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Reinterpreting human in the digital age: From anthropocentricism to posthumanism and transhumanism

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Highlights

- The concept of human has changed and transformed into something new through innovative and disruptive improvements in the digital age.
- Redefining human with its entanglements is a must in the digital age.
- Posthumanism criticizes anthropocentrism.
- Transhumanism sees human as a work-in-progress and a machine-like entity that is something to be modified, adapted, and reformed.
- Human becomes an entangled entity that owns its own existence in relation to other living systems, including technologization and cyborgization.

Article Info: Research Article

Keywords: *Digital age, Anthropocentricism, Posthumanism, Transhumanism, Entanglements.*

Abstract

This paper builds its arguments on the (re)interpretation of 'human' and its entanglements with nonhumans in the digital age. Since the concept of humanness has prominently transformed into something innovative because of immense improvements in science and technology, and thereby society, terms such as human, nonhuman, posthuman, and transhuman including cyborgs, have emerged as concepts that require to be reinterpreted in the digital age. In a planet where cryptocurrency, artificial intelligence, 5G technology, autonomous vehicles, quantum computers, genetic engineering, edge computing, microchips, green tech, and hydrogen fuel cells are commonly regarded as innovative inventions of the 21st century, the positions of humans are decentralized and displaced from centralized to more peripheric spheres. Beginning from anthropocentrism, broadly defined as a thought process that makes humans the primary measure of everything, this paper exposes the (trans)formation of humans from anthropocentricism to posthumanism and paradoxically from posthumanism to transhumanism by drawing upon the philosophical discussions of Donna Haraway, Rosi Braidotti, Cary Wolfe, Francesca Ferrando. By interrogating the socio-cultural existence of humans through epistemological and ontological viewpoints, this paper attempts to (re)define the place of humans in the digital age with a focus on the relationship between human and nonhuman beings and their entanglements.

1. Introduction

The survey of the history of humankind from the Stone Age up to the 21st century indicates that humankind has experienced immeasurable improvements, including surviving many extinctions. When the human history is examined, it is seen that, particularly at the end of the 20th century and at the very beginning of the 21st century, humankind has witnessed a number of social, cultural, political and financial phenomenon. In his work, "An Introduction to the Information Age", Manuel Castells mentions a series of historical events that have altered both our lives and the world itself in the last decades. Among them, to name a few are the information technology revolution, the collapse of the Soviet Union and the end of the Cold War,

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the restructuring of capitalism, the process of globalization, the rise of feminism and the crisis of patriarchalism, the increase of ecological consciousness, the rise of communalism, and the development of a global criminal economy (2009, p. 152). Among all these, technological advancements, with a broader meaning, the information technology revolution, can be regarded as the most important phenomenon in human history as it has affected many spheres of life.

The mid-20th century roughly marks the start of the Information Age, commonly referred to as the Digital Age, which spans to the present day. The emergence of the internet, as one of the most significant milestones that defined the early Information Age, dates back to 1948, when the Bell Telephone Laboratories announced the invention of a rather small electronic transistor as 'an amazing simple device'. Interestingly enough, when in 1943, the English mathematician and code breaker Alan Turing visited the Bell Labs and met the American computer scientist and cryptographer Claude Elwood Shannon, also known as the father of the information theory, they both exchanged theories on the future of artificial thinking machines (Gleick, 2011). Similarly, among a number of physicists, John Archibald Wheeler, as a last surviving collaborator of both Einstein and Bohr, after questioning how much a bit computes, how fast it can be, how big its total information capacity is, as well as its memory space, and what the relationship between energy and information is, famously declared that "we will have learned to understand and express all of physics in the language of information" (Gleick, 2011). Since the declaration of Wheeler, the information has been growing at an immense speed beyond anyone's reckoning. Contrary to common belief, the greatest gift to humanity was not fire at all. Paradoxically, in the sayings of Aeschylus (525-455 BC), an ancient Greek tragedian, "Yes, and numbers, too, chiefest of sciences, I invented for them, and the combining of letters, creative mother of the Muses' arts, with which to hold all things in memory" (1926, p. 460), lies the reality. In other words, today, the deciphering of numbers and encrypted messages has paved the way for the transformation of humankind's way of life as a result of technological advances that have their roots long before the industrial revolutions.

