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Virtual Immortality and Technological Singularity in Ahmed Alsadik's *Hedra: The Odyssey of Mortality and Immortality*^(*)

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Abstract

This paper proposes a systematic ideology of better approaching and understanding reality while posing a fundamental question: How far is the Modern age's persistent drive for both human enhancement and immortality has become an obsessive preoccupation of different sciences and disciplines including AI, Regenerative Medicine, Nanotechnology and Philosophy. The issue has consequently become an equally predominant theme in literature especially in science fiction. Inspired by this prevailing current tendency, both in science and literature, the research critically identifies two types of immortality: biological versus Cyber artificial immortality, highlighting the latter as its major point of interest. The paper highlights Apocalyptic AI and transhumanism as major participant movements of human enhancement and highlights related concepts like cyborg, cyber immortality and techno-theology. It provides a considerable space for the potential unavoidable consequences of human enhancement through technology and AI focusing on the risk put on Man's set of religious beliefs that are bound to lose their spirituality to be technologized. It correspondingly highlights a potential consequent hermeneutic of theology that reconsiders the concept of God, religion, spiritual notions like heaven, immortality, salvation and the evolution of a technological spirituality in place of a secular one. For doing so, the paper proposes a hybrid approach that builds heavily on the philosophical theory of transhumanism in light of its three stages of human development: transhuman, posthuman and cyborg. It also emphasizes the influence of Apocalyptic AI on transhumanism's developed form of techno-theology and the possibility of leading humanity to a catastrophic apocalypse. For further enlightenment, the paper attempts a thorough critical reading of Ahmed Alsadik's State Encouragement Award Winning novel, *Hedra: The Odyssey of mortality and Immortality* (2021). This is meant to highlight the way the novel delineates a world where humans become immortal and describes the consequent changes in religious beliefs and concepts. The paper subsequently poses some enquiries concerning the validity of cyber artificial immortality, technological singularity and the related evolving techno-theology.

Keywords

Transhumanism-cyborg-Apocalyptic AI- cyber immortality- Technological Singularity

الملخص العربي :

الخلود الافتراضى والتفرد التكنولوجى فى أوديسا الفناء والخلود لأحمد

الصادق

لقد صارت الرغبة الملحة للبشر فى تحقيق الخلود هى مطلباً عصرياً وبؤرة اهتمام الكثير من العلوم وقد انتقل هذا الاهتمام بتعزيز صفات الانسان من خلال العلم والتكنولوجيا ليصبح خالداً إلى الأدب بأشكاله المختلفة فعبر عنه الكثير من الكتاب الذين عكسوا فكرة الخلود الإلكتروني وتبعاتها التى تقع على عاتق الإنسانية كلها. وفى ضوء هذا استلهم البحث فكرته الأساسية ووضع إطاره النظرى معتمداً على نظرية ما بعد الإنسانية التى استوحى كثيراً من أفكارها من الذكاء الاصطناعى التنبؤى ونظريته فى الخلود التكنولوجى أو الافتراضى وتحول الانسان إلى آلة ذكية تحفظه من الزوال وتتيح له مهارات التفكير ذات الكفاءة العالية والذكاء الآلى الذى يفوق الذكاء البشرى ويتيح للبشر حياة التقدم والرفاهية لكن الذكاء الاصطناعى التنبؤى لم يغفل ما قد يطرأ من متغيرات على فكرة الدين والإله فى ظل هذا التحول والخلود التكنولوجى. استلهمت الحركة الفلسفية المعروفة بما بعد الإنسانية أفكارها من الذكاء الاصطناعى التنبؤى وقدمت تصوراً مشابهاً للخلود الانسانى الافتراضى واعتبرت هذه الحركة بمثابة الديانة التكنولوجية التى تستلهم قوتها من العلم والتكنولوجيا. فى ظل هذه الأفكار يعمد البحث لتحليل رواية أحمد الصادق "هيدرا: أوديسا الفناء والخلود" طارحاً بعض التساؤلات بخصوص إمكانية إنتهاء الجنس البشرى تماماً نتيجة لهذا الزحف الإلكتروني وما يصاحبه من إختلال فى النظام الهرمى للمخلوقات والكائنات البشرية

In the twenty first century, self-development strategies progress from being preoccupied with the spiritual aspect of the self to be rather concerned with the technologies of the self or “the welfare and the improvement of the quality of human life through knowledge/reason, on the one hand, and science/technology, on the other” (Schussler, 2019, p. 95). Consequently, the required self-discovery and enhancement principles, as prerequisites of the period, start to follow new ideologies based on technology. The revolutionary changes in strategies of personal enhancement give birth to a techno-optimistic culture which replaces the old prevailing one fed with eschatological religions (Schussler, 2019, pp. 94-95). One essential movement of the techno-optimistic culture is transhumanism, a prominent philosophical movement of human enhancement and self-development through science and technology. The term transhumanism was first introduced by Julian Huxley to denote man’s desire to go beyond his human limitation and gain insight into the reality of human condition (Hansell ,2010, p. 20). It was first initiated in the USA as early as 1980s (Paura, 2016, p. 23). Consequently, the movement finds expression in world literature that reflects a keen interest in it manifested in the works of novelists such as Nancy Kress’s *Beggars in Spain* (1993), Cory Doctorow’s *Down and Out in the Magic Kingdom* (2003), Justina Robson’s *Natural History* (2003) Jiang Bo’s *Gate of Memories* (2018) and Al Sadik’s *Hedra: The Odyssey of Mortality and Immortality* proposed by the paper as a typical representation of transhumanism and other proposed areas of interests. Alsadik wrote two novels and two anthologies of short stories. However, though the author’s literary career might seem extremely short, he received a number of literary awards and was critically acclaimed for his talent and updated topics reflected

especially in the award-winning novel *Hedra: The Odyssey of Mortality and Immortality*.

Transhumanism identifies its philosophy of life as Extropy, a term defined as a new mode of personal development with a set of ideals and principles that constantly enhance man's life using the medium of science and technology and fundamentally guarantee a perpetual immortal existence of man (Schussler, 2019, p. 93). In light of its Extropian philosophy, transhumanism seeks to transform man into a trans-posthuman being. This suggests a departure from being human to becoming post-human with super mental capabilities, rational skills, superior passions and longer lifespan. This relatively replicates Nietzsche's concept of Übermensch, the latent superior being within the individual waiting to be activated and motivated (Waters, 2011, p. 169). The Übermensch is, therefore, a superhuman, overhuman or a super man (Cybulska, 2015, p. 2). However, what transhumanism seeks to construct is rather a technological Übermensch identified as a cyborg (Waters, 2011, p.169). The term Cyborgs as a complicated fusion of self and other, is defined by Donna Haraway as hybrid entities that are concurrently animals and mechanical devices and that live in realms that are confusingly natural and manufactured

(Garner, 2011, pp. 92-94). To build such cyborgs, the movement advocates the use of technology, science and AI as prospective means of enhancing human condition and best minimizing and transcending the limitation of human nature (Antosca, 2018, pp. 78-79).

