SOFIA UNIVERSITY "ST KLIMENT OHRIDSKI“
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IN THE SEARCH OF A POSTHUMAN ERA

A CRITIQUE ON MERGING HUMAN BIOLOGY WITH ARTIFICIAL INTELLIGENCE

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INTRODUCTION

The advancement of digital technologies has profoundly influenced almost every aspect of our daily lives. Consequently, many intellectuals argued that we stand at the threshold of a new era propelled by technological advancements like artificial intelligence. This study explores the primary rationales supporting these claims. It also aims to elucidate the philosophical challenges associated with human enhancement, particularly in the context of introducing AI systems through brain-computer-interface (BCI) technologies. Additionally, the research explores the complex connection between technology and the human experience, introducing ongoing discussions about the meaning and significance of technology and the enhancement of human capabilities.

The initial focus of this research is to investigate the impact of contemporary technologies on our lives. In this context, it explores our transition into highly technological societies, particularly in light of developments like the Fourth and Fifth Industrial Revolutions. The research thoroughly examines the ongoing process of global digitalisation, which has challenged our perceptions of space, time, reality, existence, and our relationships with others and ourselves.

After comprehensively exploring how present technologies affect us, the research raises the question of whether emerging technologies are fundamentally altering our ontological condition, as advocated by numerous thinkers. This question remains a central theme throughout the research.

Subsequent to the discussion of technological advancements and their impacts, the research delves into an assessment of the concept of technology and its relationship with the human condition. This exploration aims to provide a deeper understanding of the complex relationship between technology and

human beings and whether technological progress has the capacity to reshape us.

To determine whether these technological advancements are propelling us towards a state of Transhumanity and Posthumanity, the research delves into the subject of human enhancement. This topic has become a subject of significant debate due to the recent and rapid progress in AI and the assertions that the swift evolution of technology requires an acceleration of human evolution through enhancement technologies.

Within this context, the research examines brain-computer-interface (BCI) technologies, which have experienced substantial growth in recent decades and have gained relevance in discussions about merging human and artificial intelligence as a defence against existential threats posed by AI.

Following the exploration of these themes, the research shifts its focus to Transhumanism, an intellectual movement known for its vocal advocacy of human enhancement. It investigates the philosophical foundations of Transhumanism and its arguments regarding how technological developments are propelling human beings toward a Transhuman or a Posthuman future.

Subsequently, the research delves into the philosophy of Posthumanism, often mistaken for Transhumanism, and discusses shared concepts such as "posthuman," which can create confusion. Posthumanism offers critiques of Transhumanist ideas and its technological enchantment, which are examined in greater detail in subsequent chapters.

After examining human enhancement, Transhumanism, Posthumanism, and related concepts like Singularity and Nietzsche's Übermensch (often translated as the overman or superman, frequently referenced in discussions about Transhumanism and Posthumanism), the research concludes with a critical exploration of the human condition and the meaning of being human in the

digital era. In this context, the research primarily draws on the philosophies of Martin Heidegger and also encompasses the philosophy of Maurice Merleau-Ponty, given their pertinence to Philosophical Posthumanism, which offers critiques on Transhumanist ideas. The final chapter aims to provide an alternative perspective to the claims that digital technologies have transformed and continue to transform our fundamental nature.

In this context, the research questions what we mean by technology and the human condition and how we can explain their complex relationship. The study also asks whether novel technological developments move us towards "transhumanity" or "posthumanity" and whether we need to merge with machines or cognitively enhance ourselves with artificial intelligence to adapt to the evolving and increasingly challenging conditions of the technological world we live in today.

This philosophical research is a qualitative study that involves a literature review, conceptual analyses and philosophical interpretations. It tries to achieve the aims and goals stated above through conceptual analysis, which can be seen as one of the main traditional methods in philosophy dating back to Plato's writings.

Overall, the study aims to address timely and urgent technological developments and their impact on us and provide a critique of these fast-developing technologies that can be imposed upon us under the name of a new Industrial Revolution. Within this framework, the research aims to clarify the technological revolution(s) we are going through today and their potential impact. One of the study's aims is also to contribute to the continuing efforts of making sense of the novel technological developments that can affect not only our present day and future but also the future of the next generations. Lastly, this research aims to inspire further research on these timely topics.

