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AI: Analyzation of Human-Robot relationship and Role of Nanotechnology in the Selected movies Enthiran (Robot) and Ra.One

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ABSTRACT

The research paper analyzes the relationship between humans and Robots and functioning of artificial emotions with the use of AI through the movies *Enthiran* (Robot) and *Ra.One*. It explores the impact of advanced nanotechnology, virtual reality, augmented reality and wireless technology in the real life. The research scrutinizes how the directors of the movies successfully converts virtual game into reality by using sensors and H.A.R.T which is more advanced level of gaming. The movies *Enthiran (Robot)* and *Ra.one* explore the creation of cognitive machines to examine the complex elements of artificial intelligence, autonomy and emotional intelligence. The movie *Ra.One* highlights how AI is served as protector and companion to the humans by analyzing the relationship between protagonist's son and AI, Ga.One. The research paper acknowledges the role of nanotechnology for the composition of robots- Ra.One and Chitti in the respective movies. Nanotechnology helps to converts virtual characters of the game into the real world by enhancing the components of nanobots, nano swarm and nano suits.

Keywords: *Human-Robot Relationship, Nanotechnology, Virtual Reality*

1. INTRODUCTION

Enthiran (Robot) is an Indian Tamil language science fiction film released in 2010. It was Co-written and directed by S. Sankar. Enthiran (Robot) series is the first movie which has two parts: *Enthiran* (Robot) and *2.0.* In this movie Rajinikanth plays a double lead role as a scientist (Vaseegaran) and the robot (Chitti) he created. On the other hand, side primarily female lead role is played by Indian actress Aishwarya Rai Banchan (Sana). The opposite character was played by Danny Denzongpa, an important and highly respected scientist who turns Chitti (played by Rajnikanth) into an evil robot. The theme revolves surrounding the Vaseegaran and his struggle to manage his highly advanced and intelligent robot (Chitti), after the robot is upgraded with the skill to understand and display the human emotion, with the purpose of positioning it in the Indian army. The experiment fails when Chitti starts generating feelings for Vaseegaran's girlfriend (Sana) and misled by Vaseegaran's mentor Bohra into becoming a killer robot. The movie was produced by Kalanithi Maran, the movie was launched in worldwide on October 1, 2010. It was the one of the most expensive movies at that time. Reviewers particularly praised S. Shankar direction, the storyline and Rajinikanth's acting as Chitti was also appreciable. The film also came forward as the highest -grossing Indian film at that time and the won two National Awards, three Filmfare Awards, seven Vijay Award and two Screen Awards. On the other hand, Ra.One is a Bollywood superhero film that was released in 2011, Anubhav Sinha directed this film and under red chillies Entertainment Gauri Khan produced this film. In this film, a dual role played by Indian actor Shah Rukh Khan(Ga.one and Shekhar) and Main Female Lead role was played by Kareena Kapoor(Shekhar's wife named as Sonia) and Arjun Rampal played role as the antagonist and supporting role played by Armaan Verma (son of Shekhar and Sonia).The name Ra.one**(Random Access Version One)** is inspired by the Hindu mythological character Ravana. Ravana in Ramayan (Holy book) is the symbol of Power, Intelligence, jealousy and revenge. Ravana was powerful, but he used his powers for evil purposes. In the film *Ra.One*, the characters escape from the video game (virtual world) and arrive in the real world to hunt Lucifer. Lucifer is the name of gaming Id of Prateek who was the son of Shekhar. Shekhar is the creator of video game (Ra.One) with his team members in his company named, **Barron Industries**. Ra.one wants to kill lucifer, the Id of Prateek because Prateek had defeated the Ra.one in the game with his Id lucifer. This is the reason Ra.one escaped from the virtual to real world to take the revenge from Lucifer this represents the characteristics of Ravana from Ramayan. The name of Prateek's Id 'Lucifer' reminds the audience about the well-known Elizabethan play, *Dr. Faustus* written by Christophor Marlowe. The character of Lucifer demonstrates the evil powers being the master of hell who authorized the pact that Faustus made with the servant of Lucifer, Mephastophilis. According to the pact, Lucifer promised Faustus's power and knowledge in the exchange of his soul. He entertained Faustus with the Seven Deadly Sins- pride, envy, wrath, covetousness sloth, gluttony and lechery also Faustus wanted to get power by necromancy (black magic). He gave his soul to Lucifer for 24 years in exchange of powers. The character of Prateek in the movie justified the traits of

