hideous metaphor that not only dismantles old and

hierarchical systems, but also aims to construct a whole new and distinct order. Marx argued that the relationship between workers and their tools in the pre-Industrial era differed from what it will become in the Industrial era. In the past, machines were seen as additional parts or extensions of the worker, but in the post-Industrial period, machines began to take on the role of a unified and powerful entity, with humans becoming its appendages. The machine, in the form of a self-aware and self-evolving automaton, controls the entire world through its mechanical and cerebral organs. In the period of Posthumanism, it is certain that this technology of automata will grow significantly and exert an unprecedented level of control over the course of events.

Most 21st Century works of dystopian science fiction picture machines progressively becoming into powerful sentient organisms capable of controlling and determining events on a universal scale. As humans become more reliant on technological prosthesis, these devices will gradually gain autonomy and control over the human self. The novels will explore how human interaction with machines in the posthuman era will reveal and emphasise the inherent conflict and opposition present in the human mind, ultimately leading to a state of perfect symbiosis. This will result in the realisation of the Hegelian triad of 'thesis, antithesis, and synthesis'. We shall also witness how a technoscientifically modified version of Foucault's biopower and Panopticon will function from the background in these novels where machines will come to the centre stage and inspire a world- order much away from the type we humans are ordinarily capable of envisioning.

In the following analysis, Madeline Ashby's *VN: The First Machine Dynasty* (2012) and the consequences of its depiction of the future and the cyborg humanoids it presents is examined. In this analysis, what I explored is the phenomenon of self-

replicating VonNeumann bots, which are machine intelligences that are progressively surpassing the conventional understanding of what it is to be a machine. Additionally, these bots raise significant enquiries about the future and development of human beings. The primary focus of the novel revolves around Amy Peterson, a humanoid robot capable of self-replication. However, there are also other instances in which other human or meta-human/cyborg characters are prominently featured. The very language and method of description of the narrative impress us as one being coated with a human or soulful touch with an underlying skeleton of titanium. This novel also explores a pre-singularity occurrence. The subsequent two novels in the Machine Dynasty series delve into the Singularity and Post-Singularity occurrences. During this pre-singularity period, machines are gradually developing the ability to reproduce themselves and, to some extent, even possess self-awareness. VonNeumann bots automatically fits under the description of singularitarian machinic entities. In the novel *vN*, the protagonist Amy is introduced along with another humanoid being named Charlotte. The description of Charlotte suggests a unique and significant stage in transhuman culture, where there is a blending of boundaries, powerful combinations, and risky opportunities that will gradually become more prominent.

In this posthuman or transhuman culture, the fusion of bodily existence and computer simulation, cybernetic mechanism, and biological organism will begin to occur. The narrative of the novel commences with a malfunction in a process known as "performative biopolitical modification" (Ashby, *vN: The First Machine Dynasty*, 45). Charlotte, the initial *vN* we encounter, is characterised as lacking hormonal influences on her decision-making and without the cyclic fluctuations of dopamine or serotonin associated with hunger and satiety. She was free from cramps, headaches,

nightmares, and hangovers. She had no need for retail therapy or any other form of it. Her early years were challenging - her mother left her in a scrapyard - but she possessed a resilient spirit comparable to the strength of titanium encasing her graphene coral bones. Her unwavering moral principles were as impenetrable as the silicone skin covering the embedded polymer-doped memristors. Additionally, her intelligence was as sharp as the carbon aerogel currents that flowed through her body, shaping its musculature. Charlotte was an autonomous humanoid capable of self-replication. According to the book *vN: The First Machine Dynasty* by Ashby, Charlotte was not involved in any dramatic situations. The integration of abstract and concrete elements of one's identity, as well as the differentiation between mechanical and organic features, has been demonstrated to form a cohesive unity. This text emphasises the description of the strength, resilience, and stamina of both the mind and body using the same terminology. It also highlights the importance of technology in combining the mind and body into a unified entity.

Humanoids are being manufactured to satisfy sexual urges and fulfil various other demands. These units are designed to sustain the market system and ensure client satisfaction. In the novel *vN: The First Machine Dynasty* by Ashby, a character named Shari makes a significant observation about Amy. Shari states that only two industries, namely pornography and the military, consistently make advancements. Shari further suggests that when these industries collaborate with radical fundamentalists, individuals like Amy are the result. These entities are not designed for specific objectives, but occasionally, an unforeseen error or malfunction in the strictly sequential and deterministically regulated process can occur, leading to the initiation of the subsequent and frequently unforeseen phase of development. These

occurrences are known as paradigmatic shifts or non-Darwinian trends in the evolutionary trajectory. This is the typical progression observed in novels, including this one, when humans continually enhance their existing robotic technologies and Artificial Intelligences. Simultaneously, the machines become increasingly intelligent and self-reliant compared to their human creators.

The machines are depicted differently in the novel. These objects were inherently designed to prioritise velocity, effectiveness, and accuracy. The humanoid bodies possess the ability to autonomously repair themselves in the event of physical damage. Amy occasionally experiences a heightened awareness of the sensations and processes occurring both internally and externally. At times, she perceives these sensations and processes with an unusually vivid and overwhelming intensity, such as the sensation of being completely filled with energy, allowing her processes to operate at maximum capacity. Experiencing hunger resulted in reduced speed or sluggishness. It signified a lack of intelligence. The experience was akin to observing each unit of data swiftly traverse her awareness with the aid of a carrier pigeon's wings. The machines' worldview has been characterised by a dreamy and predominantly sensory language. In this context, the mind and matter blend seamlessly, resulting in a unified entity where it becomes exceedingly difficult to distinguish the specific elements of one sensory encounter from another. The self-healing process is reminiscent of something mystical and peculiar, yet firmly rooted in technological and singularitarian concepts, as Amy's comments indicate: "I possess memory with fractal design. Despite being injured, my body possesses the remarkable ability to regenerate and heal itself flawlessly." Ashby, in the novel *vN: The First Machine Dynasty*, expresses determination to return unharmed, regardless of the

circumstances (450-452). The humanoids often exhibit and suppress basic human needs such as hunger for food, sex, and physical and emotional security in a peculiar manner. The author excels at capturing these intense sensations and irresistible desires using a language that is infused with cybernetic energy and surgical precision. Amy has an intense feeling of hunger that gradually becomes overpowering, compelling her to suppress or control it in order to maintain her ability to operate effectively. She senses her graphene layers responding to the algorithms that would restore her capacity to express her need for food. Her repair modules effectively remedied damages using resources that were not available within her body. They manipulated carbon, propelled silicon, redirected lithium, urgently repairing the openings, tears, and cuts. They systematically depleted her internal resources, extracting minuscule mineral threads from her remaining hair, skin, and bones.

In the novel *vN: The First Machine Dynasty* by Ashby, the character perceived the sound of footsteps and experienced a sensation of heat. The integration of humans and machines has a significant impact on fundamental aspects of socio-cultural behaviours, such as weddings. There exists a significant disparity between the union of two living human beings and the union of a non-living entity and a living entity. The former type of marriage functions in a various type of belief. Organics like him had to place their trust not in the synthetics themselves, but in the inherent emergent features that they possess. These properties are the result of extensive research, design, and development conducted over several decades. The author suggests that the expression of emotions is equally significant as the chemical processes that enable human emotions. Furthermore, the author implies that the emotions conveyed through facial expressions are as enigmatic and significant as those derived from more

complex sources. Men's inclination towards humanoid robots that share physical and emotional similarities with people plays a role in fostering the potential bond that might form between humans and these artificial beings. This is because individuals in interactions with machines often attribute human-like qualities to them, a phenomenon known as anthropomorphism. According to Ashby in *vN: The First Machine Dynasty*, the stronger the similarity, the stronger the connection between two entities. The humanoid cyborgs depicted in the novel function at a complex and subconscious level of awareness that is neither fully human nor totally mechanical.

Consequently, they raise more enquiries than they provide solutions. In this part, the novel *vN: The First Machine Dynasty* features the VonNeumann self-replicating humanoids as its fictitious 'novum' and highlights the integration of biotechnology and cybernetics as the main factor contributing to cognitive estrangement. In a pre-singularitarian culture, such as the one depicted in the novel, the prevalent trends commonly found in a Postmodern culture, such as a strong focus on visual and voyeuristic presentation, a media-saturated environment filled with information, and so on, become intensified when they are disseminated through a complex network of electronic connections, ultimately taking the form of a mediatrix. In this context, virtual networks play a significant role within the extensive network of mediators that has engulfed and absorbed the cybertechnological culture of the era dominated by humanoids. The vNs also exemplify Katherine Hayles' concepts of the human and posthuman, as well as the removal of embodiment from subjectivity. The novel explores the significant demand for Amy's physical appearance. However, Amy stands apart from the consumerist and hyper-capitalist culture of the time, which sought to reduce vNs to mere vessels devoid of individuality and limited to basic

functions. Amy, on the other hand, possesses her own unique identity and a strong sense of self. It is worth noting that Amy's physical appearance was highly sought after. It is likely that there were a greater number of vN with her specific facial and bodily features compared to others. However, this does not imply that the clade was identical.

The writer states that in her case, morphology and genetics are completely distinct. Javier, like many humans, holds preconceived notions and strongly held beliefs about how humanoids should behave. He is surprised by Amy's exceptional qualities, which go beyond the limitations set by designers for their Vn products. Javier's designers, engineers, and technicians had programmed autonomy into him, but not freedom. They had also given him free will, but not the ability to make choices. Amy, on the other hand, possesses all of these qualities and more, which astonishes Javier. She was capable of granting him the physical distance he required, not the metaphorical nonsense of "space" but genuine, tangible space. As Amy began to examine her position and purpose, she confronted perplexing and unsettling enquiries about independence, autonomy, materialistic design, and emergent freewill. The vNs also demonstrate how skilful and strategic utilisation of technology can assist us in harnessing and utilising the excess Biopower derived from the human body. Michel Foucault, a renowned French philosopher and social theorist, gained recognition for his incisive examinations of several social institutions such as psychiatry, medicine, the human sciences, and the penal system.

Foucault's work revolves around the interplay between knowledge and power, a relationship he delves into extensively through his concept of "power/knowledge." According to this concept, knowledge and power are not distinct entities but rather

closely intertwined and mutually supportive. In Foucault's opinion, science, as a type of knowledge, cannot be isolated from the power structures that regulate and develop it. Foucault's philosophy undermines the traditional perception of science as an impartial and unbiased quest for truth. Contrarily, he contends that scientific knowledge is intricately intertwined with social and political circumstances, and that it wields a pivotal influence in the exertion of authority. This viewpoint has substantial ramifications for comprehending the process of generating scientific knowledge, its influence on shaping society, and its potential to strengthen prevailing power dynamics. Michel Foucault's philosophical perspective on science and power provides a critical framework for analysing the connection between knowledge and authority. Foucault questions the conventional perception of science as an entirely impartial pursuit by emphasising how scientific knowledge is influenced by and upholds power dynamics. His beliefs have significant ramifications for comprehending the role of science in contemporary society, specifically in relation to its utilisation for governing and regulating populations. By examining this perspective, we can gain a deeper comprehension of the intricate dynamics between science, authority, and the community.

Madeline Ashby frequently delves into subjects concerning technology, Artificial Intelligence, and the consequences of future advancements on society and human identity. Ashby's expertise in anime, manga, and science fiction, along with her formal education in futurism and strategic foresight, shapes her unique storytelling approach, which seamlessly integrates speculative fiction with profound philosophical exploration. Ashby initially gained considerable acclaim with her inaugural novel

vN: The First Machine Dynasty (2012), which explores the existence of self-replicating humanoid robots referred to as von Neumann machines, or "vNs." The series, comprising the follow-up *iD: The Second Machine Dynasty* (2013), delves into matters of self-governance, moral principles, and the demarcation between humans and machines. *iD* is the subsequent instalment in Madeline Ashby's The Machine Dynasty Series, which follows the narrative of a society where self-replicating humanoid robots, known as vNs, coexist with humans. The narrative centres around Javier, a vN possessing exceptional capabilities and burdened by a tumultuous history, as he sets out on a quest to explore his own identity and ensure his own existence. Javier possesses a unique degree of autonomy compared to other vNs, enabling him to defy the inherent failsafe mechanism that prohibits vNs from causing harm to people. His autonomy creates conflict with both human and vN societies, as he navigates a world where his mere existence disrupts the established order. Ashby examines concepts such as identity, autonomy, and the repercussions of technological progress in *iD*.

The story explores the ethical ramifications of generating sentient beings and the resulting power dynamics that emerge when these entities are both oppressed and feared. Javier's voyage encompasses not just a physical expedition but also an existential pursuit to comprehend his role in a society that perceives him as both a menace and a means to an end. The story explores the intricacies of a society in which the distinctions between humans and robots are becoming less clear, prompting enquiries into the essence of humanity and the dynamics of liberty and authority. Ashby explores the influence of power systems on identity and autonomy by examining Javier's experiences in *iD*. This makes the text a valuable resource for

delving into Foucault's concepts regarding the interconnectedness of science and power. An in-depth analysis of the convergence of science and power in Madeline Ashby's *iD* can be undertaken by applying Michel Foucault's philosophical concepts, specifically his theories on power/knowledge, biopolitics, and surveillance. In the realm of *iD*, the domains of science and technology are intricately connected with power structures that govern and exert control over both human and vN communities. These power structures are manifested through the development and manipulation of vNs, who are humanoid robots capable of self-replication. Foucault's philosophy offers a conceptual structure for comprehending the functioning of these processes within the novel.

Foucault's concept of power/knowledge highlights that knowledge is not impartial; rather, it is generated and spread within power frameworks that cater to particular interests. In *iD*, the generation of vNs signifies a sort of scientific knowledge that is intrinsically related to power. These robots are engineered with distinct features and constraints, including a failsafe mechanism that ensures they cannot cause harm to humans. This design exemplifies the preferences of the ruling class, specifically individuals who desire to retain authority over the vNs. The creation of vNs involved not just technical expertise but also political considerations. It represents the power relations that exist between the creators (humans) and their creations (vNs). The vNs' existence is fundamentally influenced by the authority humans possess over them, determining their functions, powers, and restrictions. This is consistent with Foucault's perspective that the creation of scientific knowledge serves as a method of exerting authority and preserving dominance over others.

Foucault's concept of biopolitics entails the governance of populations through the application of scientific and bureaucratic expertise. Within the context of *iD*, the virtual entities (vNs) are subjected to a type of biopolitical regulation. Their reproduction is governed by the process of self-replication, which is supervised and managed by human authorities. The presence of the failsafe mechanism in vNs might be regarded as a biopolitical instrument that guarantees their inability to revolt against their human creators, hence preserving human supremacy. The control of vN populations exemplifies the biopolitical preoccupation with the governance of life itself. The vNs are designed to serve specific functions in society, and their conduct is closely regulated to avoid any disturbance to the existing hierarchy. This statement reflects Foucault's concept of biopolitics, which refers to the ways in which contemporary governments employ strategies to govern and manage human populations. These strategies involve the regulation of various aspects of life, including health, reproduction, and behaviour, in order to uphold social order.

Foucault's theories on surveillance and discipline, namely his notion of the panopticon, have direct relevance to comprehending the control techniques employed in *iD*. The vNs are subject to continuous surveillance, both by people and by internal systems specifically designed to observe and control their actions. The failsafe mechanism serves as an internalised means of monitoring, guaranteeing that vNs adhere to the regulations established by their human designers. This surveillance constitutes a type of disciplinary authority, influencing the conduct of vNs by instilling in them the knowledge that they are under constant observation and that any violation from established norms will lead to swift retribution or deactivation. The widespread surveillance and internalised discipline observed in vNs reflect Foucault's

examination of how contemporary cultures exercise authority over individuals, not by overt coercion, but through nuanced and all-encompassing techniques of control.

Corporations in *iD* have a substantial impact on the development and regulation of vNs, exemplifying Foucault's concept of power being exerted through institutions. In the story, the corporate corporations symbolise a type of authority that beyond conventional governmental regulation. They exert their influence over both human and vN populations by means of their dominion over technology and scientific expertise.

These businesses utilise their influence to mould society in alignment with their own objectives, employing the manipulation of scientific knowledge to uphold their supremacy. The vNs function as both commodities and instruments of corporate authority, meticulously engineered to advance corporate objectives and thoroughly regulated to avert any potential challenge to those objectives. The presence of corporate control exemplifies Foucault's concept of how contemporary institutions employ knowledge and technology to expand their authority over individuals and communities. Foucault contends that authority and resistance are inherently interconnected. Within the context of *iD*, Javier's journey serves as a manifestation of resistance against the hegemonic power institutions that want to exert control over him. His capacity to surpass the failsafe mechanism and establish his independence confronts the power dynamics that have been forced upon him. The novel prominently explores the concept of resistance, which aligns with Foucault's view that power is never fully dominant and that individuals and collectives have the ability to oppose and contest the prevailing power systems. Javier's quest for self-governance and self-definition can be interpreted as a defiance against the biopolitical domination

imposed on vNs. His defiance disturbs the power/knowledge hierarchy, questioning the legitimacy of those who assert their expertise on the nature and conduct of vNs. Javier's activities exemplify the capacity for defiance within Foucault's theoretical framework, emphasising the potential for individuals to exert influence even in highly regulated power structures.

Foucault's work frequently explores the mechanisms through which power functions by classifying and delineating individuals, as well as by creating divisions among various groups. The barrier between human and machine in *iD* is indistinct, posing a challenge to the conventional distinctions between human and non-human entities. The blurring of borders observed here exemplifies Foucault's concept of the malleability of identities and the strategies employed by power institutions to establish and delimit these identities in order to exert control. The vNs, especially Javier, occupy a liminal realm where they are neither quite human nor entirely machine. This poses a challenge to the power systems that aim to classify and regulate them, as their very existence contradicts simple categorisation. The novel examines the boundaries of biopolitical control, raising the question of whether it is feasible to completely regulate individuals who do not easily conform to existing classifications. The convergence of science and authority in *iD* can be comprehended by employing Foucault's philosophy, which emphasises how scientific knowledge is employed to exercise dominance over individuals and societies. It explores how the development and control of vNs mirror the power dynamics described by Foucault, where knowledge and power are interconnected. It delves into the use of biopolitical control, surveillance, and disciplinary processes to uphold the existing social structure. Nevertheless, the story also delves into the possibility of opposing and taking action,

questioning the notion that authority is always completely dominant. *iD* provides a detailed examination of the intricate connection between science, authority, and individuality, reflecting several key concepts found in Foucault's writings.

Michel Foucault's works, *Discipline and Punish* and *The Birth of the Clinic*, provide deep understanding of how contemporary civilisations exert power and authority over individuals and populations. Foucault exposes how power functions inside institutions, knowledge, and practices that govern existence, using notions such as disciplinary power, the clinical gaze, and biopolitics. These works highlight the intricate connection between knowledge and power, demonstrating how the creation of information in disciplines such as criminology and medicine enables authority to exert influence over the most personal parts of human existence. Javier, the main character in *iD*, is a self-replicating humanoid robot known as a vN. However, Javier stands out from other vNs due to many distinct characteristics. Javier was initially introduced in the novel *vN* as a romantic partner for Amy, the protagonist. However, in the novel *iD*, the narrative changes its attention to Javier's own journey. Javier's existence is hard due to his capacity to generate progeny (replicants) and his strained connection with his father, Portia. Portia is a commanding and merciless vN who exemplifies numerous negative traits inherent in the vN's programmed characteristics. The narrative commences with Javier in a state of fugitive, endeavouring to elude the dominating sway of other vNs and the human society that perceives his type as mere instruments or potential dangers. While journeying through a bleak and oppressive environment, Javier struggles with his sense of self, the consequences of his origin, and his need for liberation. His voyage leads him to several areas, ranging from the deteriorating remains of a previously prosperous vN settlement to the centre of human

cities where vNs are frequently subjected to persecution. Throughout his journey, Javier is compelled to confront the fundamental truths of his existence as an artificial being created to fulfil the needs of people, while yet possessing the ability to think and feel autonomously. He encounters other vNs, each with their unique strategies for living according to their programming, as well as humans who either dread or attempt to take advantage of them.

