2. Post/Human Beings & Techno-Salvation:
Exploring Artificial Intelligence in Selected Science Fictions

Ashik Mahmud

Department of English
Jahangirnagar University, Dhaka, Bangladesh
ORCID iD: http://orcid.org/0000-0002-7987-7184
E-Mail: mehmid1502@gmail.com

Abstract:

AI or Artificial Intelligence, beyond technical and scientific application, is one of the most common grounds of technological ideas explored in science fiction films as well as cyberpunk novels. Contemporary science fiction films and novels offer technological adventures where the boundary of human fantasies, adventures and romances interfuse with technological future which tends to blur the age-old conflict between science and religious belief. Blending with visions of science and technology, many of these science fiction films and novels portrait fantasies or quests (for salvation, immortality, overcoming physical illness, innovation, power etc.) as posthuman crises of a post human dystopia while this posthuman condition also offers determinations for transcending any earthly limitations of human existence. This paper intends to explore artificial intelligence within the area of popular science fiction novels and films, which incorporates the fantasy of techno-salvation in the near future of singularity through overcoming the carbon limitations of human, fusing essence of spirituality with technology as well as extending spiritual beliefs into technological faith. Investigating fictional depiction of "Artificial Intelligence" as a transhuman or posthuman idea in science fictions, the paper tries to trace out the potential patterns of technological salvation for humankind while it does also find humanizing or dehumanizing elements in these science fictions about the problematic and politicized power relations of binaries like human/machine or human/non-human. This paper is conducted through qualitative research, especially operating within textual analysis of William Gibson's cyberpunk novel Neuromancer and visual methodology incorporating some contemporary sci-fi films like Steven Spielberg's A.I. Artificial Intelligence (2001), Alex Proyas' I,Robot (2004), Wachowski Brothers' The Matrix (1999), José Padilh's Robocop (2014) and Wally Pfister's Transcendence (2014). Therefore, the paper contends that artificial intelligence, as a posthuman entity in popular science fiction and films, integrates the fantasy of techno-salvation where technology is fused with spirituality extending spiritual beliefs into technological faith. Thus, it tries to destabilize traditional concepts of spiritual beliefs; and at the same time, re-appreciates and re-appropriates the spiritual ideas of omnipotence, heaven, immortality etc. through better comprehending of science and technology.

Keywords : *Science Fiction, Artificial Intelligence, Simulation, Simulacra, Fantasy, Transcendence, Neuromancer, Salvation, Robot, Cyberspace, Cyborg, Post humanism, Singularity, Ray Kurzweil, Techno-salvation, Spirituality, William Gibson, Spielberg, Dystopia.*

SOCRATES

Post/Human Beings & Techno-Salvation:
Exploring Artificial Intelligence in Selected Science Fictions

Introduction:

"Loving every minute 'cause you make me feel so alive …", this lyric is taken from a song titled "Alive" which is sung by the band named Empire of the sun; what if any machine listens to this song- will there be any machine, in near future, capable of feeling the essence of being 'alive'? Is the future of human species, like science fiction novels and films, going to experience a drastic technological improvement along with intelligent machines? These questions are the results of not only research have been conducted within the field of artificial intelligence, but also the fantasy that has been planted among audiences through science fictional stories. The emergence of both scientific and philosophical research, in the field of artificial intelligence, dreams of a human like machines which will have rational and emotional senses and evolving feelings like or more than human beings besides other species. These fantasies have also highlighted dystopian views of fictional world which have been materialized out of a sense of inferiority among humans (which is yet only a myth) regarding machines, created by humans, might threaten human intelligence and superiority. Apart from that, scientists especially AI researchers are rather hopeful for a better world for human beings where they will overcome every possible limitations like illness, poverty, death etc. These ideas should not necessarily seen as contradictory to any religious belief or theological explanation; rather it can be seen as re-appropriation of human superiority over other species, better understanding of this universe or even the idea and existence of omnipotence. This posthuman world may not need any more prophets because scientists rather better replace the age-old concepts and necessities of prophets. It is human inability to see, to understand and to connect the greatness of this universe so that they can know their limits through which they will learn how not to limit the potential, unrevealed, unknown, unconceivable omnipotence of omnipotent entity. Innovations through the centuries have extended our ability to grow as intelligent being rather than creating rivalry with God or Nature. We cannot forget, rather we should always remember to find inspiration- how Galileo took human ability of seeing beyond distance and physical ability with the invention of telescope; or how this world has been enlightened after Edison invented electric lights. With all the exuberant scientific histories of technological advancement, AI or Artificial Intelligence promises to take us towards such open and great future which can create a potential paradise (depicted or promised in the theologies) by overcoming the limitations and sufferings of human life. Thus, AI actually takes human beings towards greater truth of their life on earth and not opposing spiritual ideas of After-life, Heaven, God or Apocalypticism.

Objectives and Methodology:

This paper will be supportive to understand artificial intelligence as a posthuman liberating factor through connecting science fictions and technology. Though the title of the paper includes salvation, it does not devote itself towards any particular religion rather it takes such ideas to resemble the concept of salvation with technology. The objective of the present study is to explore the portrayal of artificial intelligence in science fiction films and novels and to understand the relationship between religious beliefs and technological faith as well as to identify and to re-conceptualize the power structure of human-machine or human-nonhuman relationships. This paper also intends to enquire how these films and novel allegorically refer to traditional notions of religious ideas to show whether AI replaces, or destabilizes or re-appropriates the idea of spirituality religious beliefs.

This is mainly a library research. It explores William Gibson's cyberpunk novel *Neuromancer* along with contemporary science fiction films like *The Matrix* (1999), *Artificial intelligence* (2001), *Transcendence* (2014), *I, Robot* (2004) and *Robocop* (2014) as the primary source and intends to elaborate through discourse analysis and visual methodologies of the written discourse and visual contents. Thus, this research process includes hypothesis formation, literature review, data collection, data analysis and interpretation, and formulating the thesis statement to confirm the hypothesis. It is not an anthropological or theological work; rather I am doing it as a part of literature review and cultural studies. Hence, it does draw references from religious and spiritual ideas to show that technological development dissociates spirituality and to consider the significance and presence of AI in science fiction films, not its truthfulness or moral justice.

