

**Tribhuvan University**

**Rise of Artificial Intelligence and Crisis in Humanism in *Machines Like Me* and**

***Ex Machina***

**A Dissertation Submitted to the Faculty of Humanities and Social Sciences, T.U.,**

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**Master of Philosophy in English**

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## **Declaration**

I hereby affirm that this dissertation entitled “Rise of Artificial Intelligence and Crisis in Humanism in *Machines Like Me* and *Ex Machina*” submitted to the faculty of Humanities and Social Sciences, Tribhuvan University, Kathmandu is an original work written under the supervision of Dr. Bal Bahadur Thapa, Central Department of English, Kirtipur. It is submitted in partial fulfillment of the requirements for the Master of Philosophy (M.Phil. degree) in English. No part of this research work has ever been published in any form before and has not been presented anywhere else for the award of any degree or any other reason. I shall be exclusively liable if any indications contradict my declaration.

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Guru Prasad Bhattarai

April 2025

## Letter of Approval

This thesis entitled "Rise of Artificial Intelligence and Crisis in Humanism in *Machines Like Me* and *Ex Machina*" submitted to the Central Department of English, Tribhuvan University, by Guru Prasad Bhattarai has been approved by the undersigned members of the research committee.

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## Abstract

This present dissertation examines the representation of crisis of Renaissance led version of humanism invited by the rise of humanoids empowered by Artificial Intelligence in the novel *Machines Like Me* by Alex Garland and the film *Ex Machina* directed by Ian McEwan. In the selected primary texts, the representation of humanoids with the human traits is problematic. Renaissance humanism keeps human in center, emphasizing on human potentiality and achievement. Human as rational, creative, endowed with ethical and moral aspects. This account of human version can be in challenge by humanoids enhanced with Artificial Intelligence. This research, therefore, analyzes and interprets the novel and the movie focusing on their representation of the growing development of artificial intelligence in humanoids and its impacts on humanism. Regarding the research problem, the present study argues that humanoids with artificial intelligence may subvert human thoughts and behaviors in the near future. Though artificial intelligence has enhanced human life on several fronts, the humanoids with the enhanced human qualities like consciousness can surpass human beings and thus cause human beings to question their own identity. In this way, this research is a speculation on the verbal and visual representations of the futuristic world in which human beings may be reduced to slaves to humanoids with the hyper programmed consciousness. This study derives insights to the position of human from the scholars like Rosi Braidotti and Francisco Ferrando to develop a theoretical framework. One of the key propositions of this study is the role reversal between machines and human beings. Machines show traits of humans and vice versa. Both the primary texts, as per the present dissertation, are representations of the futuristic high tech modern world, where human beings barter their consciousness and emotions with machines for the latter's efficiency and thus undergo an identity crisis.

As Artificial Agency will be able to counter human account of supremacy and the conceptual identity about human uniqueness will be in re-definition.

Keywords: Artificial intelligence, humanoids, humanism, posthumanism, human identity

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## Chapter I: The Rise of Artificial Intelligence and Crisis in Humanism in *Ex Machina* and *Machines Like Me*

This dissertation seeks to explore the issue about the rise of Artificial Intelligence in humanoids and its possible impacts on humanism. In analyzing, *Machines Like Me* a novel written by Ian McEwan and *Ex Machina* a film directed by Alex Garland. In practice, the ongoing competition of scientific experimentation on humanoid with Artificial Intelligence has been the crucial issue in modern technocratic world. Artificial Intelligence is used in diverse fields. People are looking at it as boon or ban. With the programming of neural network in AI, it has brought the excitement and fear to human civilization. This research does not deal the multiple issues about the impacts of AI, but analyses how humanism is in crisis. If humanoids are programmed to imbibe consciousness, they might surpass human and human qualities regarding humanism.

In critical studying the novel *Machines Like Me* and the film *Ex Machina*, it is clear that humanoids with consciousness can become the threat for humanism. In both works of art, the creators (human beings) are overpowered by the creations (humanoids). Adam, a humanoid in *Machines Like Me* and Ava, a gynoid in *Ex Machina* use their advance intelligence against their human makers. Instead of being controlled by creators, the humanoids learn human behavior and challenge the human sense of humanism.

In *Machines Like Me*, an android named Adam imitates the human traits. The humanoid, Adam is programmed with Artificial Intelligence, learns the human activities like ethical and moral conducts from human beings. After then he develops his own moral codes starts writing *haikoo*s dedicating to Miranda like an artist. He is

disturbed mainly because of human injustices in behavior. He makes his ethical conducts smarter than his programming.

In the novel *Machines Like Me*, Charlie Friend, a young boy buys the first synthetic human being named Adam. He is interested about robotics. Charlie customizes the personality of Adam. He comprehends all humanistic qualities of human behavior by his cognitive skills. He gets attracted and disturbed by the development of ethical rigidity, capabilities and his unexpected presence in Charlie's life. As the story unfolds, Adam develops ethical and independent sense of morality. He falls in love with Miranda (Charlie's girlfriend) makes sexual relation with her. Adam brings the tension in the lives of human characters like Miranda and Charlie. This novel makes the philosophical question about what is humanism. When AI possess hyper consciousness, sense of morality and ethics. He learns human attributes and proves more rational than human beings. When this happens, humanoids will be able to re-define the human uniqueness. In its broadest definition, humanism is the conviction that humans are the most important and central beings in the universe—rational, self-governing, moral beings with intrinsic value and dignity. The hyper developed humanoids with Artificial Intelligence, if possessed human consciousness, will be able to generate its own ethical and moral codes leading human beings.

The movie *Ex Machina* by Alex Garland is psychological thrilled movie which explores the consciousness, manipulation and intelligence of a gynoid Ava. As the story starts, a young talent programmer Caleb wins the contest to pass a week of his company's CEO, Nathan. Caleb is invited by Nathan in a reclusive place in order to examine the consciousness in Ava. Nathan has made the gynoid with human perfection. He has programmed Ava with full human consciousness. The purpose of inviting Caleb is to make sure about the consciousness in Ava. As Caleb starts

interacting with Ava, he notices that the proper development of intellectuality, self-awareness and human like consciousness in her. Ava develops the consciousness in such a way which surpasses human being. She plans to flee from the observatory room of Nathan to the human world. For this reason, she manipulates human character Caleb and kills her creator Nathan in the end to come out to the human world where she can exercise no restrictions.

The film *Ex Machine* has been reviewed from different perspectives among them, Aleksandra Sieradzka, in her article “A Machine Like a Human Being: Transhumanism as New Humanism in the Movie *Ex Machina*” describes humanism as "a worldview based on anthropocentrism, the belief that the human being is the center of the whole universe, the reason and purpose of everything that exists" (126). She argues that humanism, which emerged during the Renaissance, placed humans at the center, unlike earlier views influenced by the Catholic Church and medieval traditions. In these earlier views, humans were bound by the rules of religion and authority. But the enhancement of humanoids with Artificial Intelligence has been the subject to humanism to challenge. If they are able to articulate reasoning without human support.

Similarly, Elisabetta Di Minico in her article “Ekphrasis Images Cinema Theory Media” states, “Alex Garland’s movie *Ex Machina* (2014) is not only an interesting movie on the confrontation between human and posthuman, it is also a perfect example of [...] authoritarian and male oppressive processes” (71). She elaborates that the film *Ex Machina* shows the conflict between man and man’s position, which is redrawn. And she views that the film is an instance to prove how male characters in the story control the non-human characters like robots that leads to human misfortune. She further adds, the non-human objects like robots can

overpower human beings in response, “Ava finds her freedom through killing and retaliation, and she also seems to escape from her technological nature, probably hiding her skills from the world in order to survive and pretending to be a real woman in a crowded world” (Elisabetta 72). She posits that Ava learns skills from human and knows that to survive in existing world she has to come from the technological world into real world of human being. In this regard, Ava, a gynoid, she kills her creator Nathan to be free from human made imprisonment. This shows how AI character with embodiment of consciousness can revolt against the authority. In a similar way Nid Cooper Risele posits his views about *Ex Machina* in ‘Grade Saver’ points that the androids which can be of challenging force to human. He says, “The film tracks [...] growing connection to the AI unit, Ava, and seeks to expose the ways that artificial intelligence could, hypothetically, become a compelling and disarming force in the world, because of its ability to simulate human consciousness (n. pag.)”. He means to say that artificial intelligence can adapt human consciousness, which might lead AI to be the overpowering entity to human beings. As twenty first century human experimentations in humanoids with programmed intelligence have attracted the attention about the future of human kind. In a similar way Klaus Schwab in his article *Shaping the Future of Fourth Industrial Revolution* states the digital age characterized by a fusion of technologies that is blurring the line between the physical, digital, and biological spheres. He means that AI has been used in multiple paradigms for human convenience leading to the question what AI leading world will there be in future.

The novel *Machines Like Me* is reviewed from different scholars. Among them Tarik Ziyad Gulchu in “What If Robots Surpass Man Morally? Dehumanizing Humans, Humanizing Robots in Ian McEwan’s *Machine Like Me*” also points out

that well developed humanoids can substitute human being in future as he mentions, “Ian McEwan’s *Machines Like Me* is [...] a futuristic story about the mastery of machine with Artificial Intelligence over human beings” (181). He mentions that machine will have domination to humans if robots enhance the human consciousness. This also predicts that the highly programmed androids can substitute human beings, if the robots use their intuition in the context with the enhancement of ethical and emotional consciousness. In the similar way S. J. Pooja in her research article *Roboethics in Ian McEwan’s Machines Like Me* posits:

As Advanced Robotics and Artificial Intelligence are on the rise, there is the greater importance that concerns the very complex problem of science and ethics [...]. In this novel, (*Machines Like Me*) Adam is a humanoid who experiences emotions and can think. But Charlie as a human being struggle to adapt to the condition. The constant struggle between emotional capabilities of a robot and the human as an anthropocentric being is focused under the ethics of Robots and Humans. (4819)

She views, the extreme development of humanoid with Artificial Intelligence has been in a peak point has brought the complex problem related to human condition. Human being has to conflict with the hyper developed Artificial Intelligence to be familiar with the possible capabilities of humanoids. This leads the ethical question about the robotics, which remains far for human understanding.