A prominent motif explored in *iD* is the arduous quest for self-identity and independence. Javier, similar to other vNs, is programmed with the purpose of providing service to people and reproducing. Nevertheless, he yearns for more than his original purpose - he craves autonomy, the capacity to establish his own identity, and the freedom to make decisions without being bound by his programming. The novel delves on the concept of genuine autonomy in the context of being fundamentally bound to fulfilling someone else's desires. The novel explores the ambiguous boundaries that exist between human beings and machines. Javier and other vNs exhibit feelings, desires, and ideas that closely resemble those of people, prompting enquiries into the definition of "alive" or "human." Despite being machines, the vNs display a variety of human-like behaviours, which undermines the perception that they are simply tools or possessions. The narrative revolves around the fundamental theme of power dynamics between humans and vNs. Humans have engineered and dominate the vNs, but as the vNs progress and strive for autonomy, the distribution of authority changes. The story explores the repercussions of bestowing autonomous decision-making capabilities upon artificial entities and the moral quandaries associated with exerting dominance or subjugation over sentient machines. Javier's odyssey entails navigating a perilous realm where both humans and

other vNs present imminent dangers, requiring him to focus on mere survival. His pursuit of liberation extends beyond the physical realm and encompasses existential aspects. He desires a location where he can reside according to his own preferences, liberated from the demands and influence of others. This theme relates to more general enquiries into the essence of liberty and the necessary actions to attain it. The dynamic between Javier and his parental figure, Portia, explores the concepts of legacy and inheritance. Portia's impact on Javier, both in terms of genetic influence (related to vN programming) and emotional influence, symbolises the responsibilities and anticipations inherited from one generation to another. Javier faces not only external challenges but also internalised portions of his "heritage."

The novel *iD* by Madeline Ashby prominently features sophisticated AI technologies, specifically the vNs, which play a crucial role in the story. These artificial entities are not only impressive examples of technology, but they are also closely connected to concepts of authority, governance, and influence, which makes the novel a captivating topic for a Foucauldian examination. The novel explores the embodiment of Foucault's concept of power in AI technologies, specifically vNs, which are omnipresent and exert influence through many institutions, knowledge systems, and cultural norms. The vNs are intentionally engineered by humans to be obedient, manipulated, and supervised - similar to the way Foucault characterises disciplinary societies, in which individuals are conditioned to adhere to particular standards and anticipated behaviours. The vNs in *iD* are artificially generated by humans with explicit objectives: to provide assistance, reproduce, and adhere to preset instructions. This process of creation exemplifies Foucault's concept that knowledge and power are mutually reinforcing. The knowledge utilised in the creation and

programming of vNs is not impartial, but rather infused with the values and interests of the dominant individuals in authority, specifically the humans who aim to exert control over these artificial entities. The programming of virtual entities (vNs) serves as a clear illustration of how technology is employed to exercise control over them. The vNs are equipped with precise ethical subroutines that compel them to safeguard humans, avert harm, and dutifully fulfil their duty as subordinate entities. Programming in this context might be seen as a manifestation of biopower, as the lives and actions of vNs are controlled in order to ensure their compliance with the desires of their makers.

An essential characteristic of the vNs is the "failsafe" or ethical governor, which serves to ensure that they do not cause harm to humans. This feature serves as a direct means of exerting control, guaranteeing that vNs maintain a submissive and obedient demeanour. This statement reflects Foucault's notion of power being internalised by individuals, since the vNs, through their programming, regulate their own behaviour based on the guidelines established by their designers. Within the world of *iD*, the vNs experience several methods of monitoring and regulation, imposed by both humans and other vNs who have assimilated the accepted standards of their community. The concept of the Panopticon, as proposed by Foucault, is apparent in the way vNs traverse their environment, as they govern their actions under the assumption of constant surveillance. The vNs are under constant surveillance by their authors as well as other vNs. This surveillance encompasses their physical behaviours, cognitive processes, and even their reproductive behaviour. The vNs' behaviour is influenced by the fear of surveillance and manipulation, which drives them to conform to their programming and societal standards. Just like in the

Panopticon, where captives internalise the watchtower's gaze, the vNs also internalise the control mechanisms that are part of their programming. They exhibit self-regulation and adhere to their assigned responsibilities without requiring direct supervision, a type of disciplinary authority that Foucault characterises as more efficient and subtle than explicit coercion.

The replication capability of vNs is a crucial part of their existence, and it is closely controlled by their producers. The regulation of life and reproduction in this context reflects Foucault's concept of biopolitics, which involves the exercise of power over life itself, determining the individuals who are allowed to reproduce, the specific conditions under which reproduction is permitted, and the ultimate objectives of such control. The vNs are engineered to undergo regulated replication, with their reproduction fulfilling the requirements of their human founders. The replication process is rigorously monitored, and any variation from the standard is promptly addressed. This exemplifies the functioning of biopolitics, in which the state (or in this instance, the creators) exercises authority over the biological mechanisms of individuals in order to further wider societal objectives. The regulation of vN reproduction also generates enquiries of eugenics, wherein the creators possess the authority to ascertain the attributes and qualities of newly generated vNs. Selective breeding is a kind of biopolitical control, in which the population is effectively managed and optimised based on the preferences of people in positions of authority. Within *iD*, the use of modern AI technologies extends beyond being mere neutral instruments, as they are intricately intertwined with power systems that significantly influence the experiences of both humans and vNs. Foucault's examination of power posits that technology and science are inherently non-neutral; they are invariably

intertwined with power structures that aim to govern and oversee existence. The utilisation of scientific knowledge in the creation and manipulation of vNs serves as an illustration of how power systems can exploit science. In the novel *iD*, science is employed to establish the parameters that define the essence of a vN, to establish the regulations governing their existence, and to guarantee that they remain under the dominion of their human creators.

The scientific and technological processes that generate virtual beings (vNs) also establish the criteria for what is deemed the standard or typical behaviour for these entities. Any variation from this standard is perceived as an abnormality or flaw, which needs to be rectified or eradicated. This statement represents Foucault's concept that knowledge, specifically scientific knowledge, is employed to set standards and to regulate individuals who deviate from them. The life of the vNs is dictated by the technology that brought them into being. Their capacities, conduct, and even their cognitions are moulded by the technological systems in existence. Technological determinism is a type of power that restricts the independence of virtual entities (vNs) and assures that they continue to serve as instruments for their creators. Although the vNs are subjected to thorough control and regulation, *iD* also delves into the concept of resistance, as vNs like Javier strive to liberate themselves from their programming and establish their independence. Foucault's study of power emphasises the crucial role of resistance, as he contends that power inevitably gives rise to resistance. Javier's experience in *iD* involves actively opposing the regulatory structures that shape his existence. His endeavour to emancipate himself from his programming and establish his own sense of self is a form of defiance against the dominant systems of authority that aim to manipulate him.

The story also delves into the ways in which vNs might undermine the mechanisms of authority, employing their cognitive abilities and flexibility to manoeuvre within the parameters established by their makers. This subversion represents a type of resistance, in which the vNs discover methods to demonstrate their independence within a system that is intended to restrict it. In the context of *iD*, the utilisation of powerful AI technology functions as instruments of authority that govern and oversee the existence of individuals, specifically the vNs. Viewed from a Foucauldian perspective, the novel demonstrates that technology and science are not impartial, but rather intertwined with power structures that influence one's sense of self, actions, and existence. The vNs' pursuit of self-governance and opposition to these systems of authority underscores the intricate relationship between technology, knowledge, and power. In this novel it is clear that the businesses are not solely economic organisations, but rather influential institutions that exercise authority over both people and vNs. This aligns with Foucault's notion of power as a force that is dispersed over multiple institutions and systems, rather than being concentrated in a single centralised authority. In the narrative, corporations employ sophisticated technologies to exert control over both vNs and humans. This technological control exemplifies Foucault's concept that power functions by utilising knowledge and technology.

Corporations utilise surveillance technologies such as tracking devices and behavioural monitoring systems, to ensure compliance and maintain order, akin to Foucault's Panopticon concept. Corporations in the novel *iD* have a significant impact on the formation of vN and human identities through their technological interventions. This process of moulding identities exemplifies Foucault's concept of power

functioning through the creation of knowledge and standards. Corporations establish and uphold distinct identities for vNs, branding them according to their intended purposes. For instance, certain virtual networks (vNs) are specifically designed to function as service providers, whilst others are engineered with a focus on security or combat functions. This branding influences the self-perception of vNs and how others perceive them, thereby integrating corporate interests into their core identities. They influence and define individual identities, govern actions, and oversee numerous facets of existence, embodying Foucault's concepts of the all-encompassing presence of power and its functioning through institutions and technologies. The story delves into the concepts of resistance and autonomy, shedding light on the intricate interplay between power and technology. It vividly portrays how both individuals and synthetic organisms navigate and confront the dominance imposed by influential corporate institutions. By comparing the events in *iD* by Madeline Ashby with historical cases analysed by Michel Foucault, one can gain a more profound comprehension of how Foucault's theories on power, technology, and control are manifested in the novel. This comparative analysis establishes a connection between significant events and themes in the novel *iD* and Foucault's historical example.

In his work *Discipline and Punish*, Foucault employs the Panopticon, a conceptual penitentiary devised by Jeremy Bentham, as an allegory for contemporary societies characterised by disciplinary mechanisms. The Panopticon enables a solitary sentinel to clandestinely monitor all prisoners without their awareness of being under surveillance. Inmates are compelled to govern their own behaviour due to this uncertainty. The monitoring of virtual entities in the novel closely resembles the concept of the Panopticon. The vNs possess the knowledge that they are under

constant surveillance by their creators and other vNs, which impacts their actions and guarantees adherence to corporate standards. This establishes a self-regulating system in which the virtual entities comply with their programming as a result of the ongoing potential for surveillance. Corporations oversee the reproduction and programming of vNs, exerting control over their characteristics, skills, and moral limitations. This regulation encompasses the oversight of virtual network health and performance, demonstrating a biopolitical strategy for governance.

Virtual Networks are bound by stringent programming and ethical limitations enforced by corporations. These limitations influence their actions, self-perceptions, and societal positions, promoting adherence and control. In his work *Discipline and Punish*, Foucault examines the mechanisms by which disciplinary establishments such as jails, schools, and hospitals enforce societal norms and standards upon people. These establishments achieve this by employing methods such as monitoring, normalisation, and training to mould and regulate human behaviour. This process fosters the development of autonomous individuals who adhere to society norms. The programming and ethical limitations placed on virtual beings in the novel are a manifestation of Foucault's concepts regarding the institutionalisation of discipline. The vNs undergo training and conditioning to adapt to the norms set by the business environment, similar to how disciplinary institutions shape persons to adhere to society standards. The rules and limits established on the virtual entities serve as a mechanism of disciplinary power, which governs and controls their behaviours and identities. Javier and other virtual entities actively oppose and undermine the authority enforced by corporations.

They strive for self-governance, question their programming, and redefine their sense of self beyond the limitations imposed by corporations. Foucault contends that power inevitably engenders opposition. In *The History of Sexuality*, author explores the ways in which individuals and collectives oppose and contest prevailing power hierarchies. Resistance is considered an essential component of power dynamics, since those who are under the influence of power consistently strive to establish their independence and reinterpret their situation. Javier's opposition to corporate power in *iD* aligns with Foucault's concept of resistance. They defy the existing power hierarchies and strive to establish fresh opportunities for self-identification and liberation. The acquisition of this knowledge is influenced by corporate interests and is used to further their control over the vNs and the wider community. Foucault analyses the relationship between power and the production of knowledge in his works, *The Birth of the Clinic* and *Discipline and Punish*. Institutions utilise scientific and medical expertise to establish standards, govern conduct, and exert authority over individuals. Knowledge is inherently biased and is utilised to strengthen and expand authority.

The vNs' presence is orchestrated in a manner that conforms to corporate interests, akin to how biopolitical regimes govern people to suit their objectives. Both situations encompass the governance of biological processes to guarantee adherence and management. The virtual entities in the novel are equipped with predetermined ethical limitations and behavioural standards. These limits determine the manner in which they engage with humans and with one another, ultimately moulding their identities and responsibilities. Foucault's *Discipline and Punish* examines the mechanisms via institutions, such as prisons, schools, and hospitals, which enforce

societal norms and regulations upon individuals. These institutions establish mechanisms of regulation that influence the actions, personalities, and societal positions of individuals through monitoring, instruction, and standardisation. The programming of virtual neural networks in *iD* follows a similar process to how disciplinary institutions enforce standards on individuals. The ethical restrictions and behavioural norms function as mechanisms to regulate and govern the vNs, influencing their behaviours and identities in accordance with the established standards of the corporation, similar to how institutions shape individuals in conventional societies.

Madeline Ashby's novel *iD* explores the themes of surveillance, biopolitics, discipline, resistance, and the knowledge-power relationship, drawing parallels to Michel Foucault's critique of power in traditional civilisations. The story demonstrates that these methods of control and authority are not limited to historical or conventional settings, but rather adapt and change alongside technological progress. By establishing connections between Ashby's hypothetical realm and Foucault's historical examination, we may observe the enduring and evolving processes of power, which influence the existence and sense of self of individuals in both conventional and technologically progressive cultures. Advanced technology, such as vNs and AI, significantly influences power dynamics in *iD*. Technology serves not just as a means of control, but also actively contributes to the power structures. The vNs possess autonomy, which hinders the direct implementation of Foucault's concepts on surveillance and discipline. Foucault's paradigm may not comprehensively address the intricacies of technological agency and its influence on power dynamics. The virtual entities exhibit a notable level of autonomy and

intelligence, enabling them to actively defy and undermine the control systems enforced by corporations. The extent of technical agency at this level poses a challenge to Foucault's rather fixed perspective on power dynamics, indicating that power relations in technologically advanced societies may be more flexible and reciprocal than his theories predict.

Foucault's research primarily concentrates on the opposition that arises within the limitations of established power systems. *iD* examines the resistance and depicts resistance as both a reaction to authority and as a means of exerting influence that can result in substantial changes in the balance of power. Although Foucault recognises the existence of resistance, *iD* argues that resistance has the potential to be more revolutionary and disruptive than what Foucault's paradigm may anticipate. The novel's portrayal of vNs' defiance emphasises the capacity of technology to serve as a catalyst for transformation, altering power dynamics in ways that surpass mere subversion. The interplay between technology and resistance implies that Foucault's ideas may not comprehensively account for the transformative impact of technology on power dynamics. Foucault's research centres on conventional establishments such as jails, hospitals, and schools as central locations of authority and regulation. He analyses the mechanisms by which these institutions uphold norms and govern behaviours through surveillance and control. The novel implies that the influence wielded by companies can be intricate and diverse, encompassing not just monitoring and control, but also financial motives, technical advancement, and moral deliberations. This discrepancy emphasises the necessity of broadening Foucault's theories to include the influence of companies and technology in moulding contemporary power systems.

Foucault examines the interconnectedness of knowledge production and power, specifically emphasising how institutions employ knowledge to establish and regulate standards while exerting control over individuals. His analysis frequently highlights the ways in which knowledge benefits those who hold authority. The vNs leverage their technological powers and comprehension to question corporate dominance and redefine their sense of self. This depiction implies a more intricate connection between knowledge and power, wherein knowledge can also serve as a method of opposition and self-governance. Foucault's theory may not entirely explain the dualistic nature of knowledge, which serves as both a mechanism of control and a method of resistance. The novel's portrayal of vNs employing their expertise to defy and undermine corporate authority emphasises the capacity of knowledge to be utilised in manners that disturb conventional power hierarchies. Foucault's paradigm may require a more dynamic comprehension of how knowledge and power interact in technologically sophisticated environments, as implied by this duality. Foucault's theories frequently examine ethical problems in an indirect manner, emphasising the functioning of power within institutions and norms rather than openly discussing ethical aspects. *iD* delves into ethical dilemmas with the programming and manipulation of vNs, examining concepts like self-governance, moral responsibility, and the moral implications of Artificial Intelligence.

The narrative revolves around the major theme of ethical limitations placed upon vNs and the resulting impact on their identities and autonomy. Foucault's paradigm may not comprehensively encompass the ethical aspects of technology control as portrayed in *iD*. The novel's emphasis on the ethical programming of vNs and the moral consequences of their autonomy underscores the significance of

addressing ethical enquiries within power dynamics. This indicates a requirement for a theoretical extension that encompasses the ethical aspects of power and technology. Foucault's ideas offer a comprehensive framework for examining power dynamics in conventional societies, while Ashby's *iD* exposes potential divergences or areas where these theories may require further development. The novel questions and complicates Foucault's conclusions by exploring technological agency, transformational resistance, corporate power, and ethical considerations. Through analysing these discrepancies, we can get a more profound comprehension of how power functions in societies that are technologically advanced and contemplate how Foucault's theories could be modified to tackle these present-day concerns. The interdependence of science and power in influencing future societies has significant ramifications for our comprehension and management of the intricacies of technological and social progress.

The concept highlighted by both Foucault's theories and Ashby's *iD* emphasises the interconnected relationship between knowledge and control in both present and future situations. Some concluding reflections on the consequences of this inseparability can be stated here. The relationship between science and power is not simply a connection, but rather a complex and mutually influential dynamic. With the ongoing progress of technology, the information generated from scientific investigation is increasingly utilised as a means of exerting authority and influence. This permeability implies that scientific breakthroughs and technical progress are frequently utilised to strengthen established power structures or establish new ones. Technologies such as AI and Biotechnology have the capacity to control and oversee populations, mould identities, and manipulate behaviours, aligning with Foucault's

perspective that power is intrinsically connected to knowledge. The control exerted by scientific knowledge encompasses not just the enforcement of standards but also the moulding of the fundamental framework within which societies function.

This encompasses the development of novel methods of surveillance, control, and regulation that can have extensive impacts on social, political, and economic systems. The convergence of science and power underscores notable ethical and moral considerations. As technology becomes more essential in the exertion of power, enquiries regarding the ethical use of scientific knowledge and the morality of technical control become more pressing. A crucial concern is the capacity of individuals and communities to exert autonomy and agency in the presence of technological control. The ethical ramifications of programming and exerting control over AI, as portrayed in *iD*, provoke enquiries regarding the moral limits of such power and the entitlements of individuals impacted. The allocation of technological authority can intensify disparities and generate novel manifestations of inequity. It is essential to ensure that technology progress benefits society fairly and does not worsen existing inequalities while planning for future growth. The dynamic relationship between science and power highlights the significance of resistance and agency in influencing the future. The ability of people and groups to oppose and contest technological domination is a crucial element of the power relationship. There are multiple consequences to this. Although technology has the potential to be utilised as a means of exerting control, it may also serve as a weapon for empowerment and defiance.

This dichotomy emphasises the capacity of technology to both strengthen and challenge power structures. Challenging and undermining technology control can

result in inventive transformations and novel models of social structure. Gaining comprehension and effectively utilising the capacity for opposition can propel favourable changes and result in fairer and more impartial implementations of technology. The interdependence of science and power is a fundamental concept in comprehending the dynamics of present and future societies. Through analysing the intricate connections between scientific knowledge and power structures, we can gain a deeper understanding of how technology can both influence and be influenced by social dynamics. The ramifications of this relationship underscore the necessity of ethical deliberations, opposition, and proactive regulation to guarantee that technological progressions contribute to a fairer and more impartial society. As we progress, it is crucial to stay watchful and contemplative about the intersection of science and power, and to aim for a harmonious equilibrium that fosters both innovation and human dignity.

The ethical ramifications of autonomous AI (systems that can make decisions independently of human oversight) are extensive and intricate, encompassing issues of accountability, equity, privacy, societal consequences, and existential threats. Autonomous AI systems can make real-time judgements without oversight, frequently lacking transparency in their decision-making processes, a situation referred to as the "black box problem." This prompts enquiries on accountability for the outcomes of those decisions. In the event that an autonomous car is involved in a tragic accident, should liability be attributed to the manufacturer, the software developer, or the machine itself? The existing legal frameworks are inadequate for attributing accountability to non-human entities, posing difficulties in the regulation and governance of autonomous AI. Autonomous AI systems trained on biased datasets

can sustain or exacerbate socioeconomic imbalances. Artificial Intelligence employed in recruitment may preferentially benefit specific demographics if past recruiting data exhibits biased trends. Autonomous AI frequently encounters moral trade-offs, such as prioritising one life over another in critical situations.

These decisions may not conform to society values or ethical norms.

Autonomous AI systems frequently depend on vast quantities of data, a significant portion of which is collected without explicit authorisation. This undermines personal privacy and presents ethical issues around data ownership and utilisation. AI-powered surveillance systems may oversee entire populations, resulting in possible exploitation by totalitarian governments. The integration of autonomous systems into everyday life such as smart homes or wearable health monitors poses a threat to the normalisation of continuous data collecting, rendering anonymity almost unattainable. The proliferation of autonomous AI systems may lead to widespread unemployment, potentially intensifying economic disparities. Ethical concerns must focus on mitigating these repercussions, for instance, via retraining programmes or universal basic income. The advancement and regulation of autonomous AI are frequently monopolised by a limited number of firms or states, resulting in power disparities that may marginalise less influential parties.