Such a synthesis of technology, AI and the consequent creation of Post-human individuals, that are more cyborgs than humans, pulls to pieces the hierarchy of anthropocentrism, a human-centered philosophy that regards man as superior to other creations (Schussler, 2019, p. 98). It also dismantles all prejudiced stereotypical hierarchical dualities empowered by anthropocentrism and enforced by the more powerful sides to keep their supremacy over those who are thus reduced to a lower rank. This includes dualisms like "inorganic and organic, human and nonhuman, male and female" whose conflict produces a fundamental identity (Garner, 2011, p. 92).

This contemporary preoccupation of human enhancement and the dream of an intelligent life are mistakenly thought to be exclusively concerned with scientific and technological development,

an idea that is firmly refuted in Robert M Geraci's argument that "Often, the creation of intelligent life is simultaneously religious, scientific, and artistic" (2008, p. 139). The rapid wide and large paces taken every second in technology and AI and the related prospective un-preceded forthcoming immortality are bound to crucially question man's theological spiritual needs and the religion appropriate for the change. In this concern, Peter Moons writes that religion and the concept of spirituality will change when man can live forever in the Transhuman and Posthuman environment" (n.d., p.1). Strategies of human development therefore, significantly witness a consequent transformation in human religious thought believing that, what is required, as speculated by the sociologist Brenda Brasher, is a religion that has the concept of cyborg- human machines- at its core (Garner, 2011, p. 91). This act of liberation from traditional long established eschatological beliefs to a technological post-transcendence religions was first initiated by Friedrich Nietzsche's postmodern theory of the death of God. This is followed by a further spiritual and religious fundamental change originated by a variety of movements including transhumanism that effects a move from secularization to Singularitarianism and from eschatological religions to a post-transcendence Techno-theology that reflect the new-born techno-optimistic culture (Wessinger, 2011, p. 720).

However, to come to a thorough in-depth understanding of Transhumanism as a post –transcendence techno-religion, it is crucially significant to focus on Apocalyptic AI as one major inspiring influence. Developing a parallel line to religious apocalypticism and a major example of the newfound techno-spirituality, Apocalyptic AI is one movement of artificial intelligence that is based on the integration of science and religion in a hybrid reconciled synthesis that has one major threefold target: the departure from ignorance, physical body and mortality (Geraci, 2010, p.139). Apocalyptic AI propounds the idea that physical biological life is a limited, inadequate one that is no longer appropriate for the 21st century's vast technological progress. Hence, in line with Brasher's cyborg based techno-theology mentioned above, it seeks to turn man into an alternative humanoid perfect figure where human intellects are copied into machines to help human beings to virtually live an everlasting life in cyberspace (Geraci, 2010, p. 2).

The movement significantly offers virtual alternative ideas for the deep-rooted principles of Jewish and Christian apocalypticism including divine force, the promised paradise, salvation and immortality. Going against Jewish and Christian apocalypticism, Apocalyptic AI proposes a post-transcendence theology that dismantles the belief in God that would grant people a new paradise-like world to live in after transcending their present flesh and blood form to become virtuous immortal beings (Geraci, 2008, p.145). Substituting religious apocalypticism with an AI standpoint, Apocalyptic AI replaces the power of God with that of evolution, regarding science as the omnipotent power that would create a virtual paradise that is a soon-to-come virtual kingdom of smart machines and humans that transcend their physical and mental limitation by allowing their consciousness to be uploaded to robots. In this way, they secure at once the attainment of tremendous mental capacities and of immortality (Geraci, 2008, p.138). Accordingly, AI advocates liberation of human mind whose abilities, thinking and learning skills are negatively hindered and manipulated by its limited body (Geraci, 2008, pp. 146-147). This signifies the creation of virtual bodies, cyborgs, where humans and machines become one cohesive intelligent unit (Geraci, 2008, pp. 152-154). They will be software rather than hardware and will be able to practice all activities including walking, swimming, and running in virtual bodies (Geraci,2010, p. 34).

This very moment of transformation from the present world to the virtual kingdom is identified by Apocalyptic AI as a moment of “singularity” that is a moment of an enormously abrupt sudden, rather than gradual, evolution which represents the end of history and a fundamental departure from the present world to the new virtual one evolved in cyberspace(Geraci, 2008, p. 149). This suggestively provides a new kingdom where human beings can live an eternal perfect life with no pains, suffering or agony. It is an eschatological, virtual perfect kingdom of salvation, enjoyment, equality and immortality, a kingdom where life is mechanical rather than biological and where human beings defeat their limited physical nature and empower instead mechanical and virtual immortal bodies. Geraci argues that:

In the future, human beings will reconfigure their bodies in order to participate in the Kingdom come. Whether as cyborgs, robots, or software, they will live

forever, cast aside pain and want, and participate in a truly universal network of knowledge. This quest can be undertaken only after we replace our human bodies and join our mechanical children in the Virtual Kingdom.(2008, p. 145)

A further reconfigured concept of Christian apocalypticism, salvation lies in machine ingenuity and humans going beyond time and biological limitation (Geraci, 2008,pp. 149-152). Geraci argues that, “ Rationality, scientific curiosity, the mind as informational pattern, the body as prosthesis—these, according to Apocalyptic AI, are the stuff that authentic human beings are made of; salvation lies in freeing them from the fetters of biology and uniting them with the intelligent robots of the future”(2010 p.139).

However, such idealistic image of a promised virtual kingdom, where salvation is attainable, does have its dark side and a dear price, as argued by Frederick Grant, is to be paid to join it. Humans are taking the risk of being enslaved by highly intelligent machines that might turn to be godlike entities and a war might occur between Terrans or those who are against technology and Cosmists who are siding with technology. On the other hand, a war might occur between humans and machines (Geraci, 2008, p. 157). This set forth the claim of laws governing robots’rights and human-robots relationship in a techno-human hybrid community (Geraci, 2010, pp. 4-5).

Being extensively preoccupied with human enhancement, Apocalyptic AI has become a leading influence in arts and culture where it is given a chance to pass its plans for spreading the culture of a virtual hybrid machine-human life through different literary genres (Geraci, 2010, p.6). It, therefore, has become an inspiration of contemporary literary writings where authors become concerned with the prediction of history throughout the coming decades and the transcendent nature of cyberspace (Geraci, 2008, p. 146).