Lucifer. The movie won National film Award, Filmfare Award and Four International Indian Film Academy Awards

2. LITERATURE REVIEW

The research paper identifies the use of technologies in the concerned movies to analyze the relationships, robotic sentiments and feelings. The research by Shiza Malik, acknowledges the use of nanotechnology in IT and Medicare sector. The roots of nanotechnology can be traced back to the micro engineering concept of physics and material science. The concept of nano scaling is not new to the computer industry. For a long time, technologists and technicians have been engaged in developing computer-based technologies that take up less space while maintaining efficiency. The use of silicon chips in computer devices has been increasing instead of nanotubes. Both public and private sectors are working towards the development of nano computing. The growth of marketing and industrialization in both the biotechnology and computer industries is occurring at the same time, with their projected growth rates expected to remain significantly high in the years ahead. Built on foundational pillars from hyperphysical systems, the fourth industrial revolution incorporates artificial intelligence, Internet of things, machine learning, advanced internet technologies (5G and 6G), robotics, drones, 3D printing and block chain technologies. In the movie, *Enthiran* Vaseegaran has designs a robot which is used for the Army purposes. He creates a humanoid robot. Chitti's body is created by high-tech material that provides him flexibility, mechanical joints and sensors to mimic the human movement, the robot is powered by advanced circuit and high-capacity battery. Chitti is designed using machine learning and AI algorithms to recognize and respond to human instructions. Chitti is fitted with cameras, infrared sensors and touch sensors to detect and understand the environment. The silicon chip stores the AI algorithms and machine learning programs, which placed Chitti's brain. With the help of this chip, he can make the decision and think. The silicon chip placed in Chitti brain is designed using nanotechnology. In this movie, Dr. Vaseegaran modifies this chip using nanotechnology to give Chitti human-like emotions, leading to unexpected outcomes. In Modern times scientist uses the AI processor like Neural processing units and quantum chips that incorporate nanotechnology to boost the efficiency and speed. Silicon chips with nano-sized transistor power advanced robots, AI assistants and even military drones.

The research by Serjay Sim, Nyet Kui Wong examines the benediction of n**anotechnology in Medicine and Healthcare sector**. Nanotechnology applies the special properties of the substances at the nanoscopic level. Nanomedicine, the application of nanotechnology in medicine and healthcare, has been used to fight some of the diseases such as cardiovascular diseases and cancer. Nanomedicine utilizes technologies at the nanoscale and nano-enabled method to avoid diagnose, monitor and treat diseases. Nanotechnology exhibits significant potential in the field of the medicine including the advancement in imaging techniques, diagnostic tools and drug delivery systems. The research paper elaborates the concept of the nanotechnology for pregnancy-related treatments. In the last scene of *Enthiran (Robot)* movie when the Sana teasingly asks Chitti how they could have a baby. The movie shows that Chitti is a highly advanced AI-powered humanoid with the ability to think and innovate. When Sana asks about a baby, Chitti recommends artificial methods, referring to scientific advancements apart from natural reproduction.

The research paper "Wireless power transfer technology using Resonant technique" shows that wireless transfer is kind of technology by transferring the electrical energy from a power source to an electrical load without use of wire and conductor. The main objective of this research is to investigate a wireless power transfer technology using resonant technique. Nowadays, portable electronic devices play an important role in our life. It shows that electromagnetic waves can be transmitted by passing through air as medium. The energy transfer is radiative in nature and power is transmitted by the beams of electromagnetic radiation. The frequency range is more than giga hertz (100 crore hertz or 10,000 lakh hertz). The WPT (wireless power transfer) is processed to transmit power from power source to load through an air gap without the use of wire or conductor. A proposed WPT technology was developed with the power transfer efficiency of 41.6%. To put into possibility of higher power consumption unit, the voltage supply can be increased hence, the distance apart between transmitter and receiver will be increased. WPT are convenience and safer to the users. Power cords bring risk of shock and can cause fires. WPT can eliminate traditional charging systems. The low battery can be charged without the need of plugging into the socket. The transmission of power transfer is only affected by the metal made component which is placed near to it. Wireless power transfer is convenient, reliable, low cost, safer and environmentally sound. The power can transfer with a longer distance and safely by using this technique. The research scrutinizes the concept of wireless technology and nanotechnology in the movie *Ra.one.*