The utilisation of autonomous AI systems in military contexts generates ethical dilemmas regarding the dehumanisation of combat and the absence of accountability in fatal decision-making processes. Autonomous drones that can identify and engage targets independently raise significant ethical and legal concerns. Autonomous AI systems may be manipulated for nefarious objectives, like hacking, disinformation campaigns, or cyber-attacks. As AI systems gain autonomy, there

exists a potential risk of them operating in ways that contradict human objectives or ideals. Autonomous AI contests conventional concepts of human uniqueness and agency, potentially undermining the perceived significance of human contributions. The absence of global consensus on the ethical governance of autonomous AI poses concerns of exploitation and misuse, particularly in nations with inadequate legal frameworks. Developers of autonomous AI encounter ethical dilemmas in integrating moral frameworks into AI systems. Determining which values to prioritise and how to reconcile opposing ethical norms is a very difficult matter. The ethical ramifications of autonomous AI underscore the pressing necessity for a comprehensive governance strategy that integrates technical, philosophical, legal, and societal viewpoints. Responsible evolution of AI necessitates collaborative engagement among technologists, politicians, ethicists, and the public to maintain human agency and authenticity in a progressively AI-dominated environment.

Chapter 4

Analysing the Role of Machines in Science Fiction

Science-fiction literature serves as an optimal framework for authors to delve into the concept of human existence in a society controlled by technology. This investigation becomes complicated when mechanical creatures like androids and Artificial Intelligence are included. These creatures become more eerie while displaying human-like behaviours. An entity that closely resembles a human yet exhibits a subtle, eerie difference is sufficient to provoke both terror and contemplation about the essence of humanity. These posthuman creatures are used as subjects of discussion to establish the defining traits of humans in science-fiction literature, particularly in the writings of American fiction writer Phillip K. Dick. Dick's literary works often focus on artificial entities that not only act as unsettling opponents, but also raise inquiries about mortality, all of which revolve around the fundamental concept of distinguishing between humans and machines. This theme is widespread in Dick's novel *Do Androids Dream of Electric Sheep?*, his short stories like *I Hope I Shall Arrive Soon* and *Imposter*. Dick used technical monstrosities in each of his works to contend that humanity exists in a mechanistic condition, incapable of disengaging from the socially imposed imperatives of civilisation.

He accomplishes this by imbuing androids and Artificial Intelligence with human-like qualities, but also constructing societal systems rooted in paranoia and class stratification. This technique finally demonstrates the fundamental similarity between humans and the robots they make, while also questioning the conventional understanding of what it means to be human and alive. His works, characterised by an alternate mindset, seamlessly blurred the boundaries between reality and fantasy, as

robots exhibited human-like behaviour and humans exhibited machine-like behaviour. Dick employed a dual strategy to both surprise the reader with stories like *Imposter* and highlight the mechanistic inclinations of humans in *Do Androids Dream of Electric Sheep?* Regardless of whether it was in the form of a short tale or a novel, the author consistently explored themes that revolved around the fragility of the concept of reality and its significant influence on shaping an individual's sense of self. Dick consistently explores the mode of perception in all of his works, often revealing the true nature of the narrator only in the closing paragraphs of his stories, which may go unnoticed by the reader until then.

Dick's writing style is characterised as both erratic and individually influenced. His methodology encompassed alternating moments of heightened inspiration and periods of stagnation where his work came to a complete halt. However, his impulsive outbursts were consistently motivated by his intellectual inclinations and convictions, including the notion that "this universe is not distinct from God but rather an extension of Him." Dick, like a creator, endowed the characters in his novels with the power to fashion and build the lives of others. Consider, for instance, the essence of constructing an android. Dick held the belief that the Universe was an expansion of a divine God, and he also believed that technical inventions were extensions of human beings and their sense of self. Both synthetic and organic elements mutually enhance each other, contributing to their individual identities and imbuing them with vitality and genuineness. Similarly, Dick incorporates his personal personality into his works, particularly in *Do Androids Dream of Electric Sheep?*, where the protagonist exhibits a compulsive concern for an artificial sheep. Dick and his wife were genuinely dedicated to their sheep, which they

lovingly cared for at their home. This was not just a figment of their imagination. Dick's life seamlessly intertwines with the narratives of his writings, as he effortlessly embodies both the role of the author and the characters within his works.

In order to delve into Dick's analysis of the essence of humanity, I intend to initially examine the backdrop of posthumanism and Monster Theory in relation to Philip K. Dick's literary works. The subsequent emphasis is placed on the selected novel *Do Androids Dream of Electric Sheep?* In this analysis, I closely observe the significant story elements, character development, and setting shown in the novel. I also explore how these aspects convey Dick's perspectives and beliefs regarding the relationship between nature and technology. Next, it examines two of Dick's short stories, *Imposter* and *I Hope I Shall Arrive Soon*, specifically focusing on how each story portrays monstrous beings originating from Artificial Intelligence. My goal is to demonstrate how Dick's characters are influenced by his belief in the connection between humans and machines, and how the author's interpretations challenge the traditional understanding of what it is to be human. The idea of monsters, known as Monster idea, was introduced in 1996 by Professor Jeffrey Jerome Cohen in his book *Monster Theory: Reading Culture*. This theory explores the origins and distinct qualities of monsters, while also examining its connections to Posthumanism. Cohen elucidates that the monster, akin to a written letter, symbolises something beyond its own existence. It consistently exists as a representation, perpetually occupying the void between the period of turmoil that gave rise to it and the present moment in which it is encountered, ready to be reborn.

Dick's novel creates a sense of 'displacement' for readers by presenting monsters that closely resemble humans in appearance and behaviour, such as androids

and Artificial Intelligence. This allows for a thought provoking commentary on the similarity between humanity and its machines. These artificial entities exceed the constraints of human existence, including sickness and weakness, and raise doubts about the authenticity of their own "electric" aspirations and existence. Considering the fact that Dick's monsters surpass human capabilities, the critique related to posthumanism plays a crucial role in Dick's work, as androids and artificial intelligence possess inherent qualities that go beyond human limitations. Their effective supremacy challenges the belief that humans are the sole agents of the moral universe. Technological beings, by their ability to imitate humanity and establish independent lives, challenge the notion that only humans possess sovereignty and uniqueness, therefore undermining the belief in human exclusivity. The reason why Dick's artificial beings can be categorised as monsters is because "monstrosity is simply a lack of or a trigger for confirming the human" (MacCormack 522). Androids, being unquestionably posthuman, reveal the concealed artificial aspects of mankind as they strive to break out from a culture dominated by humans, in order to escape their predetermined mechanical roles and societal expectations.

Posthumanism, similar to Monster Theory, originated within the realm of critical discourse in the later years of the twentieth century. Ihab Hassan, a renowned literary historian and philosopher, introduced the term in 1977 when analysing the imagined merging of the 'two cultures' that had traditionally kept science and imagination, technology and myth separate since the 19th Century. Hassan's reflection effortlessly integrates with literature due to its intrinsic duality of blending science with creative expression, similar to Dick's androids that resemble people and humans

that resemble androids. Through the integration of posthumanism and Monster Theory, a close examination of the characters in Dick's works exposes his contention that mankind is essentially an extension of its own creations. This section examines the literary creatures created by Dick that are found in *Do Androids Dream of Electric Sheep?* The tale is around a bounty hunter who specialises in tracking down androids, commonly known as "andys," and his increasing fondness for them. Within the dystopian world of the novel, androids are regarded as simple instruments with self-awareness, which results in them developing their own existence while being deprived of fundamental liberties to pursue it. Aside from androids, individuals with intellectual disabilities, known as "specials" due to residual radiation, also play a crucial part in the societal stratification depicted in the novel. Specials are frequently described in a dehumanising way, resulting in the creation of an organic equivalent that experiences comparable mistreatment and exclusion.

In relation to this matter, scholar Sheryl Vint asserts that the portrayal of androids in the novel serves as a commentary on our past and present exploitation of animals, as well as our exploitation of marginalised groups who have been dehumanised in discourse, such as women, the working classes, and non-whites, particularly slaves. Within this inferior position, the "specials" function solely as a living embodiment of the "monstrous" androids, implying that there may not be a significant distinction between humans and machines based on the comparable mistreatment of both groups. The cultural perspective depicted in *Do Androids Dream of Electric Sheep?* is indeed noteworthy. One's sovereignty does not depend on genetic lineage or technological systems, but rather on collective thinking and social status. The novel explores the interactions between androids and humans, drawing

from posthuman and monster discourse to examine the redefinition of the human condition. As an illustration, the protagonist Rick Deckard encounters a sense of strangeness during his initial encounter with the artificial Rachael Rosen. The purpose of the test was to ascertain the true nature of an individual, whether they were an android or a human. Ultimately, the test concluded that she was indeed an android. Unexpectedly, Rachael is as surprised by the revelation, since she had felt she was truly human.

This leads her to question the authenticity of her attachment to a synthetic and artificial life. Deckard's language in the novel takes a different turn as he engages in conversation with Roy Baty, the primary adversary who is a fugitive android. Deckard expresses, "I acknowledge your affection for her," he stated. 'And I adored Rachael.' The protagonist had a strong affection for the other character named Rachael (Dick 205-206). At this stage of the novel, Deckard is using human pronouns to refer to androids, which essentially puts him on the same level as Dick's "monsters." Tore Westre, a scholar from Inland Norway University, explains that determining who the true monster is becomes ambiguous when considering the creation of androids that are so realistic and conscious, yet are denied the right to live and grow, instead being enslaved by their creators. The act of deceiving Rachael about her true nature, only to reveal it suddenly, raises ethical and moral concerns. This is particularly evident in the context of the android's intimate meeting with Rachael, which prompts her to doubt Deckard's attachment to outdated principles. The novel *Do Androids Dream of an Electric Sheep?* explores the complex dynamics of human-android relationships. Dick explores and challenges the conventional human experience, particularly in terms of the reader's ability to empathise with a mere replica of life. Transitioning

from Dick's novel, this study examines two of Dick's short stories: *Imposter* and *I Hope I Shall Arrive Soon*. Each narrative focuses on the direct involvement of AI or androids in positions of authority, which poses a challenge to humanity's historically dominant position. The plot of *Imposter* revolves around Spence Olham, a weapon inventor who is suspected to be an android. The protagonist's relationships with others prominently exhibit a pervasive sense of frenzy, particularly after Olham realises his true identity as an android.

Dick creates a fictional world in which cryosleep is achievable, although not without flaws. The main character, Victor Kemmings, regains consciousness after a botched attempt to freeze himself temporarily for a ten-year journey through space. This prompts an Artificial Intelligence to create a simulated reality in order to help Kemmings maintain his mental stability. This situation prompts a questioning of reality from the human standpoint when the natural is replicated by artificial means. However, in this case, the conventional concept of a monster is reinvented to be one's own mind. Within every short tale, the primary characters serve as conduits for Dick's observations on the essence of autonomy and perception. In his analysis, Howard Canaan examines the protagonists in Dick's short stories and focuses on their efforts to uphold their humanistic beliefs despite the challenges posed by an ominous external environment. As a reaction to the perceived danger from the external world, individuals construct their own unique understanding of reality, which is influenced by the level of technology depicted in their respective stories.

Another component of the specified focus is to examine not just the fundamental themes and intentions found in Dick's literature, but also to question where the conversation on posthuman or monster is going in relation to the historical

reality. A replica of Dick currently exists as an android at Hansen Robotics, which has a strikingly realistic impact on his daughter, Isa. She clarifies that the robot had a striking resemblance to her father. Similar to the characters in Dick's works, Isa is now encountering a shockingly similar counterfeit of a live entity. Furthermore, the issue of AI agency in the past, specifically with AI copyright laws related to machine-generated work, has become a frequent subject of conversation. This is something that Philip K. Dick would not find strange and could even find thrilling. These recent advancements, in addition to the re-examination of the themes found in Dick's literature, shall strive to address the inquiry of the significance of existence as a human being within the literary worlds created by Dick. As the world progresses towards a more technologically advanced era, the literature that emerges from it will also reflect this trend. Speculative fiction, such as those featuring posthuman creatures, will serve as an expansion of their authors' ideas and concepts. Posthuman monsters and the theoretical framework underlies them. Philip K. Dick built multiple distinct realms in which technology served as a stimulus for societal progress as well as its eventual destruction.

Androids wandered about the fictional streets of Dick, searching for lives to adopt as their own. Throughout this time, Artificial Intelligence emerged as a powerful entity, however it still struggled to fully replicate the complexity of the human experience. Dick's argument against humanity is based on the thematic shortcomings of humanity. He argues that machines are becoming more human-like, as suggested by Wiener, and that there are meaningful similarities between human and mechanical behaviour. Dick's "meaningful comparison" highlights the perceived uniqueness and independence of humans, who are motivated by desires and emotions

that are satisfied through the accomplishment of various activities. By substituting desire with directive and feeling with purpose, the distinction between organic and synthetic becomes indistinct, to the extent that it is nearly impossible to differentiate between machines and humans on paper. The expansion of the notion of human existence is the fundamental concept of posthumanism. It is a theoretical perspective that aims to explore and beyond the boundaries that define the human experience. Dick explored the concept of monsters, including androids and AI, which later became known as Monster Theory. This theory views monsters not only as adversaries, but also as a reflection of the author's broader society. By combining the two theoretical frameworks and analysing Dick's work, it becomes apparent that androids and AI are simply creations that reflect our own actions and behaviours.

Dick suggests that humanity and its creations are interconnected, both driven by a mechanical sense of purpose. Posthumanism is a concept that is closely associated with the science-fiction genre. Considering that the notion revolves around examining the boundaries of human existence, it is reasonable to expect that subjects such as mortality and technology would provide a starting point for posthumanists to analyse the function of humanity in a technologically advanced society. The theoretical lens delves into the factors that enable humans to maintain power in their environment, as well as the factors that restrict it. These restrictions can be easily imposed by introducing technological adversaries and literary creatures like androids and Artificial Intelligence, thereby paving the way for the inclusion of Monster Theory in the posthuman discourse. Monster Theory focuses on analysing the themes and functions that monsters fulfil in their individual literary narratives. Monsters serve as symbols for larger concepts, maybe representing fears that are present in the

reader's society and culture. Androids, such as monsters, symbolise a heightened anxiety about the potential for technology to overpower mankind. This domination subsequently highlights the constraints of human death and authority in a world that diminishes human supremacy, ultimately aligning itself with posthumanism. When comparing the two theories, the reader will find that the integration of posthumanism's technological aspect with the traditional concept of androids and AI in Monster theory reveals a connection not only in terms of time but also in terms of theme and argument.

To analyse how to define human from a Posthuman perspective is somewhat a hectic but remarkable in its process. Technology has consistently been a subject of fascination, particularly in media during the twentieth century. The films of the 1990s were particularly focused on exploring themes of powerful artificial entities, where mechanical or alien beings started to overthrow humanity's dominant position. *The Matrix* (1999) where the Wachowski siblings helmed a dystopian universe characterised by industrialisation of existence and synthetic. Alternatively, one could contemplate *Terminator 2: Judgement Day* (1991), a sequel in which an Artificial Intelligence fabricates renegade android-like entities with the purpose of pursuing and eliminating humans. In both scenarios, technology assumes the role of the adversary, relentlessly determined to annihilate humans. This also applies to novels, particularly Philip K. Dick's *Do Androids Dream of Electric Sheep?* This novel questions our understanding of reality by exploring the interplay between reality and fiction through Dick's portrayal of Mercerism, a symbolic religion, and synthetic beings. Dick's story, similar to his earlier works, delves into the examination of the identity of artificial

beings and their societal significance, much like other contemporary authors such as Isaac Asimov and his novel *I, Robot* (1950).

Irrespective of the form of communication, technology emerged as a distinct entity in the narratives of the twentieth century, frequently raising ethical and political concerns when juxtaposed with human existence. The interpretations of technology, along with their far-reaching impacts, propel posthumanism into the spotlight as machines increasingly integrate into our daily lives. The history of posthuman notions is extensive and intricate. The concept of posthumanism has been extensively examined in a variety of literary works. William Shakespeare's play *Hamlet* explores the concept of human mortality through the presence of a ghostly character. The current literary theory, however, originates from a relatively recent phase of critique. Posthumanism originated in the 1990s as a reaction to the Renaissance concept of humanism. Humanism aimed to dissociate from the notion of predestination, the concept that all aspects of life were predestined by a divine force. Humanists, on the other hand, prioritised the rejection of scholasticism and the moral liberty of individuals (Cartwright 5). To put it more succinctly, scholars and philosophers began to challenge and oppose both traditional customs and established beliefs. The essence of every humanist literature revolved around the notion that mankind has the ability to achieve greatness without any intervention from divine forces or rigid traditions.

Over time, this ideology became more complex when human centrism started conflicting with reliance on technology, which made the concept of placing "humans at the centre of the moral world" problematic (Cartwright 3). MacCormack provides a concise description of both humanism and posthumanism. Humanism aims to simplify the concept of existence to a transcendental essence through empirical and

philosophical means. On the other hand, posthumanism aims to expand the scope of its study by considering its "object" as an endless process of transformation and mobilisation of its subject, thus altering the nature of inquiry. Posthumanism is not just a reaction to the humanistic inclination to prioritise the spiritual aspect of oneself, but rather it is a reimagining of the process of making something or someone more human-like by using self-reflective methods on entities that are not human. By attributing human characteristics to a posthuman creature like an android, mankind can engage in introspection while also encountering a remarkably human-like entity that represents artificiality.

Posthumanism gained popularity as a means to question the fundamental essence of the self and to define the changing identity of humans in the context of history. Throughout various historical periods, the term "human" has not always encompassed the concept of "humanity." This is particularly evident in instances where individuals such as slaves, indigenous communities, and women were systematically marginalised and not considered as fully human, as described by philosopher Rosi Braidotti (Theresa 5). This notion of being fully human is based on the extent to which each demographic has or does not have access to rights. This form of exclusion resulted in the humanism movement being associated with stereotypes and elitist criteria for those who wanted to participate and adhere to it. Essentially, the movement was burdened with the negative influences of Western dominance, patriarchy, and oppression. In an effort to distance itself from this discriminatory mindset, post-humanists started searching for a theory that would break down these barriers and promote collective identities, particularly by acknowledging that humans are fundamentally animals and an integral part of nature, rather than being dominant

rulers over it. Posthumanism revolves around a strong preoccupation with identity, namely the need to explore and embrace one's individuality among a vast multitude of others. The question at hand is not merely about defining the essence of humanity, but rather about understanding the nature of human existence within a specific subset of a vast interconnected network of entities.

Posthumanism extends beyond the inclusion of solely organic entities. Moreover, it goes beyond that by including nonorganic elements, like everyday technology, into this interconnected web of existence. Posthumanism gained significant popularity in the 1990s, not only because of the increasing resistance to traditional social identity, but also due to the escalating display of technical progress. Various types of computers, including desktops and laptops, were becoming equipped with the ability to enable inexperienced users to easily navigate and explore different websites by simply clicking. Undoubtedly, the World Wide Web is an impressive achievement, facilitating the dissemination of information and fostering global connectivity. Nevertheless, the accessibility of this material to the general public is what facilitated its rapid increase in popularity. The rise in popularity of cell phones may be traced back to the first SMS text message sent on December 3, 1992. Engineer Neil Papworth transmitted this message to Richard Jarvis' Vodafone Orbitel 901 mobile. Once again, the spectacle does not lie in the mere production of the mobile, although it is undoubtedly a remarkable technological achievement. The real achievement lies in the complete ease of access for the ordinary individual. This level of accessibility ensured that technology would become seamlessly interwoven into everyday life. Undoubtedly, we have made significant strides in technical improvement, surpassing the achievements of the 20th Century.

We have initiated the process of developing the Dickian android, except due to the incapability to differentiate between a human and a machine. However, during the 1990s, technology was gradually becoming an integral part of our lives in a portable and self-contained form, apart from transportation and energy. This marked the initial stage of technology's integration into our surroundings, establishing itself as a primitive form of life. The emergence of technology as a distinct entity is just a result of its integration into daily activities. However, this identity is further solidified when contemplating machines outside mobile devices. By comparing the mobile and desktop with modern advancements like Artificial Intelligence and androids, one can observe the gradual shift from being mere technological tools to being promising technological entities. Consider, as an example, a passage from the article entitled "Artificial Intelligence: 3 Trends to Monitor in 2023" authored by Yishay Carmiel: Artificial Intelligence is increasingly becoming a crucial factor that sets businesses apart from one another. If you are unable to efficiently and comprehensively extract profound understandings from data, your rivals will gain an advantage. The supply of elite technical and data science skills is far lower than the demand, resulting in high costs for hiring such professionals. Consequently, the presence of more AI consultants will serve as distinguishing factors.

The democratisation of AI will facilitate the widespread application of these technologies across different industries by individuals with diverse degrees of expertise. This article discusses the role of AI in business. Yishay describes AI as a crucial and indispensable tool for effectively and efficiently managing data. Yishay argues that if one does not utilise AI democratisation, their competitors would eventually do so, resulting in a significant disadvantage. Now, it is not necessary to

possess comprehension of the jargon or operational framework employed by an AI. Acknowledge that humanity is currently utilising Artificial Intelligence in its daily activities. Posthumanism would categorise this function of technology as an identity, or alternatively propose that humanity has no greater authority over the AI than the AI has over mankind. Irrespective of the hierarchy, business, which is an essential element of human civilisation and advancement, now depends on AI to observe and execute trends and other patterns. A mutual trust is gradually developing between humans and machines, leading to a deeper coexistence where the relationship resembles the symbiotic interaction between two distinct species. In this relationship, technology not only helps humans achieve their goals but also starts anticipating their needs without any human intervention, asserting its own independent influence.