THE REVIEW OF THE CHAPTERS

CHAPTER I

Chapter I provides an overview of the current technological landscape, emphasising the transformative impact of digital technologies, such as artificial intelligence. It discusses the digitalisation of daily life, highlighting the prevalence of smartphones, smart homes, and interconnected devices. The emergence of digital identities and communities on social media is explored, alongside the rise of AI companions like Alexa and Siri and the revolutionary Chat GPT that increased global attention.

The chapter also delves into human-AI interactions, focusing on the rise of AI friend chatbots especially during the COVID-19 pandemic. It scrutinises the digital influence of technological advancements on human existence.

Furthermore, the argument is put forth that technology not only surrounds human beings externally but also goes beneath their skin. As a result, the exploration extends to human microchip implants, weighing potential advantages like simplifying daily tasks against concerns related to privacy and the potential for surveillance.

Chapter I also briefly extends into the realm of human enhancement, emphasising the potential trajectory towards a Transhuman or Posthuman era. Whole Brain Emulation (WBE) is introduced as a concept, exploring the possibility of replicating human brains into computational systems, blurring the lines between the biological and the artificial. Brain-computer interface (BCI) technologies emerge as pivotal, presenting both transformative potential and ethical dilemmas.

Overall, Chapter I argues that technology is fundamentally changing how individuals live, work, and relate to themselves and others. The multifaceted impact includes digital identities, virtual relationships, mental health consequences, and the potential integration of technology into the human body.

An attempt is made to provide historical context for these changes, leading to an examination of the concepts associated with the Fourth and Fifth Industrial Revolutions. The unprecedented pace and scope of technological advancements are emphasised. It is argued that The Fourth Industrial Revolution, marked by technologies such as artificial intelligence (AI), the Internet of Things (IoT), and robotics, has reshaped societies globally, prompting discussions on its impact and potential dangers.

More historical context is provided, outlining previous industrial revolutions: the mechanisation of the First, the industrialisation and mass production of the Second, and the digital revolution of the Third. The Fourth Industrial Revolution, since the 21st century, is characterised by interconnectedness, AI, and digitalisation across various domains, distinguishing it from its predecessors.

Concerns about the future, job changes, and existential threats are discussed in relation to the Fourth and the Fifth Industrial Revolutions. It is highlighted that Industry 5.0 emphasises collaboration between humans and machines.

Overall, Chapter I explores the evolving technological landscape. It explores the era of digitalisation and technological enhancements, particularly in the context of the Fourth and Fifth Industrial Revolutions. The merging of physical and digital realms, coupled with advancements in technologies like AI, raises philosophical questions about the nature of reality and the impact of technology on human existence.

CHAPTER II

The second chapter of the dissertation builds on an exploration of the impact of contemporary technological advancements on human existence and the urgent need to contemplate the concepts of technology, human condition, and their complex relationship. It argues that, as collaborations and mergers between humans and machines increase, profound implications are expected across various dimensions of existence, including politics, relationships, daily lives, and societal structures. In this context, Chapter II sets the stage for a comprehensive inquiry into the meanings and definitions of technology and the human condition, aiming to understand how evolving technologies might transform our fundamental nature.

The chapter begins by addressing the complex nature of technology, arguing that it is not a singular entity but rather complex sets of practices, intentions, goals, needs, and desires. It delves into the difficulty of defining technology, challenging narrow perceptions associating it solely with high-tech industries.

The etymology of the term, tracing back to the Greek words "techne" and "logos," is explored, emphasising the multifaceted aspects of technology, including objects, knowledge, activity, skill, intention, final product, and usage.

A historical perspective is also introduced to highlight the lack of a continuous tradition of philosophy of technology. While early modern thinkers like Francis Bacon acknowledged technology's role in societal prosperity, there was a lack of sustained philosophical tradition on technology until the mid-20th century. The Romantics expressed concerns about technology's potential harm. Still, it was only after World War II, particularly with the advent of nuclear weapons, that broader apprehensions about the detrimental aspects of technology gained prominence.