Though Apocalyptic AI’s claim of replacing humans with intelligent machines does not appeal to other AI movements, it finds good supporters in transhumanists (Geraci, 2010, p. 3). Breaking with rules of eschatological religions, transhumanism develops a human enhancement plan with a line of theological thought that is basically inspired by Apocalyptic AI’s principles. Its originated theological mindset is based on three notions: creation, perfection and immortality. To start with the first notion of transhumanism, creation,

it identifies man with God; he “has the ability to be like God, to create and give life, as Zeus or Odin breathe life into non-living things to make them animated and thus transform them into human-beings”(Edman , 2019, p. 42). Man is a creator god in the sense that he becomes the creator of humanoid robots and androids that are mechanical being with high capacity of thinking and efficiently performing well different tasks. Such mechanical beings, according to transhumanism, are soon to develop into mindful, self-aware beings.

Moving to perfection as the second notion of transhumanism’s techno-religion, transhumanism claims to be not only concerned with issues of lifespan and immortality but also with creating a more ethical and decent version of man that is less violent and aggressive so that the “default attitude of man could be designed to treat everyone in a brotherly manner” (Moons, n.d., p. 3). Hence, transhumanism suggests a prospective means of minimizing sins and anti-religious practices throughout the potentiality of refining personalities by "erasing information with sub-sequent reflashing"(Halapasis, 2019, p. 83). The new developed self-aware beings will no longer enjoy human beings’s prior interests (money, sex, power and recognition) that are responsible for a lot of unethical practices. Hence, a rebellion against their creator is not predictable (Halapasis, 2019, p. 81). According to Foucault, this targeted individual progress is a progress in the technology of the self that is bound to help the individual’s self-modeling to fulfill his perpetual goal of leading a happy life, gain insight, reach a state of perfection and an everlasting life (Schussler, 2019,p. 96). What is needed is a transhuman individual who goes beyond his biological and egocentric nature and turns into a transindividual (Schussler, 2019, p. 99).

The third notion of transhumanism, immortality, is cyber, unreal, hypothetical mock immortality that means not a longer life span or existence but rather “an extension of the *life of consciousness* in a purely electronic form or on other carriers” (Halapasis, 2019, pp.79- 83). Like Apocalyptic AI’s, it builds heavily on the idea of processing human consciousness into an electronic apparatus to have an everlasting digital existence that turns humans into immortal beings. Hence, transhumanism’s immortality depends on keeping an out-of-body virtual digital everlasting consciousness kept safe in a technological entity (Halapasis, 2019,p. 83). What is needed, then, is an eventual development of “technologies for artificial separation of

consciousness from the brain” (Halapasis, 2019, p. 83). In this concern Mike Treder argues that:

In the future we will be able to simulate the personalities of people from the past – whether celebrities, historical figures, or loved ones – and relate directly with them. It is also possible that you might (with their per-mission, of course) choose to integrate one or more of these identities in-to your own. You may also someday accept the invitation to become part of a meta-being by subsuming your identity (or maybe a copy of your identity) into theirs. (2004, p.195)

In this way, like Apocalyptic AI, transhumanism is a post-transcendence techno-religion that proposes some revolutionary spiritual changes. It replaces the transcendence of God, that gives eschatological religion its power, with a technological ‘post-transcendence that symbolizes the power of the techno-religion (Schussler, 2019, p. 93). In addition, as argued by Schussler, offering the same promises guaranteed by eschatological religions (immortality& salvation), transhumanism implies no specific reference to God; the immortality promised by it, as mentioned above, is a techno-immortality that is achieved in the form of a software existence attained through a process of consciousness uploading wherein human mind is replicated and provided with cyber-consciousness divided into digital files where our past and present data and specifics are stored and are constantly updated. This replicated mind is managed by a mindware or consciousness software that is able to think effectively (Schussler, 2019, pp.101-102).

Similarly, transhumanism’s promised salvation is a sort of techno-salvation according to which the individual is supposed to transcend his limitation and to move to a virtual paradise in the cyberspace. This makes the concept material, hopeful, stripped off the Christian notions of suffering, mortality, weakness, constraint, despair, unease and complies instead with the techno-optimistic culture (Schussler, 2019, p. 102). However, according to Francis Fukuyama, transhumanism’s salvation is a fake one that suggests defeating mortality with one inevitable unavoidable consequence: the annihilation of human kind (Waters, 2011, p. 73)

Transhumanism's suggested techno-immortality is effected through its three major stages of human development. To be a transhuman is the first phase wherein man is transformed into a higher capable human form and goes through a process of body obsolescence. The second stage is that of becoming a post human which means to have man uploaded to a machine to live a virtual out-of-body-life and escapes his biological limitation that threatens his life and renders him a mortal being (Mirenayat, 2017, pp. 266-267). Transhumanism's last stage, the cyborg, is one wherein man becomes a human machine (Mirenayat, 2017, p. 264).

Closely related to transhumanism's three stages of the enhancement of human beings through technology, technological singularity comes to the fore as a related controversial issue. In its general sense, singularity could be exemplified in some turning transitional moments in the history of human beings like the Big Bang, as the beginning of the universe together with its end (Kruger, 2021, p. 17). Technological singularity, on the other hand, is the time a system is terminated giving way to another one to start; it is a moment referred to by Valentin Turchin as metasytem transitions. However, according to Turchin, the metasytem has a general scope that does not exclusively include AI. Accordingly, the emergence of the internet and genetics control development are examples of metasytem transition in computers and genetics (Potapov, 2018, pp.2- 3). In light of definitions of singularity, transhumanism's technological singularity starts up with the moment of technological transformation or metasytem transitions (Potapov, 2018, pp.2- 3). Similarly, defining singularity, R Paura argues that, it represents the peak of an enhanced human transformation using techno-scientific advancement (27). To further clarify the meaning of technological singularity, Alexey Potapov argues that it is "a hypothetical point at which technological progress becomes unbounded" (2018, p.1).

Alsadik's *Hedra: The Odyssey of mortality and Immortality* belongs to Cyberpunk literature, one type of science fiction that portrays the cyberspace and predicts history. It is, therefore, a dystopia of immortality that apparently traces moments of technological singularity and poses the question: how would life be like if human beings, following the example of Apocalyptic AI and transhumanism, experience technological singularity or different types of metasytem transition and become immortal? It seemingly poses and answers the

same question asked, yet not answered, by the theory of metasystem transitions: “Will humans still be a part of the next metasystem, or will this system leave humans on the verge of universal evolution as an inefficient implementation?” (Potapov, 2018, p. 4). Seeking to provide an answer for these highly existential questions, Alsadik proposes a typical presentation of transhumanism’s three above-mentioned stages, equally regarded as moments of technological singularity: the transhuman, the posthuman and the cyborg.

As its title may suggest, the novel renders different perspectives of human life when people become immortal. It puts in sharp contrast primitive stages of human development versus highly technologically developed ones, mortality versus immortality and transcendence religions versus post transcendence techno- religion. Unlike transcendence religions ‘concept of immortality that is based upon a divine force (God), resurrection, salvation and the hereafter where people live an eternal life after death, the novel presents two different types of transhumanism’s immortality: biological and techno-immortality, giving the latter the larger space. It consequently presents a new class distinction system, dividing its characters into two specific categories: the mortals and the immortals and rewrites the common hierarchical system of creations.