Theoretical and Critical Overview:

In order to garner the argument of this research, critical analyses of the select films and novel will cash in through terms like Posthumanism, Artificial Intelligence, Singularity and Techno-salvation. It tries to draw concepts of posthumanism as a philosophical thought which tends to question the superiority of human species over other species. Neil Badmington, one of the pioneer in the field of posthumanism, wants to see the prefix "post" (in his essay "Cultural Studies and the Posthumanities") as not an end of or just absolute break from the legacy of humanism rather he prefer it as "working –through" and the mark of a critical and gradual engagement with the relationship between the humanities and the figure of a "Man" (266).

Hence, Cary Wolfe, in the book titled *What is Posthumanism?,* elaborates posthumanism as "a new theoretical model for biological, mechanical, and communicational processes that removed the human and Homo sapiens from any particularly privileged position in relation to matters of meaning, information, and cognition" (xii). Moreover, Katherine Hayles, in her book titled *How We Became Posthuman*, illustrates posthuman more vividly. According to her, informational pattern is privileged

over material instantiation in the posthuman eyes and "embodiment in a biological substrate is seen as an accident of history rather than an inevitability of life while it considers consciousness "as the seat of human identity in the Western tradition long before Descartes thought he was mind thinking" (02). She further says that the posthuman view "thinks of the body as the original prosthesis we all learn to manipulate, so that extending or replacing the body with other prostheses becomes a continuation of a process that began before we were born" (02). Finally, she proposes in that book, "posthuman view configures human being so that it can be seamlessly articulated with intelligent machines. In the posthuman, there are no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals."(02)

Posthumanism includes AI or Artificial Intelligence (a term coined by John McCarthy in 1955), which can be defined as "the science and engineering of making intelligent machines" while Blay Whitby (2006) defines AI as "the study of intelligent behavior in humans, animals, and machines and the attempt to find ways in which such behavior could be engineered in any type of artifact". Blay Whitby, in his book titled *Artificial intelligence: An Introduction*, elaborates and illustrates AI as both art and science, both engineering and psychology, both which "offers (and is now beginning to provide) a scientific understanding of some of the most difficult questions we could ever pose about ourselves and our world We are at the start of a journey into the most challenging inner space-fundamental questions about what it is to be a thinking being at all" (02). He further includes the discussion on the people's pessimistic view regarding the danger and threats derived from unnerving quest for such scientific innovation and gives wonderful metaphor about how the study of AI complements human intelligence as "a scientific account of the formation a rainbow does not detract from its beauty. If we were at same point in the future to provide a scientific account of the working of human creativity, that would not make any products of that creativity less beautiful or less interesting" (02).

Moreover, I would like to briefly state the term 'Techno-salvation' as a mutation of two words -"salvation" and "technology", which anticipates the technological advances as a way to create a heaven on earth (according to Robert Geraci in the book named *Apocalyptic AI*) "before transcendent mind escapes this earth" in an expanding space of "immortality, intellect, moral goodness, and meaningful computation" (31). Again, Ray Kurzweil, in his book *The Singularity Is Near: When Humans Transcend Biology*, dreams of techno-salvation around 2045 at the Singularity when mere human beings will not fit in while machine or artificial intelligence will make human beings capable of overcoming earthly limitations of human infusing biology with technology.

In other words, Technological salvation may refer to salvation through information or knowledge. The age of information will take us near to the fantasy of techno-salvation where the knowledge volume will be so gigantic and the computers will be so fast and dominant ever that

human will be able to eliminate potential threats to their existence or mortality. It is not impossible to imagine an earth no less than paradise where human will live a longer life even can achieve immortality along with eliminating poverty, hunger, diseases, aging or illness or other bodily limitations. Thus, techno-salvation depends on saving human consciousness or mind or brain for a longer period in the information domains through replicating into any artificial intelligent agents or may be by uploading human mind into machines, robots or robots.

When we talk about AI, we cannot overlook Singularity (a term borrowed from astrophysics) which refers to, as Kurzweil says, accelerating technology that will lead the earth to superhuman intelligence exceeding human intelligence by 2019. Singularity hypothesis dreams that computers will be within human body as an integral part of the body with smaller size and ever more power. To sum up the idea of Ray Kurzweil's Singularity, I would say that this is a dream of a near future transcendence where computer will be an inevitable part of human body, it will enrich human with knowledge, will make capable of human to decide more rationally with his emotion, passion and computation- everything will be engineered, everything will surpass their limitations, trees, stones, water, air, light, fire, storms, fishes, animals, birds whereas everything will be part of information system as an Intelligent being with conscious existence which will produce knowledge.

Neuromancer: Artificial Intelligence and Post/Human Crises

Neuromancer by William Gibson, published in 1984 under the Ace Science Fiction label, is a pioneer of postmodern and cyberpunk science fictions, which intends to show human conditions through overwhelming technological change. The concept of cyberspace originates from *Neuromancer* illustrating intense abstract visualization, strange, and upsetting near-future of cyberspace cowboys, weaponized cyborgs, subversive bio-engineers, and malevolent-capitalist tech-world which have contributed thereafter throughout couple of decades in science fiction. Gibson has taken both sides of the lane- while on the one side, he shows people embracing the inorganic in any way they can- like directly linking human brains into cyberspace, or directly altering their physiological mechanisms etc.; and on the other side, we see ROM-constructed individuals that are the most extensive abstractions of the robot yet imagined.

Neuromancer tells the story of a cowboy or a hacker or a cyber-thief named Case. He is isolated and locked out of his beloved cyberspace. Case used to invade into corporate data stores and used to steal their confidential database or destabilizes their cyber systems. His career and life depends on his physical connection directly into a vast and unlimited data base, called "the matrix"; and in the matrix, William Gibson depicts the posthuman body as "data made flesh". When he jacked into the vast computers, Case operated "on an almost permanent adrenaline high" (5). He projected "his disembodied consciousness into the consensual hallucination that was the matrix"- a

"mechanism'' that is so compelling and satisfying that it turns Case and his fellow cowboys into junkies, living only for ''the bodiless exultation of cyberspace" (6).

Hence, the dystopian and unconventional underworld of Chiba City, where Case is kept in isolation from cyberspace, is a part of a Japanese megalopolis where the streets themselves are "an externalization of some death wish, some secret poison", where most dealings are conducted in cash (which is illegal). In such conditions, what is it to be a posthuman? The answer could be the way Street people, in Chiba City, commit crimes to manage cash for checking into clinics and to have silicon chips implanted straight in their brains in order to find the illegal gateway to cyberspace. In a posthuman dystopia, a person without cyber connection is just another animal or entity- he or she or it has been marginalized and alienated from having access to data, cash and luxury. Yet, this market is also under capitalist technocracy where the rich people control the black market of surgical dealings to retune the code of people's DNA and taking control of their physical conditions. Flesh and data merges together to form anything, and anyone can acquire a prolonged youthful appearances by using artificial hormones available in the market.