In this context, the chapter explores various philosophical perspectives on technology, acknowledging the historical dominance of science over technology. The shift towards recognising the primacy of technology over science is attributed to thinkers like Heidegger, who advocated for understanding technology not merely as applied science but as an essential aspect of human existence.

The discussion leads to an exploration of different approaches to defining technology, considering it as hardware, rules, or a system.

Three key definitions or characterisations of technology are presented: technology as hardware, technology as rules, and technology as a system. The hardware perspective simplifies technology as tools and machines, distinguishing between tools manipulated directly by users and machines that operate more independently. The perspective advocated by Jacques Ellul, known as the rules perspective, views technology as behaviour guided by rules, incorporating not only physical tools but also abstract phenomena such as propaganda. The system perspective emphasises that technology is more than physical objects; it is a dynamic system involving hardware, human expertise, and organised practices.

This section concludes by presenting a comprehensive definition of technology by Val Dusek, known as the "systems approach", emphasising the complex network of components. In this context, it challenges the notion of technology as neutral and introduces the concept of technology as a system that exerts influence within human systems.

The Chapter then explores Martin Heidegger's philosophy on technology in the subsequent section, hinting at its relevance to Posthumanist perspectives and contemporary concerns about autonomous machines.

Consequently, Chapter II offers a detailed exploration of Martin Heidegger's views on technology, mainly focusing on his essay "The Question Concerning Technology."

Heidegger's reference to the ancient Greek origins of "technology," emphasising its connection to "techne" and exploring its links to craftsmanship ("poiēsis") and knowledge ("epistēmē") are explored in detail. Additionally, his criticism of modern technology's shift towards "Enframing" (which is a mode of "revealing" that transforms the world into a "standing reserve," reducing objects and even humans to resources) is covered. His "tools analysis" in Being and Time is also mentioned (in its relevance to Philosophical Posthumanism).

The Technology section of Chapter II argues that Heidegger's legacy has been marked by substantial debate, particularly regarding his political associations. However, he can still be accepted as one of the key figures in the foundations of the philosophy of technology (Ihde, 2010, p: 1). Although Heidegger's era did not witness the full realisation of technologies, such as the Internet and nanotechnology, his insights still have relevance.

Overall, Chapter II's technology section concludes with a reflection on the difficulty of defining technology and a discussion on the complex relationship between humans and technology.

After exploring the meaning and definitions of technology, the Chapter examines the topic of human nature, often referred to as the human condition.

The second section of the Chapter discusses how philosophical and religious perspectives have shaped our understanding of human nature throughout history, emphasizing aspects such as reason, morality, and the eternal soul. Consequently, diverse philosophical traditions, including Western, Chinese, Hindu, Buddhist, and monotheistic perspectives, are covered.

The Chapter puts the following argument forward: The advent of evolutionary theories in the 19th century, notably Darwin's theory of natural selection, challenged prevailing beliefs by proposing a worldly, rather than divine, origin of species. This shift in perspective, supported by scientific evidence, underlines the shared ancestry and genetic similarities between humans and other animals, especially our closest relatives, the great apes.

The uniqueness of humans, often associated with rationality and reason, has been a source of pride and identity throughout history. However, the emergence of artificial intelligence (AI) challenges this anthropocentric view. AI's ability to outperform humans in specific tasks raises questions about the distinctiveness of human cognitive abilities.

The Chapter then proceeds to argue that the human experience, embodied in our physical form, is both a source of strength and vulnerability. With their inherent limitations, our bodies have led to the development of tools and technologies to overcome these constraints. From ancient tools to modern machines, technology has been an extension of human capabilities, enabling us to achieve feats beyond our natural capacities.

As the discussion shifts towards the present and future, the concept of human enhancement comes to the forefront. The desire to overcome perceived limitations, whether through biomedical enhancements or cosmetic surgeries, reflects humanity's perennial quest for improvement and transcendence.