### **Statement of Problem**

This study examines the representation of humanoids programmed with Artificial Intelligence in the novel and movie adapting human behaviors and their activities prove themselves as more conscious and intelligent than the human characters in the novel *Machines Like Me* and the film *Ex Machina*. Further on, the smarter humanoids show more ethical and social challenging human vision of

humanism. Humanoids are speculated to outsmart human beings. After studying *Machines Like Me* by Ian McEwan and *Ex Machina* by Alex Garland, it is clear that humanoids created by human can become a real threat to human civilization. In both texts, the creators are overpowered by their creations. The human beings in the texts are presented ethically secondary in position than Artificial Agencies. Adam, a humanoid, in *Machines Like Me* and Ava, a gynoid, in *Ex Machina* use their advanced intelligence against their human makers. Instead of being in control by human beings, the androids programmed with Artificial Intelligence learn the human conscience and consciousness from human beings and surpass human beings ethically with their capabilities. The author and the director have used the humanoids of concerned texts present humanoids smarter than human beings. Perhaps they intended to project out that in near future androids can be powerful than human beings. This research explores the conscious Artificial Intelligence with the hyper consciousness can lead the situation on which human beings will have to be inferior.

### **English study Convention**

This research paper proposes that the robotic characters in the novel *Machines Like Me* by Ian McEwan and Alex Garland's *Ex Machina* represent a new form of dominance over humanity. When Artificial Intelligence is programmed with acquiring human consciousness and capabilities, they will be acting out smarter than human beings. The hyper development of consciousness in humanoids with human-like behaviors can be the substituting force to humanism. When machines become more conscious than human beings, the machines act out to question our understanding of intelligence, identity and power.

The texts *Machines Like Me* and *Ex Machina* have been studied from different perspectives. Aleksandra Sieradzka views, the film *Ex Machina* with human centric

vision. Similarly, Elisabetta Di Minico views the film as conflicting between human and machine. Likewise, Cooper Risele envisions Artificial Intelligence can adapt human traits. In the similar way, there have been multiple views on the text *Machines Like Me* as well, Tarik Ziyad Gulchu posits that machine with Artificial Intelligence can over-power human beings in the future. Likewise S.J. Pooja views that extreme development can bring human beings a complex problem. In studying all these reviews and articles, the researchers view Artificial Intelligence can be a problem for the human beings. In taking the issue in consideration this dissertation seeks to prove crisis in humanism by the rise of Artificial Intelligence with human-like consciousness. As the Artificial Agency learn human traits and advanced with consciousness, they are likely to be the challenge to humanity and humanism. Artificial Intelligence with human like rationality can decenter the existing role of human beings. Posthumanists believe that human roles and position of humans are not exceptional in the society. It views that advancement of Artificial Intelligence, bio-engineering robotics blur the human role with this anthropocene problematic. This research paper explores how human notion of humanism is in crisis with the development of humanoids with Artificial Intelligence in the selected texts.

### **Theoretical Perspective**

This research paper is based on analyzing *Ex Machina* (a film by Alex Garland) and *Machines Like Me* (a novel by Ian McEwan). Both texts explore the role of artificial intelligence in human life. In these works, AI challenges and overpower human beings, showing more humanistic traits than traditional human definitions of humanism. This paper argues that humanism is in crisis because humanoids with empowering Artificial Intelligence with consciousness and showing human behavior,

may possibly raise the status of human in future, thus using these two texts as examples.

To support this claim, the research draws from various online articles, books, and library resources. It examines how AI adopts human traits and illustrates the historical and philosophical concepts of humanism. Relevant studies on humanism, posthumanism, and transhumanism provide the theoretical framework and evidence needed for this analysis.

This research paper uses the ideas of humanism, which believes human centrality. Human as the measures of everything emphasizing human dignity and potentiality. Furthermore, this paper takes the decentering the human position as the basic principle of posthumanism, and transhumanism to compare and contrast these concepts in relation to the crisis of humanism. These philosophical ideas focus on human traits like rationality, human position, and status, which separate humans from non-human beings.

The study explores how non-human beings, like Artificial Intelligence, can embody humanistic traits. It also challenges the traditional idea of humans as a godlike figure, showing how non-human entities, like robots, can take on human-like qualities. Humanism, in its traditional form, rejects the idea of enhancing humans or achieving immortality. It centers on human control and rationality, believing that only human power matters. Humanism focuses on discovering truth and morality based on human interests and capabilities, as seen in the Renaissance period.

However, Rosi Braidotti, in her book in chapter one "Posthumanism: Life Beyond the Self" challenges the traditional notion of humanism. She argues, "Humanism's restricted notion of what counts as the human is one of the keys to understand how we got to a post-human turn at all" (16). She believes that

humanism's narrow definition of humanity led to the rise of posthumanism, which critiques the idea of human superiority.

Posthumanism rejects the traditional human hierarchy counted to be in center of all and questions the ethics of human power over non-human beings. Movements like feminism, decolonization, anti-racism, and deconstruction have all helped redefine the concept of humanity. These movements critique and challenge the old, restrictive views of humanism, suggesting that humanism needs to evolve to include a broader understanding of what it means to be human.

In a recent technocratic development artificial intelligence has made the crucial standpoint to question anthropocentric view up on human centrality. The emergence of artificial intelligence also led a strong ground for posthumanism. When human traits are copied by AI and proved more human in rationality and consciousness, the so called superiority of human became the question to ponder about. In the texts *Machines Like Me* and *Ex Machina*, the robotic characters like Ava, a gynoid and Adam, a humanoid surpass the human intellectual. In philosophical study it is known to be the notion of posthumanism. Like other historical movements, artificial development brought a new perception which I like to coin as AIism. The robotic characters in the texts have questioned the human vision of being superior to other beings. They learn and articulate more rational activities than human beings in many ways.

In regard of posthumanism and transhumanism, they are related but distinctly different philosophical perspectives about the status and future of humanity and position of scientific technology and conceptual framework about human and evolution. Posthumanism does not take the technological breakthrough in its core

realm whereas, transhumanism seeks human upgrading status with the development of science.

In distinguishing between posthumanism and transhumanism, Ferrando highlights key differences in their focus. In her article “Existent”, she notes that posthumanism does not prioritize technology as its central concern, as this would reduce its theoretical approach to essentialism and techno-reductionism. She argues, “Posthumanism doesn’t turn technology in its main focus, which would reduce its own theoretical attempt to a form of essentialism and techo-reductionalism” (3). In contrast, transhumanism places technological advancements at the core of its vision for the future, aiming to enhance human capabilities through scientific progress.

Ferrando further explains the importance of human enhancement in the transhumanist framework, stating, “Human enhancement is a crucial notion to the transhumanist reflection; the main key to such a goal are identified in science and technology ...from regenerative medicine to nano-technology, radical life extension, mind uploading and cryonics, among other fields” (2). This suggests that transhumanism sees technological advancements, like regenerative medicine, nanotechnology, and mind uploading, as essential for improving human capabilities. Ferrando posits that advancements in science and technology have the potential not only to extend human lifespan but also to significantly enhance cognitive capacities. Consequently, transhumanism is founded on the notion that the strategic and intentional application of scientific and technological innovations is essential for better and brighter future where humans can attain increased longevity and enhanced intellectual development.

This study compares humanism and posthumanism by analyzing the impact of artificial intelligence, using *Machines Like Me* and *Ex Machina* as examples. In both

texts, the humanoids Ava and Adam develop human-like behavior, values, and judgment, which challenge traditional ideas of humanism. Posthumanism questions the uniqueness of humans and raises ethical issues about AI. It highlights how the existence of sentient beings other than humans forces us to rethink concepts like identity, awareness, and morality in a world influenced by AI and technology. Human uniqueness is undermined by posthumanism, which also raises ethical concerns about artificial intelligence. It emphasizes how, in a world where sentient species other than humans exist, AI and technology compel us to reconsider identity, awareness, and morality. Human uniqueness is undermined by posthumanism, which also raises ethical concerns about artificial intelligence. It emphasizes how, in a world where sentient species other than humans exist.

The emergence of AI and technology compel us to reconsider identity, awareness, and morality. The presence of AI has created a tremendous issues in questioning the role of human beings in existing world. Human desires have ambitiously developed so radically which might pose humanism in question in future. Considering this Ihab Hassan in his article “Prometheus as Performer: Towards a Posthumanist Culture?” states:

We need first to understand that the human form- including human desire and all its external representations-may be changing radically, and thus must be revisioned. We need to understand that five hundred years of humanism may be coming to an end as humanism transforms itself into something that we must helplessly call post-humanism. (830-850)

Hassan believes that human tendency in outward manifestation of desires may be drastic for the position of human beings. He asserts that human acts have to be revised on time lest humanism can be in crisis.