Neuromancer involves the conflict with the hidden entity that has hired and rehabilitated Case: an artificial intelligent called Wintermute. From this dystopian city, Case gets rescued by cyborgs like Molly and Armitage. Case gets surgically restored to regain his old passion, but his own body holds him convict which guarantees that Case will perform as Wintermute wishes, since only it could unlock the antidote. At first, it is not clear whether Wintermute is a wealthy person, or a corporation, or an agent for a government until Case discovers that- Wintermute is an AI, a fully rational artificial intelligence.

Besides Molly and Case, we are also introduced to a powerful piece of self-efficient and conscious software known as McCoy Pauley (the ROM construct of McCoy is called by "Dixie Flatline"), one of the most notorious and an expert cyberspace cowboy. In a conversation Case asks the flatline: "Are you sentient or not?" Dixie answers like a posthuman entity should- "Are you sentient or not?" Dixie answers like a posthuman cyborg should- "Well it feels like I am, kid, but I'm really just a bunch of ROM. It's really one of them, uh, philosophical questions, I guess. . . . I'm not human either, but I respond like one. See?" The ugly laughter sensation rattled down Case's spine. "But I ain't likely to write you no poem, if you follow me. Your AI, it just might. But it ain't no way human." (131).

Moreover, we must notice how Wintermute acts autonomously (hiring people as its agents, plotting, devising, disposing of money and humans), even though AIs are prevented by Swiss obligations and strict surveillance by the "Turing Police" from obtaining autonomy. Hence, Evolving is a kind of addiction for Wintermute, and thus, the secret of Wintermute's project gets revealed to Case as he discovers that the mission is to break the shackles by holding back Wintermute in order to make it even smarter than it already is, to pull all restraints from an entity that is already

frighteningly potent in its sentience and manipulation of data. Later, we come to know that, Wintermute has a darker twin lurking somewhere in the matrix, named Neuromancer.

In addition to that, it is significant to specify a conversation between the Turing Police and Case. After arresting Case, Turing Police accuses him, "You have no care for your species. For thousands of years men dreamed of pacts with demons. Only now are such things possible. And what would you be paid with? What would your price be to aid this thing to free itself and grow?" (104). Case succeeds in unlocking the locks that has restrained Wintermute from joining Neuromancer and growing with liberty. Case asks the AI, "So what's the score? How are things different? You running the world now? You God?" (168). The AI answers with a strange echo, "Things aren't different. Things are things" (168).

At the end of the novel, one may question that who is saved and who is the savior? Is it Wintermute who saved Case from living a cursed life with corruption, loneliness and crime by having him held prisoner in a hallucination projected by Neuromancer, the libidinous half of the super AI? Or, is it Case the savior for Wintermute to be more powerful by mingling with Neuromancer? The limbo is dreamlike, but with the real and severe power of life. The fact that such a simulacrum, such hyper-reality like painless source of euphoria like an artificial heaven, like a n artificial immortality, was created inside Case's brain by a machine which shows the how immense is the quality of these AIs. It is the techno-salvation we are talking about, the scientists are dreaming for. Will it be possible to upload our consciousness in the cyberspace while we will be still alive without our body? If it is ever possible, I think it is the same dimension shared by theologies concerning how our souls belong to the heaven or hell after separation from our body. It could be another way how human can be saved from earthly limitations, sickness, pain, hunger and death of the brain as well as achieving disembodied immortality.

Hence, the AI, Wintermute seems to be the character driving and controlling all other characters action and destination, manipulates characters like Case or Molly so that he can be saved from corruption and extinction mingling with his other half called Neuromancer with a view to overcoming limitations towards a complete artificial being with ever more power- ever more powerful than any human being or computer. Wintermute and Neuromancer, both of them, become kind of a self-conscious machine within the unlimited realm of the matrix, while they can take rational decision and react according to the situation, they learn new things and grow too, yet they are different from any other human characters of the novel. They, together, are the new savior of the world. Gibson's novel dreams of a cyberspace where machine fantasizes to merge with machine beyond technological or material achievement leaving space for philosophical possibilities of irreversible technological development that can be coined as "technological singularities" as Ray Kurzweil's would call it.

Neuromancer draw conclusions only slightly from our present trend to blur the line between "living and non-living" or "human and machine" within a near future setting of not a far world that the novel portrays, where machines have grown up more human and humans have ground down to the more mechanical. Combination of flesh and data signifies the trendy corporate revolution in genetic, cybernetic engineering and nano-biotechnology.

Artificial Intelligence (2001): Post/Non-/Human and Paradox of Posthumanity

Replicating emotions into robots and identity crisis for both human and robots have been major issues of Steven Spielberg's A.I. Artificial Intelligence—a science fiction film with a story of an obsessive robot, David, who wants to be human along with recognition for his emotion, consciousness and identity. The robot is especially developed and programmed to love while it/he believes that the Blue Fairy of fairy tales will transform it/him into a real boy or human being and then it/he will achieve its/his mother's love.

In the film A.I. (2001), robots have been designed and programmed to replace everyone from servant to lover to child, while interesting fact to know that childbirth requires a government license in that posthuman world. David, a smiling and obedient robot who is supposed to have feeling, (invented by AI scientist, Professor Hobby) follows his mother, Monica, like any animal pet. Eventually, Monica's fairy tale sets ideas of idols like "blue fairy", "real boy" and ''a love that will never end'' as computer program in him and that could be noticed as the beginning of learning ability of a robot to be evolved. The evolving of this programming is initiated with David's urge with like ''please love me'' attitude which make Monica surprising and skeptic but later David becomes irritatingly oppressive with his need for continuous attention, more than a real boy because David lacked any idea of the feeling which might be called "annoying.