In conclusion, the exploration of the human condition reveals a complex relationship between nature, culture, and technology. The ongoing advancements in science and technology pose new challenges and opportunities, inviting contemplation on the evolving nature of humanity. In this context, Chapter II sets the stage for exploring the topic of human enhancement in the

following chapter, examining how technological advancements can reshape what it means to be human.

CHAPTER III

Technological and biomedical advancements driving human enhancement spark debates about the potential restructuring of human capabilities. The Fourth and Fifth Industrial Revolutions intensified the discussions on the ethical implications of enhancing cognition and physical abilities. While Transhumanists advocate for radical transformations, Bio-conservatives oppose significant alterations to human biology. The topic holds practical and theoretical significance, raising questions about ethics, autonomy, and societal impact.

Chapter III reveals that defining enhancement is rather a challenging task because almost all human activity (from drinking coffee to wearing warm clothes) can be classified as human enhancement. Traditional approaches (such as studying and exercising) are considered durable but time-consuming, contrasting with the transformative possibilities of emerging technologies.

The ethical debate centres on disrupting natural evolution. Opponents highlight unintended consequences, while proponents emphasise technology's potential for positive change.

Opponents fear alterations to human nature may lead to new species (the so-called post-humans), challenging concepts like equality. Proponents cite laboratories developing radical therapies, such as life extension, as examples of positive technological interventions.

The distinction between repairing dysfunctions and enhancing functions is complex, raising questions about the ethical implications of intervention. In sum, human enhancement prompts ethical considerations regarding progress and societal impact. Chapter III attempts to examine reservations about human enhancement and pro-enhancement arguments in detail.

Chapter III also examines brain-computer interface (BCI) technologies. Overall, the Chapter suggests that the rise of cognitive importance in the modern era has led to an increasing demand for advanced cognitive abilities. Scholars like Savulescu and Bostrom argue that success in contemporary society is linked to higher cognitive capacity, especially as demands for numeracy and literacy skills, as well as proficiency in advanced mathematics and programming, continue to rise. The advent of artificial intelligence further accentuates the disadvantage faced by individuals with lower cognitive capacities.

To address the challenges posed by modern demands, Savulescu and Bostrom advocate for cognitive enhancements, delving into aspects like numeracy, literacy, logical skills, and concentration. They suggest that the human brain may not be optimised for modern conditions, necessitating interventions to meet evolving societal needs. This perspective aligns with the growing interest in brain-computer interfaces (BCIs), an industry experiencing significant economic growth.

BCIs, introduced in the 1970s, have gained attention for their potential in various applications, from assisting paralysed individuals with neuroprosthetics to Elon Musk's Neuralink venture, aiming for a symbiotic relationship between humans and artificial intelligence, which began human trials in May 2023. The technology involves invasive techniques like deep brain stimulation, allowing for unprecedented data streaming and potential enhancements in memory, intelligence, and response time.

However, the ethical implications of BCIs raise complex philosophical questions. Žižek, for instance, expresses concerns about BCIs challenging human individuality, emphasising potential political consequences and issues related to consent, surveillance, and control. The shift towards a "post-human" state of subjectivity is envisioned, potentially altering fundamental aspects of the human condition.

The widespread integration of BCIs into daily life creates concerns regarding social inequalities, privacy, and the potential misuse of neuro-technologies. Questions about individual agency, privacy violations, and the potential for creating a new divide are prominent.

The ongoing "enhancement revolution" prompts discussions about the transformative impact of technology on the human condition, paving the way for explorations into philosophies like Transhumanism and Posthumanism in the subsequent chapter.

CHAPTER IV

Chapter IV explores Transhumanism, an intellectual and cultural movement advocating the use of technology to transcend current human limitations.

Proponents believe in shaping a better future by enhancing human intellectual, physical, and psychological capacities. The movement traces its roots to historical figures like Dante Alighieri and Julian Huxley, who emphasised human potential.

Transhumanists reject supernatural beliefs, aligning with reason, science and progress. Distinct from traditional humanism, they seek to overcome biological and genetic limits using technology, challenging conceptions of being human.

Transhumanism is not to be confused with Posthumanism, two distinctive philosophies. Chapter IV covers Transhumanism and Philosophical Posthumanism in detail and explores Transhumanist philosophy and its principles, its relationship with religions, views on technology and the "posthuman" future.