As is well known, the industrial revolutions have been influenced by enormous advances in science and technology. When the industrial revolutions in human history are examined, it will be seen that there are basically three main currents. The first industrial revolution (1760–1840), which saw a shift from manual to machine manufacturing of products, was primarily centred on the mechanical production of goods using steam engines. The second industrial revolution (1870-1914) was a period of mass production because of electricity and the assembly line. The third industrial revolution, which emerged in the second half of the 20th century following World War I, opened the way for advancements in electronics, digital computing, and information technology. Thus, all these industrial revolutions contributed to the development of digital networks and Artificial Intelligence (AI) in the 21st century. That is, the rapid shift from traditional industries to more on information technology has been remarkable in many spheres of life. Thus, everything has changed so rapidly that it becomes crucial to redefine 'human' in a world where human body is affected socially, culturally, politically, technologically, and more.

In the history of humankind, from Aristotle, who defined "human beings as, by nature, political animals", (Güremen, 2018, p. 170) to our contemporary times, the concept of 'human' has been defined in many ways. Similarly, since humans have been affected by not only these innovative and disruptive advancements and discoveries in science and technology but also by the other aforementioned cultural and social phenomena, it becomes urgent to redefine 'human'. It is known that a wide array of disciplines has interrogated the dynamic concept of human from anthropocentric perspectives. Even if the general question is "what is it that makes us human?", a common answer to this question has mostly revolved around the issue of what makes us superior to non-human, whether they be other animal species, plants, or machines.

This essay, as its title suggests, aims to redefine the term 'human' before exploring how it is entangled with nonhumans in the digital age. Traditionally, human can be defined as a subject, particularly one who is conscious of his/her self and who is remarkable with his/her rational intelligence, and responsible for his/her own needs and desires. According to Braidotti's terminology, humans are "nomadic subjects [...] as embodied and socially embedded assemblages" (2012, p. 66). However, a number of questions regarding what a human is in the 21st century can be approximately generated. What, for example, makes us human?

Is the human condition a product of biology, philosophy, or genealogy? What are the biological and philosophical definitions of a human, therefore, in that case? Is there a sociocultural categorization involved? What does it mean to be a human? Are there any cultural, intellectual, or ethical circumstances where the existence of humans is taken into account? Concerning all these intriguing questions, Francesca Ferrando emphasizes "an urgency for the integral redefinition of the notion of human" by considering both "onto-epistemological" and "scientific and biotechnological developments" particularly in the 20th and 21st centuries (2013, p. 26). And Fernández-Armesto also expresses his concerns: "How much our nature has changed before our descendants cease to be human is a question we are not yet ready to answer" (2004, p. 169). But an answer to all these questions has long been interrogated among scholars of various disciplines.

Since the first introduction of the term by Paul J. Crutzen and Eugene F. Stoermer in the year 2000, 'anthropocene' as a concept has been used diversely. Even if both Crutzen and Stoermer use the term to mean a new geological period and to show the effects of human intervention on the environment, 'anthropocene' itself has evolved over time and has been used by a wide range of disciplines in different meanings. Yet the researchers main claim is that human-centered environmental change, whose effects are greatly felt not only by humans but also by non-human agents, is the result of scientific progress and technological developments. A further word from anthropocentrism is 'post-anthropocentrism', which describes its fields as "science and technology studies, new media and digital culture, environmentalism and earth sciences, biogenetics, neuroscience and robotics, evolutionary theory, critical legal theory, primatology, animal rights and science fiction" (Braidotti, 2013b, p. 5).

Since the beginning of the 21st century, humans have witnessed the emergence of 'a second machine age', in which digital technology has been an important milestone in the history of industrial revolutions, according to Brynjolfsson and McAfee, whose opinions about digital technologies have led to the emergence of new understandings. To them, the newly emerging technologies, while interacting with one another and changing our interactions with the data, have had a great impact on humans and thus, "the physical world is reformed, human beings are enhanced and new systems with huge power envelop us" (2016, p. 3). Indeed, they are concerned about all these technological changes and their probable negative impacts on economy, industry, and civil society. Correspondingly, it is important to remember that technology, or more specifically, digital technology has numerous advantages but also possible disadvantages in human life. In an age where advancements in technology have made life much easier, and more convenient and efficient than before, the advent of new technologies including artificial intelligence (AI), virtual reality (VR) and machine learning allows human to solve difficulties in life with ease. Yet, the same technological advancements do not only have some positive impacts on human. For instance, it may negatively affect mental health, including depression, isolation, and addiction. Moreover, comparable technologies may be utilized for evil intent if handled carelessly or without security safeguards.