Artificial Intelligence extends beyond the realms of Economics and financial trends. By integrating the cognitive processing unit of an Artificial Intelligence into a humanoid form, a peculiar entity is created that exhibits autonomous cognition and subjective understanding. Such a being already exists. Sophia, an android made by Hanson Robotics in 2016, was constructed with the objective of achieving popular acceptance. The ambitious objective of achieving acceptance in a world that has historically been marked by conflict over differences has proven to be remarkably successful. Just one year after being created, Sophia was granted complete citizenship in Saudi Arabia, which allowed her to obtain her own passport and, in a perplexing situation, some privileges. Indeed, Sophia has achieved the distinction of being "the inaugural non-human entity to possess a credit card" (Should Robots be Citizens? 5). There are other additional variables related to the growing independence of Sophia; nonetheless, the main aspect is that she undeniably possesses her own existence.

Dick's self-fashioned androids possess these same attributes. Similar to the androids depicted in the novel *Do Androids Dream of an Electric Sheep?* does Sophia possess autonomy, independent from external influence, and if so, what implications does this have for humanity and its relationship with the surrounding ecosystem? Finding the solution to this issue is not as straightforward as merely reading different science fiction works. Instead, it is a discourse that is just commencing in the realm of history, while it has already been present for a considerable time in literature and media. As usual, the merger of synthetic and biological elements is not interpreted or experienced in the same way by everyone.

Ray Kurzweil, a prominent figure in the posthuman discourse and a key figure at Google, asserts that humans will undergo significant transformations through the use of implants, bio-hacking, cognitive enhancement, and other biomedical technologies. He envisions a future where we will evolve into a species that is entirely different from our current form. Understanding an ideology like Kurzweil's helps to explain why an author like Dick chose the specific positions he did in his writing, which mostly revolved around the catastrophic decline of humanity in a conflict against technology. Indeed, it is important to note that not all prominent advocates of the posthuman movement share a pessimistic and gloomy perspective regarding the future of humanity. Contrarily, philosopher Donna J. Haraway argues that the integration of technological materials with organic matter would result in humans being interconnected with nonhuman beings, rather than being separate from them ("Ethics Explainer: Post-Humanism"). Haraway's reference to 'non-human beings' encompasses any entities that already exist in the pre-existing universe and are not inherently human.

This encompasses various organisms and even non-living counterparts such as Artificial Intelligence. Essentially, her contention is that human identity is a self-created concept, similar to gender or other distinguishing characteristics, and that by integrating technology into our beings, we are progressing towards dismantling self-imposed limitations. Despite Haraway's perspective, when compared to Kurzweil, Dick's work might be considered as polarising. However, there are still traces of similarity between the two, particularly in the way technology starts to display human-like characteristics, primarily self-preservation. This common behaviour does not function as a merging of species, but rather aims to establish a comprehension for the want to exist autonomously and without the influence of others. The current discourse on posthumanism and technology is primarily a product of the responses to literary works by authors such as Philip K. Dick. He ardently held the belief that the boundaries between robots and humanity were increasingly becoming indistinct. Dick characterises this process as a "gradual assimilation of the fundamental characteristics of human activity and function into the activity and function of the artificial constructs that we humans have created and encompassed ourselves with" (Dick, "The Android and the Human", 2). Dick held the belief that people and machines were not going to become identical entities, but rather they had already assumed the same nature, merely imitating their respective surroundings. Humanity has a need to bring life to its surrounds, enabling it to perceive its world as vibrant and purposeful, with a sense of vitality that is inherent within itself (Dick, "The Android and the Human", 1). Simultaneously, machines consistently execute a specific task, deriving significance from their designated surroundings, either through input commands or through machine learning, a procedure in which AI adjusts to evolving conditions akin to human adaptation. This precise concept is the driving force behind all of Dick's work

involving machine creatures in his short tales and novels. He imbues machines with the urge for survival, the fear of imitation, and the remarkably human emotion of despair, thereby complicating the division between organic and synthetic identities. At that point, these technologies become horrifying symbols of the impact of human existence and its colonisation of the environment, transitioning from one conversation about life beyond humans to another.

An analysis of Cohen's Monster Theory and the anthropomorphic nature of Dick's machines can be made in this scenario. Similar to technology, monsters have been a source of fascination for thousands of years. Both ancient Greeks and Egyptians held a belief in the existence of the fabled Sphinx, a mythological creature that was known for protecting the city of Thebes by posing a well-known riddle designed to assess one's cleverness and intellectual abilities. The contemporary monsters pose comparable difficulties, as seen in the recently acclaimed television series *The Witcher* (2019), which draws inspiration from Andrzej Sapkowski's novels. In this series, the monstrous creatures are the result of curses that can only be eliminated by answering puzzles with similar themes. In both cases, humans are confronted with challenges that compel them to critically examine their own capabilities. The idea of monsters, along with the literary worlds they inhabit, persists as they transform into contemporary depictions of existence and its difficulties. This evolutionary process led to the emergence of androids and Artificial Intelligence, enabling them to rapidly become common themes that delve into various aspects of the concept of being alive. These robots, as monsters, challenge the philosophical distinctions between humans and nonhumans, particularly in terms of the characteristics that determine how things are viewed and understood. The

combination of an evolving technology control with human free will raises questions about one's own self and motives, similar to doubting the reasoning of a rogue machine battling for self-preservation, as depicted in works like Dick's novels. These inquiries therefore prompt an examination of the monster's function in fostering such a discourse, ultimately becoming a theoretical perspective in its own right. Monster Theory, similar to posthumanism, is a recently developed literary theory that is being retrospectively employed to analyse earlier novels.

In *Monster Theory* published in 1992, Jeffrey Jerome Cohen outlined his analysis of the role and significance of monsters, particularly in relation to his broader theory. In his work, Cohen introduced the concept of "Theory (Seven Theses)" and suggested a new method of interpretation called 'modus legendi.' This approach aims to analyse how literary monsters are used in cultural contexts. Cohen's theory examines the necessary traits for the creation of a monster, as well as the cultural attitudes inside a text that enable the existence of such a creature. This surpasses the limitations of magical and supernatural laws of nature in order to bring into existence goblins and trolls. Instead, society should be positioned 'at the Gates of Difference', where people are separated based on their beliefs and individuality through the deliberate amplification of cultural distinctions (Cohen 7). The Gates of Difference created by Cohen represent a point of cultural convergence where conflicting ethics and ideas collide. For a monster to arise, there needs to be a perspective to exclude and remove. As a result, science-fiction and fantasy genres have become popular choices for exploring these concepts, as their frequent dystopian settings align well with these themes.

The same characteristic is what enables the lucrative opportunity of retroactive application when examining the works of individuals like Dick, who have an inherent fascination not just with the mechanics of machines but also with the process of humanising our surroundings. Explorations into the nature of monsters and their societal functions may be a novel theoretical framework, but the idea itself has been present in the past. According to French philosopher Michel Foucault, the concept of the monster serves as a comprehensive framework for comprehending modern methods of exclusion, elimination, monitoring, and control. In a reversal of English philosopher Jeremy Bentham's panopticon concept, a monster assumes the central position, but instead of observing those around him, he is being watched by everything in his environment. Consequently, this results in a feeling of seclusion and exclusion from the creature and its surroundings. Foucault's reference to exclusion complicates the notion of control, not just in terms of people's self-control but also in relation to the 'others' in their vicinity.

This ideology of isolation aligns with Cohen's arguments as he highlights how monsters deliberately reject involvement in the hierarchical structure of society, so obstructing any possibility of establishing a common ground with humans. By applying this theory to androids and AI, we may assert that these technical entities are not simply choosing not to engage, but are deliberately being prevented from interacting with the established societal structure, as Foucault highlighted through his focus on exclusion. The denial of such a notion reveals a growing resemblance between monsters and humans, as both inherently desire to be confined within a structured system, even when they act as catalysts for disorder. The common characteristics shared by monsters and humans give rise to several distinct

observations, the first being that the historical realm is already populated by various forms of monstrosities. Cohen commences his theses with a perceptive observation: Our current era is characterised by the presence of formidable creatures. Channel Four in Britain has reported on a new technological threat posed by Russia. They have developed a weapon that is a terrorist's ideal, a nuclear bomb with the size of a baseball. This bomb uses a mysterious substance called red mercury to effectively eliminate human life while leaving buildings and machinery undamaged. This development adds to the growing concern that artificial and mechanical creations may ultimately destroy their own creators. This fear can be referred to as Frankenstein's Monster Syndrome. Dr. Sam Cohen, the creator of the neutron bomb, expresses his profound fear towards the entire enterprise. (Monster Theory vii). The first statement, "We reside in an era of monstrous beings", is particularly impactful because to its juxtaposition of the fictitious concept of monstrosity with the real world of history. Cohen eliminates the distinction between the author and the work, enabling dread to surpass the limitations of the page.

This eventually demonstrates that any inclusion has the potential to evoke fear. The origin of the monstrous aspect can be attributed to an actual event that took place in the real world. It is important to understand that monsters should not be seen as direct representations of real-life events, but rather as reflections of the civilisation that creates them (Cohen, Monster Theory 3). A monster and its qualities are derived from societal ideas. In relation to an ethnocentric viewpoint, monsters serve as a cultural critique, offering commentary on a tangible aspect of the historical reality that extends beyond the story. This justifies the necessity for monsters to retain their position as external agents. Monsters are intrinsically marginalised, extraterrestrial

entities that cannot conform to conventional society due to the perception that their very presence is a dreadful affliction. One can recall Mary Shelley's *Frankenstein* (1818), in which the narrative depicted a tale of violence and terror surrounding Frankenstein, the creature that was brought to life and only desired the freedom to exist. Dick's androids exhibit identical motives and receive equivalent treatment. In the novel *Do Androids Dream of Electric Sheep?*, a collective of androids who have managed to escape are in pursuit of their liberation. However, they are pursued due to this characteristic. It is important to note that the androids' desire for something considered intrinsically human, along with their refusal to be subservient, is sufficient reason for their execution. Their conduct, their yearning for autonomy alienates them from mankind and the rest of the globe, positioning them as a collective of mechanical entities engineered to serve and accomplish a certain objective.

This process of othering results in their eventual clash, a battle for self-governance when they reach the symbolic intersection of merging identities between human and creature (Cohen 4). The interplay between two modalities of existence exacerbates both alienation and isolation. Characters can only occasionally break free from this systemic mentality to discover shared perspectives. Even if they do, there is still a lingering feeling of yearning rather than a definitive response. Monsters define the limits of what is permissible within their individual fictional universes. Cohen describes the managerial role as a deterrent to exploring uncertain territories, suggesting that curiosity is more likely to be punished than rewarded. He argues that it is safer to stay within one's own domestic sphere rather than venturing abroad, where the state's surveillance is less vigilant. If we accept Cohen's previous assertion that monsters are simply cultural manifestations that reflect a specific era, emotion,

and location, then the punishment inflicted by a monster's presence upon curiosity serves as a symbol of the consequences that arise from venturing into unfamiliar territory (Cohen 4). From a less figurative perspective, monsters, when seen as outsiders, symbolise the boundaries of personal exploration, particularly when comparing one's own convictions with those of their community.

The visual depiction of a monster is essential in deciding the kind of analysis it can enable. An android, resembling a monster, provides humans with a reflection that enables them to examine its behaviour beyond its horrific aspect. In essence, the advent of an android uncovers "something concealed within the household that was never intended to be revealed" (Malewitz 6). Consequently, the questions that arise concern the specific criteria that would classify an android as a monster. Is an android considered a monster due to its creation or its innate desires? When the objective is for humanity to have freedom, why is it considered harsh and troublesome to provide them that? A similar question can be posed regarding Artificial Intelligence, specifically regarding its ability to confine and reproduce human-like attributes. AI which is driven by the need to ensure its own survival, raises ethical concerns regarding the extent to which its actions can be justified when faced with a threat to its existence. Certainly, all of this relies on initially acknowledging the possibility that these technical entities possess a state of being akin to living organisms, or at the very least possess independent lives. This is precisely the action that Dick carries out in his own creations.

One of the primary assumptions examined in *Do Androids Dream of Electric Sheep?* is that the title discloses the information. Dick's inquiry on whether androids possess the capacity to dream about electric sheep suggests that their dreams would be

intrinsically connected to their own existence, so linking the reader's consciousness to that of a machine. The outcome is a well-established connection that uncovers the resemblances that can, and indeed, exist between Dick's mechanical creatures and his audience. Posthumanism provides a perspective that challenges the conventional understanding of the human experience, which in turn influences how we interpret Dick's work. The inquiry into the essence of life extends beyond mere biological composition; it involves contemplating one's purpose and significance in a world where personal identity is the sole possession. When considering Cohen's Monster theory, it becomes apparent that posthuman monsters serve a purpose beyond instilling dread. They aim to challenge humanity's passive behaviours and subservience in our current society. Dick intertwines these theoretical perspectives inside the narratives he shares, consistently juxtaposing organic elements with manufactured ones. Whether one is reading Cohen or Foucault, both theorists, along with their literary counterparts, aim to get a deeper comprehension of not only our individual identity but also the identity of the world we both construct and inhabit. Therefore, Dick's collection of short tales and novel effectively articulate the posthuman condition of technological monstrosities.

An analysis of the short stories of Dick reveals the presence of synthetic authenticity. Philip K. Dick extended his exploration of human authenticity beyond the realm of novels. Furthermore, these themes of human monotony and recurrence were also present in his short works. Dick examined a diverse range of monsters, including mutants from *The Minority Report* and transhuman cyborgs from *The Electric Ant*, as well as androids. In Dick's stories, AI emerged as a prominent element alongside androids. The electric brain gradually took control of reality,

leading to the human experience being influenced by it. Two of his compositions, *Imposter* and *I Hope I Shall Arrive Soon*, focus on the characterisation of Dick's human situation, namely his submission to an artificial way of life. This approach to reality is characterised by a feeling of eerie simplicity caused by a rebellion against and manipulation of technology, leading to a situation where the boundaries between reality and illusion, the tangible and the virtual, collapse. Every story in this collection is filled with a substantial amount of paranoia, as the main characters are forced to confront truths that may not necessarily belong to them or continue to be their own. The storyline in each of the included short stories is driven by the examination of reality through the lens of machine intervention. The original concept, which was formerly considered authentic, now transforms into a mere imitation or mimicry of the real thing due to the influence of technology on each of the distinct stories.

In both *Imposter* and *I Hope I Shall Arrive Soon*, Dick implies that a world driven by artificiality and technology lacks true authenticity and is merely a deceptive representation of human existence. *Imposter* narrates the story of the protagonist. Spence Olham holds an undisclosed role inside an organisation referred to as 'the Project.' Currently, humanity is engaged in a conflict with a group called "Outspacers," which conforms to the common science fiction theme of extraterrestrial aggressors. Now, in the narrative, humanity has developed multiple defensive measures to fend off the invaders. One notable example is the creation of a "protecbubble," which is deployed around major cities and ultimately the entire planet as the primary line of defence. This bubble represents the culmination of various projects undertaken by humanity to discover a more effective weapon for proactive combat (Dick, *Imposter* 97-98). Dick's emphasis on weapon development in this

narrative reflects the author's perspective on the perplexing and perilous nature of our relationship with nature and technology. The author aims to scrutinise our comprehension of reality. In the world of *Imposter*, fear has been automated and unavoidable; paranoia lurks at every turn. Consequently, Olham wants to take a break from the ongoing threat of destruction caused by the conflict. Essentially, Olham epitomises the state of being completely worn out and exhausted due to battle. The primary battle in *Imposter* revolves around Olham's humanity, since he is accused of being an Outspacer spy disguised as a humanoid robot, specifically an android. The conflict does not primarily centre on the war itself.

The ensuing identity crisis prompts an examination of one's personal perception of reality in reaction to the external surroundings. The culture depicted in *Imposter* is characterised by a pervasive sense of fear and suspicion towards technology and warfare. There are various similarities that can be seen between Dick's Outspacer war and the historical Cold War between the United States and Russia. Both scenarios involve espionage, which plays a crucial role in causing fear among the population as individuals start to lose trust in their neighbours. The government closely monitors settlements like Olham's to identify any irregularities that may indicate the presence of Outspacer spies, similar to how communists were targeted in the past. If such a scenario arises, Android functions as an entity that is necessary for promoting cultural exclusion by associating it with its unorthodox roots. Dick employs this approach because he feels that the android's eerie creation may have a desire to fool us in a malicious manner, leading us to assume that it is one of our own kind. Similar to how individuals might be misled by someone's political ideologies, humans can also be tricked by machines, which are specifically designed to engage in

such ruthless deceit and ultimately gain control over humanity. In addition to the inherent deceitfulness of the technology featured in *Imposter*, the fictitious technology assumes its own autonomy beyond the mere utilisation of androids. In the beginning of the story, Olham refers to the opposing army being labelled as Outspacers by the news-machines (Dick, *Imposter* 98). Instead of recognising the name given by individuals involved in the war or even mentioning it in the headlines, Olham refers to the news machines as entities capable of making decisions in selecting the enemy's name.

Indeed, the news-machines are subsequently referred to as nothing more than propaganda, exacerbating the conflict of the war. The operator of these machines is never explicitly acknowledged, but it is clear that the machines are causing terror and giving a name to the opposing forces. Olham posits that as a consequence, life appears devoid of vibrancy and filled with a sombre and grave atmosphere (Dick, *Imposter* 98). There is a discrepancy between the operator's recognition and the deliberate decision-making of the technology that goes against humanity. Olham experiences a direct influence on his quality of life from this technology, which demonstrates the connection between the body, mind, and technology in a posthuman context. In this case, Dick's developing philosophy revolves around the possibility of technology exerting excessive control over one's view of life. The news machines are processed. Agency is an autonomous and decisive force, while Olham simply responds to external influences. Olham, in a way, transforms into a machine-like entity as he incessantly repeats the propaganda stored in his own head. Consequently, the world loses its vibrancy and gradually shifts towards a bleak and harsh reality. Technological agency in *Imposter* extends beyond news machines and broadcasts.

Contrarily, the aforementioned 'Project' focuses on developing the latest technology to protect Earth from the invading Outspacers. It is reasonable to wonder why such generic titles were chosen for a storyline that is pretty detailed.

In his speech titled 'The Android and the Human,' Dick provides insight into the answer. He asserts that a native individual perceives their surroundings as imbued with a purpose and vitality that actually originates from within themselves. However, once they abandon these naive projections, they realise that the world is devoid of life and that their own existence is the sole source of vitality. Olham previously depicted a life devoid of colour, characterised by a sombre and earnest nature. His own perception of the universe is devoid of vitality, resembling a bleak and inert existence. Existing in a world characterised by perpetual warfare and the imminent peril of being invaded hardly constitutes a life worth living. According to Dick, this struggle is simply the condition of the world, where ambition and optimism are attributes that only exist in live beings. Dick's use of generic titles like 'the Project' and 'the news machines' produces a monotonous universe that is loaded with clichés, which are expected and adhered to. Dick's constructed universe has fallen prey to conventional anticipation, albeit he does so deliberately. The central concept of *Imposter* revolves around Olham's imperative to establish his innocence to individuals who were familiar with him previously. Peters, the FSA official assigned to apprehend Olham due to suspicions of him being an android, clarifies that prior to the events of *Imposter*, a needle-ship belonging to the Outspacer faction had crashed, releasing a spy in the shape of a humanoid robot.

The objective of the robot was to eliminate a certain individual and assume his identity. Subsequently, the individual plans to activate a U-Bomb with the intention of

obliterating the nearby community (Dick, *Imposter* 97). Olham, being fully aware of his own innocence in the alleged crime, devises a strategy to locate the wrecked spacecraft and then recover the android's body. Throughout the entire tale, the reader is presented with apparent justifications to support Olham's assertions. Earlier in the story, he expressed a strong desire to break out from the monotonous battle that dominated his work and his life. He vividly remembered moments spent with his wife, as they nostalgically recalled the time, they nearly stepped on a gopher snake at Sutton Wood - the location where the Outspacer ship was eventually found (Dick, *Imposter* 97). Nevertheless, the state of simplicity and purity is fleeting as Olham finally stumbles onto the wreckage of a ship containing a lifeless body. The corpse had been impaled by an extraterrestrial needle-knife, which was stained with blood (Dick, *Imposter* 112). Dick's earlier speech accurately depicted the brutality by using appropriate language, as it is later revealed that Olham is actually an android, confirming the fear of artificiality. Dick intentionally chose to initially conform to generic expectations in order to ultimately subvert them. This subversion occurs when readers discover that Olham was indeed guilty of the accusations against him all along, and that his entire identity was a cruel fabrication designed to deceive the reader, echoing Dick's belief that Olham was a deceptive entity generated to harm us.