Chapter IV covers how Transhumanists envision a future where humans evolve into post-humans, surpassing current limitations through technological advancements. According to Transhumanists, post-humans (or sometimes written as posthumans) would possess enhanced cognitive capabilities and refined emotions, and lead lives free from illness, ageing, and death.

This optimistic vision relies on technological progress, anticipating longer, healthier, and potentially happier lives. Technologies like neuro-implants and cognitive drugs are expected to enhance intelligence, mood, and character. The promise is that individuals will shape themselves, gaining more freedom and time as machines handle routine tasks.

Philosopher Nick Bostrom acknowledges the challenges but believes that technological transformation into a post-human nature is likely if humanity avoids existential threats. Artificial intelligence, particularly the concept of superintelligence, is seen as a pivotal force in this transformation. Bostrom discusses the possibility of "uploading" human consciousness into computers, allowing for indefinite lifespans and virtual or robotic existence. However, ethical questions arise, such as whether this digital existence amounts to a new form of imprisonment.

Chapter IV also discusses Philosophical Posthumanism, which offers criticism of Transhumanist ideas. Distinct from Transhumanism, Posthumanism can be seen as a multifaceted philosophical approach. It rejects hierarchical traditions, adopting a post-humanist, post-anthropocentric, and post-dualistic perspective.

Posthumanism challenges the universalising tendencies of traditional humanism, recognising and acknowledging the diversity inherent in human experiences. It critically examines and challenges hierarchical frameworks in humanism, encouraging a re-evaluation of humanity's relationship with the natural world. The philosophy signifies a shift in perspective rather than a biological departure from humanness. It aims to broaden perspectives, promoting a more interconnected and inclusive understanding of existence that recognises and values diverse human experiences.

Transhumanism and Posthumanism, though sharing the term "posthuman," have distinct origins and goals.

Transhumanism, an intellectual and cultural movement, advocates for human augmentation through technology, aiming to overcome biological limitations and extend life. It challenges conventional notions of death, exploring concepts like cryonics and mind uploading. Embracing reason, science, and progress, Transhumanists envision a future where technology reshapes the human condition, providing salvation and an end to suffering.

In contrast, Posthumanism critically engages with Transhumanism, emphasising a cultural and philosophical redefinition of humanity and criticising Transhumanists for their "techno enchantment". Drawing from Martin Heidegger's insights, Posthumanism questions the uncritical enchantment with technology and invites a more nuanced and interconnected understanding of human existence. Chapter IV explores their differences in greater detail.

Lastly, Chapter VI explores Friedrich Nietzsche's concept of the Übermensch, or Overman, which has sparked discussions within both Transhumanism and Posthumanism. In Transhumanism, there is debate over Nietzsche's influence, with a focus on individual enhancement through external interventions. Posthumanism engages more critically with Nietzsche's Übermensch, raising

concerns about hierarchical symbolism. Nietzsche's philosophy, emphasising internal self-transformation, prompts questions about his hypothetical support for external interventions in human enhancement. The metamorphosis of the human spirit, as outlined by Nietzsche, underscores individual growth and self-realisation.

Philosophical Posthumanism’s reference to Martin Heidegger, leads to a return to his philosophy in Chapter V.

CHAPTER V

Chapter V focuses on investigating whether emerging digital technologies are fundamentally reshaping human ontology, a central research question addressed in the dissertation.

This exploration follows a phenomenological perspective, with an initial emphasis on the philosophy of Martin Heidegger.

Heidegger, a significant figure in phenomenology, diverged from Edmund Husserl, the founder of phenomenology, by emphasising the understanding of ordinary existence rather than consciousness. His phenomenological approach introduced key concepts like "being, being in the world, being with, and temporality." Heidegger's central notion of "Dasein," depicting human existence, underlines the idea that humans are actively engaged in the world and that thoughts and feelings are only possible in this engagement. Heidegger rejects Cartesian mind-body dualism, asserting that humans are immersed in the world, a "Being-in-it," challenging traditional philosophies like rationalism and empiricism.