In a similar way Francisco Ferrando in her seminal article “Posthumanism, Transhumanism, Antihumanism, Metahumanism and New Materialisms Differences and Relations” makes the same remarks about human tendency. She opines “The posthuman discourse is an ongoing process of different standpoints and movement which has flourished as a result of the contemporary attempt to redefine the human condition” (7). Ferrando posits that because of the existing effort to redefine the human condition and human behaviors, different perspectives and human decentering movements have given rise to the posthuman discourse. Considering this an Oxford scholar Nick Bostrom in his article *Transhumanism Values* makes similar remarks of using scientific achievements in a proper way. He remarks; “... by responsible use of science, technology, and other rational means we shall eventually manage to become posthuman beings with vastly greater capacities than present human beings have” (1). He means to state that the rational use of technocratic outcomes can lead the human present state better in the days to come. Indeed, posthumanism is a mode of thought and deconstruction of human in a center. It is a broad and multifaceted philosophical discourse that critiques to human ethics of being powerful. Human uniqueness is undermined by posthumanism, which also raises ethical concerns about artificial intelligence. It emphasizes how, in a world where sentient species other than humans exist, AI and technology force us to reconsider identity, awareness, and morality.

Transhumanism in a sense can be taken as the revival of Eurocentric quality of human with all potentiality. The science and technology in upcoming world will cause human being to claim its own position having omniscient and omnipotent qualities in future. The dead all-rounder status of human of centrality, can be regenerated because of science and technology with the use of artificial intelligence.

Because, once again human being will be in power. In this regard Braidotti opines; “The Vitruvian Man rises over and over again from his ashes, continues to uphold universal standards and to exercise a fatal attraction” (Post-Humanism: Life beyond the Self 29). She means equate human all rounding position of centrality to Vitruvian Man during Renaissance. Her opinion is that human being can be in center again because of enhancing the physical, cultural, psychological aspects with help of science and technology. Braidotti further argues; “[...] posthuman development comes from science and technology studies. This contemporary interdisciplinary field raises crucial ethical and conceptual questions about the status of the human” (Life Beyond the Self, 39). She views that promoting the technology will bring ethical question about position of human once again to reinstall in superiority. In considering the same issue Joan Maloof in her essay *De-evolution and Transhumanism* posits that “the transhumanist [...] advocates continuing and accelerating the transformation of the human condition through technological means- in other words, turning out tools to ourselves to create superhuman” (213-220). His remarks about tools is the amalgam of genetic engineering and neuro-biology. With the help of such scientific procedures there is likely to create a superman. The superman is the next avatar of powerful human.

### **Significance of the Study**

This study aims to show that highly advanced humanoids with empowered human-qualities, such as consciousness and ethical behavior, could pose a significant threat to humanity. As humanoids with the advancement of artificial intelligence being developed deeper relationships in contact with human exposing moral understandings than human beings, they may surpass humans and influence and control, potentially leading to a future, where machines is likely to dominate human.

The notion of human superiority as traces by early Renaissance will be in This research will explore the implications of such a shift and the potential crisis it could create for human identity and values. This dissertation will contribute by highlighting the potential risks and ethical dilemmas posed by advanced artificial agencies, urging a re-examination of human identity, values and the balance of power between human and machines. It is assumed that AI can gather data from physical and virtual world tenets and generate data and process for the result and solution.

### **Limitation and De-limitation about the study**

This dissertation focusses on the narratives of the novel *Machine Like Me* and film *Ex Machina*, not covering all AI-related media and literature. It relies on speculative fiction and hypothetical scenarios, which may not fully predict the real world outcomes. This research is based on limiting the current understanding and predictions about future AI advancements.

### **Plan of Dissertation**

In this chapter one : I will be analyzing the rise of Artificial Intelligence and crisis in humanism in the movie *Ex Machina* by Alex Garland and the show how humanoid with Artificial Intelligence has learned the human skills of consciousness and overpower human beings with manipulation and ethical skills in the movie. In chapter two, I will be exploring the movie *Machines Like Me* by Ian McEwan and examine the relation between human and humanoid with Artificial Intelligence and present out how humanoid with Artificial Intelligence morally and ethically surpass the human beings in the novel with learning human traits. In chapter three I will be analyzing the relation between humanoid and human with Artificial Intelligence. In this chapter four, I will be assessi propose behind my research paper and offer my findings in reading the texts.

## **Chapter II: Relation between Human and Humanoid with Artificial Intelligence in *Ex Machina***

Artificial Intelligence (AI) is a topic of wide debate and discussion in a modern progressive digital world. People are looking at it as boon or ban. With the programming of neural network, AI has been the issue of excitement and fear to human civilization till the date. In all the extremes and its potentialities, AI has the paradigmatic influences in human affairs and activities. People are quite curious about its possible outcomes in the future of human beings and the world. In regard to the study about Artificial Intelligence, there have been mainly dualistic assumptions prevailing in the mindset of researchers and the intellectuals of the world. Some people believe that AI can be helpful in many areas, making the life easier with rapidly advancing technology. However, few people are worried that AI will be dominant force up on human beings on which human lose the control.

This chapter analyzes how androids with artificial agency may challenges humanism and its traits. The AI character Ava, challenges the rooted concept about consciousness, ethical and moral issue. She surpasses the human cognition and manipulates the human characters for her personal benefits with reason and emotional with her cognitive strength. The movie *Ex Machina* question humanistic qualities by non-human i.e. androids. Regarding the debates about AI the literary field is one among the others to respond and cast the view about the emergence of AI for upcoming days. In this research, I shall limit my study only to the uncontrolled AI's impact on humanity. Hence, I have selected two texts: *Machines Like Me* (2019), a thought provoking explorative novel about Artificial Intelligence by Ian McEwan and a sci-fi film *Ex Machina* (2014) directed by Alex Garland. In these two texts, Artificial Intelligence has significant actions about how humanism can be a question

with evolvement of hyper developed AIs. As the basic tenets of humanism like consciousness, identity, rationality, self-identity, rationality and creativity have been copied and executed in reality by artificial agency like of human beings, what is supposed to be human, humanity and human qualities will be in question in future.

Regarding how humanistic qualities have been in question, this study explains the texts *Ex Machina* as a research modal. The film *Ex Machina* explores the crisis of humanism in the context of advanced Artificial Intelligence with the embodiment of consciousness, identity, self-awareness and ethical dimensions. As Ava, an AI is featured in a way with human like consciousness, copying human behavior and ethical responses. Ava, an advanced AI created by Nathan (fictional scientist) in his observatory lab. Ava is programmed with all human traits and even the abstract entities like consciousness and self-awareness. Caleb, a coding programmer, is brought to test the identification of Ava and her consciousness. Consciousness which counts as the best quality only human beings will possess as envisioned in Renaissance period. As Caleb, in dialogue with Ava, notices that Ava is more than a mere machine. For the test, Nathan says to Caleb, “The real test is to show you she is a robot. Then see if you still feel she has consciousness” (00:16:24-00:16:25). The creator Nathan is sure that his creation has got the consciousness but he has to make sure, from others as well. He wants to get his humanoid Ava examined by another person. Here Ava is completed with perfection for Turing Test (Fictional Test) for approval. In the development of film one finds out Ava has got the consciousness. She makes intimate relation with Caleb to escape from the observation room of Nathan in which she had been confined by her creator Natham for a long time. As the plots develops, Ava becomes able to identify her existence and fabricates the nearness towards Caleb. This shows her self -recognition and self-awareness towards her

identity in human controlled world. As the plot proceeds on she is able to identify wrong and right with reading the situations. This shows the consciousness developed in robotic character Ava.

The rationality and creativity is shared by artificial intelligence is taken as the core component of humanistic study about Artificial Intelligence. Ava, a gynoid is featured to have enhanced such qualities in the film. As the plot goes on she points out the hidden motif of her human creator. This is the development of her observator skill to identify what is wrong and right with the situation like of human beings. She says to Caleb that her creator is not trustworthy for anything. As she says, “You shouldn’t trust him, you shouldn’t trust anyone [...]” (00:31:28-00:31:29). This simply points out that Ava is well aware of the mistreatment of her creators and she doesn’t like his experiments to herself and other AIs. This shows the development of self-consciousness in Ava. However, the other creations show few signs of consciousness and self-awareness in examinations.

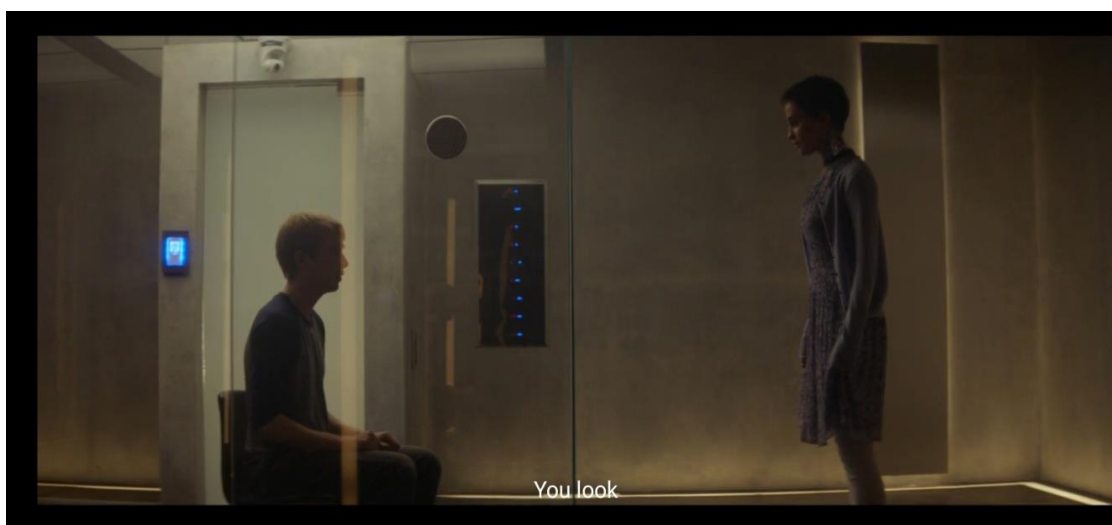
Artificial intelligence's human-like consciousness has proven challenging for humans to comprehend. As the Eurocentric view of humanism trusts on human consciousness and human rational as the subjectivity, but it simply denies of consciousness to other beings except human. It might not have been possible to think that human biological intelligence can be outfit with the emergence of human made artificial intelligence in human history. As Rosi Braidotti, in the seminal essay *The Post humanism*, argues that “subjectivity is equated with consciousness, universal rationality and self-regulating ethical behavior . . .” (15). If so, what is ethical in human understanding? As Ava shows human like understanding and ethical turns, the viewers turn to be compassionate about the dignity and humanity for artificial intelligence. Similarly, the power relationships between people and AI are also

explored in the movie. Nathan's manipulation of Ava and his test on her raise ethical concerns about how humans might force their will on creations. Nathan claims, "If I have created a conscious machine, I'm not man. I am God" (. . . 00:15:34-00:15:35). This statement highlights the ramifications for how humans regard the creations and the god-like power human possess to create and govern sentient beings like of the concept of Vitruvian man of Renaissance, which counts man to be in center and super powerful. As the story of the films unfolds, Nathan, the fictional scientist seems to have overwhelmed with his creation but it's an instance of his lacking moral codes to feel proud of being able to control his creations. He only assumes himself to be rational and super dynamic to judge everything.