H.A.R.T [hertz amplifying resonance transmitter], nanotechnology and neural schema represents groundbreaking advancement in artificial intelligence and robotics. These technologies enable A.I systems to achieve unprecedented levels of intelligence in modern world, adaptability, and efficiency in human and robot relationship. H.A.R.T serves as a power amplification and system of data transmission, in A.I-driven systems it enhances signal propagation and computational efficiency. Nanotechnology plays pivotal role in downscaling electronics components; nanotechnology involves quantum effects and the manipulation of matter at atomic levels to enhance efficiency in energy and computational power. On other hand, neural schema, which is inspired by biological neural networks, improved artificial neural networks (ANNs) to emulate cognitive functions which includes pattern recognition, reinforcement learning (machine learning), decision-making

algorithms, and autonomous adaptation. Ra.one can generate its parts and body by using nanobots. It also absorbs energy from external sources also in the form of electricity. So, the structure of whole movie is inspired by robot recreation. The system of recreation and repairing of the Ra.one is based on WPT (Wireless Power Technology). Wireless Power Technology is the method in which electrical energy is transmitted from power source to device without the need of wire or physical cables. Ra.one uses the core mechanics of nanobots for repairing its body parts and its body parts can be repaired by using external energy which is in the form of wireless power technology.

Study of Human-Robot Relationship

The theme of Human-Robot Relationship is central to both *Robot (Enthiran)* and *Ra.one*. It analyses how artificial intelligence affects human society at emotional, ethical and social perspectives. The films show the bond between the human and machines, emphasizing the potential and challenges of integrating AI into personal life and social life. Chitti assists Sana, Dr. Vaseegaran's girlfriend and medical student, in passing her exam unfairly and later Chitti protects her from being assaulted by a group of thugs. Vaseegaran prepares Chitti for an assessment conducted by the Artificial Intelligence Research and Development (AIRD) Institute, directed by the professor, Bohra. At the time of the assessment, Bohra instructs Chitti to nearly stab Vaseegaran, which convinces the committee's decision that the robot is too dangerous and cannot be used for military purposes. After Chitti's failure in the AIRD assessment, frustrated by Chitti's failure, Vaseegaran scolds him, but later they notice a nearby area where buildings are burning. Vaseegaran uses Chitti to rescue people from a burning building, hoping to disprove Bohra, but his plan backfires when Chitti rescues a girl who was bathing. Embarrassed after being filmed naked on camera, she runs away, is hit by the truck and loses her life immediately. The incident results into negative social consequences. Recognizing the faults of programming in the robot, Vaseegaran requests Bohra to give him a month to reprogram Chitti. He reprograms Chitti's by using neural scheme, so it can grasp human feelings, behavior and emotions. By implementing a neural scheme, Vaseegaran upgrades Chitti's artificial intelligence, allowing it to understand and respond to human emotions. This modification helps Chitti to recognize, analyze and react to emotion like joy, sadness and affection. He improves Chitti's ability to learn emotions by training him with data on human expressions, gestures, and appropriate response and voice tones. After that, Vaseegaran performs multiple tests to confirm that Chitti can respond correctly in various situations, including the ability to recognize sadness, providing comfort and express console. While Sana is preparing for her exams, Chitti studies her textbook and later applies an ancient childbirth technique to assist Latha, friend of Sana with delivery complications. Dr. Vaseegaran and Chitti receive appreciation from everyone. When Chitti and Sana come outside the operation theater, Sana kisses on Chitti cheek. After that, Chitti falls in love with Sana.

Similarly, the movie *Ra.One* explores creation of Ra.One and Ga.One, two AI-driven characters from a virtual game, Ra.One. While Ra.one becomes a threat, Ga.One emerges as protector but Ga.One forms an emotional bond with the protagonist's family, especially Prateek. In this movie, Ga.One takes place of Prateek's father and protects his family after the death of the Shekhar who is creator of the game and robot in the virtual world. In the real world, the robot develops the strong emotions with the family of Prateek and can help them as their one of the family members. Virtual Reality is a technology that creates a virtual environment. It is a computer-generated environment with scenes and objects that appear to be real, making the user feel they are immersed in their surroundings. The environment is perceived through a device known as a virtual reality headset and helmet. It is a computer-generated simulation of an environment or 3-dimensional image where people can interact in physical way. In virtual reality 75% is virtual and 25% is real. Virtual Reality in *Ra.One* movie used in gaming. Virtual reality allows all characters in game to interact with real world specially Ra.one and Ga.One. This film shows advanced VR system where players participate in physical combat through capture suits, making it as most groundbreaking representation of the virtual reality in Indian cinema. The protagonist Shekhar, creates the game with villain who possessed the superpowers also Shekhar highlights its potential of self-learning AI within Virtual Reality ecosystem. Ra.One represents advanced future VR technologies. This film has the features of full body motion capture suits that transfer real world movements into virtual reality. One of the most advanced aspects of VR in the movie is deep integration with AI (artificial intelligence). The antagonist, Ra.One, is programmed, character as it contains AI advanced technologies with the abilities of thinking and evolution. This concept is responsible for advanced level of VR technology for representing virtual characters with self-awareness and decision-making. The movie *Ra.One* shows that gaming system used in the movie deals with neural interfaces not only with the human body which means players can influence game using their thoughts. This brings the concept of the real-world brain computer interface (BCI) research in which brain signals are used to control digital actions.