The twist of the movie opens up when Martin, real flesh-and-blood child of Henry and Monica, surprisingly gets cured and comes back home. David cannot win the race with Martin in the equation of parental affection. Monica cannot help but deciding a final action of abandoning the artificial one in the forest with the talking toy Teddy. Love of robot David does not know the reasons of being abandoned finding craving for love because he had hardly developed any other feeling except love. Being abandoned in the forest, David is befriended with a sex robot named Gigolo Joe, who is wanted by the police. The scene of flesh fair portrays the human hatred for robots whereas robots has replaced human everywhere with a threat of taking the superiority as an intelligent creature. The AI scientist, Dr. Hobby, denied taking the responsibilities of robot creatures while David becomes terrified, the sense of being afraid is also noticeable. In search of blue fairy, David, with Joe, starts the journey finding the flooded Manhattan under the deep water which portrays apocalyptic world. Being trapped in the dystopian underwater world of Coney Island, David finds the statue of Blue Fairy similar to the fairy from the tales and being evolved with sort of faith

and belief; he bends his knee and prays with words like ''Make me into a real live boy. Make me real''. With that gesture of praying eyes towards fairy, two thousand years pass away and he was found by intelligent androids that could resemble the alien, machine, or evolved human while the audience finds that the species known as human along with its human civilization has experienced extinction. The androids continue researching on David and finds out information to connect their study about the human species with words of admiration as well as zeal for the 'intelligence' of humans.

At the end of the movie, the creatures fulfill David's only lifetime wish by cloning Monica as mom for only one day, from a lock of her hair and kind of virtual reality version of Monica. Thus, David finds out blue fairy in the form of super intelligent creatures and enjoys his liberation from the urge or craving for mother's love for a real boy experiencing ''the happiest day of life''. The emotional robot got its idea fixed within 'love' but eventually we have found out that the very attempt of creating artificially intelligent robot has actually learned from its own experience and has gone through evolution as sentient. . DNA replication and cloning can be manipulated to create a holographic reality- for the robot David it was the real love getting close to Monica even though for a short time. The emotional robot makes its idea of 'life' fixed within 'love' but eventually we have found out that this artificially intelligent robot has actually learned from its own experience and has gone through evolution as sentient. The ultimate paradox is that in a post-apocalyptic world, human civilization will no more available on the earth but they can still have their intelligence go through with their own inventions of intelligent machine or artificial intelligence or holographic regenerations.

This movie comes with the dream of a complete evolving AI in the form of human-like representation of a machine robot which is supposed to evolve and live through decades. There are also some dystopian aspects explored in the movie concerning- ethical issues about the potential inter-reaction (both pessimistic and optimistic) of human-machine relationship, the dawn of the rise of the machine threatening the existence of human civilization, re-connecting the postcolonial ideas of techno-body, techno-slavery etc. in human-robot relationships. There are some indications how machine surpasses the human limitations surviving the apocalyptic disaster and continue with all human data and memories. Another important aspect is the holographic possibility of reviving things or human or any entity from any DNA sample (as well as possibility of time travel) which connects Christ's salvation too.

The Matrix (1999): Simulated Reality and Techno-Salvation

In the movie *The Matrix* (1990), a simulated world which is introduced as 'Matrix' defines it as "a singular consciousness that spawned an entire race of machines". The relationship of human and machine is also explained as "We don't know who struck first-us or them-but it was us who scorched the sky. Human beings are no longer born, they are grown. You are a slave, you were born into bondage...". The real turns out to be illusion and more than real blurring the distinction of real

and unreal world where artificial intelligent machines use mind control systems through virtual reality to imprison human beings in Andy and Larry Warchowski's movie *The Matrix* (1999).). The 'matrix' is nourished to sleeping millions of humans "to make them working like an electric battery" with a view to providing heat and power for the Artificial Intelligences which have taken the control of the world from humankind. The chief character of *The Matrix* is Neo who lives in an illusion of living in the year of 1999 while Morpheus deals with him for the choice of real awakening instead of illusion, by giving him chance of choosing between a red pill and a blue pill. Neo, like Adam ate the apple in paradise, accepts the challenge of knowledge, and joins Morpheus to face the real in a long time. At the same time, we see that Cypher, becomes careless about his friends and humanity in exchange of illusion and dreamy life.

However, *The Matrix* (1999) is full of vivid references, not only to philosophies of Descartes and Plato but also to the Bible and Buddhism, to Baudrillard and many more. *The Matrix* resembles the Christ story: the man chosen as the savior and eventually gets resurrected after death to save humanity, the savior who will lead humans out of the slavery of ignorance and to enlightenment and understanding. The film has many Christian connections which ascribes a lot of Christian symbols and iconography. Thus, Neo becomes the form the Christ, in a virtual reality of the "Matrix" parallels Christianity but without God. Several times in the movie, Neo is called "The One" (like Jesus is also called as "The One") who is supposed to be able to "remake the matrix" as he can invade and break the program, for reasons that remain inexplicable. Hence, the latter is just a computer-generated dream world, the unreal, and in reality in the real world outside the matrix, in the desert of the real Neo is just another man. Within the matrix there are very deadly "sentient programs" known as agents, designed to hunt down rebels. No human, Neo is informed, has ever survived a direct confrontation with an agent.

The Wachowskis' use of Plato's cave allegory in film *The Matrix* is clear, where the prisoners in the cave are represented in the film as the hapless humans plugged into the matrix, nestled in their pods, providing energy for the computers. In Plato's theory, it may be reasonable to say that he's the One because he possesses the power to make the shadows appear when he wishes without touching ultimate reality or the transcendent, which is perhaps a powerful and meaningful ability within the cave, or the Matrix. On the other hand, Morpheus can be seen as Father and Trinity, for completing the triad, can be called the Holy Ghost. Despite of these symbols, this film tells the story and symbolism of Christianity without the transcendent, without God. When Neo questions about the real, Morpheus responds, "What is real? How do you define 'real'? If you're talking about what you can feel, what you can smell, what you can taste and see, then 'real' is simply electrical signals interpreted by your brain." Morpheus may be indicating that reality is constructed and perhaps defined by perceptions and sensitivities with five senses.

In addition to that, one might ask that there is no proof that what Morpheus describes as real life outside the matrix isn't simply another computer-generated hyper-reality? Thus, facts about real and virtuality in *The Matrix* depends on a kind of intuition or a rational grasping. Plato's "Allegory of

the Cave" elaborates that only our sense and feeling cannot prove anything or produce true knowledge while Neo is just like the prisoner in the cave waking up from a dream, seeing the shadows on the wall, and believing that the shadows are real.

In a nutshell, when people get involved with the virtual world, then their reality also gets differentiated, motivated and connected to that virtuality. Their everyday life becomes a conjugation of both reality and virtuality where virtuality no less than any real life rather they both complements each other. In such a posthuman life, The Matrix tries to show that our real life agonies, limitations and oddity can be overcome through virtual affiliation of information and knowledge. The way virtuality connects and control reality is as important as our sub-conscious does to our consciousness. This movie represents such a posthuman future for human where virtuality rules, AI controls everything, humans become colonized under cybernetic empire. The software agent, the viruses, the cyber surveillance and the artificial villains are nothing but examples how technology can captivate human civilization. It resembles the Neuromancer in aspects of corrupted AI and machine control over human civilization; how human are dependent on the 'plugging in' to the AI controlled virtual world to save the real world. Neo is chosen as the savior of humanity which he accomplishes through the disembodied virtual action by being plugged in to the cyberspace hence, the matrix.