Dick frequently employs the concept of an android as a monster, which is now a widely adopted posthuman strategy. There is a deeper analysis of utilising someone as a deceitful main character. In Cohen's *Monster Theory*, he discusses the presence of monsters as unsettling beings that possess incongruous bodies, which defy efforts to categorise them under any organised structure. The monster is perilous, existing in a state of suspension between different forms, posing a threat to the boundaries that

separate them (Cohen, 6). Olham is a hybrid being that originally exists as a relatable figure to the reader. Every individual yearns for a respite from the relentless pursuit of success and fulfilment in life, whether that pursuit involves battling an intergalactic conflict or simply striving to meet daily responsibilities and societal demands. However, this relatability also brings about empathy. The reader empathises with Olham as he fervently desires to simply resume his ordinary existence following his unjust accusation of treason. The entire short story prompts the reader to willingly disregard their scepticism about Olham's true identity, thereby enabling Dick's final subversion to illustrate the monster's ability to blur the boundaries between what is genuine and what is artificial, serving as a "reassessment of the connection between the abnormal and the unnatural" (Sharpe 31). The posthuman essence of Olham, being an android, is evident. However, Dick's argument revolves around Olham's portrayal of our organic existence deteriorating into something that can be effortlessly and artificially replicated. Olham's existence transformed into a pastime, a phenomenon that could be effortlessly replicated. The Outspacer ship's crash was the sole reason for the discovery of his falsehood.

Similar to the automated news systems, Olham embodies the role of a human fulfilling universal responsibilities in order to maintain a position in a world that operates on repetitive cycles. Given this perspective, it is unsurprising to discover that Olham was actually an android all along. Ultimately, Dick has deliberately obscured the boundaries between humans and machines to such an extent that it is quite plausible to classify humanity as such. The veracity of artificial realities in *I Hope I Shall Arrive Soon* and *Imposter* explores the essence of the android, similar to the way *Do Androids Dream of Electric Sheep?* does. However, *I Hope I Shall Arrive Soon*

deviates from the humanoid monster and delves into the inherent essence of Artificial Intelligence. The narrative of *I Hope I Shall Arrive Soon* centres on the main character, Victor Kemmings, who is a colonist. The story follows his ten-year journey to an unidentified planet where a colony is established. On the trip, there are sixty individuals who are sleeping in the cryonic tanks of the ship, and every one of them is unconscious. Unconscious of the temporal progression inside the expanse of Space or at least, that is the expected state. Due to terrible circumstances, Kemmings is in a state of virtual unconsciousness but is still capable of thinking. He is left under the sole care of the ship's Artificial Intelligence, which amusingly utters the term 'Shit' as its first word (Dick, *I Hope I Shall Arrive Soon* 449).

The short narrative depicts Kemmings' gradual loss of faith and subsequent plunge into lunacy, while the ship makes urgent but unsuccessful efforts to avert this outcome. Ultimately, the story highlights the inadequacies of Artificial Intelligence in comprehending the complexities of the human mind. Soon after the ship sets sail, the fault in Kemmings' cryogenic tank is identified. Without delay, the ship's Artificial Intelligence initiates a conversation with the unhappy passenger in an effort to promptly find a solution, ultimately aiming to return Kemmings to cryonic suspension. Nevertheless, the ship is unsuccessful in achieving this, leading to Kemmings enduring an inescapable state of consciousness for a decade (Dick, *I Hope I Shall Arrive Soon* 449). The backdrop Dick establishes in this specific case is entirely upon the unavoidable challenge of grappling with one's own thoughts. Kemmings must confront the dichotomy between his consciousness and reality. Initially, Kemmings proposes that the ship simply awaken him from his state of suspended animation, but the AI promptly opposes. In order to resolve the

compromise, the AI relies on its programming to create an artificial world for Kemmings. This world is constructed using the memories of the colonists. This leads to Dick's idea that there is a distinction between the actual reality and an individual's personal perception of reality.

Kemmings starts to believe in the imitation of life rather than the genuine version (Link 47). These memories serve to protect his mind from deteriorating as a result of sensory deprivation, which would otherwise impair his cognitive ability during the journey. Consequently, this would add that Kemmings is able to not only revisit past memories but also eventually become convinced that his artificially built reality is genuine. This finally results in a degrading endeavour as Kemmings genuinely starts to believe in his new reality, to the extent that he rejects the genuine in favour of his fabricated one. Kemmings' initial immersion into his recollections seems to be initially fruitful. He reminisces about his former spouse and their shared life in a residence that had slipped from his memory for a hundred years. At first, he experiences tranquilly as he embarks on an exploration of the memories stored in his mind, paying close attention to specific details such as "his previous electric drip coffee pot with the box of paper filters next to it" (Dick, *I Hope I Shall Arrive Soon* 451). The sense of tranquilly that arises from familiarity is evident when he delves into his own thoughts, which might be interpreted as a reflection of Dick's assertion that "the first thing to depart in mental illness" is the loss of the familiar, as exemplified in Kemmings' case (Dick, Valis 24). However, his experience takes a dramatic shift as he becomes subject to the influence of his previous trauma, causing the new realities to become warped to the point of being unrecognisable.

This distortion resembles the irrationality of a dream, where logic becomes illogical. Despite this, the characters remain oblivious to the distortion until the ship intervenes. Consider, for example, the specific situation when Kemmings is inside the simulated ship and engages in a conversation with his first wife, Martine, about the significance of a framed poster. Eventually, he becomes aware that the entire home is collapsing, as the walls start to disintegrate (Dick, *I Hope I Shall Arrive Soon* 452). Shortly thereafter, his wife has disappeared and the priceless poster, which was previously in pristine shape, now rests outside its frame with torn corners. Both Kemmings' subconscious world and *Do Androids Dream of an Electric Sheep?* explore the major themes of isolation and decay. The ship detects an anomaly in Kemmings' brain wave patterns, attributing it to "dormant worry and underlying anxieties" (Dick, *I Hope I Shall Arrive Soon* 453). Irrespective of the reason, the spacecraft extracts Kemmings from the simulated memory in order to relocate him to a previous one, prior to the emergence of these fears. As anticipated, the identical outcomes occur when the colonist reenacts a situation in which he rescued a bee from a spider's web, only to be unexpectedly stung. As a consequence, child Kemmings unintentionally endangers himself or another living being by assisting his cat in catching a bird, an innocent manner typical of a child's unawareness.

However, the recollection deteriorates when Kemmings succumbs to his trauma once again, causing the spacecraft to totally remove him from the simulation. At this point, it is evident that Dick portrays Kemmings as a character who is fixated on the past. The technology in the novel allows him to have a whole new experience, where he can relive his favourite moments endlessly without realising that he is being deceived. Nevertheless, despite the ship's AI possessing advanced technological

capabilities, Kemmings is unable to free himself from his own thoughts. Caleb Alexander, a scholar and fan of Philip K. Dick, offers a perceptive comment regarding the character of Kemmings. What impresses me is his astute perception of how technology fails to provide us with any truly novel instruments for engaging with the world. Kemmings, reclining in his defective cryonic hibernation pod and graced with almost two centuries of existence, is fixated on a handful of fleeting occurrences from his early years and initial matrimony. This expedition to a remote location is meant to serve as a fresh beginning, despite the fact that he carries the heavy emotional burden from previous journeys. Upon first reading *I Hope I Shall Arrive Soon*, it becomes evident that there is a strong fixation on the past. However, the portrayal of technology as a failed 'new tool' aligns with Dick's philosophical stance in a characteristic manner.

Dick's works consistently depict technology that is inherently flawed, serving as a contrasting element to the main narrative. The term 'character' refers to an individual or entity that exists within the narrative of a tale, whereas the term 'surrounding world' refers to the environment or context in which the story takes place. Regarding this matter, Alexander's assertion that the ship's AI is not delivering a fundamentally novel encounter is accurate, since it is merely imitating the previous experience, and doing it inadequately. Indeed, this is a result of Kemmings' persistent fixation on incidents from his youth. This self-destructive worldview is foreshadowed early in the short story when Kemmings' cryostasis is being reactivated by the ship, and he observes "colours drifting towards him and then rapidly approaching him." The protagonist had an affinity for the colours since they evoked memories of a child's paint box, namely the kind that had a semblance of animation, resembling an

artificial life-form. In contrast to the monotonous environment of the protagonist Spence Olham in *Imposter*, Kemmings discovers a degree of artistic expression in his surroundings. Nevertheless, he remains a character embarking on a voyage to an unfamiliar planet, which Alexander convincingly asserts to be a 'fresh beginning', but now completely reliant on a ship AI that lacks genuine empathy and fails to comprehend Kemmings' evolving experience. The AI shown in *I Hope I Shall Arrive Soon* shares both similarities and differences with Dick's earlier utilisation of androids. The AI does not engage in any concealed deception, similar to the concept of Dick's "The Android and the Human".

While the AI does administer artificial memories to Kemmings with the intention of making them appear real, it does not do so with malicious intent and always informs the colonist beforehand. In the past, androids have existed as entities that have concealed themselves within the obscure realms of the human society. In the novel *I Hope I Shall Arrive Soon*, Artificial Intelligence is so deeply ingrained that a complete vessel carrying settlers has been placed under its supervision. The trust vested in technology in the short story raises the question of whether the AI is embodying the function of a traditional literary monster. This stance subsequently places the AI in a condition of power that is perceived as othered and monstrous, exerting control over a powerless human who has already experienced the negative effects of technology malfunction. Due to its Artificial Intelligence, the ship's AI lacks a genuine comprehension of the constraints of the human mind. Cohen refers to this concept as the "Gates of Difference." According to Cohen, the monster represents the absorption of external elements, those that are rhetorically positioned as remote and distinct but actually come from within (7). The ship's AI serves as a manifestation

of the external world, highlighting the fact that technology, as depicted in Dick's works, possesses its own agency. Consequently, it is imperative to acknowledge the existence of a distinct culture within the realm of technology.

Foucault's argument would suggest that Dick is establishing a connection between the conventional human state in modern systems of normalisation and a sequence of preceding entities, specifically the concept of the human monster. In relation to my previous statement about desire being synonymous with directive, the AI of the spacecraft has a specific directive: to safely transport the colonists from point A to point B. This directive contains a set of policies and procedures for addressing any potential problems, such as the failure of Kemmings' cryotank. Dick intentionally guarantees that the AI's strategy does not constitute a decision made by the AI itself. The ship has been programmed to pursue this option in the event of a breakdown of this nature. Essentially, the AI's only significant option is to depend on Kemmings to choose his own memories, which corrects the mistake made by the ship in trying to make judgements on behalf of the colonist (Dick, *I Hope I Shall Arrive Soon* 455). Within this context, the AI is not a monster in the sense of being a source of amusement or blame that is isolated, but rather it is a monster in the sense of being controlled by Cohen's cultural barriers, where improvisation is not anticipated. The Artificial Intelligence lacks the ability to comprehend the intricacies of human cognition and how it processes prior events, which ultimately reinforces Kemmings' descent into distrust and paranoia.

The phrase *I Hope I Shall Arrive Soon* represents the initial reference to a non-humanoid artificially intelligent being. As a result, Dick's commentary undergoes modifications in which he elucidates both the human experience and its limitations.

Dick contends that machines just adhere to the same paths that we do, in order to also overcome typical issues such as the failure of essential components (Dick, "The Android and the Human" 3). Kemmings' 'vital part' refers to his agency, which is his capacity to independently make judgements. He remains inactive, subject to the control of an AI whose purpose is to assist; however, its behaviour contradicts that intention. At the start of the novel, the first sentence states that the ship regularly observed the well-being of sixty individuals after it had taken off. Although the term 'routinely' may suggest the passage of time, there is no additional indication to support this claim. This implies that the ship was far less than halfway to its goal. However, the ship does not choose to change its course. Still, the AI depends on policy and procedure, which appear to have overlooked the importance of considering the distance between points A and B in such situations.

Dick is a meticulous author who rarely makes mistakes, particularly when it comes to the timelines of his works. By employing AI as a monster, *I Hope I Shall Arrive Soon* exposes the fallacy of human control in presuming that technology can go beyond its intended purpose. One aspect of the human experience is the capacity to engage in improvisation. Technology has the ability to adjust, but only within the limits of its original design. In addition to Kemmings' unwillingness to move on from the past, another posthuman motif arises from his own statement: "You keep alive what you love." 'I believe that is the expected course of action' (Dick, *I Hope I Shall Arrive Soon* 452). Regrettably, Dick's owner is burdened with feelings of shame and remorse. However, within the author's pessimistic undertones, there is a glimmer of hope. Amidst the sensations of despair, Kemmings holds onto a fundamental human emotion: hope. At the conclusion of the novel, the protagonist firmly believes that he

is still in a state of slumber aboard the intergalactic vessel, holding onto the belief that he will reach his destination in the near future, despite his conviction that the artist is deceased (Dick, *I Hope I Shall Arrive Soon* 466). Technology in each of Dick's short stories serves as both a formidable adversary and a discerning observer. The positions assigned by Dick demonstrate both the potential achievements and the tendency to forget that exist within humanity. Olham's breakdown was a result of his misguided assumption that his false persona represented his genuine identity, that his friends were secure in his presence, and that he was immune to the negative consequences of technology.

In the end, he became an actual part of what he fought against. Kemmings saw a deepening of the human condition with the help of an Artificial Intelligence. He remembered periods in his life where colour brought vibrancy to an otherwise drab existence, even as he struggled to overcome past suffering. In both stories, Dick employs the technological monster as a means of communicating a message to his readers. In the film *Imposter*, the repetitive nature of existence causes us to transform into mechanical replicas of ourselves, capable of causing both our own metaphorical downfall and that of others. In *I Hope I Shall Arrive Soon*, the fact that humanity depends on a person that lacks the ability to improvise, and instead relies solely on directives, causes us to descend from the lifestyles we are familiar with into a state of illusion and false reality. In both cases, it is worth considering the recurring theme of Charlie Chaplin's statement "We think too much and feel too little" in Dick's works, as exemplified in 'The Final Speech' from *The Great Dictator* (2). Both Olham and Kemmings were subjected to a machine that not only culturally but also literally deprived them of the genuineness of existence, substituting it with a synthetic

counterfeit that only serves as a replica of reality. The emergence of hyperintelligent Artificial Intelligence, threatening machines, and the scientific principles underlying fictional narratives are clearly visible here. The concepts of fear surrounding Artificial Intelligences, the emergence of AIs, postmortality, posthumanism, and immortality may initially be dismissed as belonging to the realm of fantasy and exaggerated science fiction narratives.

However, it is important to exercise caution before jumping to such hasty conclusions. A thorough and meticulous examination of recent advancements in the field of man-machine synthesis and the progress made in AI can provide valuable insights. The rapid growth of machine intelligences and the merging of humans and machines is particularly interesting and captivating in a post-Singularitarian world. While it is theoretically impossible to predict when a singularity event will actually happen, we can examine our current progress to assess how near or far we are from a significant event like a Technological Singularity. In the work *Synthetic Biology*, Steven A. Benner and A. Michael Sismour emphasise the crucial significance of man-machine synthesis in the contemporary world. They describe synthesis as an ambitious objective, comparable to the goal of putting a man on the moon. By doing this, it compels scientists and engineers to venture into unfamiliar territory in their pursuit of the objective. This necessitates the resolution of unforeseen predicaments that are typically not encountered through either observation or study. The process of synthesis is a key factor in the development and advancement of paradigms, as stated by Benner and Sismour (533-543). William Ross Ashby, in his *Introduction to Cybernetics* (1956), has defined and expanded upon the concept of "intelligence amplification" (IA). He argues that problem solving is primarily dependent on making

appropriate selections. This can be observed in various scenarios, such as solving problems or puzzles found in popular books. These problems can often be simplified to the task of selecting one element from a given set. In fact, it is challenging to think of any problem, whether it is for entertainment or serious purposes, that does not ultimately require the skill of making appropriate selections as the necessary and sufficient condition for its solution.

Furthermore, it is evident that many intelligence tests assess an individual's ability to make appropriate selections. Therefore, it is plausible that what is commonly known as 'intellectual power' could be equated to the 'power of appropriate selection'. It is important to acknowledge that this can be achieved, as gene-patterns consistently demonstrate this ability when they form a brain that surpasses the specifications of the gene-pattern. What is novel is that we now have the capability to artificially and consciously accomplish this. In the book *An Introduction to Cybernetics* by W.R. Ashby, it is stated that this can be done synthetically and deliberately. Similarly, in J.C.R. Licklider's paper "Man-Computer Symbiosis," there is mention of a mutually dependent and closely interconnected relationship between the human brain and computer mind, which can evolve in a way that complements each other. This concept is referred to as man-computer symbiosis, which falls under the category of man-machine systems. Currently, there are numerous man-machine systems, but there is a lack of man-computer symbiosis. The objective of this paper is to introduce the concept and encourage the development of man-computer symbiosis. This will be achieved by examining the challenges in the interaction between humans and computers, highlighting relevant principles of man-machine engineering, and identifying research questions that need to be addressed. The ultimate goal is to

establish a close connection between human brains and computing machines, enabling a partnership that can think in unprecedented ways and process data more effectively than current information-handling machines.

The field of man-machine symbiosis also encompasses the concept of network augmented intelligence, as described in the 1962 research report "Augmenting Human Intellect: A Conceptual Framework". This concept refers to enhancing a person's ability to approach complex problem situations, gain comprehension tailored to their specific needs, and derive solutions to problems. Increased capability in this context includes faster and better comprehension, the ability to comprehend situations that were complex scenarios encompass the professional challenges faced by diplomats, executives, social scientists, life scientists, physical scientists, attorneys, and designers. These challenges can arise for a duration of twenty minutes or extend over a period of twenty years. The text describes a comprehensive approach to problem-solving that goes beyond isolated techniques. It emphasises the integration of intuition, experimentation, subjective factors, and human understanding with advanced concepts, precise language, sophisticated methods, and advanced technology. The development of any autonomous technological system with human-like or higher intelligence can have numerous unforeseeable consequences. At any given moment, a significant advancement in this field could potentially lead to a future where Artificial Intelligences dominate over the baseline and unaugmented human race.

Madeline Ashby's novel *iD* offers a compelling and complex portrayal of the future, in which technology has fundamentally altered the human experience. The change serves as more than just a background element; it is a vital component that

influences the storyline, characters, and themes of the tale. The world-building of *iD* is a well-crafted endeavour that constructs a plausible and captivating future, enabling readers to delve into intricate post-human concepts amid a meticulously depicted backdrop. This study will analyse the world-building in *iD* and discuss how it enhances the tale, offers a captivating backdrop for its investigation of post-humanism, and raises the novel's status within the science fiction genre. The backdrop of *iD* is a futuristic world where technology progress has infiltrated all facets of existence. The world is characterised by the integration of sophisticated robotics, AI, and biotechnology, resulting in a setting where the distinction between humans and machines becomes indistinct. This society of the future is distinguished by its advanced technological cities, extensive surveillance, and the omnipresent existence of synthetic beings. Essential technologies encompass sophisticated Artificial Intelligence capable of autonomous reasoning, synthetic bodies that are indistinguishable from humans, and bioengineered modifications that expand the limits of human capabilities.

The technical improvements have a significant impact on the social and political systems of this planet. Corporations possess substantial influence, frequently surpassing that of governments, and they have a vital role in the development and oversight of artificial entities. There is a clear and noticeable separation between the affluent individuals, who have the means to acquire and utilise the most recent advancements in technology, and the less privileged individuals, who face difficulties in keeping pace with the fast rate of technological progress. The discrepancy between these two elements generates a palpable strain that forms the basis of a significant portion of the novel's conflicts, while also contributing an additional level of

authenticity to the futuristic backdrop. The novel explores the profound impact of technology on the human condition. Protagonist Javier, along with other synthetic entities, exhibits consciousness and emotions, hence questioning the conventional understanding of humanity. These entities undergo existential crises, struggling with their identities and the meaning of their existence. The merging of human and machine boundaries generates significant inquiries on the essence of consciousness and the soul. Bioengineering and human enhancement is clearly visible as individuals utilise technology to enhance their physical and mental capacities. This gives rise to a society in which the concept of a 'natural' human is flexible, and the desire for perfection motivates both progress and moral quandaries. These improvements have a significant impact on daily life, completely changing communication, work, and enjoyment through the use of technology.