As it is a debatable issue what human is, it is important to note that posthumanism's main argument lies in the exclusionary of the human, which dates back to the Enlightenment period and its sophisticated ideals, including its universal classification of the human "as a rational and sentient white male due to its Eurocentric and androcentric tendencies" (Ağın, 2020, p. 290). In Britannica, anthropocentrism, a basic belief embedded in many Western religions and philosophies, is defined as a philosophical view arguing that human beings are the most important entities in the planet. Accordingly, anthropocentrism holds the idea that humans are the only ones who are superior to nature, and it interprets that "human life has intrinsic value", whereas other beings such as animals, plants, and minerals may "justifiably be exploited for the benefit of humankind". Such an anthropocentric view sees humans as superior beings who dominate the world. For this simple reason, Herbrechter defines posthumanism as "the ultimate humiliation of anthropocentrism" (2013, p. 7). Since the planet includes many different types of species, all of which are agents of biodiversity that are functional in helping humans create an ecosystem to lead their own lives.

A philosophical approach to defining "what, indeed, human is" can be found in the explanations of Rosi Braidotti. Braidotti reveals that the human implied in the Humanities 'has historically been the image of Man as a rational animal endowed with language', emphasizing that this is, indeed, the humanistic foundation of the classical ideal of 'man,' which was initially articulated by Protagoras as "the measure of

all things" and then revived as a universal model in the Italian Renaissance and depicted in Leonardo da Vinci's Vitruvian Man, a pen and ink drawing (2013b, pp. 1-2). As revealed by her, this iconic image has long been accepted as an emblem of Humanism. However, over the last forty years or more, anti-humanist viewpoints have taken their place in critical epistemologies by offering unorthodox definitions of 'human', particularly in interdisciplinary research areas such as feminism, gender, ethnic, cultural, postcolonial, media, and human rights studies (Bart et al., 2003). Their common point is that they react to "universalism as being exclusive, androcentric and Euro-centric" (Braidotti, 2013b, p. 2). Even if they have supported "masculinist, racist or racial supremacist ideologies that turn cultural specificity into a fake universal and normality into a normative injunction" at the very beginning, "[a]nti-humanism emerged as the rallying cry of this generation of radical thinkers who later were to become world-famous as the 'post-structuralist generation'" (Braidotti, 2013b, p. 3). After a while, "[t]he radical thinkers of the post-1968 generation rejected Humanism both in its classical and its socialist version", repudiating the "Vitruvian ideal of Man as the standard of both perfection and perfectibility" (Braidotti, 2013b, p. 3). But the political contexts and discourses on understanding 'human' have continued to show their own inclinations as well. For instance, Braidotti by exemplifying the current situation of The European Union, nearly a decade ago or may still, asserts the idea that "a right-wing agenda of neoliberal economics" and the "xenophobic, populist social and cultural agendas" have dominated the union (Braidotti, 2013b, p. 4). As indicated, the notion of human has still been a subject of dispute between the old and the new certainties.

2. Critical Overview on Anthropocentrism, Posthumanism and Transhumanism

Karen Barad highlights the clear connection and interaction between human and the world itself, saying that "We are not outside observers of the world. Neither are we simply located at particular places in the world; rather, we are part of the world in its ongoing intra-activity", we, humans, may comprehend the inevitable relationship between the world and ourselves because "we are a part of that nature we seek to understand" (2007, p. 184). Since all humans depend on nature, and accordingly, including biodiversity makes life possible and gives humankind an opportunity to get the maximum benefit from it, nature becomes an indispensable condition for human life. Still, what Barad, as a physicist, means by "intra-action" is its ontological inseparability rather than its interactivity. More specifically, she firmly believes that laboratory measures are not unique to those facilities, to be more precise. Instead, they are the results of any kind of intra-actions, namely correlations, relations, or entanglements.