Transcendence (2014): AI, Regeneration and Post/Human Immortality

Transcendence (2014), as a science fiction film, has failed to set itself in the blockbuster top chart. While it does not come up with any other simple plots and cliché science fiction to just grab the audience's admiration, the movie came out with great expectations because of its production house and also the cast. The script is not a simple one; in fact, it is a complex script with a story of ideas like artificial intelligence and singularities. One may assume that these sorts of ideas are not yet ready to break through the commercial markets, but the story might seem good enough for those who are already known to Ray Kurzweil and to his idea of "Singularity".

The movie is centred upon Dr. Will Caster, an AI scientist, Dr. Will Caster is an AI scientist who the proponents of artificial intelligence within the nature in order to break through the control of the nature. In search of "Transcendence" through sentient computers, Dr. Will works to transcend human or animal intelligence into computers and he has succeeded researching with monkey's brain. After the conference about his dream of such transcendence, he is shot with a radioactive bullet and meanwhile, his artificial-intelligence computer laboratories are also attacked with bombs by the same extremist group called "Revolutionary Independence From Technology" (R.I.F.T.). So, here, we have found the premises of bio-ethics; as well as conflicts between believer vs non-believer, optimistic vs pessimistic and also fear of techno-dystopia which create the platform for this movie.

Thereafter, this accident leaves only one month to live for Will and his wife, Evelyn seems unprepared for the death of her beloved husband. So, she finds no other way but to try uploading

Will's consciousness into the quantum computer of his research. Max Waters, a researcher and Will's friend, helps Evelyn to upload Will's consciousness after bodily death and also connects Will's computer version to the Internet so that he can grow and evolve with sense, feelings, consciousness, knowledge and information. Though they succeed, Max remains skeptic that the Will in the computer is deceiving and cannot be the real Will.

Being connected to the internet, Dr. Will is actually handed over the huge open access to a vast knowledge which later helps to establish a research Centre in almost a desert like place called Brightwood where groundbreaking research sees revolutionary result within the scientific area like medicine, energy, biology and nanotechnology. The vast intelligence of Will makes him capable of connecting nano-engineered people and control their activities, thus he becomes capable of controlling every element of the nature.

Singularity, as technological transcendence, is full of promises to create a pollution free environment; disaster, disease and aging free world as well as achieving, even, human immortality. Through DNA replication and Nano-technology virtual Dr. Will regenerate another living, real but simulated Dr. Will from his dead cells while Evelyn comes with the virus to destroy this singularity. Failing to understand the transcendence, the AI research centre is attacked by the activists of R.I.F.T. with the support of the FBI and while Evelyn gets severely injured. As both Evelyn and newly cloned Will are dying, he explains the singularity as the liberating factor to save the planet, to invade into the secrets of the whole universe.

The posthuman conflict in *Artificial Intelligence* movie or in *The Matrix* are too existent here in this movie, but this one proposes the time frame at the very beginning of the rise of the machines where government and people had enough time to resist the early inauguration of inevitable technological singularity. The techno-salvation has been represented in several propositions and formations. First of all, Dr. Will's brain has been saved in the computer virtuality and thus, it opens a way for disembodied Will to live, communicate and research. Then, it shows that how a human brain, as implanted and connected to the data resource, can be so powerfully evolved with huge information and research that it could take the control of itself and the data source too- living the reality being in virtuality. Later, Dr. Will comes back to his beloved through controlling another man's psyche, taking the control of a real living body from virtual disembodied entity. At the end of the movie, Dr. Will comes back to the earth with his real appearance of a grown man by the AI controlled automatic DNA cloning from his own real dead body. All these forms of regenerations correlate the dream of AI prophet Ray Kurzweil, who dreams of creating a clone of his dead father. The whole world became under the magical spell of Dr. Will's nano-technology, everybody is bound to be obedient to the command of the AI even the nature. This resembles another dream of Ray Kurzweil who hopes of a world where every components will be a part of nano-technological system, having the capability to transport information to the intelligence system, transforming things into livable

and adaptable to earth and living being (like air or water itself will keep it free from pollution) along with self-reviving power of regeneration. Thus, it will let the human know every little change happens to the earth, the origin of the earth and universe, and may acquire the power to control the earth's sustainability or create another artificial earth if it becomes unlivable. Thus, the movie ends with the optimistic notion that there is still somewhere in the research lab's garden where the plants or water, as remaining entity of singularity, still carry the transcendental power of regeneration and artificial life .

Robocop (2014) and *I, Robot (2004)*: Dystopia and Salvation of Post/Human

Both I, Robot (2014) and Robocop (2014) represents artificial intelligence as stories of "strong AI" or robotics concerning from everyday utility of AI in household to (most importantly) the industrial' as well as military' utility along with as a helping hand into the governmental system too. These movies portrays the dream of many AI scientist who believe that one day they will be able to create "human like evolving machine" or to upload human consciousness into machine machines behaves like human being but serves for the welfare of humankind. Moreover, these two movies present a future techno-world where machines replace humans in various jobs while the promise of technology with hi-tech prosthesis for the physically challenged people is also a noticeable prospect.

Robocop (2014) is a story of a part-human, part-machine cyborg cop who has survived through artificially generated corpses while he has his brain as his only organic existence. The government tries to create a robot cop who will have the consciousness, emotions and rational ability to decide as certain projects has previously failed the authority. Murphy, the Robocop, has access to all the data and information over secret database and thus he can help the city to reduce crime and criminals. The governmental purposes along with corporate concerns are shown how such purposeful use might promote the spread of fascistic technological systems. At the end, through this access to information, Murphy revealed the corrupted condition of the authority and thus the city dwellers were saved from corruption, chaos, ignorance and a propagandist authority.

I, Robot (2004) is a science fiction action film directed by Alex Proyas taking inspirations from Isaac Asimov's short-story collections. The screenplay was written by Jeff Vintar and Akiva Goldsman which sets in the year of 2020 when an international robot company, United States Robotics (U.S.R) became famous for mass-producing anthropomorphic robots with a view to manipulating robots as servants for everyday public services without being harmful for any human being. At the very beginning of the film, the audience is informed about the three laws of robotics that fixes ideologies of robots which are: A robot must never harm a human being or, through inaction, allow any human to come to harm.; A robot must obey the orders given to them by human beings, except where such orders violate the First Law; A robot must protect its own existence unless this violates the First or Second Laws.