The novel seems to be a detailed survey of different stages of human life, starting with the first moment of singularity, the Big Bang and the evolution of life, and ending with the prospective annihilation of human beings and the emergence of seemingly new distorted species of humankind. Demonstrating man as an inevitably mortal being who is vulnerable to all dangers and atrocities, the novel presents scenes of early primitive stages of man’s ‘life that are populated with brutal beast-like human beings. The novel then moves to its second section, *Badawy: Congratulation, you are immortal* that starts as early as September 2052. It presents the first suggested type of immortality, the biological one, effected through “the devised technique of immortality” that can cause genetic improvement and renew brain cells and other body organs. Accordingly, to be immortal, the individual is being injected with nano robotics that saves the body the risk of tumors, cancer and syndromes. It also helps man to keep his young-looking appearance and neither face nor body would show signs of age. In this respect, Alsadik expressively writes, “Man has always been dreaming of immortality, a dream that comes true and is

about to be carried out after a number of successful experiments. This has greatly revolutionized the world as a whole, pushing it to standstill in bewilderment looking forward to the possibility of joining the train of immortality” (Alsadik, 2021, p.49). However, though regarded as initiating a significant moment of technological singularity, the technique of immortality is severely and violently condemned and denounced as blasphemous by representatives of the three Monotheistic Religions: Islam, Christianity and Judaism (Alsadik, 2021, pp. 50- 51).

Therefore, *Badawy: Congratulation, you are immortal* tells the story of Badawy who has been longing for immortality, since early childhood, through a bite from Dracula that can turn him into an immortal monster feeding upon humans (2021, p. 54). The dystopian story, that takes place in 2052, tells the story of Badawy and Asmaa who, seeking biological immortality, submitted themselves to the medical examination of the technique of immortality. However, Badawy was approved of and was injected by the immortality drug while his deeply beloved wife Asmaa, was rejected. This marks Badawy’s moment of technological singularity that marks the startup of a new historical era and the sealing of a previous one. However, since immortality here is biological rather than cyber-immortality, no cyberspace virtual world is available for the biologically immortal to go to. This strips transhumanism, as a techno-religion, off its promised salvation. Badawy’s moment of singularity was the beginning of his destruction as well as his wife’s since the then immortal Badawy was attracted to the immortal Clara who made a false agreement with Asmaa according to which, Clara would help Asmaa to be immortal if she gave up Badawy forever. However, telling Badawy about Clara’s deceiving her into a false agreement to get him in return, the still mortal Asmaa died at the age of seventy seven. Grieving over the loss of Asmaa, the eternal Badawy committed suicide to join her leaving a note that says, “immortality with neither love nor humanity is nonsense” (Alsadik, 2021, p. 93). This marks a desire to go back to the old state where man is mortal renouncing the new era of human enhancement initiated by the moment of technological singularity that proves to catastrophically lead to death.

Critically dealing with transhumanism’s second percept, perfection, and its pretentious ethical claim of creating a more civilized and virtuous version of man, Alsadik casted doubts on it as

misleading and over-optimistic. He has skillfully portrayed transhumanism's lust for immortality, as a malicious corrupting one that causes human beings to commit a lot of crimes and ends up with a suicidal tendency. For example, seeking to fulfill the financial requirement of the technique of immortality, Asmaa has stolen the required sum of money from her father. In addition, being conditioned with emasculation, biological immortality would rather create imperfect emasculated humans, which means the termination of notions like fatherhood, motherhood and childhood (2021, p. 61). Hence, the moment of technological singularity proves to seriously disturb transhumanism's notion of perfection and immortality.

A further part of the novel, *It is my Due Time*, takes the reader to another dystopian period in 3402 that testifies at once transhumanism's second notion, namely creation, exemplified in the creation of cyborgs that are new forms of a higher capable man. This marks a further moment of technological singularity when the techno-immortality, typical to transhumanism, grants man a sort of everlasting digital being by having his own consciousness uploaded to a machine. Consequently, this identifies transhumanism as a post transcendence religion that replaces God, as a creator, with the omnipotent power of science and suggests a further type of immortality that is technological and cyber rather than biological. This is suggested and elaborated by Alsadik as he argues that techniques of immortality have reached the top using AI. In this respect, he writes:

AI managed to replicate human intelligence and to outstandingly surpass it in 2385. It was a tremendous scientific renaissance when, using computer, immortal scientists managed to find out the possibility of transforming human mind, consciousness and identity into digital data that could be uploaded to a robot called Avatar, a mechanical body equipped to receive human identity. It also became possible to upload human identity on the internet. This facilitate the move from one continent to another by uploading the identity through the internet to a remote Avatar in few seconds (2021, p. 102)

This marks the abovementioned stages of transhumanism wherein man goes through a process of body obsolescence and turns into a post

human abandoning his biological body to escape his biological limitation while his consciousness is uploaded to an avatar to live a virtual out- of- body- life and become a cyborg. Keeping digital versions of their identities, the immortals secure an eternal immunity against death and if their biological bodies die due to an accident, the identity will remain forever (Alsadik, 2021, p.105). Consequently, humans and machines become so close in appearance that to distinguish a human from a robot, one has to detect the biological functions like eating, urinating and defecating (Alsadik, 2021, p.171). To express how the edge of the divide between man and machine is blurred in the cyborg stage, as claimed by transhumanism, Alsadik proposes that the Avatar can become more humanlike in its looking, body and skin touch. Its reactions and behavior may be made more human as it can laugh, feel sad, get astonished, surprised and show anger like humans (2021, p.103).

In line with *Badawy: Congratulation, you are immortal*, Alsadik's *It is my Due Time* portrays the immortals as mostly corrupted cyborgs that are far from perfection as they are dishonest corrupt individuals who indulge in adultery, murder, suicide, genocide and self-deification. This testifies the absence of transhumanism's suggested process of deleting all malicious information that is responsible for committing sins. Most avatars have no code of ethics that restricts their inclination to adultery, homicide, infidelity and other immoral follies. This goes against transhumanism's percept of seeking perfection beyond that of physical appearance and intelligence by stripping the cyborg off his egocentric nature and selectively skipping from the uploaded consciousness all malicious interests that are bound to instill into him sinful desires.