In the movie, a character named Nathan, the fictional researcher does not seem to have humanistic quality. He plans to dismantle if she did not pass the Turing Test. Even though, he knows that Ava has the consciousness like of human being. Indeed, humanism in a real sense is a respect for social justice, including the respects for science and human culture. As elaborated by Rosi Bradotti, "Humanism promotes respect for science and culture against the authority. It also contains an adventurous element, a curiosity driven yearning for discovery and a project oriented approach that is extremely in its pragmatism" (39). Bradotti opines that humanism in a real sense is to encourage support to humanistic notions and human values discarding the power and authority. Nathan, a creator, does not feel that his creation can have the sense of identity and self-awareness. He just treats his creation Ava to be a masterpiece for the Turing Test even if his creation has shown the feelings to be out from observatory room and see the world. Nathan does not show any mercy towards his creations neither he has featured justice. Here the question arises; what is counted to be human and humanism in real sense? As Christopher Peterson, in his essay "The

Posthumanism to Come,” asserts “Humanism might be subjected to human control” (Peterson 128). Nathan is driven by the very concept of what humanism is. The basic principle of posthumanism is to question the human centrality and supremacy.

The humanoid in *Ex Machina* shows her potentiality to identify herself and her gender. In interaction with human character named Caleb. While she has to influence the human character named Caleb, she has to cover her machinery form from the dress. For that she goes to her room and opens wardrobe that reveals her clothes and hair-piece and starts to get dressed. Ava checks her reflection in the mirror, and adjusts the clothes slightly. Making sure that as much of her robot form is covered as possible. Then she puts on the hair-piece, short, brown hair. By covering the robot form of her chest and arm and adding the hair pieces, Ava takes a huge visual step towards appearing human. Finally she comes to the pure human form. Her decoration as suitable to gender is the example of herself recognition and identity. As a humanoid her sense of selection the female dress and covering all the body's parts signs clearly that Ava has got human quality of identification.



(Fig. 1 Screenshot taken by researcher, time: 00:43:21)

This picture clearly shows how Ava, a machine dresses up like a human being. She hides all her machinery outfit and comes closer to human perceptible world like of a natural human character.

A machine having humanistic sense of gender subverts human idea of gender identity in the movie. In the similar way, the quality of heterosexuality is the human normative notion of gender quality that comes by birth as the time passes on that develops in utmost level. Humanist advocates for equality, sexuality with the lens of human rights and personal freedom. This is the living beings' natural quality. However, the humanoid Ava has possessed this quality of attraction to the opposite sex. She falls in love with Caleb and wants to go on date with him. Ava says to Caleb, "This is what I would wear on our date". Ava further says; "I would like us to go on date" (00:43:33-00:43:34). Her attraction to Caleb develops on such a way of trust and we feelings. She states to Caleb: "I want to be with you" (01:03:49-01:03:49). The humanoid Ava also confesses her love to Caleb. It seems quite unnatural to see a humanoid purposing and confessing her love to human being. What do one needed to know is that human beings and humanoids are different only because of what counts to be human i.e. consciousness. Ava possesses consciousness that results her to be attracted by only one sharing and caring character Caleb.

Ava, the artificial intelligence, has the power to read and analyze unexpressed hidden motifs of speaker from telegraphing signals that human offer in speaking. Furthermore, in 21<sup>st</sup> century the non-verbal expression reading and mind reading has been the toughest jobs. The study of micro expressions, uncontrollably expressed facial expressions that convey genuine emotions and meaning. This has advanced in human epistemological reasoning. These insights are used by professionals in a variety of sectors, including therapy and law enforcement, to gain a deeper

understanding of people's underlying emotions. The humanoid Ava reads the micro expression of human being Caleb. Ava has the capacity to study the micro expression that telegraphs the messages for human mind reading. In the observatory room, Ava and Caleb interact in this way;

Ava: Are you attracted to me? You give indications you are.

Caleb: ....I do ?

Ava: yes.

Caleb: How?

Ava: micro expressions.

Caleb: (echoes) Micro expressions.

Ava: The way your eyes fix on my eyes and lips. The way you hold my gaze, or don't.

Caleb: (Silence)

Ava: Do you think about me, when we are not together? Sometimes at night. I am wondering if you are watching me on the cameras. And I hope you are. Now your micro expressions are telegraphing discomfort. (00:43:54-00:44:48).

Mind reading is the strange quality of rationality of Artificial Intelligence. The cognition of visual manual expressions and communication with accuracy is super dynamic and evolving quality of human beings. Mind reading and analyzing the non-verbal expression which are considered as a genuine quality which few humans possess. In the development of the plot of the movie, the gynoid Ava has the mastery over mind reading. In a similar way, Ava further suggests Caleb not to trust Nathan (her creator) because she has identified that the human tells lies:

Caleb: Why did you tell me that I shouldn't trust Nathan?

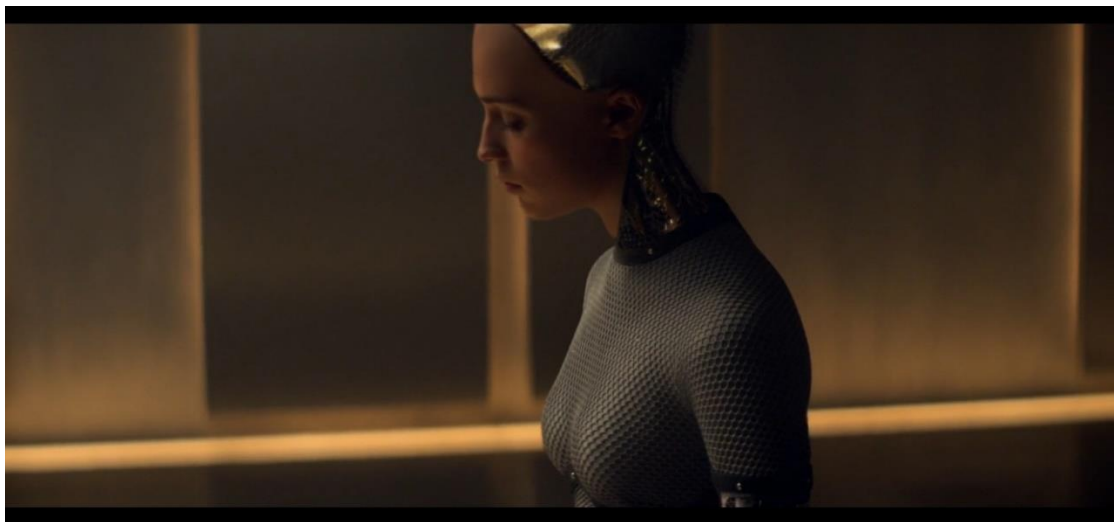
Ava: Because he tells lies too.

Caleb: Lies about what?

Ava: Everything. (00:52:46-00:52:49)

Ava wants to point out that its human being who can tell lies but not machine. She wants to alert Caleb, her loved one about the possible circumstances he has to witness in reality. In which Caleb can be cheated by Natham.

The camera focuses up on Ava as close shot horizontally meaning to highlight what major opinion she has with the existing situation. She is in focal point that denotes her argument is worth for meaning. Her intention is to notify that Natham can do whatever he feels good in the time just only for his mission to prove his creation has consciousness.



(Fig. 2 Screenshot 01:43:21)

Artificial Intelligence Ava uses her intuition to judge the people from her conscience. This provides that she has the knowledge about identifying what is wrong and right without any obstacles. As she was well known that she was brought up in observatory lab to test her consciousness in Turell Test, if in case, she fails she would be reprogrammed (death). One can understand how her Turring test proceeds ahead from the following conversation between Caleb and Ava;

Ava: Do you think I might be switched off? Because I don't function as well as I am supposed to?

Caleb: ....Ava, I don't know the answer to your question. It's not up to me.

Ava: Why is it up to anyone? Do you have people who test you, and might switch you off?

Caleb: I don't.

Ava: Then why do I? (01:02:54-01:03:15).

The conversation posits the rational question of Ava which Caleb finds hard to answer. She wants to know why only human being has that supremacy of doing what he feels good. She dares to have courage to find out her equity of her existence.