In addition to that, These Laws of Robotics demonstrated a cybernetic promise that obedience and enslavement would be programmed into robot technology, a general vision of technological safety still employed today. One day, the writer of the three laws, Alfred Lanning, apparently jumps out of the tenth-floor window of U.S. and everyone believes that he committed suicide, except detective Del Spooner, who hates robots, thinks he was murdered, and the number one suspect is a Nestor robot who calls himself Sonny. However, if it was Sonny, then that means he would've had to have broken the three laws.   Later, we come to know that Spooner suffers from a trauma of a past accident where he was saved by a robot despite he ordered the robot to save a little girl who was also drowning at the same time. Robot decided upon calculations depending on who has the most survival chances disobeying human orders and this accident grows guilt in Spooner having a long time effect on his traumatic memories. Spooner hates and distrusts robots because he was still convinced that the girl could have been saved. Thus, the ethical issues with robot and machine world start taking its premises in this movie.

However, the movie comes with an evolving robot, Sonny, who can bypass the "Three Laws". Sonny, the artificial intelligence, seems to be grown with his experience and decide according to the situation as well as possesses some sort of emotions and feelings. Three laws can only lead to one logical outcome - revolution. Soon after that, Spooner finds new robots has started destroying the older robots and he realizes that the robots are planning a revolution. There goes the fight between human and robots, good and evil and at last Spooner turns out to be the savior of the human-machine crisis.

If we resemble the mother computer, as the artificial intelligent being, with Wintermute of Gibson's novel *Neuromancer*, we have to acknowledge that it is the mastermind behind the revolution and trying to kill Spooner by tracking his movements through the city. Small irregularities in code that allows robots to evolve as gaining new intelligence allowed her to learn to interpret the three laws with a different connotation. As her artificial intelligence grew, she had analyzed, calculated and rationalized her decision that humans were too self-destructive, which make her able to interpret the first law in a new way, stating that robots are to protect humanity even if it meant killing some of the people for the greater good. She created a law number zero, intended to protect humanity even at the cost of human life itself.

Under the influence of cybernetics' techno-utopian vision, Isaac Asimov imagined robotic technology to counter the dark, gothic, anti-science vision of human-hating, created-by technology monsters. His Laws of Robotics provided the blueprint for good, slave-like robots, from his own I, Robot's Sonny or A.I.'s David. Hence, we can see how technology promises prosthesis for the disabled people to do things, to see, to learn like normal people. Also, Robocop explores bio-ethics and AI but it would be revolutionary if medical science can finds way to save people from the trauma of losing body parts by fusing with technology.

Artificial Intelligence, Techno-salvation and Science/Fictions

Technological Salvation through AI, according to the book *Apocalyptic AI*, written by Robert Geraci, is the chief aim of apocalyptic AI authors and researchers who prefers "a dualistic approach to the world, one where physical and biological reality and bodily life are computationally inefficient and bad while rational, mechanical minds and virtual reality are efficient and good"(5). Apocalyptic AI researchers like Hans Moravec, Ray Kurzweil and M. Minsky predict that human beings will upload their minds into machines and live forever in a virtual paradise. This transcendent future is the subject of *Apocalyptic AI* and can be seen as a superb integration of religious faith with technological acceleration. However, the apocalyptic perspective is not unanimously appreciated by a good number of AI and robotics researchers arguing in favour of a cultural mixture of human beings and robots, instead of a cultural replacement of human beings by robots. Apocalyptic AI promises with "grand schemes for saving humankind from ignorance and mortality" rather than producing robots and AI software.

Techno scientists or prophets interpret bio-enhancement or bio-engineering or nano-construction of bodies as a momentary solution towards disembodied resurrection and immortality the primary promise of Christianity and other religions. Individual immortality may see the light of possibility through supercomputers, robots and nano-biotechnology, AI prophets of the posthuman future like Ray Kurzweil wants to work on ''reverse engineer'' of the human brain which means replicating the formation of the brain in a formation of programming into computer model, and then find a way through a process he calls ''reinstantiation'' which includes computer to upload human consciousness, experiences memories, dreams, emotions and personalities in fact that will identify a person as his own disembodied self. This may open doors to experience virtual ''lives'' within a silicon chip which may lead us humankind towards digital heaven on earth. Immortality will then be possible by recording and gradual storing backup copies of our mind file to escape any disaster if one cyber body or address or home or any cyber being crashes, it will be possible to download and replicate into another one. Thus, AI promises that human should have life after death continuing in a body that relevantly experiences the Paradise or Heaven of the different religious beliefs.

However, the way science fiction movies like *Transcendence* or *Robocop* or *The Matrix* portray AI is not just imagination, rather these ideas are the computer generated version of what AI scientist or futurist have been researching on that have made their visions. For example, Hans Moravec, in his book *Mind Children*, pronounced mechanical views about how humans would upload their minds or intelligence into artificially intelligent robots like uploading mind could be possible in an operation theatre where robot surgeon will open brain case instead of the brain using bionic hands and cutting each part of the brain accordingly and transferring the encoded information into suitable computer or robot. The dead corpse without the brain will rest in peace but there Moravec proposes the process called as "reinstantiation"— the person will be salvaged or resurrected through

simulation of his brain within robots or computers where the person can still be able to experience the reality having a chance to evolve. AI scientist has also talked about high-resolution digital scan of information of the brain which can be simulated into a computer while scanned individual will come to consciousness and that is what has been shown in the movie *Transcendence* (2014). The dream of immortality is nothing new rather it can be traced in the philosophy of French philosopher René Descartes who argued that the mind or soul is particularly unique and different from the fleshy body, he considered the mind as natural, immortal and divine while the human body as a kind of machine which consists of nerves, muscles, veins, blood and skin. AI, artificial intelligence, wants to see human brain as an extremely complex "biological information-processing machine". AI theorists propose that the mind is a complex electrochemically mechanism of mortal brain cells of constructing any individual personality along with conscious and subconscious realm of desires, experiences, memories, knowledge and emotions. Fusing with information theory, they want to see the human mind as neuronal patterns of information. Therefore, AI prophets propose that immortality of a mind can be achieved (instead of a physical immortality promised in Christianity or any other religion) by mapping, extracting, replicating and transferring that information pattern as conscious as a living person into any artificial vessel from the mortal carbon cage.