After Braidotti asks some specific questions about posthumanism through an inquiry into human such as "[F]irstly, what is posthuman? […] Secondly: where does the human condition leave humanity? […] Thirdly: how does posthuman engender its own forms of inhumanity? […] And last, how does the posthuman affect the practice of the Humanities today?" (2013a, p. 3), she defines posthumanism as "the historical moment that marks the end of the opposition between humanism and anti-humanism and traces a different discursive framework, looking more affirmatively towards new alternatives" (2013a, p. 37). Because Braidotti's focus is arriving at a conclusion on posthumanism from a specifically anti-humanist tradition and leaving behind all the anthropocentric values that make ethical issues arise. While questioning the human from an ethical standpoint, she suggests we take into consideration all forms of life. By doing this, she resists the idea that man is 'the measure of all things', one of Protagorasian claims.

The term 'transhumanism', coined by Julian Huxley in 1957, and then, first defined in its current meaning by Max More in 1990, is a philosophical, scientific, and intellectual movement whose purpose is to make humans superior to their current biological state through innovative scientific and technological tools. Nick Bostrom, one of the movement's precursors in the transhumanist field, explains transhumanism from the perspective of its "opportunities for enhancing the human condition […] by the advancement of technology" (2005, p. 3). In a similar vein, biologically enhanced humans with augmented physical and mental capabilities through technology are considered to be the cyborgs of the 21st century. Thus, the term 'cyborg' is defined as the "post-molecular genetics world, in which biology exists in multiple forms - digitally, virtually, synthetically, mimetically, algorithmically and so forth - that are endlessly combined" (Franklin, 2006, p. 176). As the following quote by Donna Haraway illustrates, modern science, in some way or another, is currently, or will be able to soon, turn humans into cyborgs through the implementation

of some technological attachments, implantations, interventions, and interfaces. Haraway emphasizes in "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century," a ground-breaking piece of writing, that "by the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs" (1991, p. 150). Indeed, she urges people to consider the possible advantages and disadvantages of disruptive and creative technology, whose fundamental goal is to empower vulnerable human beings.

According to Herbrechter, while posthumanism involves human "technologization and cyborgization", it also includes its 'immersion within an expanding culture' (2013, p. 35). However, the "expanding culture" of Herbrechter implicitly finds an answer in Başak Ağın's opinion about the issue of inequality among the ones who hold power and those who even lack fundamental human rights, as it is not only a socio-cultural but also a political problem. According to her, "[p]osthumanism strictly criticizes what transhumanism follows. The dreams of attaining super-DNAs or invincible bodies that are non-ageing and non-defied by diseases […]. The economic and scientific privileges segregate those who hold power from those who do not have access to fundamental 'human' rights" (2020, pp. 285-286). If human rights are inherent to us all, namely irrespective of nationality, sex, ethnic identity, religion, colour, language, or any other status, it is urgent to determine an ethical process or an ethical manifesto about the transhumanist approach.

We, as humans, can ask how we become transhuman; in other words, at what point do our bodies become transhuman by enhancing their processing with technology? Is a body enhanced by exceptionally technological equipment still the same human body? The interrelations between body and machine is described by Haraway: "Intense pleasure in skill, machine skill, ceases to be a sin, but an aspect of embodiment. The machine is not an it to be animated, worshipped, and dominated. The machine is us, our processes, an aspect of our embodiment," she continues, emphasising that we, as humans, are accountable for both machines and the boundaries because the machines do not have any power over or pose a threat to us (1991, p. 180). With these words, Haraway draws attention to the blurring distinctions between human, machine, and animal species. She also invites scholars to investigate the provocative transhumanist applications, such as prosthetic implants, transgender or transracial identities, immortality, and communication with animals.