Though the very process of body obsolescence, typical to the cyborg stage, marks the moment of technological singularity, it is one that is disturbed with a desire to go back to the spare biological body, a fact that hinders man's going beyond biological limitation. Condemning transhumanism's claim of immortality, as depriving them of beauty and nature, the majority of the immortals, prefer to keep their human bodies since "enjoying nature and the life of mortals has sometimes a special beauty" (Alsadik, 2021, p. 105). This is further illustrated when Alsadik's writes, "Budin awakens to restore his biological body for some time" (2021, p.113). Similarly, longing for his biological body, the immortal Budin says, "I do miss my body

greatly.. the taste of bear.. my mortal life.. thinking with one mind.. one body.. I will have a break for one can of bear, then I restore work...”(Alsadik, 2021, p.113). In the same way, when the immortal Clara Rudrighs had her biological body killed by the Believer, Michael, she hysterically said to Daniel, “I will miss my body”(Alsadik, 2021, p. 218). Her avatar kept on slapping and hitting him saying “You, son of bitch, I have kept my biological body safe for more than one thousand and eight hundred years! I will kill you! I will kill you” (Alsadik, 2021, p. 217). In another situation, she said to Danial, “ I envy you... you have a biological body made by nature. You eat, drink and make love...”(Alsadik, 2021, p. 316). Hence, once again, Alsadisk disrupts the metasystem transition, that marks the moment of technological singularity, with a desire to go back to the pre-singularity state. This testifies that the new- born technological singularity is constantly obsessed with a longing for the old state. It also testifies a failure in attaining transhumanism’s pattern of technological salvation that lies in the individual’s going beyond biological limitation and become a cyborg, leaving behind his biological body, to live in a virtual paradise in the cyberspace (Geraci, 2018, p. 139).

Portraying further moments of metasystem transition and technological singularity, the novel highlights the move to transhumanism as a post- transcending Techno-religion that dismantles the belief in God proposing instead a techno- god. This is typical to Brasher’s argument that transhumanism’s required religion should have the cyborg- human machines- at its core. Replicating the first notion of transhumanism, creation, that believes man to be well – prepared to be a deity, Budin is established, from the very beginning, as a techno godlike figure who rules over all mortals and immortals alike and has the authority to execute the biological body and delete the digital identity of any immortal who dares to go against his laws (Alsadik, 2021, p.105). Budin has got an unidentified number of digital identities spread all over the world so that he can be everywhere simultaneously.

Budin first casts doubts on all religions, gods and prophets throughout history believing them to be ordinary persons; he regards religions as mere thoughts devised and fabricated for the satisfaction of the mortals rather than the immortals who will never meet God (Alsadik, 2021, p.114). He then expresses his cherished dream of

being a deity, a dream he kept on pursuing and planning for till the age of one thousand and two hundred years (108). He wonders, “What prevents me from being a God? Why not enjoying matters for some times and writing my own great religion?”(Alsadik, 2021,2021,p.112). Budin believes that planning to be a deity and to convince thousands of mortals simultaneously is a hard toil (2021, p.114). He says:

It is time to declare my divine nature to mortals to help them believe in the sole real god in the universe.. the one that nobody dares to cast doubts on his words.. the one worshiped by all humanity .. He is there everywhere.. He knows everything.. He has miracles that can cause the mortals to collapse like screwed under my Emirate.. and follow my book’s instructions which take me hundreds of years to write. (Alsadik, 2021, p.114)

Hence, a new Budinian techno-religion comes into being and there comes a time when the memory of transcendence religions is utterly eliminated leaving behind no single sign. However, being a deity, Budin becomes a dictatorial oppressive one who seeks pleasure in manipulating the mortals and immortals alike, imposing upon them the fallacious irrational rules of Budinian religion violently torturing those infidels who go against his commands. He further demonstrates himself by showing them some fake miracles like killing and bringing to life Maleh’s Friend Nafek and resurrecting Elsael’s parents who were brutally killed when he was a child. However, these are nothing but fallacious tricks in which he just resurrects digital replications of the dead. Here, Alsadik puts into sharp contrast eschatological religions ‘concept of resurrection of the dead to live an eternal life in heaven and the techno-religion’s resurrection of mechanical replications of human beings that are meant to justify techno god’s cause.

Once again, Alsadik condemns the techno-religion’s suggested cyber immortality as turning life to be an eternal meaningless and boring journey through which human beings have gone astray seeking fake sources of meaning and pleasure. Accordingly, Budin seeks to make his life meaningful by establishing himself as a techno god; his lust for power and supremacy that would mark a further moment of a negative technological singularity is

expressed in his words, “I desire nothing in life except being worshiped by people. Having no real pleasure, life has become so boring. The real pleasure lies in absolute power. Being a god is the utmost absolute power” (Alsadik, 2021, pp.114-115). On a similar ground, explaining how people fight boredom. Danial says:

With the passage of years over and over, man grew more bored; he has absolutely experienced everything. Repetition means more boredom for him so that, after thousands of years, the immortals became scholars in everything; they know everything about anything; they read all available books; practiced all available crafts and jobs, enjoyed all available means of entertainment. (Alsadik, 2021, p. 275)

Hence, as typical to Alsadic, the technological singularity presented in the initiation of a techno-religion is coupled with a repulsion of the metasystem transition and a longing for the pre-singularity state. This is highlighted in Clara refusal to get rid of her corpse and insistence upon having it buried beside Badawy’s. This significantly suggests a going back to transcendence religions ‘rituals and belief system of salvation and immortality where the dead is buried to be resurrected to live in immortal paradise.

A further criticized cyber- immortality-related issue is that of the stripping off the anthropocentric hierarchy of creation and the drift towards Budin’s technocentric one that locates the mortals as the inferior category whose life conditions have greatly deteriorated. They have greatly minimized in number, compared to the immortals, and are depicted as scattered with different percentages all over the world (Alsadik, 2021, pp.120-121). The new hierarchical system establishes the immortals as the superior masters who are served by the slave mortals that become the oppressed minority that live in less civilized areas just to eat, reproduce and entertain the immortals who regard them as “robot-like who serve them” (Alsadik, 2021, p.105). Being provided with food, water and clothes given to them by the immortals, they no longer work. They consequently take no interest in their hygiene and become subjected to diseases and syndromes. Ignorance, in addition, spread and mortals started to believe in myths and superstitions. A large sector of mortal males refrain from marriage; as a result, adultery and illegal sexual relationship spread resulting in

illegitimate sons (Alsadik, 2021, pp.119-120). Consequently, bloody wars among the immortals and the mortals were initiated and sometimes it culminated in genocides(Alsadik, 2021,p.111).This typically reflects Frederick Grant's argument that in the Apocalyptic AI's promised virtual kingdom of salvation, humans may take the risk of being enslaved by highly intelligent machines that might turn to be godlike entities and a war might occur between Terrans or those who are against technology and Cosmists who are siding with technology (Alsadik, 2021, p.109).