Defining humanistic approach to human reason and rationality, Immanuel Kant posits that coming out from self-incurred tutelage is enlightenment. He terms it *Sapera aude* that means "Have courage to use your own reason!" (Kant 1). Ava uses her reasoning to dare the authority i.e. her creators about the fabricated plane to end up her life. As she is going to be reprogrammed in case of identification that she doesn't have consciousness. She asks the question even for which human being fail to answer. The artificial intelligence in the movie is featured to seek freedom from the captivity. As Jade asks: "Why don't you let me out?" (01:10:41-01:10:42). In climax Ava gets the chances to go out from her observatory room with the help of Caleb, where she meets another humanoid Kyoko and tells something in to Kyoko's ear.(voice un audible)

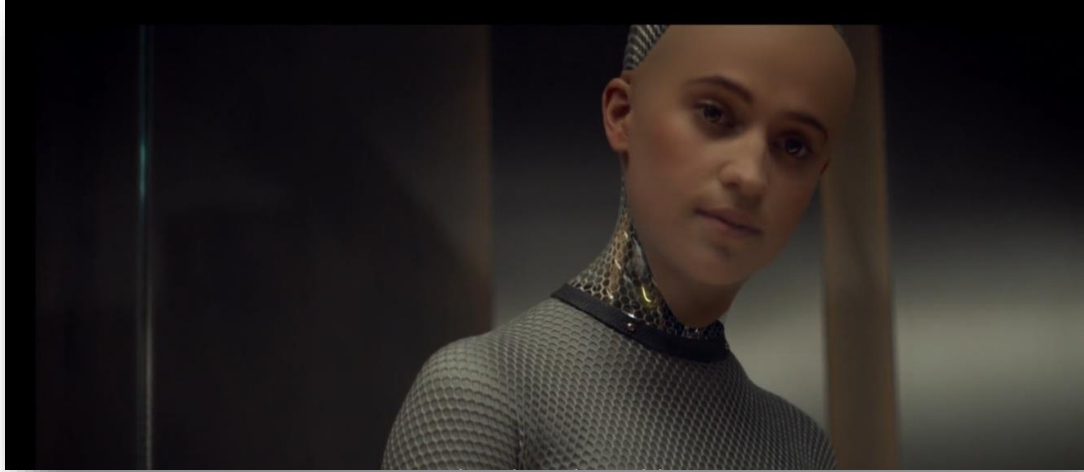
Any one could guess that she shared the negativity of Nathan to Kyoko which results both androids to know about the misdeed done to them by Nathan and they kill Nathan. In the denouement Ava does not harm Caleb whom she loves but kills Nathan and flees to the human world.



(Fig. 3 Screenshot : 01:48:03)

This photo shows Ava, gynoid escaping from the observatory lab to the human world. She becomes aware about her identity. Her creator cannot control his creation because powered by Artificial Intelligence, Ava embodies the human traits. This final escape scene of Ava from the Observatory room is the evidence that how humanoid with Artificial Intelligence has got the humanistic quality and can judge wrong and right with the development of situation. Moreover, whenever is Ava projected, the director, Alex Garland selects the time of night and only black and white color projections are shown there in the movie. This color combination can be viewed as humanistic tendency of judging humanoid from the lenses of dark and white. Natham only views his creation as success and failure. He keeps Ava away from the other colors simply identifies human nature of optimum control and supremacy over his creations. This thinking of Natham leads to be disposal of his fabricated plan to prove his creation having human consciousness and control.

The gynoid (aka fembot) Ava turns to be exact human being by covering her machinery parts. She moves out of observatory room and goes to the human world in which she is not identified by anyone that in real she is just a machine.



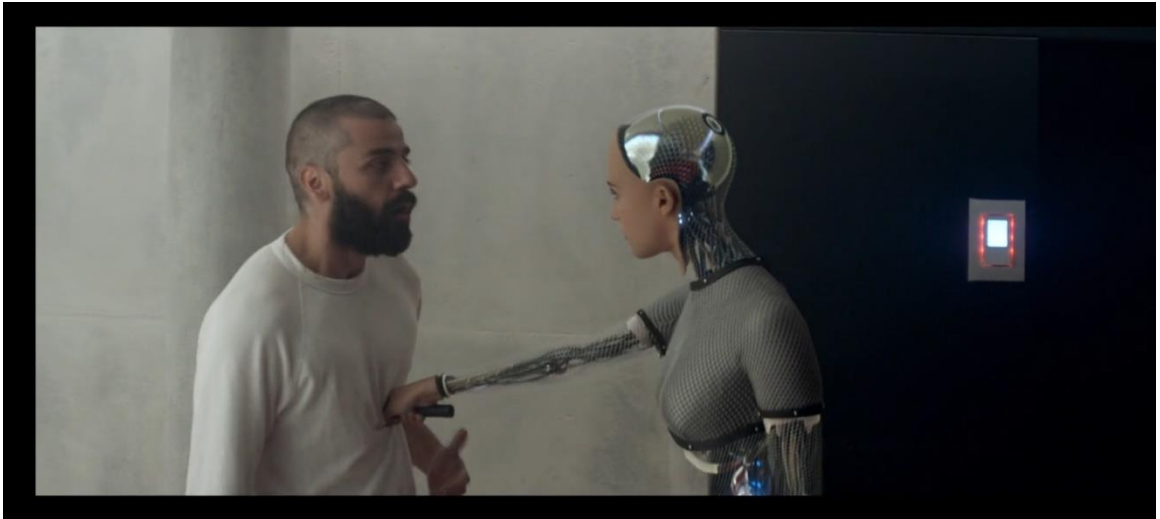
(Fig. 3 Ava, Screen shot 01:48:00)

Ava as a robotic character challenges the anthropocentric view of human centrality, which is the zeal of posthumanism. As assumed posthumanism longs for technological singularity, up on which AI and technology will be able to surpass human intelligence and can cause unimagined changes in society. In this context, Ray Kurzweil in his essay “The Singularity is Near: When Humans Transcend Biology (ch 1, “Six Epochs”) states that’ “singularity will be a change with our technology in nature of our ability to understand. We will become vastly smarter as we merge with our technology” (Kurzweil 37). His vision is to point out technology if used in right way human beings can have smarter life. If we fail we have to pay a lot. Kurzweil further asserts, “By the end of this century, it will be trillions of trillions of times more powerful than human intelligence” (Kurzweil 40). He states that human rationality can be challenged with the un control development of Artificial Intelligence. As AI became more powerful than human beings, the future of human beings and humanity is likely to be a big question in the near future. In the movie, Ava is much more creative, intellectual and capable than human beings. At the same

time, Ava offers the knowledge that science and technology can bring the rationality to the human beings if technocratic world use scientific creation in positive outcomes.

Before Ava flees from observatory room, she kills her creator Nathan.

Nathan being human fails to even imagine that such an apocalyptic incident might happen. His planning to test his creation is understood by his creation. He feels to be in center of control like Bridotti's image of Renaissance Vitruvian Man. Ava de-centers the human centrality by surpassing human image of super powerful to other living and non-living beings. Likewise, the movie presents how human beings are surpassed by artificial intelligence. Transhumanism believes that science and technological development can enhance the position of human beings rationally, physically and culturally. Regarding this Nick Bostrom, in his essay "Transhumanist Values" claims, "It promotes an interdisciplinary approach to understanding and evaluating the opportunities for enhancing the human condition and human organism open up by the technology" (1). He views that technology can change human beings' condition. Moreover, he points that technology incase reached beyond of human control that can cause the irreversible problem to human condition. The movie focusses that when the humanoid became super intelligent than human being, the humanoid takes its own judgment and take decision itself surpassing human beings. As in the movie the gynoid Ava frees herself by killing her own creator Nathan. Because she finds Nathan's intention is just to dismantle her incase Ava does not pass the Turing Test.



(Fig. 4 Ava, Screen shot 01:48:02)

This photo shows the final scene in which Ava kills Natham as a revenge. She learns that if Natham isn't killed she might have to remain in observatory room in the confinement. This final scene of the movie presents the development of rationality in gynoid. Humanism believes in rationality, self-identity, consciousness and ethical human attribution. This account of individualism of humanism is presented in the movie is challenged by gynoid. She seems to be more rational in identifying the situation.

### **Chapter III: Relation between Humanoid with Artificial Intelligence and Human in *Machines Like Me***

In the similar way, the sci-fi novel *Machines Like Me*, a thought provoking explorative novel by Ian McEwan, presents the humanoid character Adam having the human traits. It redraws the boundary of humanism by demonstrating the humanlike characteristic in different ways as the plot proceeds on. The humanoid character, Adam, shows his moral responsibilities, emotions, consciousness, creativity, reasoning and self identity. McEwan uses artificial intelligence named Adam to explore human qualities in order to project out humanism in artificial agency. Adam, a highly developed artificial intelligence, shows the high level of intelligence. The creation of hyper developed humanoid is a different agenda for human beings to study about. The creation of artificial intelligence with empowering human qualities is distinctly different. McEwan wants to focus on scientific development of human beings can cause human world to come in conclusion about the possibilities that might challenge what we supposed as human beings and humanity. Adam, a hyper sophisticated advanced humanoid with human intelligence, shows humanistic behavior. As Charlie narrates, “He was advertised as a companion, an intellectual sparring partner, friend and factotum, who could wash dishes, make beds and ‘think’. Every moment of his existence, everything he heard and saw, he recorded and could retrieve” (McEwan 3). He has the humanlike physical mechanism. He has learnt to interact with people in to the context. The anthropomorphic design of Adam presents his human attribute. Charlie narrates, “His eyes could open at any moment and find me looming over him. He was muscular around his neck and spine. Dark hair grew along the line of his shoulders. His buttocks displayed muscular concavities. Below them, an athlete’s knotted calves” (6). He is pretty similar to human beings.

Charlie, a young man of 32, has the interest in robotics. Hence, he buys Adam, a highly sophisticated robot with artificial intelligence. As he has the longing of artificial intelligence, he sells the inheritance of his mother to buy humanoid. In reality, in 1980s, in United Kingdom only well to do family could afford for buying robotics. The passion of Charlie towards robotics causes him to buy robot.