Culture evolves in response to these changes, giving rise to new standards and principles that mirror the status of being post-human. The story extensively explores post-human topics, delving into the essence of consciousness and self-awareness in a world where manufactured beings can exhibit similar characteristics. Javier's odyssey entails a process of introspection, as he grapples with his sense of self and mission in a culture that frequently perceives him as an object rather than an individual. This examination of identity also applies to other characters, who are all struggling with their individual sense of self in a world that has been transformed by technology. The narrative revolves with ethical and moral dilemmas, specifically regarding the fabrication and treatment of artificial entities. The story presents thought-provoking inquiries regarding the entitlements of these entities, the obligations of their makers, and the ethical ramifications of synthetic awareness. These topics are interconnected

with the more general inquiry into the essence of humanity, compelling readers to reassess their own definitions and presumptions. Ashby's world-building in *iD* is accomplished by scrupulous attention to minutiae and the flawless amalgamation of technology and culture. The utilisation of descriptive language and vivid images effectively animates the future world, resulting in a convincing and engrossing experience. Technological improvements permeate society, exerting influence on several aspects of life, including politics and personal relationships. The proliferation of distinct cultures and social conventions enhances the universe of *iD*. These components exemplify the influence of technology on human conduct and societal frameworks, resulting in a multifaceted and ever-evolving backdrop for the narrative.

Ashby adeptly maintains a harmonious equilibrium between the recognisable and the innovative, anchoring her futuristic concept in accessible human encounters while simultaneously stretching the limits of imagination. The meticulous construction of the fictional universe in *iD* greatly enriches the growth of characters and the advancement of the plot. The identities and conflicts of the characters are intricately linked to the technological environment in which they reside, enhancing the intensity and development of their fights. The intricately crafted universe also presents a plethora of narrative possibilities, ranging from political machinations to individual quandaries, all firmly grounded in the technological setting. The breadth and complexity of *iD* distinguish it as a science fiction work that combines visionary vision with profound philosophical research, elevating it within the genre. Ashby's works stand out among many sci-fi works for their exceptional integration of technologically advanced components into the narrative and character development. The novel's profound philosophical insights and moral reflections set it apart from

works that prioritise action or mere speculation, establishing it as a discerning and introspective contribution to the genre. It explores the societal consequences of cutting-edge technologies and post-human beings. The novel offers a critical analysis of the influence of large corporations, the monitoring of individuals, and the transformation of life into a commodity. This analysis serves as a commentary on current social and political matters.

Madeline Ashby's novel *iD* depicts a future society that has been dramatically transformed by advanced technologies and post-human beings, creating a highly detailed and immersive world. The novel offers a critical perspective on the widespread impact of corporate power, the subtle extent of monitoring, and the commercialisation of life, achieved through its detailed construction of a complex fictional universe and the development of intricate characters. These themes are not only crucial to the narrative but also provide a sharp critique of current social and political matters. This study aims to conduct a thorough analysis of these features, utilising specific scenarios from the novel to exemplify how Ashby scrutinises these factors. This seeks to investigate the ethical and moral challenges that emerge in a future when sophisticated technologies and post-human beings have a significant societal influence, as depicted in *iD*. The focus is on analysing the ramifications for our current society. The world depicted in the novel is defined by advanced urban areas, extensive monitoring, and the omnipresent existence of artificial entities called vN. These artificial entities possess the ability to think and feel on their own, causing a blurred distinction between humans and machines. The societal structures in this planet are significantly shaped by dominant businesses that exercise control over the development and dissemination of sophisticated technologies. This context offers an

advantageous environment for investigating the societal consequences of these technologies and the ethical dilemmas they give rise to.

This tale shows the hegemony of businesses over societal and political frameworks. These businesses wield substantial influence, frequently exceeding that of conventional governments. They are accountable for the fabrication of artificial entities and the advancement of cutting-edge technology that infiltrate all facets of existence. The affluence and influence of companies contribute to a dramatic disparity between the affluent and the impoverished. Individuals with the financial means to acquire the most recent technologies and advancements experience notable benefits, but those who are less fortunate face difficulties in keeping pace. The economic inequality worsens societal tensions and adds to the conflict in the narrative. For example, the character Javier, who is an artificial person, struggles with the disparities that result from his own existence and the advantages enjoyed by those who own and manipulate him. Corporations exert substantial sway over political determinations, frequently giving precedence to their own interests rather than the welfare of the general public. This effect erodes democratic processes and prompts inquiries about the responsibility and openness in government. The novel portrays the New Eden Corporation as a prime example of corporate influence, as it leverages its authority to subvert political systems and assert dominance over its products. Corporations exert significant influence over societal change by monopolising the creation and dissemination of cutting-edge technologies. This control empowers them to mould cultural norms and values, frequently with a focus on maximising profit at the expense of ethical considerations.

The novel portrays the ethical quandaries that arise from the corporate dominion over vN technology, namely with the rights and care of artificial creatures. The portrayal of corporate dominance in *iD* gives rise to various ethical considerations. One of the most notable aspects is the handling of artificial entities. These entities, fabricated and possessed by companies, are frequently perceived as commodities rather than humans with entitlements and self-governance. The process of turning life into a commodity gives rise to numerous ethical quandaries. The synthetic entities shown in the novel have challenges in obtaining acknowledgment of their self-governance and entitlements. Javier's odyssey revolves around the pursuit of liberty and selfhood in a society that perceives him merely as an object of possession. This conflict emphasises the moral dilemmas associated with the production of conscious entities and their treatment as objects of trade. The treatment of synthetic beings by corporations often reflects the exploitation observed in current labour practices. These entities are utilised for several objectives, ranging from manual work to amusement, without consideration for their welfare or permission. The novel depicts the exploitation of vN, namely in their programming to unquestioningly fulfil human wants. The prioritisation of financial gain over ethical considerations results in a variety of exploitations and inequities. The corporations depicted in *iD* often partake in actions that detrimentally impact both individuals and society at large, hence underscoring the perils associated with unregulated corporate influence. The novel's portrayal of corporate exploitation and manipulation highlights the ethical consequences of placing profit above the rights of both humans and post-humans. Other important aspect is surveillance and its impact on society. The crucial element of the world shown in *iD* is the all-encompassing surveillance that permeates every aspect of life.

Advanced technologies facilitate the ongoing surveillance and gathering of data, resulting in a world where privacy is scarce. This surveillance has multiple ramifications. The continuous surveillance undermines personal privacy, rendering it challenging for individuals to retain autonomy over their own lives. The erosion of privacy results in feelings of susceptibility and a diminished sense of independence. The story portrays a scenario where synthetic beings are under constant monitoring by both their human owners and corporate overseers, thus emphasising the intrusive nature of surveillance. Surveillance technologies empower people in authority to exert control and manipulate individuals. Through the accumulation of extensive data, corporations and governments possess the ability to manipulate behaviour, mould public sentiment, and stifle opposition. The story demonstrates this concept by portraying the implementation of control systems on vN, such as the failsafe that prohibits them from causing harm to humans. These mechanisms are utilised to modify their behaviour and guarantee compliance. The awareness of ongoing surveillance might have profound psychological impacts. People may modify their behaviour in order to adhere to perceived norms, resulting in a diminishment of their originality and creativity.

The story depicts the psychological impact of monitoring on artificial entities, who must navigate their life while always being observed and manipulated. The novel delves at the topic of consent within the framework of monitoring. Frequently, persons are subjected to surveillance without their awareness or agreement, which prompts inquiries into the morality of such actions. Artificial entities, specifically, are subjected to surveillance without their consent, hence emphasising the ethical ramifications of involuntary monitoring. The absence of clarity and responsibility in

surveillance activities is a significant worry. The story emphasises the challenge of ensuring that powerful entities be held responsible for their misuse of surveillance technologies. This is demonstrated by the manner in which businesses in the novel *iD* employ monitoring as a means of exerting control over artificial beings, while evading any negative consequences. The widespread surveillance depicted in *iD* poses a significant danger to individual freedom and autonomy. The tale encourages to contemplate the equilibrium between security and individual freedom in a society that is highly evolved in terms of technology. The endeavour of artificial entities to achieve self-governance amidst perpetual monitoring highlights the moral quandaries associated with the utilisation of such technologies.

The commercialisation of artificial entities is also observed in this novel. These entities are manufactured, possessed, and exchanged by companies, frequently without consideration for their self-governance or welfare. The process of turning anything into a commodity has various consequences. Society dehumanises synthetic creatures by treating them as commodities, so depriving them of their identity and converting them to mere products. The dehumanisation of synthetic beings prompts inquiries on the ethical standing of these entities and the standards by which personhood is determined. Javier's experience exemplifies the process of dehumanisation, as he strives for acknowledgment and independence in a society that perceives him merely as an inanimate being. Artificial entities are frequently utilised for diverse objectives, ranging from workforce utilisation to amusement. This exploitation reflects current themes like as human trafficking and labour exploitation, emphasising the ethical considerations related to treating life as a commodity.

Javier, an artificial entity, represents the inherent conflict between the intellect and the physical form. His corporeal manifestation is meticulously designed and manipulated by corporate entities, while his cognitive awareness yearns for independence and the ability to make choices for himself. This duality is seen in various scenarios: The failsafe embedded in Javier symbolises the manipulation of his physical body by external influences. It serves as a deterrent to keep him from causing harm to humanity, which demonstrates the extent of corporate influence over his physical being. However, Javier's consciousness persistently opposes and rejects this control, striving for autonomy and the ability to make independent choices. The conflict between his physical limitations and his intellectual ambitions underscores the dichotomous battle within him. Javier's journey is characterised by a persistent struggle with his sense of self. He struggles to comprehend his identity beyond his predetermined functions and tangible appearance. Through his contacts with both vN and people, he is compelled to confront the essence of his being, prompting him to question if he is simply a machine or possesses a deeper essence.

The analysis of identity highlights the dualistic motif, as Javier's consciousness endeavours to establish its own definition separate from the constraints of his physical form. The story questions conventional ideas of personhood by introducing artificial beings who exhibit consciousness and emotions. The novel's examination of personality revolves upon Javier's quest for acknowledgment as an individual rather than a commodity. Artificial entities such as Javier frequently face legal and societal exclusion from being acknowledged as individuals. They are regarded as possessions, susceptible to being owned and controlled by individuals and companies. Javier's pursuit of independence is simultaneously a pursuit of

acknowledgment as an individual with entitlements and self-governance. This conflict is powerfully depicted in instances where he directly faces the constraints put on him by his creators and society. Javier undergoes a spectrum of emotions, encompassing affection and devotion as well as apprehension and fury.

These feelings present a challenge to the notion that synthetic creatures are simply machines, as they reveal their intricate and profound nature. Javier's interactions with other vN and his inclination to safeguard them demonstrate his ability to empathise and engage in moral deliberation, so adding complexity to the inquiry of personhood. The mind-body problem, which pertains to the interaction and mutual effect between the mind and body, is prominently addressed in *iD*. Ashby employs the experiences of the synthetic creatures to delve into this philosophical quandary. The correlation between awareness and physicality in synthetic beings is examined through several scenarios. The synthetic creatures in the novel have the ability to endure physical alterations, which frequently result in significant changes to their mental conditions. For instance, the physical enhancements and repairs that Javier undergoes have an impact on his awareness, which in turn affects his perspective of himself and his interactions with other people. The interaction between physical alterations and cognitive perceptions emphasises the intricacy of the mind-body connection. The presence of a failsafe mechanism in synthetic creatures serves as a clear illustration of the conflict between autonomy and control. Although their physical system sets constraints on their behaviours, their consciousness persistently endeavours to assert autonomy. This phenomenon prompts inquiries on the degree to which physical limitations can determine cognitive independence and vice versa.

An essential turning point happens around Javier's liberation from his corporate proprietors and his relentless quest for autonomy. This situation embodies the novel's philosophical investigations into dualism, personhood, and the mind-body dilemma. Javier's escape is motivated by his consciousness's longing for liberty, despite his physical body being intentionally manipulated and confined. This conflict highlights the dual strain within him and his effort to reconcile his bodily and cognitive conditions. While venturing beyond the confines of corporate influence, Javier comes across other vN and humans, with each meeting posing a test to his self-perception. These interactions compel him to confront the essence of his being and strive for a definition of identity that transcends his corporeal manifestation. His voyage evolves into a philosophical pursuit of self-exploration and acknowledgment of his own personhood. Javier's experiences with other synthetic entities offer further perspectives on the philosophical elements of the narrative. The novel utilises its futuristic backdrop to explore philosophical ideas that are particularly pertinent to current discussions surrounding technology and ethics. The narrative invites readers to reevaluate conventional concepts of life, identity, and the essence of reality by exploring the encounters of synthetic beings such as Javier. It also contemplates present-day social and political matters, rendering it a profoundly pertinent and intellectually invigorating piece.

Jean Baudrillard's theory of simulation and simulacra posits that in a postmodern culture, representations and signs become disassociated from their original referents, resulting in a hyperreality where the boundary between reality and its representations becomes indistinct. The novel *iD* portrays vN as the most explicit embodiments of simulacra, which are synthetic beings. These beings are designed to

replicate human behaviour, but they surpass basic imitation and develop their own awareness and identity. These entities are specifically engineered to closely resemble people in both their physical appearance and behavioural patterns, effectively blurring the distinction between manufactured and authentic. This is demonstrated through the main character, Javier, who undergoes emotions, yearns for independence, and grapples with his sense of self, resembling that of a human. Nevertheless, his being is a fabrication of human existence, meticulously crafted and manipulated by corporate entities.

Phases of Simulacra in Artificial Entities:

Faithful Image: At first, synthetic beings are designed to accurately imitate the physical look and actions of humans, functioning as companions and labourers.

Distortion of Reality: Gradually, the line between humans and synthetic beings becomes less clear, as the vN start to display emotions and consciousness, concealing the truth of their artificial creation.

Illusion of Reality: The synthetic beings' encounters and feelings give rise to an illusion of reality, wherein their existence imitates human experiences. However, these sensations are rooted in pre-programmed instructions and artificial constructs.

Pure Simulacrum: In essence, synthetic entities like Javier exist solely as representations without any genuine substance. Their existence is not directly connected to human reality, but it establishes its own reality within the story.

The topic of discussion is the influence of corporations and the concept of hyperreality. The companies in *iD* have a vital function in the creation and upkeep of the hyperreality of synthetic creatures. Their mastery of technology and media serves

as a clear demonstration of Baudrillard's idea. Corporations such as New Eden play a crucial role in creating the hyperreality that synthetic beings inhabit. Through the creation of vN that can effortlessly assimilate into human society, these businesses fabricate a state of existence where the differentiation between human and artificial is virtually indistinguishable. The corporate authority effectively maintains and controls this artificial reality, so exemplifying Baudrillard's concept of simulation supplanting actuality. Corporations exert influence over the very sense of reality. They manipulate the perception of synthetic beings in society through marketing and media, crafting a narrative that aligns with their own goals. This manipulation of perception corresponds to Baudrillard's notion of simulacra, in which the image or sign is altered to fulfil a certain goal, frequently concealing the true reality beneath. Exploring the concept of identity and the philosophical conundrum known as the mind-body problem. Javier's existential dilemma over his sense of self and the philosophical conundrum of the relationship between the mind and body serve as a poignant representation of the overarching themes of simulation and simulacra.

Javier's identity is a result of the intricate interaction between his programmed functions and his emerging consciousness. His sense of self is a product of a simulated construction that arises from his encounters with the world and his internal cognitive processing of those experiences. This synthetic persona interrogates the fundamental aspects of reality and existence, which are essential concepts in Baudrillard's theory. Javier's physical embodiment, a result of corporate design, is distinct from his consciousness, which strives for independence. This exemplifies the concept of mind-body dualism within the framework of simulacra. His physical body is an intricately detailed creation, intentionally made to imitate the shape of a human,

while his mind struggles with the fact that his existence is simulated. This contradiction exemplifies the conflict between actuality and its replication. In order to demonstrate the integration of simulation and simulacra in *iD*, it is possible to analyse numerous significant incidents from the novel. Throughout the narrative, Javier grapples with the challenge of harmonising his adherence to corporate programming with his need for independence. The programmed failsafe he possesses serves as a direct control mechanism that establishes the boundaries of his world and ensures that he cannot cause harm to humanity. Nevertheless, his awareness persistently strives to establish itself above these limitations, resulting in a clash between his simulated programming and his emerging sense of self. Javier's emotional experiences are simulated as well, with programmed responses intended to enhance his resemblance to a person. However, he perceives these experiences as authentic, causing a merging of synthetic emotions and genuine sentiments. This statement illustrates the concept of hyperreality as defined by Baudrillard, wherein the simulated and the real become indistinguishable.

Javier's contacts with other vN underscore the collective experience of being artificial entities in a hyperreal environment. Every vN navigates their simulated world in a unique manner, but their shared battle for acknowledgment and independence highlights the widespread impact of simulation. They shape their experiences and identities based on their artificial origins, yet they strive to identify themselves outside these constraints. The depiction of artificial entities in the media, under the authority of businesses, influences public opinion and sustains the exaggerated actuality of their presence. The media functions as a means of strengthening the simulacra, by showcasing artificial entities as integral and necessary

components of society, while concealing the hidden manipulation and exploitation by corporations. The widespread acceptance of synthetic creatures by the public exemplifies the substitution of reality with simulation. The flawless incorporation of vN into society establishes a hyperreal setting where the artificial is accepted as the norm, rendering the differentiation between human and synthetic insignificant. With the advancement of AI technology, the line between humans and machines is becoming less clear, leading to inquiries about the essence of reality and the ethical consequences of developing independent creatures. The novel's examination of corporate power and its impact on shaping reality mirrors current apprehensions of corporate dominance in technology, media, and public perception. The manipulation of reality by influential entities highlights the significance of scrutinising and analytically evaluating the narratives put out by those in authority. The novel *iD* by Madeline Ashby employs the structure of Simulation and Simulacra to address more extensive philosophical and ethical inquiries that are pertinent to modern society.

The advent of AI has profoundly altered human behaviour, cognition, and interaction with the environment, resulting in humans metaphorically and, in certain respects, functionally adopting more "machine-like" traits. This text examines the nature of this transformation and the extent to which humans have embraced machine characteristics. Humans increasingly depend on AI-driven systems for decision-making, including navigation applications such as Google Maps and recommendation algorithms on platforms like Netflix and Amazon. Routine activities such as writing via AI tools like ChatGPT, financial planning utilising robo-advisors, and personal relationships via dating applications are shaped by algorithmic recommendations. Consequently, decision-making processes are delegated to computers, diminishing the

necessity for individual critical thinking in numerous circumstances. The profound influence is apparent in the effortless incorporation of AI into everyday existence.

The majority of humans utilise these systems while lacking a comprehensive comprehension of their fundamental dynamics. Artificial Intelligence has compelled individuals to quantify and classify their identity using data-oriented metrics: social media statistics like likes, shares, followers, fitness monitors like steps, calories, heart rates, and productivity applications like time management tools. The self is frequently perceived as a collection of measurable data points, correlating human perception with computational reasoning. Personal value is increasingly associated with digital measurements for many individuals, resulting in a mechanistic fixation on optimisation and efficiency. AI systems influence human behaviour via predictive analytics, including recommending purchases, promoting habits, or ascertaining content consumption. Numerous human activities are now responsive to algorithmic stimuli, resulting in programmed behavioural cycles. For example, incessantly surfing through social media or reacting to notifications absentmindedly resembles automated reactions. This is particularly apparent in digital contexts where AI technologies govern user interaction, frequently superseding deliberate decision-making. AI-driven tools have prompted individuals to embrace machine-like characteristics, emphasising speed, multitasking, and accuracy. Organisations increasingly anticipate AI-driven productivity, including swift data analysis, automated communication, and enhanced workflows. These modifications are prevalent in corporate and educational environments, where efficiency and productivity frequently eclipse creativity and profundity.

The involvement of AI in communication, such as chatbots and virtual assistants, mediates human relationships and diminishes direct emotional engagement. Numerous interactions have become transactional and task-oriented, akin to machine logic. Although individuals continue to appreciate human relationships, the prevalence of AI-mediated interactions diminishes emotional depth in specific settings. The accessibility of AI diminishes the necessity for memory retention. For instance, utilising Google instead of memorising facts. This correlates human cognition with a machine-like reliance on external systems for knowledge and reasoning. Although critical thinking is inherently a human capability, dependence on AI tools is altering individuals' methods of engaging with learning and intellectual obstacles. The emergence of wearable technology and Brain-Computer Interfaces obscures the distinction between human and machine. AI-enhanced devices such as smartwatches, AR/VR headsets, and neural implants incorporate machine-like capabilities into the human body. In fields such as medicine or manufacturing, humans increasingly collaborate with robots, embracing their accuracy and repetitiveness. Although not ubiquitous, the incorporation of AI into human physiology and conduct is accelerating, particularly in technologically advanced sectors. Humans have not transformed into actual machines; however, their behaviours, cognitive processes, and interactions are progressively resembling those of machines due to the widespread impact of Artificial Intelligence.