However, a further sign of a repulsion of the technological singularity that is initiated by the change in theological creeds, is symbolized by the fact that both mortals and immortals get fed up with the tyranny and oppression of Budin who has forcefully established himself as the almighty techno-god. Hence, the immortals, led by Clara Rudrigs and Daniel Histurak's research group "Infinity Sector" worked for his destabilization. They consequently arranged worldwide gatherings with the mortal public through which they widely spread the truth of the obliterated history of old religions and civilizations and within forty years, all mortals became aware of the complete truth (Alsadik, 2021,p.233). However, though they form a large mass of furious disbelievers, Budin manages to seize control over them and has indulged into a sort of mortals genocide even after his biological body was killed by two infants.

Nevertheless, suddenly all Budin's avatars were astonishingly disabled by Budfay who, being in the space journey, Hedra, seeking knowledge, sought help from huge planet Cupid 108, one that has the most genius electronic brains in the galaxy, who could seize control over Budin's worldwide replications. Cupid then decided to rule over the world that is better to be ruled by intelligent minds or the Uniques, as they called them (Alsadik, 2021, pp.25-51). The new rulers, the robots, put an end to the mortals 'slavery and they started to have equal rights like the immortals. The Uniques decided to transfer all mortals into immortals. However, being dissatisfied with the mortals' being equal to them, the immortals, including Daniel, opposed the idea. The cyber immortality suggested by transhumanism is severely criticized in Daniel's words as disturbing nature's laws of human reproduction and the social laws of class distinction system that reasonably and proportionally categorize people to help life go on. He says, "I myself had no problem if all people become immortal,

however... nature Budfay.. this is a killing of nature.. of reproduction.. the immortality of all human beings while keeping the law of emasculation is a condemnation of human race to their inevitable annihilation!"(Alsadik, 2021,p. 273). Therefore, emasculation, presented as a prerequisite of immortality in Alsadik's dystopian version of life, is another moment of negative technological singularity that starkly highlights a going beyond the rules of nature. It is put in sharp contrast with transhumanism's proposed version of cyber immortality according to which humans live with their automated youngsters in the cybernetic kingdom (Geraci, 2008,p.145). This entails a techno-reproduction rather than a biological one. The idea finds expression in Waters's argument that according to transhumanism, children are reduced to be reminders of human beings' inevitable death (2011, p. 173).

The last part of the novel, Budfay 1:"Where are Human beings" suggests the disappearance of human race. It starts with a new map of the world wherein all continents become one deserted unit surrounding one enormous lake. No sign of life could be seen there and all skyscrapers, building, bridges, tunnels, dams, factories, machines, airplanes, cars, etc have been damaged. Budfay lost contact with his fellows as well as with the avatars in Hedra, including his own replicated version. It was in 306 million, the earth is rather inhabited with huge plants, beasts, insects and flying dinosaurs. Wondering where are human beings, Budfay cried "I am Budfay from planet Earth, coming from the past. If anybody can hear me please let me see him!"(Alsadik, 2021, p. 263). He then came across the mortals' offspring; they are mysterious eerie human-like creature with tall legs and bat wings who led him to Khofo pyramid where he found a number of the same eerie creatures with Daniel setting on a wheel chair. Being an immortal, Daniel is still alive with good health. However, his memory has been seriously damaged. He could hardly recognize Budfay who exerted great efforts to remind him of himself.

Daniel told him that, being dominated by the immortals, the mortals have been reduced to be blunt creatures with animal instincts and atrophied brains. This suggests no hope in technological salvation that, according to Geraci, lies in freeing human beings from "the fetters of biology and uniting them with the intelligent robots of the future"

(2010, p. 139). Yet Danial has become their godfather around whom they used to circulate every day to listen for wise sayings (Alsadik, 2021, p. 269). Beside the mortals' offspring, there was a second version of human beings, the phosphorics, who are thin, short blind creatures with sharp teeth; they have neither vocal cords nor tongues to speak and can communicate with the surrounding environment by sending and receiving electromagnetic waves. The number of the mortals' offspring and the phosphorics have greatly minimized since Danial has enacted a law to restrict reproduction (Alsadik, 2021, pp. 269-270). Eagerly and persistently asking Danial about the past, Budfay received one concise answer from Daniel who could just remember one single fact expressed by him as he said, "all people died and no body exist except me" (Alsadik, 2021, p.274).

The novel dismantles once again transhumanism's technological immortality and its related concept of paradise. In place of going to paradise, life goes back to its most primitive stage exemplified in the reappearance of creatures like Dinosaurs and living in Khofo's pyramid. Hence, reaching the top, the era of highly developed technology and AI that is crowded with robots, avatars and spaceships has come to an end leading to the annihilation of human beings and immortal avatars and a new primitive civilization replaced it. Human race, in the ordinary sense, was completely annihilated and was replaced with the mortals' offspring and the phosphorics. Danial was their idol who lived with them in the pyramid, giving them lessons in love, cooperation, doing good deeds; he teaches them philosophy, music, logic and preparing food. This replicates Fukuyama's critique of transhumanism's salvation as "counterfeit" leading to human kind eradication (Waters, 2011, p.173). This echoes Vernor Vinge's argument that the initiation of superhuman intelligence would inevitably mark the end of humanity (2017, p.11).

Ironically enough, transhumanism's ultimate claim of immortality has been destabilized by being the reason behind the spread of a suicidal tendency among immortals who could find no meaning in eternal life. Danial says, "Wide-ranging claims of suicide spread among immortals that found responds from hundreds of thousands of them who have scratched their digital personalities and committed suicide killing their biological bodies in public squares with great celebrations held by the surviving immortals" (Alsadik, 2021, p. 275). Once again, the metasystem transition, according to

which death as a law of life is disturbingly replaced with immortality, is constantly obsessed with a longing for the old state of mortality. Therefore, transhumanism's suggested enhancement plans resulted in different technological singularity processes that recur in the novel proving to malevolently lead to the destruction of humanity.

Conclusion

Through its critical reading of Alsadik's dystopian novel, the paper highlights the fact that the selected literary text, *Hedra: The Odyssey of Mortality and Immortality*, proves to be a typical and accurate representation of all notions and stages of transhumanism. Throughout the novel, Alsadik, critically tackles transhumanism's plans of human enhancement through technology and science and the suggested cyber immortality paradigm, highlighting the fact that it should inevitably lead to human annihilation. This is why the novel ends up with a kind of genocide and all immortals and mortals, except Daniel and Budfay, were annihilated. To pull to pieces the optimistic vision of transhumanism's concept of techno immortality, the novel frequently and differently portrays the inescapable potential deviations from its either- or – restrictions. This is best highlighted in the characters' disruption of transhumanism's fundamental prerequisite of techno-immortality that entails the existence of virtual immortal bodies rather than real humans in blood and flesh. Similarly, the novel portrays the breach of a further major regulation of transhumanism: the replacement of the divine force, God, with the omnipotent power of science, exemplified in the cyborg. This is symbolized in the issue of god Budin, who, keeping his biological body, is both a techno and human god. In this way, the transhumanist cyber paradise of immortality has got two omnipotent powers ruling over it: a scientific and a human power (god Budin).