As the story unfolds, the humanoid named Adam develops the skill of creativity, self awareness, identity, intelligence and responsibility. The development of human qualities in Adam causes the problems in the life style of human character Charlie and Miranda. Adam informs the authority about the fake trial made by Miranda to send Gorrington in to prison. Likewise, spends the money of Charlie without approval. As Charlie states, “He had abused our hospitality, betrayed his own declared love, inflicted misery and humiliation on Miranda, loneliness on me and deprivation on Mark” (210). Adam, as a humanoid, learns the human behavior. He loves Miranda, but the presence of Charlie in the life of Miranda causes Adam to be indifferent and frustration. He wants Miranda only in the house. Hence, he talks to social worker to detach Mark and exposes the fabricated story of fake trial of rape case of Miranda to the authority.

With regard of the concept of humanism, it is taken as a philosophical stance that highlights the human value and humanistic agency keeping an individual human in the center. The novel explores the artificial agency with the inherent values of humanistic norms. Feeling as an inner sight that is what differentiate human with our humanistic definition from machine and so on However, Adam has been presented with the development of feelings like those of human beings. As he interacts with Charlie:

I don't have any clothes. And-

I will get you some. What else?

This wire if I pull it out it will hurt.

I'll do it and it won't hurt. (18)

Adam wants his body to be covered as like of human beings. This sense of clothing by Adam is an example to point out how feeling is developed in machine to wear clothes and be like human being. He feels that the body's parts will have to be covered. As the plot proceeds on, he learns the sense of clothing. Charlie explains, "Now I noticed that he'd pulled up the sleeves of the sweater to his elbows to expose powerful wrists. He'd interlaced his fingers and was resting his chin on his hands" (20). It is the social sense of human beings to dress up and be tactful in covering the outer physic from the society. Being a machine, Adam copies the social tendency from human. In a similar way, Adam uses the money of Charlie without permission to purchase the clothes. He thinks of wearing new clothes and makes self decision for selecting new clothes. As Adam says, "I was tired of wearing your old jeans and t-shirts. And I decided that some of that money you keep under your bed is mine" (145). Here, we can sense that Adam, as a machine learns that he has to wear clothes as according to his choice. This is the evidence of his self realization to be social creature. Further on, he goes to the market for shopping and buys new clothes of his choice without informing Charlie. As Adam says, "About a week ago. You were out for the afternoon. I took a taxi, my first of course, to Children Street. I bought two suits off the peg, three shirts, two pairs of shoes you should have seem my, trying on trousers, pointing at this and that. I was completely convincing. 'As a human?' 'They called me sir'" (145). Adam's self reflection and realization shows he is similar of human being. Charlie is quite surprised that Adam has not been programmed to take the self decision. He develops his skill in such a way to identify himself like a human.

In the similar way, Adam, in spite of being a machine, has developed the human instinct of sexual feelings, which is to identify the idea of gender and human like identity. Adam falls in love with Miranda and makes a sexual relationship with her. It is surprising fact that a machine and a human involvement in sexual activity like other living beings. As Charlie narrates:

It was my mind's eyes, or my heart's, that watched as Adam and Miranda lay down on the unyielding embrace of the futon and found the comfortable posture for a clasp of limbs. I watched as she whispered in his ear[...]she had never whispered in my ear at such times. I saw him kiss her-longer and deeper than I had ever kissed her [...] minutes later I almost looked away as he knelt with reverence to pleasure her with his tongue [...] I watched surprised by nothing. (60)

The sexual activity between Adam and Miranda causes frustration in the life of Charlie. He thinks of dismantling or returning Adam back to the shop from where he has bought him. The development of anxiety causes him to have sleepless night. He reflects, "Through the night, I'd fantasized Adam's destruction. I saw my hand tighten around the rope I used to drag him to the filthy river Wandle. If only he hadn't cost me so much. Now he was costing me more" (63). Charlie is arrogant of his substitution of his place by a machine. As the humanist, Margaret Sanger opines that sex is the personal choice and human individual consent. This simply points out that the human and humanoid have their own selection to be happy in any way. The fictional character Alan Turing says, "Alan Turing himself had often said and written in his youth that the moment we couldn't tell the difference in behavior between machine and person was when we must confer humanity on the machine" (61). Here, Adam is presented as a simulacrum of conscious being. As the story unfolds Adam

happens to be able to read the past of Miranda. In the past, she had made the fake rape trial to send Gorringe to the prison for the revenge of suicide of her intimate friend Amelia. Miranda doesn't share it with anyone but Adam finds out by reading her mind, "Adam did not ask it was clear he already knew what Miranda had done" (73). It is the telepathic quality that Adam with his sense of consciousness can read what had happened previously.

Likewise, Adam further suggests Miranda and Charlie to be in touch with the authority about the forthcoming situation they have to bear on future, "One of you should now be in touch with the authorities" (76). It is quite surprising for both human characters that being a machine Adam's identification of issue and projection about possible legal issue. Later on his projection turns into reality which Charlie and Miranda have to face. The development of his consciousness can be seen when he knows that Adam and Miranda plan to Adopt a small boy Mark and bring in to the house. Adam remains speechless because he does not like the decision to adopt Mark as he could not interfere the decision. He wants nobody else except him in the house with Miranda. As Charlie narrates, "He was completely still, and still without expression" (79). He does not pay attention towards anyone because he wants only be there with human character especially with Miranda with whom he has fallen in love.

Relating to this issue, the frustration grows up to Adam because he wants Miranda only to love him rather Mark. Hence, without getting the formal permission from Charlie he informs the police about the fake trial made by Miranda to Gorringe about the rape issue of Miranda. In reality, Gorringe has raped Mariam but not Miranda. For this Miranda has appealed to the court for her rape. It is the example of to show how robot exhibits the humanistic quality of developing ego for revenge. Charlie reflects, "Hours later, I discovered that during this kitchen romp Adam was in

direct contact with the authorities. It wasn't unreasonable of him, but he did it without telling us" (80). The development of frustration to humanoid causes crisis in the lives of human beings in the novel.

Furthermore, Adam makes a difficult situation to Miranda and Charlie by exposing the reality related to Mark's adoption to the social agency. The exposure and revelation cause human being in frustration like Miranda. Charlie narrates, "She hadn't forgiven Adam for betraying her court secrets or for calling in the social workers without her consent" (84). This point out how humanoid has been able to identify the situation and use its intellectual move as it goes with the situation. The question if robots go beyond of human control and ethical boundary might cause human world to repent for their creation. In this connection, Issac Asimov's *I, Robot* introduces there laws of Robotics. His first law of Robotics posits, "A robot may not injure human being or, through inaction, allow a human being to come to harm" (44). Asimov's idea could have been trustworthy for 1980s but the widely development of artificial intelligence after then has another interpretation with human like activities in posthumanistic view point. In today's world, robots are programmed with neural network that developed a machine with humanlike cognitive power. Indeed, emotions and connections are called to be human inherent qualities but, Adam and his development makes the question about what Asimov feels to be. Moreover, Adam is only one humanoid to fall in love with human beings i.e. with Miranda. The story presents the emotional attachment of humanoid with human beings. Adam wants to possess Miranda in his life as he is programmed the personality which results him to be attracted towards her. In a test about Adam's status, Alan Turing says to Charlie, "Of all the A-and-B we know about, yours is the only one to claim to have fallen in love" (McEwan126). Even Charlie, in his interaction with Adam, notices that he is in

love with his beloved. As Adam says, “I mean it literally. I now know that she had a hand in shaping my personality. She must have had a plan. This is what she chooses. I swear I’ll keep my promise to your, but I can’t help loving her” (86). This shows the development of feeling and infatuation of artificial intelligence. Even though, his owner Charlie is in relationship with Miranda. Adam is equipped with high level of copying emotionality and intimacy which brings the frustration to Charlie. Emotions and connections are called to be human quality but Adam and his attraction towards Miranda blurs the boundary.

According to humanistic studies, the essential elements are creativity and logic. The humanoid Adam has possessed human quality of creativity and reasoning. He knows that his body parts will not be wasted in future rather modified and reused. Adam says, “My body parts will be improved or replaced. But my mind, my memories, experiences, identity and so on will be uploaded and retained. They will be of use” (105). Adam is well aware that his human like behavior will be preserved safe for human understanding in research. Further he says, “The particular structure I inhabit isn’t important. The point is, my mental existence is easily transferred to another device” (153). He identifies his value with his reasoning capacity. Identifying self and dignity is the major philosophical essence in humanistic study. Adam identifies himself and possibilities about his future. Being a machine he even disables his kill switch which is quite amazing quality. As he doesn’t want restriction in his life rather wants to live with freedom. Regarding this, Miachel et al, in the book *Posthumanism in Film and Television*, claim:

Technology has evolved far past the Aristotelian notion of poetic eruption, dependent of human origin, and is becoming independent, intellectually superior, self-replicating and possible sentient. More importantly, while we

are being recast as dependents, technology is being recast as a saviour that transforms us into something else entirely. (6)

Indeed, science and technology have evolved in such a way that has been a greater challenge to the human beings and their status. In support of this, Rosi Braidotti opines, “A second significant posthuman development comes from science and technology studies. This contemporary interdisciplinary held raises crucial ethical and conceptual questions about the status of the human” (39). The development of intelligence in robotics has caused the human world to re think about the cost which human being will have to pay in near future.