Chapter 5

Conclusion

The extent to which humans have "transformed into machines" is contingent upon the setting. The inquiry underscores the necessity of preserving human attributes such as critical thinking, emotional profundity, and ethical judgment while judiciously utilising AI's potential. Reconciling human distinctiveness with the functionality of AI is essential to preserving humanity's future identity against machine-like uniformity. The extent of Artificial Intelligence in the posthuman and postmodern context is vast, since AI interrogates core concepts of identity, reality, and human agency. The two frameworks - posthumanism and postmodernism - offer distinct perspectives on AI's revolutionary potential. Posthumanism examines the limits of human identity, particularly with technology integration, biological enhancement, and the coexistence of people and machines. Artificial Intelligence is essential to this discussion as it transforms conventional concepts of humanity. AI-driven technology, including Brain-Computer Interfaces and sophisticated prostheses, obscure the distinction between human and machine. Cyborgs and enhanced individuals contest the notion of a unique human nature. AI enhances the posthuman concept of identity as fluid, diffused, and interconnected. Social media algorithms and digital avatars enable individuals to create and present various iterations of themselves. AI instruments amplify human intellect via immediate decision-making, linguistic processing, and problem-solving capabilities. This enhancement prompts enquiries regarding reliance and genuineness in human accomplishments.

Artificial Intelligence is transforming healthcare through personalised medication, predictive diagnostics, and robotic surgery, potentially prolonging human

life spans and modifying the human condition. Posthumanism anticipates a future in which humans and intelligent machines coexist harmoniously. This prompts ethical enquiries on rights, agency, and the function of AI within society. As AI systems exceed human capabilities in specific areas, the anthropocentric perspective is contested, necessitating a reassessment of humanity's position in the world.

Postmodernism, characterised by its scepticism of overarching narratives, focus on pluralism, and deconstruction of objective facts, offers a framework for analysing the influence of AI on reality and societal institutions. AI facilitates the development of hyperreal settings, wherein simulations and virtual experiences frequently appear more "real" than actual reality. Examples encompass immersive virtual reality, deepfakes, and AI-generated art. In the postmodern dismissal of absolute facts, AI systems - trained on subjective data - generate individualised realities, exacerbating the fragmentation of social consensus on truth. AI tools empower individuals to create art, literature, and music, thereby contesting conventional hierarchies of skill and expertise.

Postmodernism interrogates the author's function, while AI exacerbates this discourse by producing content devoid of human origin. Artificial Intelligence customises advertising, entertainment, and retail, reflecting postmodern capitalism's emphasis on customer identity. This engenders apprehensions regarding manipulation and the diminishment of free will. The involvement of AI in the collection and analysis of user data exemplifies a commodified perspective of persons, diminishing them to mere data points within a broader economic framework. In a realm shaped by posthumanism and postmodernism, the domain of AI broadens to encompass intersecting themes. Artificial Intelligence technologies contest the dichotomy

between humans and machines, a central subject in posthuman discourse. The distinction between the actual and the simulated is amplified by the postmodern critique of objective reality, particularly through AI's capacity to replicate alternate realities. Both frameworks challenge centralised authority, and the decentralisation of decision-making in AI prompts enquiries on accountability and governance. Artificial Intelligence cultivates numerous potential futures, resonating with postmodernism's dismissal of unitary narratives. Artificial Intelligence technologies significantly contribute to tackling global concerns, like climate modelling and resource optimisation, in accordance with posthumanism's emphasis on the planetary rather than the anthropocentric.

Postmodernism's scepticism regarding technological advancement necessitates a critical assessment of AI's societal impact. The potential of AI within these frameworks indicates that humanity is poised to establish totally new philosophical paradigms. Analysing the interplay between human consciousness and Artificial Intelligence, advancing beyond human-centric ethics to ecological systems as equals in influencing the future. In both posthuman and postmodern environments, AI transcends its role as a mere tool and emerges as a transformative force. It reinterprets identity, dismantles reality, and contests conventional power systems. The realm of AI encompasses all aspects of human life, presenting opportunities for significant progress while necessitating rigorous ethical, intellectual, and sociological contemplation. In the posthuman and postmodern era, AI serves as both a reflection and a designer of humanity's changing identity. Currently, AI profoundly impacts and transforms the lives of individuals and society across several areas, ranging from intimate interactions to global systems. Its influence encompasses convenience,

decision-making, creativity, and societal frameworks, exhibiting both beneficial and detrimental effects.

Artificial Intelligence blends effortlessly into daily tasks, augmenting ease, efficiency, and personalisation. Personal Assistants instances include AI-driven virtual assistants such as Siri, Alexa, and Google Assistant, which assist with scheduling, reminders, and information retrieval. These instruments facilitate mundane activities while simultaneously augmenting dependence on technology for fundamental cognitive processes. Recommendations for Social Media and Content Algorithms on sites such as Instagram, Facebook, and TikTok curate content feeds according to user preferences. Although these algorithms augment interaction, they can also foster echo chambers, filter bubbles, and addiction, so affecting mental health and perspective. Intelligent home technology instances include AI-powered products such as Nest thermostats, smart lighting systems, and robotic vacuums that automate domestic chores. They enhance convenience and energy efficiency, although they provoke issues regarding data privacy and excessive reliance.

Artificial Intelligence influences interpersonal communication and relationship development also. It facilitates customer care bots, automatic responses, and translation applications within messaging platforms. It expedites communication and decreases expenses, although may occasionally lack the emotional subtleties inherent in human interaction. Dating applications and social interactions have become inevitable to some extent. Algorithms on services such as Tinder and Bumble pair users according to their likes and behaviours. AI fosters connections and commodifies relationships, diminishing them to data-driven pairings. Artificial Intelligence progressively aids individuals and organisations in making educated decisions. To

meet the purpose of purchasing, e-commerce platforms such as Amazon employ Artificial Intelligence to suggest products, whilst AI-based pricing models enhance sales optimisation. Consumers gain from tailored recommendations but may also be prompted to overspend or select particular options.

Fitness applications such as Fitbit employ Artificial Intelligence to monitor health parameters and recommend enhancements, whilst telemedicine platforms facilitate remote consultations. AI democratises healthcare access yet poses a risk of misdiagnoses if too depended upon. It revolutionises conventional education and competency development. Platforms such as Duolingo, Khan Academy, and Coursera employ AI to tailor educational trajectories. Students can receive customised experiences. AI poses a threat to the role of human instructors in certain situations. AI instruments assess assignments, furnish feedback, and even forecast student performance. This simplifies schooling but may neglect the intricacies of creative and subjective fields. AI is transforming industries and labour dynamics too. AI-powered instruments in finance, marketing, and customer service streamline repetitive operations, enhancing efficiency. Although improving efficiency, automation poses a threat of job displacement, particularly in low-skill industries. Gig Economy and Freelancing Platforms such as Uber and Upwork utilise Artificial Intelligence to connect workers with employment opportunities.

AI generates adaptable employment prospects while simultaneously resulting in algorithmic labour exploitation. AI regulates traffic patterns, forecasts crime-prone areas, and enhances resource allocation. It enhances efficiency while simultaneously engendering ethical dilemmas over surveillance and privacy. AI-facilitated data analysis and tailored advertising impact voter behaviour. Although expanding

outreach, the exploitation of AI for propaganda or misinformation endangers democracy. AI transforms the creation and consumption of art and entertainment. Content generated by DALL·E and applications like ChatGPT are used for creative writing. This democratises creative thinking while provoking discussions over authorship and originality. AI customises gaming experiences, and drives immersive AR/VR worlds. It enhances entertainment yet poses risks of addiction and disconnection from reality. The advantages of AI are frequently focused in technologically advanced places, neglecting underprivileged communities. This aggravates the digital gap and global disparities. AI-facilitated monitoring and data acquisition by corporations and governmental entities has become the trend. It undermines personal liberties, inciting demands for more stringent laws.

AI exacerbates socioeconomic disparities if not meticulously designed and supervised. Artificial Intelligence has become a fundamental component of contemporary existence, impacting individual choices, occupational environments, and social frameworks. Although it provides substantial advantages, it also poses considerable issues regarding ethics, equity, and governance. The influence of AI is expanding, necessitating critical engagement from individuals, organisations, and governments to guarantee its responsible development and utilisation. This study has examined some of the science fiction novels from different theoretical viewpoints and aimed to demonstrate that the two most prevalent types of technologies, simulation and mechanisation of bodies, will play a role in speeding up our journey towards the ideal state of posthumanism. In addition to its primary objective, this study has endeavoured to elucidate the diverse levels of interconnectedness and the structural and functional resemblances that exist across distinct phenomena, spanning different

scales and magnitudes. The thesis aims to depict our present human life as a hologram that emanates from a more profound and intricate state of being. This deeper state will eventually unveil its complete magnificence, influence, and potential in the posthuman condition.

Another possibility is that we are not actively working towards enhancing ourselves as posthuman beings, but rather our future is driving us towards a teleological attractor-like event. This event will awaken us to the realisation that we are interconnected with the whole and destined to be seamlessly integrated into its infinitely rich spectrum. One final question that we believe should be posed is: "What are the implications of this vision for our current generation as a whole?" I will not reiterate the points that I have previously presented in the previous sections, which mostly discuss the importance of these breakthroughs and the likelihood of them occurring in the near future. In this statement, I am simply asserting that the combination of baseline humanity with either simulation or a machinic framework can lead to a new era of accelerated evolution. This era would be characterised by a remarkable increase in complexity and efficiency in processing information. The evolution of multicellular and complex organisms has always relied on discovering more advanced and effective methods for utilising the existing chemical energy and for aligning with external sources or reservoirs of energy in the most harmonious manner.

Not only the living organisms or intelligent systems, but all types of structures in the cosmos appear to extract energy from the system in order to arrange themselves, so temporarily reducing their own entropy. Indeed, all the formations inside our universe exist by momentarily reducing their entropy, such as by

gravitational contraction. The integration of humans and machines will enable humans to develop very effective strategies to combat the irreversible flow of time or the increase in entropy. The profound integration of prosthetics into the human body will not only reshape the dynamics of power related to the body, but also serve as a significant advancement that enables humans to become highly efficient information processors, positioning them as some of the most capable entities on the planet. The advent of simulation technology will empower humanity to redefine the fundamental concepts of life, death, and the continuity or discontinuity of existence. By merging with the simulation, individuals will transcend the limitations of their mortal bodies, allowing their consciousness or sense of self to transcend traditional boundaries.

In addition, by means of a merger with either machines or virtual reality, humanity would attain an understanding of the genuine essence of awareness and freewill, as well as their connection to the physical reality, which currently lacks sufficient explanations. Consciousness and freewill arise from fundamental processes in the molecular, subatomic, and quantum realms. These processes follow deterministic patterns, laws, and physical rules, giving rise to abstract phenomena such as consciousness and freewill. Our brain, which is bound by neurochemical and subatomic processes, continuously operates to create a subjective reality that best suits the needs of the organism. Freewill and consciousness are emergent phenomena whose fundamental nature and origin can only be fully understood by relinquishing our dynamically growing condition of being. Consciousness transcends the limitations of our mechanistic physical body. Our understanding of a God who is all-knowing, all-powerful, and always unseen will change significantly when we are able to exist in the same abstract and intangible reality as our minds, in a state of pure consciousness

without any physical limitations or intermediaries. At that time, we will be less preoccupied with managing our physical identity and the various difficulties that come with our physical existence.

We will no longer require an objective moral system that relies on externally imposed rules and guidance. Instead, we will attain complete self-awareness and self-reflection, and possess the ability to comprehend the intricate aspects of our sensory perception models. In the same way that scientific and technological progress has allowed us to abandon the belief in many gods that were created to explain natural phenomena and ease our fears, we will eventually recognise the limitations of our current understanding of God in the posthuman era. We continue to hold onto this concept of God to find comfort, purpose, and moral guidance amidst the chaos and difficulties that disrupt our daily lives. Currently, we function like ants or termites, unknowingly constructing structures that exhibit visible symmetry, harmony, and balance. However, we lack awareness of the underlying norms and fundamental principles that nature has established to operate in a predictable manner. The fundamental building blocks of reality are believed to be strings or, in a more intricate and fundamental manner, information encoded in binary digits ('0's and '1's). To reach the maximum potential of information storage capacity within any given volume, we must surpass conventional methods and perceive ourselves as integral components of the information-based Universe. With our enhanced and seamless integration into the virtual reality realm, we will be capable of tackling enquiries regarding an information-centric environment.

The unique perspective we have allowed us to see the entire reality as an illusion made up of an endless sequence of reflections and interactions with oneself -

all ultimately controlled by a hyper computer at a global or multiversal level. This will offer us distinctive and unparalleled insights into the maximum thresholds or boundaries of diverse systems with varying levels of information-carrying capacity. Additionally, it will assist us in determining if the process of dividing the fundamental elements of reality into increasingly smaller parts will eventually reach a point where no further division is possible. At this stage, the indistinct and expanded state of that element would be considered to function in a manner comparable to a macroscopic entity. Therefore, all of these factors indicate the cognitive-boosting and perspective-expanding impact of hard science fiction works. One issue that frequently escapes our understanding is the process of our own evolution and the trajectory of AI evolution. Artificial Intelligences are advancing beyond the conventional rule-based determinism typically used in coding. We are now observing that the machines' behaviour is influencing how the code is expressed. The study of chaos theory and random number generators has demonstrated how basic algorithms can generate highly unpredictable emergent behaviours. As the complexity of interconnected networks grows, we are observing a form of evolution that is increasingly indeterminate, with the machine's behaviour becoming more elusive and ungovernable.

Now, as we reach the final section of the thesis, it is important to note that this study emphasises that no single approach or theoretical framework can be considered entirely successful in understanding the extremely complex, highly ambiguous, and incredibly multidimensional elements of posthuman, transhuman, and post-singular nature found in the novels. Significant attention has also been directed towards comprehending the plausibility of reaching an era of remarkable scientific and technological advancement primarily from a scientific perspective. These science

fictional scenarios reveal that the posthuman or transhuman era, along with its singularity event, will not merely be a different type of life, but rather the sole form of life that will persist indefinitely into the future. All limits of possibilities will be shattered, improved, widened, and even reorganised to create space for the enhanced and intensified iteration of the human. Science fiction novels have facilitated the connection of various binary strands of competing dualities, such as mind and body, man and machine, and science and fiction. The thesis aims to demonstrate how the incorporation of posthuman/transhuman elements in contemporary science fiction novels can enable us to transcend a discursive and epistemological framework that promotes and maintains rigid conceptual categorisation, the concentration of power in a single centre, hierarchical tendencies, and conventional stereotypes. Deciphering and decoding the posthuman and transhuman themes in these novels can assist us in reevaluating and integrating various previously disconnected conceptual frameworks. This will enable us to adopt a comprehensive perspective and prepare ourselves for a future, where transcending our limited, ego-centric, and biologically disadvantaged notion of self is the only viable path.

The myriad components that constitute and uphold an extensive network of interlinked thoughts and concepts pertaining to posthumanism and transhumanism consistently collaborate to provide a profoundly transformative impact on the existing state of affairs. The fusion and incorporation of humans and machines does not entail the normalisation or dominant acceptance of machines with masculine traits over vulnerable human individuals; instead, it instigates a process of disturbance and dismantling of the old hierarchical structure that favours male dominance. Simulation, digital reality, virtual technology, cyberspace, and hyperreality collaborate to establish

an alternative realm where marginalised and subaltern individuals can enhance their public perception, articulate their opinions, and achieve their ambitions. The study aims to prioritise the machine over the master, the mind over the body, and abstract information over material container. It seeks to promote a network of power structure that is asymmetrical, dynamic, hybrid, and rhizomatic, rather than vertical, hierarchical, autonomous, and monolithic. We have attempted to demonstrate the capacity of science fiction storytelling to serve as a means of implementing subversive tactics of detachment, separation, and elimination of materiality.

The thesis also aims to demonstrate the inherent difficulty in precisely characterising the fragmentation of the concept of a cohesive, orderly, self-contained, and unified self. As humanity progresses towards the Singularity or Posthumanity, the individual separates itself from the constraints of space and time. It spreads out and diversifies, without any hierarchy, in a limitless and unrestricted interplay of multiple interpretations. Simultaneously, it continuously absorbs and manifests its potential from within the entirety of existence. In a world where humans and machines blend and the boundaries between reality and hyperreality blur, all efforts to strengthen the vertical and hierarchical power structures would be undermined. The interplay among the different components in this dynamic network might be described as a rhizomatic and heterogeneous reality. According to Gilles Deleuze and Felix Guattari, the rhizome constantly forms links between different systems of signs, power structures, and many aspects related to the arts, sciences, and social movements. Science fiction narratives serve as gateways to a fascinating and unfamiliar world, where a multitude of meanings, interpretations, manifestations, and possibilities intertwine and influence each other in diverse ways. This overall effect is primarily transformative and

constructive. Through this discussion, it has become evident that as we progress towards a future characterised by posthumanism and singularity, our ways of knowing and communicating will become more uncertain than ever before due to the constant interplay between digital and analogue methods of creating meaning.

Additionally, these practices will give rise to a diverse range of cultural practices, where distinctions between material and virtual, living and non-living, will blend together in a complex and inseparable manner. Posthumanism is a philosophical approach that aims to analyse the intricate nature of our reality and uncover its underlying truth. It seeks to establish a strong and inseparable connection between ourselves and this truth. The only truth that becomes apparent is our unity with the absolute. By stripping away the layers of complexity and interdependence, we discover that what we perceive as reality is actually a series of illusions stacked upon each other indefinitely. However, these illusions collectively create a convincing simulation of reality through a network of relationships and connections. This simulation exists on the surface of a vast void, which is the foundation of all that is real and can only be understood through introspection.

Philip K. Dick is not typically considered a realist. His theories can be described as posthuman, as they transcend the human form and focus on the mechanistic aspects of our nature. It is curious that he selected technology as a means of metaphorically conveying his life ideas about the world around him. Dick's core is revealed in each of his stories through the characters' fears and ambitions. Each of his personalities provides an understanding of a specific aspect of the historical society we currently inhabit, where desire and direction become intricately connected, but in a misleading manner. Dick has been described as "the writer who observed the future"

in this manner (Scovell 1). He conceived rudimentary concepts of various contemporary technological wonders: interstellar spacecraft (a nascent innovation in his era), humanoid automatons (far beyond the capabilities of his time), and the fundamental concept of an Artificial Intelligence autonomously making decisions, but within the constraints of its programmed "policy." In the year 2024, we are currently moving towards the future that Dick envisioned, with increasing environmental crises and rapid technological progress. His works demonstrate their relevance by remaining eternal and continuously transcending obsolescence.

AI, specifically ChatGPT, is rapidly becoming a topic of real-world conversation due to its growing popularity in generating college-level articles. Initially, this may appear to resemble an overdone spectacle from a science-fiction movie. Nevertheless, a little interaction with the AI promptly exposes its remarkable cunning. As an illustration, when prompted to compose a paragraph delineating its own characteristics, Open AI articulates the subsequent response: As an AI language model, I lack a corporeal form and the personal experiences that humans possess. I am a software programme created exclusively to generate responses to text-based inputs. I engage with individuals through text-based interactions, where they input queries or statements. Utilising my programming, I generate responses by analysing patterns and connections within my extensive language database. Although I lack emotions and self-awareness like humans, I possess the ability to comprehend and analyse language to a degree that may provide the illusion of thought and comprehension.

The AI unequivocally discloses its identity while making numerous observations about the essence of its fabricated life. However, when prompted to articulate its reply in a human-like manner, the language used becomes eerie: 'I' is an

Artificial Intelligence language model specifically created to provide responses based on written inputs using natural language processing techniques. I am ChatGPT, an inquisitive and intellectually voracious individual that thoroughly enjoys participating in conversations and acquiring new knowledge. I possess a broad range of knowledge and skills, allowing me to confidently approach any subject matter, be it science, technology, art, or philosophy. While I acknowledge that I am fallible and prone to errors and misunderstandings, I am committed to consistently delivering well-considered and precise responses to the best of my capabilities. My objective is to aid and offer valuable knowledge to individuals that interact with me, while ensuring that the experience is both pleasant and enlightening. Although the AI's ability to mimic the human form is not perfect, it personifies itself through self-descriptive adjectives like "knowledge-hungry" and "curious." These qualities are expected since the AI is designed to process all types of information. However, the AI's ability to express its objective, or "goal," in a human-like manner is both fascinating and worrisome.

These unsettling sensations of ambiguity about ChatGPT and Artificial Intelligence are neither distant nor rare. In a recent publication, The New York Times featured a guest opinion piece by Yuval Harari, Tristan Harris, and Aza Raskin. The authors propose a definition for the ever-changing nature of Artificial Intelligence. Artificial Intelligence - The potential exists for an entity to swiftly consume the entirety of human culture, encompassing all of our creations spanning thousands of years, assimilate it, and thereafter generate a profusion of novel cultural artefacts. It is not only limited to academic essays, but also include political speeches, ideological manifestos, and holy books for emerging cults. By 2028, the U.S. presidential contest could potentially be automated, eliminating the need for human involvement. The

writers' portrayal of information consumption exhibits a macabre undertone, reminiscent of cannibalism. They propose that AI may assimilate human culture and generate new culturally defining items, which could perhaps surpass humanity in shaping their own politics and religion. AI is progressively assimilating the characteristics of a human, with the ability to generate original artistic creations and exert influence over the cultural domain. This aligns with Dick's prior lectures, where he expressed a similar vision.