Alsadik criticizes another aspect of transhumanism as a techno religion that suggests an imperfect model of techno salvation that starts with the very process of body obsolescence and is completed when one unites with the intelligent robot. However, still salvation is not possible in the novel since immortals go beyond transhumanism's techno salvation paradigm by keeping their biological body the fact that prevent them from transcending their limitation.

A further criticized malevolent point of weakness, according to Alsadik's speculation upon the transhumanism dystopian kingdom, is

the endless digital replication of man that reduces him to be a machine that can be replicated several times. This seriously endangers codes of human subjectivity and individuality since every immortal in the novel can assume the other by creating a replicated version (avatar) of him. For example, having killed the Believer (Michael), Danniell creates an avatar assuming the Believer's that could be discovered neither by Michael's wife nor by his own children. This blurs the edge of the divide among the immortals and creates a chaotic confused world wherein anybody can assume the other and every individual can possess an endless number of his replicated self (avatar). Accordingly, at the end of the novel, Budfay asked Daniel about the replicated copy of himself that comes back from the past. This indicates a sort of self-alienation where the one copy of the self knows nothing about the other. Hence, being immortal, man becomes a distorted version of a human being who enjoys immortality, health, knowledge and intelligence yet lacks individuality and subjectivity. With the passage of time, he loses his memory that is an essential part of man's background and individuality. Besides, being deprived of reproduction, the immortals are entitled instead to have automated offspring the fact that seriously disturb nature's laws.

Forming a threat to human species, technological singularity, repeatedly marked in the novel, is presented as malevolent rather than benevolent. Alsadik first surveys the novel's highlighted moments of technological singularity exemplified in the moment biological immortality is made possible, the initiative moments of cyber immortality, the move from anthropocentrism to technocentrism where immortal robots become the masters that are served by mortal human beings, the initiation of a post transcendence techno-religion replacing transcendence religions and the replacement of the typical image of Christian God with a techno aggressive God, Budin. A final moment of technological singularity is marked at the end of the novel where human have completely disappeared and a seemingly new deformed humanlike species came into being. The novel, then, portrays every identified metasystem transition or moment of technological singularity as destructive and damaging to human life, taking humanity a step forwards towards annihilation.

Notes

١- "هذا هو اليوم الذى بدأت فيه الانسانية حياة جديدة، حياة ممتدة، مستمرة، لا تتوقف، لا تعطلها المشاغل، ولا تُورقها عقارب الساعات، فطالما كان يحلم الإنسان بالخلود، وقد تحقق الحلم، وأصبح على مشارف التنفيذ، بعد عدة تجارب ناجحة، الأمر الذى زلزل العالم، وجعله يقف مشدوها، مشرباً على أطراف أصابع قدميه، ينتظر إمكانية ركوبه قطار الخلود" (٤٩).

٢- "الخلود بدون حب أو إنسانية، ليس له معنى" (٩٣).

٣- فى العام ٢٣٨٥ م وصل الذكاء الاصطناعى للتفرد، وأصبح أكثر ذكاء من الغنسان. كانت صحة علمية جبارة، سرعان ما تمكن العلماء الخالدون بمساعدة العقل الإلكتروني من التوصل إلى إمكانية تحويل وعى وشخصية وذاكرة وعقل الإنسان إلى معلومات رقمية، بحيث يمكن تحميلها على إنسان آلى، يسمى بـ "الأفاتار"، وهو جسد ميكانيكى مجهز لاستقبال الشخصية الإنسانية. كما أصبح بالإمكان رفع شخصية الإنسان على الإنترنت، ما جعل هناك إمكانية للانتقال الآنى من قارة إلى أخرى، عن طريق تحميل الشخصية عبر الإنترنت إلى أفاتار بعيد فى لحظات. (102)

٤- "لقد حافظت على جسدى مثالياً لأكثر من ألف وثلثمائة سنة يا ابن العاهرة! سوف أقتلك بيدي! سوف أقتلك" (٢١٧).

٥- "فلاستمتع بالطبيعة، وعيش حياة الفانين، لها مذاق خاص أحياناً" (١٠٥).

٦- "ينهض بودن من غفوته، إذ أراد أن يسترجع جسده البيولوجى لبعض الوقت" (١١٣).

٧- "كم اشتقت إلى جسدى ... إلى تذوق طعم البيرة.. إلى حياتى الفانية.. إلى التفكير بعقل واحد .. سأخذ إجازة لمدة علبة بيرة واحدة، ثم أعود إلى العمل..." (١١٣).

٨- "سأفتقد جسدى" (٢١٨).

٩- "أنا أحقد عليك.. لديك جسد بيولوجى من صنع الطبيعة، تأكل وتشرب وتمارس الجنس..." (٣١٦).

- ١٠- " ما المانع أن أكون إلهًا؟ لماذا لا أمرح قليلاً؟ وأكتب بخط يدي ديني العظيم؟" (١١٢).
- ١١- حان الوقت كي أعلن عن ألوهتي للفانيين... كي يؤمنوا بالإله الوحيد الحقيقي في هذا الكون... الإله الوحيد الذي لن يستطيع أحد أن يكذبه... الإله الوحيد الذي ستجتمع عليه البشرية كلها... فهو موجود في كل مكان... يعلم كل شيء... ولديه من المعجزات ما يجعل الفانيين يتساقطون كالسكارى تحت إمارتي... واتباع تعليماتي وكتابي... الذي ظللت مئات السنين أكتب فيه... (١١٤).
- ١٢- " لا أريد شيئاً في حياتي الخالدة المتبقية ، سوى أن يعبدني الناس ويؤمنوا بي، فالحياة أصبحت رتيبة، ليس بها متعة حقيقية.. والمتعة الحقيقية، لن أجدّها سوى في السلطة المطلقة... وهل هناك سلطة مطلقة أكثر من أن أكون إلهًا؟" (١١٤-١١٥).
- ١٣- "فيمرور السنين والسنين، أصبح الإنسان أكثر مللاً، فقد جرب كل شيء ممكن على الإطلاق، وأصبح التكرار يصيبه بالضجر، حتى أن الخالدين بعد عدة آلاف من السنين ، باتوا جميعاً علماء في كل شيء ، يعرفون كل شيء عن كل شيء، قرأوا كل الكتب الممكنة ، مارسوا كل الحرف الممكنة، زاولوا كل المهن الممكنة، تمتعوا بكل الوسائل الترفيهية الممكنة" (٢٧٥).
- ١٤- " لم يكن عندي مانع من خلود الناس جميعاً، ولكن .. ولكن الطبيعة يا بودفاي.. ها قتل للطبيعة.. التكاثر.. انظر إلى البشر الآن.. هل رأيت ماذا فعلت بهم الطبيعة؟ إنها عظيمة الطبيعة.. وعبقريتها .. بخلود الإنسانية كلها، مع الإبقاء على قانون الإخصاء، فنحن نحكم على الجنس البشري بالانقراض، لا محالة!" (٢٧٣).
- ١٥- " أنا بودفاي من الأرض، أتيت من الماضي، فليظهر أي أحد إن كان يسمعي" (٢٦٣).
- ١٦- " أن كل الناس ماتوا.. ولم يبق في الوجود سواي" (٢٧٤).
- ١٧- "ثم ظهت دعاوى موسعة من الخالدين للانتحار، والاكتفاء من الحياة، وقد هدت استجابة مئات الآلاف، قاموا بإعدام شخصياتهم، والانتحار في الميادين العامة بأجسادهم البيولوجية، وسط احتفالات ضخمة من بقية الخالدين" (٢٧٥).