Ferrando, by reminding us of all that posthumanism should not be confused with transhumanism, states that posthumanism criticizes 'anthropocentric humanism' and invites us all to unveil the secrecy about non-human life forms, "from aliens to other forms of hypothetical entities related to the physics notion of a multiverse" (2012, p. 10). Because she thinks that even if "[p]osthumanism calls for environmentalism, deep ecology, animal rights and robo-ethics", much or less, it is "still theorized by and for human beings" (Ferrando, 2012, p. 10). Thus, posthumanism can be said to have or cover its own human-centeredness. Like Ferrando's reminding's about "other forms of hypothetical entities", Cary Wolfe, whose influential research entitled *What is Posthumanism?* (2010) leads to the appearance of a new reality addressing issues around ethics, justice, and trans-species communication, suggests producing "a theory of communication that is able to account for any communication or interaction, regardless of whether the actors are human, animal, or machinic" (Snaza, et al., 2014, p. 43). Wolfe is concerned about human responsibility towards how we as human beings show our interests to the "nonhuman subjects", as the non-human ones also inhabit the same planet as we do (2013, p. 47). He believes that posthumanist ideals, due to their subjectivity, must be urgently changed to prevent humans from becoming privileged species.

Transhumanists are of the opinion that human nature is biologically and genetically unsatisfactory and vulnerable and that it should be "modified through technological means where the instrumental benefits for individuals outweigh the technological risks" (Roden, 2010, p. 2). The development areas, to him, are nanotechnology, biotechnology, information technology, and cognitive science. Moreover, transhumanists also claim that critical thinking and self-transformation are the assets that are required for the development of humans. According to Kurzweil (2014), technological improvements such as bionic limbs, implants, artificial intelligence, or even the idea of uploading our mind on the cloud can be helpful in changing the human body for the better through a number of scientific and technological means, spreading at an immense speed over the last two decades. Because transhumanists see human nature as a work-in-progress. In other

words, as Pramod puts it, the constraints of the human body (biology) are something that might be overcome by technology, according to transhumanists, "so that faster, more intelligent, less disease-prone, long-living human bodies might one day exist on Earth" (2014, p. 9).

Nick Bostrom's TED talks on "A Philosophical Quest for Our Biggest Problems" (2005), "The End of Humanity" (2013), and "What Happens When Our Computers Get Smarter Than We Are" (2015) interrogate the future of humanity, focusing on the necessity of progress. Bostrom compares humans with computers with regard to biological limits, he reveals that computer signals can travel at the speed of light in one of his TED talks. In another example, Kurzweil, in "How to Create a Mind", compares the capabilities of Watson (an IBM supercomputer that combines artificial intelligence and software programs for optimal performance) to human abilities. Even if the human capacity is able to read one page better than Watson, the computer can read 200 million pages, which is something human cannot do. Taking Bostrom's and Kurzweil's ideas as a point of departure, it can be revealed that transhumanists advocate the augmentation of human capabilities using sophisticated technologies for the benefit of the human condition. Similarly, Ferrando argues that by technological prostheses, including "regenerative medicine [...] nanotechnology, radical life extension, mind uploading and cryonics, among other[s]" (2013, p. 27), evolutionary enhancements of human species have been on the agenda of scholars, researchers, and practitioners. The term "enhancement" is used in transhumanism to denote "an intervention designed to modify a person's traits, adding qualities or capabilities that would not otherwise have been expected to characterize that person" (Bess, 2010, p. 643). Thus, the human is regarded as a machine-like entity that is something to be modified, adapted, and reformed.

Nick Bostrom explains theoretical benefits of the transhumanist philosophy by questioning why he needs to know math when he can always purchase Arithmetic-Modules Inc. any time he wants, and goes further, asking why he should have good language skills when he can have a professional language module to express his ideas, and then goes a little bit further again, asking why he should bother making decisions regarding his personal life when there are qualified executive modules that are good at scanning his goals and managing his assets to best achieve those goals (2004, p. 3). Moreover, according to him, human enhancement involves "radical extension of human health-span, eradication of disease, elimination of unnecessary suffering, and augmentation of human intellectual, physical, and emotional capacities" (2005, p. 1) with the help of innovative developments in some specific branches such as genetic engineering, information technology, molecular nanotechnology, and artificial intelligence.

In the 21st century, as it is narrated above, through the hybridization of the human body with robots, transhumanism embraces technologies that extend human life and give them enhanced skills. In contrast to the natural intelligence (NI) displayed by humans or other animals, with the help of artificial intelligence demonstrated by intelligent machines, concepts of human, posthuman and transhuman are transforming into a new phase. For instance, with the introduction of neuralink brain chips, all medical devices helping from paralysis to blindness and paraplegia, human bodies are to be robotic bodies. Currently, with any kind of prosthesis, whether glasses or lenses, the human body is enhanced. Additionally, a man with a heart pill, a man with face transplants or even a man with a tooth filling can also be debatable over the issue of how much the human is human. Is the man still a human or a robot like human? If science and technology continue to develop at this speed or more, what humans are going to be like in the near future is the question that awaits answers not only from the researchers of posthumanism or transhumanism but also from futurologists, or to be truthful, from all scholars, practitioners, and researchers from many interdisciplinary and transdisciplinary studies.