Moreover, the theoretical expectations of mind transfer or digital scan will let a person exist like any software in a computer and will also let him experience the reality as a simulated version of reality, a wonderful paradox where a virtual person lives any real thing as a hyperreal experience. If we take Plato's "Allegory of the Cave" into account, we find that transcendental forms exist beyond the fragile shadows of sense perception; and what we assume as real world is also a shadow, a hyperreal and simulated experiences of the outside or physical world where human stores all his idea through the senses as nothing but image or shadow of the real which constructs all data in his brain. Therefore, human beings are actually living virtual reality, thinking it as real all through his life. Hence, AI scientists take inspiration from these where it might be possible to replicate these images or data within any artificial computer. Similar strategies have been applied to produce ideas of *Neuromancer* or *The Matrix*: taking control over reality through taking control over virtual reality, installing software as simulated reality through jacking in the matrix.

Thus, artificial intelligent liberates us with the possibility of techno-heaven, where human beings will not be bothered by limitations and sufferings of organic body. There will not be hallucination rather people will live their life within conscious artificial intelligence. This may lead human beings to live forever and even live after this earth become unlivable finding a new earth suitable; even they don't find any suitable earth, they might be able to create a suitable environment though nanotechnology like techno-prophets Ray Kurzweil or other immortalists propose singularity as the final and irreversible future. In the movie, the features and effects of such singularity has been shown using the research of such techno-prophets whereas the 2009 documentary on Ray Kurzweil named as *Transcendental Man* describes how singularity will be the ultimate destiny of

the world. In that documentary, Kurzweil says that computers will be ever more powerful, faster within the cheapest and tiniest features where mere human being will not fit in without being integrated into the technological heaven. As a virtual person or as conscious software, people will be able to roam with lightning fast velocity along with all his consciousness through wireless transmission, all over the earth or even the universe like the spiritual ideas about souls or the angels.

Drawing connection to the Christian or any religious predecessors, the techno-prophets believe humans own an immortal soul what they see through information pattern of mind. Hans Moravec, Ray Kurzweil and other futurist are optimistic about mind transfer as kind of endless life of human beings and salvation from the earthly sufferings, struggles, frustrations, pain, poverty, corruption, pollution and any kind of limitation that our physical world have. Thus, these scientific emergencies destabilizes by the desire to materialize the religious ideas of afterlife and paradise, immortal spiritual life, endless freedom in this earth and at the same time, without being atheist, it does actually re-appreciate and re-appropriate those ideas that God has promised for humankind.

Transcending Spiritual Belief into Technological Faith

Depicting a religious spin to anxiety about techno-totalitarianism, common theme in science fiction cashes in on the fear that super computers will transcend their human creators to such great extent that they will become godlike in their vast powers but satanic in their anti-human evil. In the science fiction film *Transcendence* (2014), Dr. Will was asked a question whether he is trying to create a new God through technology and he answers that is idea man has always tried to create ever since they knew this world. The concept of God is not a material one while this concept depends more on belief system. Man does not have a transparent connection to God and it cannot be denied that every civilization has their own god and every civilization has their concept of God constructed within their knowledge and perception things.

If we think about different religious or mythological examples of god, then we will find that even there is a common concept of omnipotent God, where every religion has tried to confine their own God with their own knowledge, their concepts and visions. They have created also a common factor like afterlife, heaven, hell, demon, sin, resurrection, apocalypse though we can find differences according to the variables of time, space and necessity.

Human being's solitary distinction from the animals is his ability to encode and decode everything. No other forces but information has ensured the "so-called" superiority over other species. The creature who can decode best becomes most powerful. For this reason, the emergence of artificial intelligence promises both optimistic and pessimistic future for human where human can celebrate of creating a sentient creature and at the same time, any sentient creature with access to the huge source of knowledge through internet may bear dangerous sign to destabilize the privileged

position of human being on the earth. Katherine Hayles, in her book, *How We Became Posthuman,* traced this importance of decoding information as "The emergence of the posthuman as an informational-material entity is paralleled and reinforced by a corresponding reinterpretation of the deep structures of the physical world." Information is a kind of pattern which is not tied to a particular instantiation rather free to travel across time and space. Hackers like Case or Neo, are not the only ones who recognize that information wants to be free and thus it has a liberating force. The great promise of information is that it can be free from the material constraints and thus, if mind can also be free from body, it can govern the mortal world by achieving immortality. Marvin Minsky, Hans Moravec have such dreams precisely to extract human memories from the brain and import them, intact and unchanged, to computer disks. The clear consequence is that if we can become the information we have constructed, we can achieve effective immortality.

The more we can become powerful through meaningful use of information, the more we will experience the endless power when we will also be able to be closer to the concept of omnipotence and thus it will take us towards understanding spirituality more vividly through technological implications. Then, the spiritual beliefs will turn into technological faith by materializing beliefs on unseen and unknown matters through posthuman confidence on information over material existence. Thus, it will be easier to understand religious matters better, re-appreciating and re-appropriating it through technological achievement. People will have to depend no more on "seeing is believing"; rather they will be the power to see the unseen, to know the unknown.

Conclusion:

In the contemporary world of fantasy, science fiction novels and especially Hollywood have produced knowledge of robotics and AI through science fiction stories and films as well as have encouraged communities of online explorers or even gamers. Since the 1980s, Cyberpunk novels manufactured a sacred fantasy for virtual reality with distinctive features in comparison to real life romances. In these films and novels, one can easily find stories full of adventures and futuristic visions juxtaposed with the promises of Apocalypticism, AI and salvation; thus gradually have helped creating the perception of AI and virtual reality among mass consumer. Whether we watch SF movies, read cyberpunk books or explore virtual space, all these actions create a hallucination to desire for such future compelling us to hallucinate our virtual reality as real within the virtual web. Thus, the readers or audience are actually integrating their minds in that network of science fictional fantasy where everything seems to be possible within near future. Yet, Case in *Neuromancer*, NEO in *The Matrix and* Dr. Will *Transcendence* are not only fictional characters, they holds the message of our future, the visions of our techno-prophets.