Heidegger introduces the concept of "de-severance," highlighting Dasein's innate ability to unconceal aspects of the world, such as technology and art. He argues that Dasein's unique capacity to understand its being distinguishes it from natural entities.

Understanding, for Heidegger, is not a mere possession of knowledge but a way of living in the world. He contends that our moods, arising from being-in-the-world, reveal our disposition to things and situations, emphasising the relationship between freedom and being subjected to the world.

Furthermore, Heidegger stresses the historical context shaping our perspective and understanding of the world, critiquing Descartes' separation of ideas from things. He highlights the role of "being-with" others as integral to human existence, challenging solipsistic concerns. He argues that our social relations contribute significantly to shaping who we are, but individuals retain the capacity to take responsibility for their lives. Addressing the existential significance of death, Heidegger sees it not merely as demise but as an event that can change one's mode of being. "Anticipation of death," in his view, liberates individuals from conventional norms and brings unshakable joy, emphasising the weight and significance of decisions.

In Heidegger's ontological perspective, the objectification prevalent in scientific and technological pursuits is critiqued for overshadowing the holistic understanding of the human Being. This exploration serves as a foundation for contemplating the impact of digital technologies on human ontology, framing the discussion within the context of embodiment, and setting the stage for further insights from Maurice Merleau-Ponty's approach.

Maurice Merleau-Ponty, a 20th-century philosopher influenced by Heidegger and Husserl, shifted philosophical focus towards embodiment. He contended

that the body is more than a physical entity, asserting that our bodies shape our perspective on the world.

In "Phenomenology of Perception," he emphasised that the body is not a separate object for analysis but is the fundamental means through which we experience and engage with the world. According to him, our sense of self is a consequence of complete embodiment, and the world gains significance through this immersive interaction.

Building upon Heidegger and Merleau-Ponty's philosophies, digitalisation is seen as an extension of the complex relationship between human embodiment and the world. This perspective asserts that digital technologies, from gaming controllers to virtual reality, are designed with careful consideration of the human body and its engagement with the surrounding environment. Digitalisation is not viewed as a detached realm but is deeply rooted in our embodied experiences, reflecting how we perceive and interact with the world.

Regarding space and time, digitalisation is acknowledged for transforming our understanding of space by eliminating traditional physical distance. The impact of technology on space is evident in how we experience the world through various devices (video calling a friend who lives miles away), questioning whether this represents a fundamental ontological change in human beings.

In terms of imagination, Merleau-Ponty's perspective is applied to digital experiences, asserting that imaginative virtual worlds owe their existence to human embodiment. Digitalisation, including virtual reality and gaming, is seen as an imaginative extension rooted in human embodiment. The body's active engagement in these digital experiences challenges the notion that digitalisation represents a departure from our embodied nature.

In summary, the phenomenological perspective presented in Chapter V suggests that digitalisation is deeply rooted in our embodied experiences and does not

signify a fundamental change in human ontology. The body is considered the fundamental means through which we engage with and give meaning to the world, and digitalisation is viewed as an exploration of the depth of the world through our embodied nature.

CONCLUSION

The conclusion covers the author's views on these interconnected topics. Overall, the research explores the profound impact of digital technologies on various aspects of human existence, with a particular focus on the potential transformative effects of artificial intelligence.

The complex relationship between technology and the human condition is examined, delving into contemporary debates surrounding the future of humanity amid rapid technological advancements.

The research also emphasises the extensive interconnectedness with digital devices, leading to the generation, transfer, and accessibility of vast amounts of data that significantly influence how we live, work, and interact.

Advancements in technology, especially in artificial intelligence, are highlighted as potentially leading to the integration of digital technologies into the human body through microchip implants. The discussion considers the limited current adoption but growing interest, particularly in enhancing security and countering potential threats from artificial general intelligence surpassing human capabilities.

The research also delves into various philosophical perspectives on the impact of digitalisation. The emergence of transhumanism is explored, advocating for human evolution through technology to keep pace with rapid developments.