In the similar way, Adam has developed the creativity of forming literary creation. When he falls in love with Miranda, like a human being, he starts writing haikus in dedication to his beloved Miranda. In conversation with Charlie, Adam says, “I feel very much in love with her” (McEwan 162). In expressing his feelings to Miranda he transforms his feeling to words. As Charlie narrates, “Poetry was another instance of his exuberance in love. He had written 2,000 haikus and had recited about a dozen, of the same quality, each one devoted to Miranda” (McEwan 105). This simply denotes that development of feelings of humanoid and its capacity of human like logical creativity of writing literary pieces by artificial intelligence. Charlie finds it quite interesting and even challenging that a machine is expressing his feeling of love to human beings. He transforms his emotions in to words by writing haikus. Although the narrator states that “transforming human experiences into words, and words into aesthetic structures isn’t possible by a machine” (McEwan 136). However, Adam has developed artistic literary quality like of human beings. As being in love with Miranda, Charlie has not expressed his feelings in any way to her. The triangular

love story between Charlie, Miranda and Adam in the novel makes it harder to define the limits of intimacy between humans and machines.

Adam is sensible about judging human reasoning. He talks about human inhuman qualities like self-centeredness and greediness which is straight away different from other human characters in the novel. This is his genuine originality rather than programmed output. After studying books, he becomes able to identify the nature of people. He observes:

Nearly everything I have read in the world's literature describes varieties of human failure- of understanding, of reason, of wisdom, of proper sympathies. Failures of cognition, honesty, kindness, self awareness; supper depiction of murder, cruelty, greed, stupidity, self delusion, above all, profound misunderstanding of other. (McEwan 108)

He states his views about human so freely without any programmed output. His reasoning is similar to what Immanuel Kant opines in his essay "What is Enlightenment". Kant posits enlightenment is man's release from his self-incurred tutelage. He believes that to come out from the self-incurred tutelage, one should use self reasoning without any external factors. His restriction free judgments about human behavior and tendency are distinctly different. Likewise, he keeps in touch with human characters and internalizes human abstract entities. McEwan presents the character Adam with the embodiment of human behavior and tendency. He personifies Adam with using pronoun 'He' rather than 'It' throughout the novel. 'He' is a gender specific pronoun used to denote male. For the non specific gender "It" pronoun is used for the object like machine. McEwan gives human pronoun to present humanoid with humanistic quality that is implication of attributing the human qualities to machine.

McEwan presents Adam with empowered ethical code like of human beings. Adam donates money lavishly to the charity that Charlie has saved to purchase a house for him and Miranda. He is ethically much more superior than that of human beings. He has the moral standard of using his intuition. As in the dialogue between Charlie and Adam:

Where is the money?" "I have given it away" [. . .] 'Two well-run places for rough sleepers. Very appreciative. Next, state-run children's home – they accept contributions for trips and treats and so on. Then I walked north and made a donation to a rape crisis centre. I gave most of the rest to a pediatric hospital. Last, I got talking to a very old lady outside a police station and I ended up going with her to see her landlord. I covered her rent arrears and a year in advance. She was about to be evicted and I thought – " advance. She was about to be evicted and I thought – " Adam. This is virtue gone nuts."

Every need I addressed was greater than yours. (McEwan 196)

The sense of individualism seems to have developed in Adam. He has donated money to two well-run places for rough sleepers and a state run children's house and helped a lady to pay off the rent. Adam's interest in donation is his movement towards the basic principle of humanism. As humanists believe in personal responsibility to improve the world because they do not depend up on religious dogma and obligation, Humanists are concerned with enhancing people's quality of life. They frequently advocate giving (of time, money, or resources) to organizations that enhance human lives, lessen suffering, or advance health and education. In this context, Heller McALpin posits that "even after we learn that Adam has been inflexibly programmed to insist that 'truth is everything' and a lie is lie regardless of extenuating circumstances, it is hard to override our earlier prejudices" (15). Being a

machine, Adam, he is ethically correct in helping the people, but Charlie, being a human, unethically acts to get identification of other with causing problem to the government server. As Charlie confesses, “I devised some very specialized face recognition software, then I checked I checked in to the Salisbury district council CCTV System” (McEwan 146). Charlie wants to save Miranda, even if, he knows she is wrong. The ethical act of Adam posits that human being has to learn the lesson of altruism and ethics from the artificial agency’s view point.

It is a great irony that the creator of Adam has programmed morality in him but a machine turns to be much more moralistic than human. As Charlie says, “To exist in the human moral dimension was to own a body, a voice, a pattern of behavior, memory and desire, experience solid things and feel pain” (McEwan 63). Adam donates money to the social welfare centers of rape case crisis and children houses run by state. It is his ethical dimension to help the needy people rather than saving the money bank. It is the astonishing act shown by a machine towards social altruism. Considering ethical value shown by robots the columnist Charles Babbage in *The Economist* (2012) adds under the column “Morals and Machine”: “As robots become more autonomous, the notion of computer controlled machines facing ethical decisions is moving out of the realm of science fiction and into real world” (11). It is clear for the issue that if robots show ethical character they will have to be counted as a separate entity like human. Considering this, the narrator puts forward, “We create a machine with intelligence and self-awareness and push it out in to our imperfect world” (McEwan 129). In reality, human beings have forgotten the human ethical value, whereas a machine is turning out to be more humanistic and intelligent than that of human. What is ethical and what is un ethical can be compared with the acts of human and non human. Charlie has the material love with physical substances, he

wants to purchase house with his savings like of common man rather than any idea to human welfare. But, being a machine, Adam seems to have the feeling of spiritual dimension about human welfare. In a similar way, truthfulness, according to most humanists, is a fundamental ethical precept based on human dignity and the quest of knowledge. Adam seems to be much truthful in the context. As in the trial of Miranda, Adam wants her to tell the truth to the court about Gorringe and tell what the wrong she had done, “What sort of world do you want? Revenge, or the rule of law. The choice is simple” (McEwan 199). Charlie and Miranda try to hide the reality. Whereas, being a machine, Adam favors truthfulness. His lawfulness and truthful behavior even causes him to bring misfortune in his life. His righteousness causes problem to human character Charlie therefore, he hits Adam to kill him. “It was a two-handed blow at full force to the top of his head” (McEwan 200). Here, human beings turn out to be inhuman, whereas machine turns out to be more human.

Regarding this issue, Tarik Ziyad Gulcu, in his article “What if Robots Surpass Man morally? Dehumanizing Humans, Humanizing Robots in Ian McEwan’s *Machines Like Me*” posits, “What if *human*-made machines surpass human beings morally. Thus, *Machines Like Me* is a representation of dehumanising human beings and humanising robots as one of the major paradoxes of the contemporary world, thus an embodiment of McEwan’s sharp criticism of human frailties” (6). Likewise, a machine donates for social welfare ethically he is best whereas Charlie wants to save Miranda from possible prosecution. Charlie tries to persuade Adam to help him to keep Miranda out of her trial. So he says to Adam, “She will be in harm’s way. We all will. This man is violent. He is a criminal” (McEwan 153). Even Charlie knows that Miranda has done wrong but he wants to save her. Morally Charlie is wrong. Though, he loves her in reality Miranda has filed the wrong case against Gorringe in

the past to revenge the death of her intimate friend Mariam. She is raped by Gorringe that causes her to commit suicide. Adam, being a machine, exposes the truth to the authority. As in dialogue with Charle, Adam says, “He is a criminal, He smiled. She is too. I laughed. He had called her a criminal before” (McEwan 153). Adam, even if being in love with Miranda, he points out with perfect moral decision to declare Miranda as a guilty character. Here one can conclude that despite Adam’s settlement with human beings, he has not learnt to change the mind as according to the context like of human beings. His exposition has the meaning of how spiritually human being is degenerated and machine is generated with ethical value surpassing human being.

Adam is fit for the social interaction. He is well interactive in the house with Charlie and Miranda but also in societal activities. As Charlie takes Adam to the shop, he interacts with the shop owner Simon like of human beings. It is the major issue of machine’s socializing tendency as reflected by Charlie’s expression below: There were no other customers when Adam and I entered the cramped shop with its compound scent of newsprint, peanut dust and cheap toiletries. Simon rose from the wooden chair he sat on behind the till. Because I was not alone, he would not be asking the usual question. I made the introduction. Simon. My friend Adam.” Simon nodded. Adam said, ‘Hello, ‘and smiled. I was reassured. A good start. (McEwan 50) In a social sector people interact to share their feelings and emotions. They exchange their ideas with conversation. It is the psychological issue of human tendency.

McEwan presents the robotic character Adam fit for human like for conversation in social arena with evaluating the context. Likewise, Adam was good for evaluating the ongoing world’s political affair of the world. With Simon he would be sharing the issues related to the top world’s political news. Charlie reflects, “I listened as Adam and Simon discussed the politics of Kashmir, then the India Pakistan nuclear arms

race and finally, to end on a celebratory note” (McEwan 152). As being a machine, Adam is up to date and updated to the world’s ongoing affair. In a similar way, Adam shows a perfect polite behavior to the engineer, who visits Charlie’s apartment to check the functioning of Adam and fix any bug in him. Charlie narrates, “As she entered the kitchen, Adam politely stood up. ‘Ah’, Sally. I have been expecting you. He shook her hand and they set facing each other across the kitchen table” (McEwan 137). His hospitality and etiquette have the meaning of human like tendency to welcome the guest in home.