Even if futurology, as a branch of social sciences and history, is sometimes criticized for only foretelling the future based on pseudoscience, now it is commonly accepted that futurology has its own techniques and methodologies for forecasting alternative futures by using some scenarios, such as ecological catastrophes and nanotechnological disasters. For instance, according to an online news site named Express from the United Kingdom, by the year 2050, due to several scientific discoveries, humans will be given a plethora of choices on how to live forever, according to a top futurologist, Dr. Ian Pearson, who states that human beings are very close to achieving immortality (Drake, 2018). However, the innovative improvements made

over the past 20 years by the neuroscientists are carried out by a revolutionary technology called 'Brain Gate', which wirelessly connects the human mind to computers. Eventually, entrepreneurs such as Elon Musk and Mark Zukerberg are to enter the race with goal of figuring out how to get computer chips into everyone's brains. All these works, undoubtedly, are not the consequences of the experiments in the labs but also the results of a de-extinction project (Colossal Laboratories and Biosciences, 2023). For example, Richard Garriott, 2nd generation astronaut, assertively states that "If you think about the most important headline of the 20th century, unquestionably it was humans landing on the moon. In the 21st century, bringing an extinct species back to life would hold similar weight in the history of humanity. It is hard to imagine a more profound project than the de-extinction of species once considered lost forever" (Colossal Laboratories and Biosciences, 2023). As indicated, the project is about bringing back the Woolly Mammoth, whose population went extinct 4000 years ago. Another example can be given from very recent research. After Dolly's birth, the first clone of an adult mammal sheep produced by British developmental biologists Ian Wilmut and his colleagues in Scotland, ignited debates concerning the possible misuses of cloning technology in the year 1997, roughly after 25 years, on June 14, 2023, Prof. Magdalena Żernicka-Goetz, of the University of Cambridge and the California Institute of Technology, created synthetic embryos and stated that "We can create human embryo-like models by the reprogramming of [embryonic stem] cells" at the International Society for Stem Cell Research's annual meeting in Boston (Devlin, 2023). All these innovative and disruptive inventions or approaches displace human from its usual place and replace it in a more distinctive position.

3. Human and Nonhuman Entanglements

Posthumanism views human as not being special or as separate from other species, but instead viewing them as part of a larger community of beings. So, the general wellbeing of the people is just "as important in this integrated paradigm as that of nonhuman creatures, machines, and the environment" (Ferrando, 2016, p. 246). In other words, posthumanism does not recognize humans as being exceptional nor does it acknowledge the superiority of humans. It may highlight the sine qua non preconditions that are necessary for both. It means that human is equally important as the nonhuman being. In order to prove this stance, Karen Barad uses quantum theory to provide further insights onto the nature of the universe by concentrating on the nature of entanglement and its interconnected reality. In other words, on the one hand, in order to retheorize and redefine our understandings of subjectivity, agency, causality and the universe, Barad draws on the insights of quantum theory; on the other hand, like Donna Haraway and Bruno Latour, she rejects the binary oppositions that have dominated Western thought in favour of a more nuanced understanding of the intricate relationships between humans and other animals, all of which she believes possess agency. After Donna Haraway's Cyborg Manifesto published in 1985, Stalpaert and her colleagues also uncover the interrelations between cyborgs and entangled human bodies, to them, the cyborg can equitably be called the prevailing conceptualization of the entanglement of human bodies and technology (Stalpaert, C., et al., 2021). As indicated, in time, the entangled human bodies are on the verge of transforming into cyborgs through technology.