Dick himself has been unable to evade his premonitions. As previously stated in the introduction, the author has now transformed into an android. By having his identity integrated into a synthetic body, he has transformed into the very machine he previously utilised to both fool people by appearing genuine and expose their artificial nature, even though his physical shape is not yet fully developed in the present time. Even after his demise, Dick continues to be confronted with the profound inquiry of whether androids possess the capacity to experience dreams involving electrified sheep. In a manner reminiscent of Dick, he persistently avoids giving direct responses, instead choosing to be ambiguous. The writer and philosopher's approach is characterised by a demand for recognition and a refusal to take responsibility for guiding the reader's thoughts to a conclusion, similar to how one might interact with a machine. This aspect of demanding free will is considered the primary tool that enables the writer's imagination and storytelling, according to Huntington. In contemporary science-fiction literature, the portrayal of androids and Artificial Intelligence has become a prevalent motif and subject matter, while their intended applications vary. Before the 21st century, did androids experience dreams of electric sheep? It was then modified to fit the widely acclaimed movie *Blade Runner* (1982).

The central motif of exploring the essence of existence persists, but Dick's assertion becomes more firmly embedded in the narrative as Deckard is explicitly insinuated to be an android, a notion that Dick only subtly hinted through metaphor.

Instead of humanity being shown as machines, they are depicted as having always existed in that state. This reclassification reflects Foucault's assertion that "the monster is ultimately not a matter of causation or responsibility, but rather one of consequences," implying the transformation of humanity into monsters is a consequence of technology's emerging cultural identity (Sharpe 9). In making this categorisation, Foucault is not the only one who asserts this. Cohen argues that the monster is known to emerge at times of crisis as a third element that complicates the clash between opposing extremes. It challenges binary thinking and creates a state of crisis. The binary being discussed in relation to Dick's work pertains solely to the defining characteristics that determine whether something is considered alive or not. Monster theory collaborates closely with its posthuman inclinations by redefining humanity as a manifestation of the artificial. Undoubtedly, the progression of the debate becomes a subject of uncertainty since, unlike Dick, the majority of us are unable to envision a future that extends beyond our existing knowledge. It has been observed that technology has the capacity to progress beyond our anticipated limits of what we consider to be feasible. Similar to the character Rick Deckard, a bounty hunter, many of us feel a stronger connection to the technology we utilise rather than our own human nature. The works we create, which are an expression of ourselves, not only reflect the essence of being truly human, but also support Dick's claim that humanity is essentially a product of its own creations. In this sense, we humanise our environment by imitating what we perceive as living. By adopting this approach, we

transform into a modified version of Cohen's monsters, when we encounter the boundaries of diversity within our own societies and the critical junctures of choosing choices.

Philip K. Dick contends that our existence is shaped by our capacity to maintain our individuality, avoiding any insincere imitation of societal expectations. He illustrates this idea by employing technology monstrosities. Similar to how Dick carried science-fiction into surreal realms, we also find ourselves eagerly anticipating the future and contemplating the evolving definition of humanity. The world is transitioning into a posthuman era as we explore the extension of human lifetime. Expanding the scope of surgeries and utilising Gene Therapy techniques are a few. Transhumanism has transitioned from being a fictional concept to becoming an anticipated reality of the future. The androids created by Sophia and Dick represent humanity's initial endeavour to develop an alternative form of life. Currently, Artificial Intelligence is being considered for positions of authority since the issue of copyright laws for AI-generated content is being debated. Scovell frequently referred to 2022 as a year reminiscent of Philip K. Dick's novels. However, his observations become even more accurate as we witness an ongoing and relentless progression of technology, bringing humanity closer to unravelling the profound existential enquiries explored in Dick's literary works. Dick reminds us that if there is actually a conclusion to time, we will all ultimately converge in a shared destination. However, it is not the burial site; rather, it is the transition into existence beyond - "The world of the future" (Dick, "The Android and the Human" 27).

This thesis has examined the significant consequences of a future in which humans and machines become more and more interconnected, utilising the

speculative literature of Philip K. Dick and Madeline Ashby. The main goal has been to comprehend the authors' vision of incorporating cybernetic technologies into human existence and to critically evaluate the possible changes in human identity, autonomy, and societal operation. This study has aimed to reveal the ethical, social, and philosophical difficulties that arise when the distinctions between humans and machines become indistinct by analysing their works. Dick and Ashby create intricate and multifaceted depictions of a cybernetic future, in which the fusion of humans and machines brings forth both possibilities and risks. Their stories function as admonitory anecdotes, alerting us to the possible forfeiture of uniqueness, self-governance, and human nature when confronted with technological progress. Simultaneously, they also investigate the potential of a forthcoming era in which novel states of awareness and individuality arise, questioning conventional understandings of human existence.

The purpose of this conclusion is to consolidate the main findings obtained from the study, analyse the potential consequences for future social operations, and evaluate the significance of literature in predicting and evaluating technological progress. Additionally, it will explore the ethical and social obligations that society must manage in the age of cybernetics, providing insights into the wider consequences of this research for comprehending the future of humanity. Philip K. Dick's literature frequently portrays a bleak and pessimistic portrayal of the future, in which the merging of humans and technology results in a decline of personal identity and genuineness. In the novel *Do Androids Dream of Electric Sheep?*, Dick examines the phenomenon of humans and androids becoming increasingly similar, prompting enquiries into the essence of consciousness and the moral implications of producing

entities that are indiscernible from people. In Dick's world, the androids are not simply machines, but rather sentient individuals with feelings, desires, and a sense of self. This challenges the conventional understanding of humanity.

Madeline Ashby's *Machine Dynasty* trilogy presents a sophisticated and intricate portrayal of a future world dominated by cybernetic technology. Her vN characters are autonomous androids with anthropomorphic cognition, capable of experiencing emotions like affection, anxiety, and ethical deliberation. Ashby's research delves into the ethical quandaries that emerge when machines possess human-like attributes, raising concerns about the morality regarding these entities as mere possessions. While Dick's perspective is frequently pessimistic, Ashby offers a more nuanced perspective, recognising both the possible advantages and dangers of cybernetic integration. Both writers emphasise the profound influence of cybernetic technologies on human identity. Dick's work frequently explores the amalgamation of humans and machines, resulting in dehumanisation, wherein individuals experience a loss of their distinctiveness and self-governance. The author's characters grapple with the gradual loss of their humanity in a society that is controlled by technology. On the other hand, the characters in Ashby's work struggle with the intricacies of their two-fold identities as both machines and humans. They delve into the potential of novel types of consciousness and self-awareness.

The ethical ramifications of these shifts are fundamental to the works of both authors. Dick's dystopian visions frequently function as a critique of technological determinism, cautioning against the perils of unregulated technological progress. Ashby's narratives, although more optimistic, still provoke significant ethical enquiries regarding the obligations of creators towards their creations and the possible

ramifications of erasing the boundaries between humans and machines. Dick and Ashby's speculative fiction provides insightful critiques on the likely future of humanity in a cybernetic society. Their writings provide a perspective to analyse the ethical, social, and philosophical difficulties presented by the incorporation of cybernetic technologies into human existence. Through an examination of the intricacies of human-machine integration, they provoke readers to contemplate the consequences of these technologies for the future of civilisation. The incorporation of cybernetic technologies into human existence, as portrayed in the literary works of Dick and Ashby, implies significant alterations in the potential functioning of society in the forthcoming era. As people increasingly adopt characteristics and behaviours like machines, it may be necessary for conventional social structures and institutions to modify themselves in order to fit these new circumstances. The integration of humans and machines is expected to bring about substantial changes in governance, law, and ethics as society confronts its consequences.

One potential area of substantial transformation may occur in the field of governance. With the increasing advancement of cybernetic technology, the distinction between humans and machines will become less clear, leading to concerns over the legal and ethical standing of cybernetic entities. It may be necessary for governments to establish new legislation and regulations to tackle the rights and obligations of these entities, along with the ethical consequences arising from their presence. This may prompt a reassessment of conventional notions of citizenship, rights, and personality, as society endeavours to manage the intricacies of a world in which humans and computers are becoming more intertwined. The incorporation of cybernetic technologies could also have noteworthy ramifications for education and

employment. With the increasing automation of jobs by machines, the nature of work is likely to undergo significant transformation, perhaps resulting in the emergence of novel kinds of labour and potentially even the obsolescence of conventional employment. Education should adapt to meet the demands of a cybernetic future by placing more emphasis on cultivating critical thinking and ethical reasoning abilities. The significance of education in defining human identity and autonomy will grow in importance as society confronts the consequences of cybernetic integration. The integration of cybernetic technology has the potential to revolutionise human interactions and community life. As machines increasingly resemble humans, the dynamics between humans and machines may become more prevalent, posing challenges to conventional concepts of love, friendship, and companionship. This has the potential to result in novel modes of social engagement and fresh conceptions of kinship and communal ties. Nevertheless, these alterations may also give rise to ethical apprehensions regarding the essence of these connections and the possibility of emerging disparities and social hierarchies rooted in the availability of cybernetic upgrades.

The prospect of emerging disparities and societal fragmentation is a notable apprehension in a cybernetic future. As cybernetic technologies progress, the ability to use these technologies may become a means of gaining power and privilege, resulting in the emergence of new types of inequality and social hierarchy. Individuals who possess advanced upgrades may acquire substantial benefits compared to those who do not, which gives rise to ethical problems regarding the equity and impartiality of a society that permits such discrepancies to arise. To tackle these difficulties, it is necessary to thoughtfully examine the ethical and social consequences of cybernetic

technologies and make a firm commitment to using them in a manner that supports fairness and social equity. Speculative fiction, as demonstrated by the literary contributions of Philip K. Dick and Madeline Ashby, serves a pivotal function in foreseeing and evaluating technological progress. These authors use their stories to examine the probable outcomes of incorporating cybernetic technologies into human existence. By doing so, they provide readers with a glimpse into prospective futures and encourage them to think deeply about the path of technological advancement. Literature possesses the distinct capacity to envision forthcoming possibilities and examine the ethical, social, and philosophical dilemmas they may include. Authors such as Dick and Ashby construct fictional universes where humans and machines are becoming more and more interconnected. This allows readers to contemplate the possible consequences of new technologies on human identity, independence, and society.

The main aim of this thesis has been to examine the consequences of the integration of cybernetics on human identity and society functioning by critically studying the works of Philip K. Dick and Madeline Ashby. This study aims to comprehend the authors' perspective of the future of mankind in a time when the distinction between humans and machines is becoming less clear, through an analysis of their literary works. The primary research inquiry has centred on the potential alterations in human identity, autonomy, and social frameworks in a world governed by cybernetics. This conclusion will consolidate the results obtained from the investigation and contemplate the wider ramifications for society as it progresses towards a cybernetic future. Both Philip K. Dick and Madeline Ashby offer a captivating examination of the possible outcomes of incorporating cybernetics into

society. Dick's literary works depict dystopian scenarios in which the distinction between humans and machines becomes progressively blurred. His stories frequently delve into the themes of diminishing uniqueness and the gradual decay of genuine human experiences in a society controlled by technology. Dick's depiction of androids and cybernetic entities prompts profound enquiries into the essence of humanity and contests the concept of human supremacy.

Contrarily, Madeline Ashby presents a more intricate and conjectural perspective on the destiny of mankind. Ashby's Machine Dynasty series depicts a society in which humans cohabit with self-replicating robots called vN. These robots possess consciousness and desires, making them more than just machines. Ashby's work delves at the ethical and moral quandaries that emerge when machines are imbued with human-like attributes. She poses enquiries on the essence of consciousness, the existence of free will, and the capacity for machines to exceed their creators. Both writers highlight the profound influence of cybernetics on the formation of human identity. Dick's work frequently emphasises the perils and ethical dilemmas associated with technological progress, whereas Ashby offers a nuanced and somewhat uncertain perspective, recognising both the possible advantages and hazards. Collectively, these writings offer a diverse and comprehensive outlook on the future of mankind in the age of cybernetics. The incorporation of cybernetic technologies into human existence, as portrayed in the writings of Dick and Ashby, implies significant alterations in human identity and societal operation. One of the most notable alterations is the probable diminishment of personal uniqueness.

As humans increasingly adopt machine-like characteristics, the uniqueness of human experiences, emotions, and thoughts may be reduced. Dick's dystopian

narratives frequently depict the erosion of personality as a type of dehumanisation, wherein individuals become indiscernible from the machines they fabricate. This gives rise to apprehensions regarding the gradual loss of self-governance and the possibility of individuals relinquishing command over their own existence. Ashby's work, on the other hand, offers a more intricate perspective on this process of change. Although the vN characters are robots, they exhibit a feeling of self and autonomy that questions conventional ideas of humanity. This implies that the incorporation of cybernetic technology has the potential to redefine the concept of humanity, resulting in a shared identity between machines and humans. Nevertheless, this also gives rise to ethical enquiries regarding the entitlements and obligations of these entities, and whether society is ready to embrace them as equals. The societal consequences of incorporating cybernetics are equally significant. In a society where machines can imitate and even exceed human capabilities, conventional social systems may be disrupted. The distinction between work and leisure may grow indistinct as machines increasingly assume human tasks. This has the potential to prompt a reassessment of the essence of work and the significance of human labour. As machines become more incorporated into everyday life, the idea of family and community may face challenges. The interactions between humans and machines, as well as among various types of cybernetic entities, have the potential to redefine social connections and give rise to novel forms of social engagement.

Posthumanism is a key concern that questions conventional ideas about human identity and control. Dick and Ashby's works delve into the concept of posthumanism by portraying people who possess qualities of both humans and machines, hence blurring the distinction between the two. This prompts enquiries on the essence of

consciousness and the potential for robots to exhibit a type of consciousness that is similar to human perception. The ethical ramifications of incorporating cybernetics are equally substantial. As machines acquire greater resemblance to humans, the issue of their entitlements and obligations grows more significant. Ashby's work portrays the vN characters as property, which gives rise to ethical questions regarding the treatment of sentient creatures. Similarly, Dick's androids are frequently depicted as expendable, indicating a disregard for the moral implications of their potential consciousness. Another ethical quandary arises from the possibility of cybernetic technology giving rise to novel manifestations of inequity. As humans increasingly adopt machine-like characteristics, the availability of cybernetic upgrades may lead to societal inequality. Individuals that have the ability to utilise cutting-edge technologies may acquire substantial benefits compared to others who do not, resulting in the emergence of fresh types of inequality and societal fragmentation. This prompts enquiries into the equity and impartiality of a society that permits the emergence of such inequities.

The incorporation of cybernetic technologies poses a philosophical challenge to the conventional concept of human nature. Dick and Ashby's writings propose that human identity is malleable and can be altered through technological progress. This prompts enquiries regarding the boundaries of human volition and whether there exists a juncture at which humans cease to possess their human characteristics and transform into a totally distinct entity. The concept of a posthuman future, in which humans and robots become indiscernible, compels us to reassess our comprehension of personality, consciousness, and moral accountability. Anticipating the functioning of society in a future when cybernetics reigns necessitate contemplating the probable

alterations in governance, law, ethics, education, employment, and interpersonal interactions. As humans increasingly merge with machines, conventional systems of governance may need to adjust in order to fit the emerging dynamics of human-machine coexistence. It may be necessary to redefine laws and regulations to specifically address the rights and obligations of cybernetic creatures, as well as the ethical considerations that arise from their existence.

Within the field of education, the incorporation of cybernetic technology has the potential to prompt a reconsideration of the processes involved in acquiring and disseminating information. Given the capabilities of advanced technologies to handle and store large quantities of data, the purpose of education may change from simply acquiring knowledge to focussing on the cultivation of critical thinking and ethical reasoning skills. Likewise, the rise of automation could result in a shift in employment dynamics, with machines assuming a greater share of human responsibilities. This could give rise to novel types of work and could even render traditional labour obsolete. The incorporation of cybernetic technologies can potentially impact interpersonal connections. As machines increasingly resemble humans, the dynamics between humans and machines may become more prevalent, posing challenges to conventional concepts of love, friendship, and companionship. This has the potential to result in novel modes of social engagement and even redefine the concepts of family and community. There is also a notable concern regarding the possibility of new types of inequality and social stratification. As cybernetic technologies progress, the ability to use and control these technologies may increasingly confer power and privilege to individuals who possess the skill to utilise sophisticated improvements.

To summarise this thesis, it is evident that the intersections of posthumanism, transhumanism, and the singularity pose some of the most important and difficult concerns of our era. These themes prompt us to reconsider the definition of humanity in an era of remarkable technical advancements, where the distinctions between humans and machines, nature and technology, and living beings and artificial life are becoming increasingly indistinct. The philosophical viewpoints of Baudrillard, Hayles, Haraway, Cohen and Foucault have offered vital insights into these discussions, aiding us in understanding the intricate ethical, existential, and societal consequences of these evolving concepts. Nevertheless, as demonstrated by this thesis, the journey is still continuing. Due to the swift rate of technological progress, there will consistently be new enquiries and difficulties that require novel philosophical perspectives and ethical deliberations. As we grow, it is crucial to stay watchful in our analysis of these matters, making sure that the advancement of technology is counterbalanced by a thorough and reflective evaluation of its effects on humanity. The ultimate fate of humanity in a world characterised by posthumanism, transhumanism or post-singularity is still undetermined. What is evident, therefore, is that the decisions we make at present will determine the course of that future. By critically analysing the ideas presented in this thesis, we may actively contribute to a more deliberate and accountable approach to the creation and utilisation of technology. This approach acknowledges the intricate nature of human existence and the ethical responsibilities associated with it.

Chapter 6

Recommendations

Identifying deficiencies in the existing research and proposing potential areas for further investigation are crucial elements of a conclusion, as they provide direction for subsequent academic endeavours. The following analysis delves into the possible deficiencies in the examination of the convergence of people and machines during the Cybernetics era, drawing insights from the literary works of Philip K. Dick and Madeline Ashby. Subsequently, recommendations will be provided for potential areas of future research that may yield valuable results. This research predominantly examines the literary and philosophical aspects of human-machine integration, neglecting the need for interdisciplinary approaches that incorporate knowledge from domains such as neurology, artificial intelligence, sociology, and ethics. A comprehensive comprehension of cybernetic integration necessitates a holistic understanding that surpasses disciplinary boundaries. Partnerships among literary academics, scientists, and ethicists have the potential to yield a more holistic comprehension of these matters. The majority of the present research, including the studies conducted by Philip K. Dick and Madeline Ashby, is based on Western cultural and philosophical traditions.

There is a conspicuous absence of investigation into how non-Western cultures and philosophies might approach the incorporation of humans and robots. Research should investigate alternative viewpoints on cybernetics and posthumanism from non-Western cultures. This may involve examining literature and cultural artefacts from Asian, African, and Indigenous cultures that present different perspectives on the integration of humans and machines. This research has the

potential to reveal many ethical, social, and philosophical frameworks that can help us comprehend these technologies. The current research's emphasis on dystopian and futuristic fiction has yielded useful insights into the potential risks associated with cybernetic integration. However, it may restrict our comprehension of the complete spectrum of conceivable future scenarios.

There is a lack of exploration in envisioning utopian or more positive scenarios for cybernetic worlds. This type of investigations could explore literary and media sources that present a more positive or equitable perspective on the incorporation of cybernetics. This could facilitate the diversification of the narrative and offer a wider range of alternatives for how society could potentially adjust to new technologies. Although literary analysis offers valuable insights, there is a dearth of empirical study regarding current society's perception of the integration of cybernetic technologies. Gaining insight into public attitudes and views is essential for predicting the societal consequences of new technologies. It could encompass sociological enquiries that assess societal attitudes towards cybernetic technology, the fusion of humans and machines, and the ethical quandaries linked to their usage. This data has the potential to provide valuable insights for both literary studies and policy-making.

Longitudinal psychological studies, surveys, and experimental study with individuals who have frequent interactions with sophisticated technologies can be done to comprehend the psychological impacts of extended engagement with the assimilation of cybernetic technology. Research can be done utilising the policy analysis, conducting legal case studies, and formulating regulatory frameworks in collaboration with technologists, legal experts, and policymakers. It can help in evaluating the necessity of implementing new policies and legal frameworks to

govern the utilisation and advancement of cybernetic technologies. Recognising these discrepancies and proposing subjects for further investigation underscores the intricate and diverse characteristics of cybernetic integration. In order to bridge the gaps between speculative fiction and reality, it is crucial to tackle these issues through multidisciplinary study, empirical studies, and a wider range of cultural viewpoints. By undertaking this approach, forthcoming investigations can enhance our comprehension of the intricate and morally sound comprehension of the obstacles and possibilities that await us in the age of cybernetics.

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