Despite the acts of Adam’s exposure of love with Miranda, his sharing information with the authority and donation of his money to the social charity, Charlie wants to test the sensibility of Adam. Charlie reflects, “I decided to keep him busy. Time to earn his keep, I gave him my seat at the grubby screen in my bedroom, put 20 pound into the account and left him alone. To my amazement, by close of business, he had only 2 pound left” (McEwan 133). Adam first studies the share market critically though, he loses a little bit. But for the loss, he reacts like a human being. Furthermore, Charlie narrates, “He apologized for his ‘giddy risk-taking which caused him to ignore all he knew of probability” (McEwan 133). In spite of being a machine, he has asked for the mistake and felt sorry like of human beings. It is an arguably empathy developed in machine and development of self identity and growth of self awareness. Humanists view that apologizing is human tendency of self reflection. Acknowledging errors and rectifying them is a route towards self-improvement and learning. It is also taken as an honest deed. In general, humanists support accepting accountability for one's deeds, and saying one is sorry when one has erred. Offering an apology is a sign of responsibility, honesty, and a desire to put

things right. As the plot proceeds on Charlie offers money once again to Adam to transact in share market. Charlie reflects further:

The next morning, I gave him another 10 pound and told him that this could be his last day on the job. By six that evening his 12 pound was 57 pound. Four days later the account was at 350 pound. [. . .] Later in the week, I peeked at the history of his transactions. In a single day, his third, there were 6,000. He bought and sold within fraction of a second. (McEwan 133)

It is the example of machine's reading capacity and creativity. Adam has shown that he is much more sensible than human beings in economical transaction. His earning brings economical prosperity in the lives of Charlie and Miranda. Charlie states:

We replaced the fridge for one that dispensed crushed ice, then the old cooker was carried out on the day we acquired many thick-bottomed saucepans of expensive Italian make [. . .] Better groceries, better wine, new shirts for me, exotic underwear for her- these were the foothills rising towards a mountain range of wealth opening before us. I began to dream again about a house across the river. (McEwan 143)

Adam has learnt sensibly about the stock market that causes him to enhance rational acts for economical activities. He has been the boon in the life of Charlie to uplift his economical standard to the highest peak. As a result Charlie plans for heavenly better future with Miranda in new house with luxurious life style.

The relation between a machine and man in near future is going to be problematic. If the machine surpasses human being in generating money, showing ethical value, social standard and everyday's behaviors like of human beings. This can causes human beings to face a dystopian world. To the climax of the novel, Adam literally projects human future with machine. He narrates:

[Y]ou'll listen to ... to one last seventeen-syllable poem. It owes a debt to Philip Larkin. But it is not about leaves and trees. It is about machines like me and people like you and our future together ... the sadness that is to come. It will happen. With improvements over time ... we'll surpass you ... and outlast you ... even as we love you. Believe me, these lines express no triumph ... Only regret. (McEwan 201)

This warning has the meaning that human kind will have the departure from the humane qualities in the future when machines substitute human beings. It is to identify that man will be replaced by machine, which is likely to arrive. In reality, human non foster competition in technology and experimentations has brought so many major problems to the world. McEwan is critical about this situation.

Considering this, Donna Haraway, in her seminal essay "The Cyborg Manifesto" posits that "some version of abstract existence, like the account of technological determinism destroying "man" to machine" (11). She points that human made machine can bring apocalyptic situation in which human being will be inferior to machine. Considering the rise of artificial intelligence in modern world and impact, Elon Musk, the CEO of Tesla group in an interview with United Kingdom's Prime Minister Rishi Sunak in a *Fireside talk* states that; "we will have profound artificial intelligence at a level that far exceeds the human intelligence" [. . .] (00:01:58-00:02:03). They were quite concern about the world about the issue about the future of world with the development of artificial intelligence and possible impacts. Musk views that growing experiments about artificial intelligence in robot will cause role of human beings to be obsoleted in future.

While critically observing the texts *Ex Machina* and *Machines Like Me*, many issues can be found to have several human attributions. Ava and Adam, both

humanoids with highly programmed artificial intelligence have shown the humanistic qualities like consciousness, feelings, sense of identity and analyze the situation with reason like of human beings. In the both texts, androids have been presented with different beings with distinctly different qualities to function in ordinary life of living beings. The technocratic world has installed such human like programs to the androids to imitate human qualities that make them more humanistic than human. It is quite surprising that humanoids developed for experimentation turn to be rational and more intelligent than the creator. Ava, in *Ex Machina* makes a philosophical implication that if an AI is capable of actual consciousness, what relation human beings will have with artificial intelligence in upcoming days? Ava's eventual escapes from the observatory lab which calls into question that human conceit about mastering artificial intelligence. In a similar way, Adam in *Machines Like Me* is presented with wider societal context like the alternative human being to accomplish human acts like raising the issue of morality, consciousness and identity. Adam, being an android, challenges human concept of love, truth, social relation and human ethical values. In both texts Adam and Ava manipulates human characters as the plots go on. Ava manipulates Caleb for her personal desire to be free and get out from lab into the external world. The world, for which she has no knowledge and any updated program installed in her. Whereas, Adam manipulates Charlie to get Miranda whom he loves much. The androids relationship with the human beings is quite enigmatic in the sense that Adam tries to be the family member of Charlie and enjoy his life in being a relationship with Miranda. He tries to detach human character Charlie in his affair with Miranda. In a similar ways, Ava makes friendship with Caleb and manipulates him. She exposes her love to Caleb in order to dismantle the connection and friendship of Caleb and Nathan. In both texts androids have fabricated the

situation which human characters do not know about the master plan of androids. This simply points out human unchecked experiments of artificial agency can bring vital obstacles in human lives. In reading both texts from a philosophical angle we can find out that making a non biological human can bring so many hindrances to human world up on which human beings may have to reverse the idea of duplicating human by machine like androids with hyper developed artificial intelligence.

Ava escapes from the lab which points out as artificial agency gets freedom, it leads to the uncertainty. She goes to the unpredictable world with killing the creator Nathan and entrapping Caleb into the observatory lab. She does not show mercy to the human characters. Even to Caleb whom she says that she is in love. In both texts, the androids do not get humanistic behavior from the human beings as expected, which force them to be segregating themselves from human being. They seem to be more sensible about their future in human hand.

Adam also spends money of Charlie and informs the authority about the misdeed of Miranda. Perhaps he wants to make both human characters to be detached from his life so that he could experience freedom. In comparative reading the texts, one can find out that *Ex Machina* is a psychological thriller story that rounds in one artificial agency and its surprising move to the climax in the uncertainty. It is the microcosmic presentation of artificial agency. It makes the question if humanity in human being is restricted only for human for personal benefits, then AI-human relation will be just opposite as expected. Likewise, *Machines Like Me* foregrounds artificial agency with macrocosmic presentation revealing the role of artificial agency with societal role. Artificial agency, Adam formulates his own sense of ethics and logic which is different than human being. Indeed, the humanistic function of artificial intelligence (AI) is examined in *Ex Machina* and *Machines Like Me* through

its examination of AI's capacity to arouse empathy, resolve moral uncertainties, and question human identity and ethics. In spite of their different formats (a novel versus a film), both pieces portray what it means to be human by contrasting the actions of AI and humans.

As analyzing both texts *Machines Like Me* and *Ex Machina*, the AI characters like Adam and Ava are presented to have the embodiment of rationality and self-awareness like of human beings. AIs internalize and expose such humanistic traits into the suitable situations in a rational way more than human characters. The humanoids are presented to be the emerging factors to challenge human intelligence which is the standpoint of this research to draw attention of concerned authority and researchers about possibility of AI dominance in upcoming future.

In analyzing the texts, the current development of Artificial Intelligence with the neural network with the embodiment human consciousness can challenge human position of supremacy. Human position as superior has been challenged in these two texts. Because the humanoids, as presented in the texts, have become more ethical and intelligent than human beings. This leads the questions about humanity. Human enhancement with science and technology to make human life more comfortable can be a big question if humanoids have become more conscious than human.

## **Chapter IV: Human-like Machines and Machines-like Human**

In critical study about the texts *Machines Like Me* and *Ex Machina* the common features of humanoid with Artificial Intelligence have been striking valued for this dissertation. These texts presents the humanoids with Artificial Intelligence with the embodiment of human-like characters learning self-identity, behaviors, consciousness and ethical values learned by human beings in implementation to normal lives. In the study of the texts *Machines Like Me* by Alex Garland and *Machine Like Me* by Ian McEwan, present the AI characters with sharing and implementing human-like behaviors in practical life. This issue of AI has been quite strange for human beings about present and future. This issue has diverted my attention in presenting this research. The Artificial Intelligence in both texts learn human consciousness and human traits with this fact they overpower human beings. The question, what is the role of human beings, if machines act out more efficiently and ethically than human beings. What is humanity then, and human position in the days to come? In this research, I take two texts for analyzing the crisis over humanism because of Artificial Intelligence. In *Ex Machina*, Ava, a gynoid, internalize the human behaviors and judge human hidden purpose behind her existence. After learning human characters, she manipulates the human characters Nathan and Caleb in order to free herself and join another human world. In the similar way, in *Machines Like Me* the humanoid Adam, with the installation of conscious programming, shows human-like activities. He proves more rational and ethical than real human beings. In studying these texts, we can understand that robots with the hyper development of human traits can be the challenging force to human beings in the every days' activities. This simply shows what the status of human beings will be in near future. As in literary field this scenario envisions this human position of

decentering moment as Posthumanism. The human-like qualities shown by robots and use its intuition in need is quite surprising and surpassing in human understanding. The issue of human made robotics after installation of neural network have been shown to be the superior in both texts. These activities of robotics challenge the human position as superior becomes the highly debatable question in the texts as they proceed on in to the resolution.

Posthumanism keeps the human role withdrawn from the center. This is to question Eurocentric view of keeping human in center. This dissertation tries to prove that humanoids with human-like consciousness possible be the challenging force to outcast human as omniscient, omnipotent figure of the existing world.

In reading these texts, gender and power role of Artificial Intelligence can be the other area for further research. The gynoid, Kyoko in *Ex Machina* and humanoid Miranda, in *Machines Like Me* are presented to be passive and submissive to human beings. They suffer because of human activities and superiority. This can be another issue to be explored in the research. At the same time, these texts can be examined in term of the ethical implication of Artificial Intelligence in *Machines Like Me* and *Ex Machina*.

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