Karen Barad argues that "ethics is not about right response to a radically exterior/ized other, but about responsibility and accountability for the lively relationalities of becoming of which we are a part" (2007, p. 393). In this statement, Barad explicitly emphasizes on how everything is connected and entangled with each other. In another statement, she reveals that "There are no singular causes. And there are no individual agents of change. Responsibility is not ours alone. And yet our responsibility is greater than it would be if it were ours alone" (2007, p. 394). Such a statement reminds us the 'all-included, nobody left out' rhetoric of intra-activity and intra-entanglements, providing a holistic approach to "everything is connected to everything" (Vetlesen, 2019, p. 148). According to Oppermann, "Everything in the universe is part of a continuum behind which lies an implicate order. Although the world may look apparently fragmented at the explicate level, everything is an extension of everything else, and thus explicate order too is part of the deeper implicate order" (2002, p. 57). Similarly, Ferrando discloses, "Existence is connected, entangled and relational" (2016, p. 253). Particularly, entanglements - the interactions and interconnections of human and nonhuman bodies - become subjects of ethics, aesthetics, and politics.

As human, we interact with other organisms in the universe both through our socio-cultural relationships and the material changes we all undergo in the environment. For instance, COVID-19, with its zoonotic quality, represents not only the reality of human entanglement with nonhuman species but also the effects of anthropocentric intervention in nature. Christine Daigle suggests rather than "rejecting the firm distinctions posited between the human and other beings and thinking in terms of entangled multispecies biotic and abiotic relations", it is important to see the problems "as 'complex' and reflective of the ongoing fluid, dynamic, complex entanglements that humans, nonhumans, the biotic and the abiotic partake in" (2022, p. 17). Thus, we, as humans, need to think carefully about the ethical choices we make. We need to appreciate our own situation on the planet in recognition of the fact that human, from the very beginning, is an entangled entity that owns its own existence in relation to other living systems. Instead of prioritising our own 'kind', we must ethically engage with the complex systems of others. Because privileging our own kind is a matter of anthropocentric perspective.

4. Conclusion

The human form, as we still know it, will most probably cease to exist in the forthcoming decades of the 21st century because both disruptive innovative advancements have been developing at an immense speed. For instance, the introduction of smartphones, social media, tokenization, Global positioning system (GPS) navigation, Video streaming services such as Netflix and Amazon Prime Video, the human genome map, and cryptocurrency are only a few inventions of the very beginning of the 21st century. In the very near future, some of the innovations in science and technology are currently changing or will soon be able to change the human mind and concept. Because while writing this paper, some of the expected innovations may have also been made.

Just as the evolution of artificial intelligence has advanced human society with its multi-disciplinary and fast-growing features, some of the other innovations will also have a great impact on humans. For instance, 'digital DNA', an innovation in the computer revolution and the process of encoding digital information onto synthetic DNA, can be considered among other important innovations of the century. And 'digital metabolomes', namely the building blocks of life, regarded as the first steps towards a biocomputer, are able to store and retrieve digital information by processing microcomputing, interestingly enough, while suspended in a liquid solution. Besides, with the introduction of 'quantum archaeology', a 3D printing human body seems to be emerging. In quantum archaeology, the idea is not only to combine archaeology with technology to potentially resurrect historical figures but to bring anyone back from the dead. Moreover, 'space mining', for the benefit of exploring and colonizing other planets, is another innovation, that is expected to happen soon. Since the resources on earth are becoming gradually scarce, the possibility of mining stellar bodies is on the agenda of researchers.

The 'brain-computer interfaces' are for people with limited motor skills who will be able to control devices with their thoughts. Elon Musk's neuralink implants are set to begin human trials soon. 'Next generation materials' are the self-healing materials. Imagining a car body that is immune to dents and scratches or any kind of material that is repairing itself is all about next generation materials. Among the next generation materials, may be, one of the most interesting one is, robots that can analyse, diagnose and repair themselves. And last of all, 'transhumanist tech' attempts to alter DNA to improve human body through the latest technological and scientific advancements. All these impactful inventions are/will be able to change the way we live our lives.

In conclusion, this essay's arguments are based on how the concept of 'human' has changed historically and transformed into something new in the digital age and how it is now entangled with nonhumans. In this paper, terminology like human, nonhuman, posthuman, and transhuman, including cyborgs, are unveiled. This is because, as a result of great advances in science and technology and consequent changes in society, the concept of 'human' has undergone a radical transformation. This essay also makes the case that because humans will be constantly exposed to new technology in this century, the term, human, will eventually demand new interpretations.

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