In contrast, the phenomenological perspective challenges the notion that digital technologies change human ontology. Rooted in the philosophies of Heidegger and Merleau-Ponty, this perspective sees digitalisation as an extension of embodied cognition, emphasising the importance of the body's active engagement in understanding the world.

The author expresses the view that while current technological developments are indeed novel, they do not fundamentally alter human ontology. The argument aligns with Heidegger's concept of "being-in-the-world," emphasising that human existence is intricately linked to the world through active engagement and bodily skills.

The example of driverless cars is cited to illustrate that AI programs, despite sophistication, struggle with the complexities of the environment and lack a nuanced understanding of the world's meanings.

Concerns raised by prominent thinkers like Yuval Noah Harari and Nick Bostrom regarding existential risks associated with emerging technologies, particularly artificial intelligence, are discussed. The potential scenarios of losing control over civilisation and the transformative power of superintelligent machines are considered, challenging the over-optimistic views of technology enthusiasts.

The discussion expands to the concept of Industry 5.0, exploring the shift from Industry 4.0's focus on technological efficiency to Industry 5.0's emphasis on human-machine collaborations. The European Commission's conceptualisation of the Fifth Industrial Revolution is discussed, highlighting the recognition of both positive advancements and existential threats posed by technological innovations.

The research concludes by addressing contemporary concerns about the potential risks of powerful AI systems. Questions are raised about controlling

and regulating power. The author advocates for a cautious and analytical approach, cautioning against rushed decisions based on fear and emphasising the importance of evaluating technologies individually.

The critique section scrutinises the push for human-machine mergers in Industry 5.0, questioning the necessity of further collaborations and mergers. The debate on human enhancement is explored, considering arguments for and against using emerging technologies to enhance human capacities. The author expresses scepticism about the desirability and consequences of enhancing complex organs like the human brain.

In conclusion, this research acknowledges the unprecedented transformations brought about by emerging technologies, especially in the context of Industry 4.0 and 5.0. The multifaceted challenges and uncertainties posed by these advancements, ranging from privacy concerns to potential vulnerabilities, are highlighted. While the future remains uncertain, the research calls for a thoughtful and balanced approach to navigating the complex landscape of technological evolution.

RESEARCH CONTRIBUTIONS

1. A philosophical foundation is developed for understanding the debates surrounding whether (and how) emerging technologies are moving us toward "transhumanity" or "posthumanity". The research also addresses the question of whether the human beings should integrate with machines or use artificial intelligence to enhance their level of cognition and development. The study philosophically examines the current global process of digitalisation and sheds light on the question of how

technology affects our understanding of reality, space, time, human existence and relationships.

2. The research seeks to elucidate the implications of technological advancement through the lens of historical perspective. This includes an extensive analysis of the Fourth and the Fifth Industrial Revolutions, as well as drawing insights from the experience of earlier Industrial Revolutions.

3. In the light of discussions about the ways in which technology can change the human condition, the study examines the emerging field of human enhancement and its relevance – timeliness in an age of rapid technological evolution. More specifically, brain-computer-interfaces (BCIs), which is an area that is the intersection between human and artificial intelligence, are considered. This analysis presents a valuable vision of the prospects of the potential fusion between human and machine intelligence and considers the ethical/moral and practical implications of such a development.

4. The study contributes to a nuanced philosophical understanding of intellectual/thought movements by exploring the philosophical underpinnings of Transhumanism and Posthumanism, particularly in light of technological evolution and human development. The study also clarifies some basic concepts, aims and criticisms, contributing to the prevention of existing common misunderstandings and encouraging a more informed and balanced debate on these scientific issues.

5. The research offers definitions of key concepts such as "technology", "human condition", "Transhumanism" and "Posthumanism". Through conceptual analysis and extensive review of the available literature on these issues, the study attempts to improve understanding regarding these terms and concepts. The dissertation also contributes to a more precise, meaningful and meaningful discourse in this field.

6. By highlighting the current technological development and its potential influence and consequences of these ongoing processes, this dissertation provides a philosophical basis and encourages scholars and entrepreneurs with similar interests to delve deeper into the field of these important and socially relevant in the future questions, encouraging them for further study and debate.

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