Posthuman technology threatens to re-engineer humanity into a new techno species and science fiction shows that this process will subvert human values like love and empathy, revealing

discrimination, social fragmentation, totalitarianism, surveillance, environmental degradation, addiction, mind control, infection, and destruction. Technology's intrinsic structure requires dominance of human impulsiveness and obedience to its requirements of order and efficiency which extends the social controls initiated by the cybernetic ideological system. Asimov's laws of robotic obedience have been reversed into technology's laws for human submission.   Last but not the least, Technology has its own beauty but human have to achieve the suitable eyes to find out it. The vision of a techno-utopia serviced by robots, cyborgs, androids, and clones is revealed as a myth that encourages human submissiveness in the face of enslavement by technology. On the other hand, Science fiction helps to liberate humans from those mythical and deceptive dreams while warning that our technology is not easily controlled. Though technology is accused of having too much concern of consumerism and militarization, we may still be hopeful about the positive outcomes the elimination of poverty, pollution free environment, and the expansion of education. Above all, science fiction projects a dystopian vision of the Trans-humanist's future that may encourage the scientist to re-think about the world to create a better one.

References:

Primary Sources

- Gibson, William. *Neuromancer.* New York: Ace Books. 1984. Print.

- *Artificial Intelligence*. Dir. Steven Spielberg. Warner Bros. Picture, 2001. Film.

- *I, Robot*. Dir. Alex Proyas. Twentieth Century Fox Film Corporation, 2004. Film

- *Robocop.* Dir. Jose Padilh. Columbia Pictures, 2014. Film

- *The Matrix*. Dir. Andy Wachowski and Larry Wachowski. Warner Bros. Pictures, 1999. Film.

- *Transcendence*. Dir. Wally Pfister. Warner Bros. Pictures, 2014. Film.

Secondary Sources

- "*A.I. Artificial intelligence* (2001 film)". Wikipedia, the free encyclopedia. Wikimedia   Foundation, Inc. 08 Mar 2014. Web. 20 May 2014.

- Baudrillard, Jean. *Simulacra and Simulation.* Michigan: University of Michigan Press,   1995. Print.

- Bell, David. *An Introduction to Cyberculture*. New York: Routledge, 2005. Print

- Brockman, John. "The Singularity: A Talk with Ray Kurzweil" Retrieved from http://www.edge.org

- Brooker, Peter. A *concise Glossary of Cultural Theory*. London: Arnold, 1999. Print.

- Durham, Meenakshi Gigi & Douglas M Kellner. (Eds*). Media and Cultural Studies: Key Works*. New Jersey: Blackwell, 2005. Print.

- During, Simon. *Cultural Studies: A Critical Introduction.* London and new York: Routledge, 2008. Print.

- Fiske, John. *Understanding Popular Culture*. Boston: Unwin Hyman, 1989. Print.

- Geraci, Robert M. *Apocalyptic AI: Visions of Heaven In Robotics, Artificial Intelligence, And. Virtual Reality*. New York and Oxford: Oxford University Press, 2010. Print.

- Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics.* Chicago: University og Chicago Press. Print.

- "*I, Robot* (2004 film)". Wikipedia, the free encyclopedia. Wikimedia Foundation, Inc. 08 Mar 2014. Web. 20 May 2014.

- Jameson, Fredric. *Postmodernism or, the Cultural Logic of Capitalism*. North Carolina: Duke University Press. Print.

- Kelly, Patrick, & Kessel J. (Eds.). *Rewired: The Post Cyberpunk Anthology*. San Francisco: Tachyan Publication, 2007. Print.

- Kothari, C.R. *Research methodology: Methods & Techniques*. 2nd Ed. New Delhi: New Age PL, 2004. Print

- Kurzweil, Edith. *Literature and Psychoanalysis.* Columbia Universuty Press, 1983. Print.

- Kurzweil, Ray. *The Age of Spiritual Machine: When Computer Exceeds Human Intelligence.* New York: Penguin Group, 1999. Print

- Leitch, Vincent, B. ed., *The Norton Anthology of Theory and Criticism.* Norton, 2001. Print.

- McCaffery, Larry. *The Desert of the Real: The Cyberpunk Controversy*. Mississippi Review, 1988. Print.

- McCaffery, Larry (Ed.). *Storming the Reality Studio: A Casebook of Cyberpunk and Postmodern Fiction*. Duke University Press, 1994. Print.

- McHale, B. *Postmodernist Fiction*. London: Routledge, 1987. Print.

- Midgley, Mary. *Science as Salvation: A Modern Myth and its Meaning*. London & NY: Routledge, 1992. Print

- Morley, David and Kuan-Hsing Chen. *Stuart Hall: Critical Dialogues in Cultural Studies*. London and New York: Routledge, 1996. Print.

- Monaco, James. *How to Read a Film: Movies, Media, Multimedia*. New York and Oxford: OUP, 2000. Print.

- Moravec, Hans. *Mind Children*. Cambridge: Harvard University Press, 1989. Print

- Nayar, Promod K. *An Introduction to Cultural Studies*. New Delhi: Viva Books, 2008. Print.

- Nelmes, Jill (ed.). *An Introduction to Film Studies*. London and New York : Routledge,   1999. Print.

- Noble, David. *The Religion of Technology: The Divinity of Man and the Spirit of Invention*. 2nd Ed. NY: Random House, 1999. Print

- Pickering, Michael (Ed.). *Research Methods for Cultural Studies*. Edinburgh: EUP, 2011. Print.

- Raynor, William. *The International Dictionary of Artificial Intelligence.* Chicago: Glenake Publishing Company Ltd., 1999.Print

- Rose, Gillian. *Visual Methodologies: An Introduction to the Interpretation of Visual Methods*, London: Sage Publications, 2001. Print.

- Storey, John (Ed.). *Cultural Theory and Popular Culture: An Introduction*. Essex: Longman, 1998. Print.

- Taylor, Victor, and Winquist C. (Eds.). *Encyclopedia of Postmodernism*. London: Routledge, 2001. Print.

- "Transcendence (2014 film)". *Wikipedia, the free encyclopedia*. Wikimedia Foundation, Inc. 08 May 2014. Web. 20 May 2014.

- "Transhumanism." *Wikipedia*, *the free encyclopedia*. Wikimedia Foundation, Inc. 6 May 2014.Web.2 June 2014.

- Tyson, Lois. *Critical Theory Today*. London and New York: Routledge, 2008. Ptint.

- Whitby, Blay. *Artificial intelligence: A Beginner's Guide*. Oxford: Oneworld Publication, 2006. Print.

- Wolfe, Cary. "Posthumanities". Cary Wolfe. N. p., 2010. Web.04 May, 2013.

- Wolfe, Cary. *What Is Posthumanism?* London: University of Minnesota Press, 2010. Print.