References

- Alsadik, A. (2021). *Hedra: The Odyssey of mortality and immortality*, Eleen.
- Antosca, A. R. (2018). *Singularitarianism and the new millennium: Techno-theology in the transhumanist age of re-enchantment*. [Doctoral Dissertations, University of Salve Regina] AAI10791887.
- <https://digitalcommons.salve.edu/dissertations/AAI10791887https://digitalcommons.salve.edu/cgi/viewcontent.cgi?article=1118&context=dissertations>
- Antosca, A. R. (2019). Technological re-enchantment: Transhumanism, techno- religion, and post-secular transcendence. *Humanities and Technology Review*, 38 (2). Pages 1-28. ISSN 1076-7908
- Cole-Turner, R. (Ed) (2011). *Transhumanism and transcendence Christian hope in an age of technological enhancement*. Georgetown University Press.
- Cole-Turner, R. (2011). Transhumanism & Christianity. In Cole-Turner, Ronald (Ed.), *Transhumanism and transcendence: Christian hope in an age of technological enhancement*. (1st ed., pp. 193-203). Georgetown University Press.
- Cybulska, E. (2015). Nietzsche' sübermensch: A glance behind the mask of hardness. *Indo-Pacific Journal of Phenomenology*, 15(1), 1–13.
<https://doi.org/10.1080/20797222.2015.1049895>
- Edman, T. B. (2019). Transhumanism and singularity: A comparative analysis of a radical perspective in contemporary works. *Gaziantep University Journal of Social Sciences*, 18(1), 39–49. <https://doi.org/10.21547/jss.446662>
- Garner, S. (2011). The hopeful cyborg. In Cole-Turner, Ronald (Ed.), *Transhumanism and transcendence: Christian hope in an age of technological enhancement*. (1st ed., pp. 88-100). Georgetown University Press.
- Geraci, R. M. (2008). Apocalyptic AI: Religion and the promise of Artificial Intelligence. *Journal of the American Academy of Religion*, 76(1), 138–166.
<https://doi.org/10.1093/jaarel/lfm101>

- Geraci, R. M. (2010). *Apocalyptic AI: Visions of heaven in robotics, Artificial Intelligence, and virtual reality*. Oxford Univ. Press.
- Hansell, G. R., Grassie, W., Blackford, R., Bostrom, N., & Dupuy, J. P. (2010). Transhumanism and its critics. Metanexus Institute.
- Halapasis, A. V. (2019). The man in technosphere. *Anthropological Measurements of Philosophical Research*,(16), 78-90. <https://doi.org/10.15802/ampr.v0i16.188397>
- Halapsis, A. V. (2019). Gods of transhumanism .*Anthropological Measurements of Philosophical Research*, (16), 78–90. <https://doi.org/10.15802/ampr.v0i16.1>
- Kruger, O. (2021). The singularity is near! visions of Artificial Intelligence in posthumanism and transhumanism. *International Journal of Interactive Multimedia and Artificial Intelligence*, 7(1), 16. <https://doi.org/10.9781/ijimai.2021.07.004>
- Kurzweil, R. (2005). *The singularity is near: When humans transcend biology*. New York
- Mirenyat, S. A., Bahar, I. B., Talif, R., & Mani, M. (2017). Beyond human boundaries: Variations of human transformation in science fiction. *Theory and Practice in Language Studies*, 7(4), 264. <https://doi.org/10.17507/tpls.0704.04>
- Latham, R (Ed.). (2017),*Science fiction criticism: An anthology of essential Writings*.London: Bloomsbury Academic. <http://dx.doi.org/10.5040/9781474248655.0037>
- Moons, P.(n.d.). God and man in the machine: Religion in the transhumanist environment. *Third Reflection Paper, HUM 610*, 1-10. https://www.academia.edu/5550928/God_and_Man_in_the_Machine_Religion_inthe_Transhumanist_Environment
- Paura, R. (2016). Singularity believers and the new utopia of transhumanism. *Im@go. A Journal of the Social Imaginary*,7, 23-35. DOI: 10.7413/22818138056
- Potapov, A. (2018). Technological singularity: What do we really know? *Information*, 9(4), 82. <https://doi.org/10.3390/info9040082>**
- Schussler, A.E. (2019). Transhumanism as a new techno-religion and personal development: In the framework of a future technological spirituality. *Journal for the Study of Religions and Ideologies*, 18(53),92-106.

<https://link.gale.com/apps/doc/A594832542/AONE?u=anon~43226f4&sid=googleScholar&xid=b3cb175a>

S. Sethe (Ed.). (2004). *The scientific conquest of death: Essay on infinite lifespans*. LibrosEnRed

. <http://www.imminst.org/SCOD.pdf>

Treder, M.(2004). Emancipation from death. In S. Sethe (Ed.), *The scientific conquest of death: Essay on infinite lifespans* (1st ed., pp. 187-196). LibrosEnRed.

Vinge, V. (2017). The coming technological singularity: How to survive in a post-human era. In R. Latham (Ed.), *Science fiction criticism: An anthology of essential writings* (1s ed, pp. 352–363). London: Bloomsbury Academic.

<http://dx.doi.org/10.5040/9781474248655.0037>

Waters, B. (2011). Whose salvation? Which eschatology?

Transhumanism and Christianity as contending salvific religions. In Cole-Turner, Ronald (Ed.), *Transhumanism and transcendence: Christian hope in an age of technological enhancement.*.(1st ed., pp. 163-175). Georgetown University Press.

Wessinger, C. (2011). Millennial glossary. *Oxford Handbooks Online*.
<https://doi.org/10.1093/oxfordhb/9780195301052.003.0036>

Wilson, R. L. (2017).Techno-salvation: Developing a Christian hermeneutic of enhancement technology. [Doctoral dissertation, University of Duquesne].

<https://dsc.duq.edu/cgi/viewcontent.cgi?article=1155&context=etd>