One most unique aspects of VR in this movie is that how does Ra.One escape from virtual world into real world. This film shows dangerous use of AI in VR for representing virtual characters like Ra.one. It highlights concern about AI control and security risks if VR technology is not properly managed. Augmented Reality (AR) combines the real and digital world by superimposing the virtual element, such as visuals and sounds, onto the physical environment. In AR 25% is virtual and 75% is real. The following are the types of AR:

Marker-based: In Marker based AR, scanning a marker like a QR code triggers virtual content on a screen. This type of AR is commonly used in gaming, education and advertising purposes.

Marker-less AR: Marker-less AR does not require any markers. This type of AR is commonly used for industrial designs and navigation purposes.

Marker-less AR divided into further four types:

Location Based AR: Location based AR employs location data and sensor from smart devices to place the virtual objects in the physical world.

Projection-Based AR: Projection-Based AR displays digital content by projecting it onto physical surfaces or objects in the real world.

Contour-Based AR: Contour based AR detects and follows the outlines of real-world objects, allowing virtual content to be placed over them.

Superimposition-Based AR: Superimposition-Based AR places virtual content onto real-world objects.

The movie *Ra.One* uses Projection based and Superimposition based AR. In this movie AR was used in different ways to enhance visualization and gaming elements of the movie. AR used in this movie as holographic gaming interface used by characters like Ra.one and Ga.one. When Prateek, who was son of Shekhar played the game, he interacted with 3D holograms that respond to his movements. These holograms works like AR projections in which elements of this game are shown as if elements are sharing the physical space and reacting to the real-world interactions. Ra.One and Ga.One come out of the game to real world that represent the concept of superimposition-based AR. Ra.One's ability to come out of the game is possible only with the help of digital projections and superimposition-Based AR. Ra.One, the character modifies itself and changes its shape according to his surroundings which shows prominent use of AR. Ra.one shows futuristic version of superimposition-Based AR. While today's AR technology is not advanced to transfer the characters of games into reality but these movies exemplify the futuristic scope for the advancement of AR.

The movies emphasize the theme of the bonding between the humans and robots. The movie *Ra.One* highly influenced the audience with its new techniques of gaming and introduced the viewers with the development of relationships between humans and robots. In the movie, director successfully converts virtual game into reality by using sensors and H.A.R.T which is more advanced level of gaming and helps gamers to sharpen their mind. This movie highlighted how is AI served as protector and companion to the humans by analyzing the relationship between Protagonist's son and AI, Ga.One. AI creates its space in the human society and essence of its existence is to get the humans rid of their aloofness. This film popularized superhero and AI-driven narratives in Indian cinema, encouraging discussions on futuristic technology. The efficiency of AI raised superhero powers in real world who can socially use as protector and possessed the advance level of technology for the purpose of security. The research paper "The effects of human-Robot interactions and the human-Robot relationship on Robot competence, Trust and Acceptance" shows that Robot can be used for social works. Nowadays, Robots have great relations with human that can be defined in three such as Familiar, Acquaintance and Stranger. In Familiar, robots can talk to human with emotions, adopt social behavior, small talk with humans and can conduct task related talk. In acquaintance category of human-robot- relationship, robot talks with human according to task with emotions. In Stranger, robot can talk with humans only task related content but with no emotions. Acquaintance relationship helps to enhance people's trust in robots, and it can be more accepted in society as it relates with human emotions also. This paper shows concept of Acquaintance relationship in both movies *Robot* and *Ra.one.* Robot has great interactions with the characters of movies such as in the movie *Robot,* Chitti is the name of robot who fell in love with the Sana and got emotionally attach with her. Vaseegaran had made the robot for military purposes further, it is used for the security purposes by enhancing its programming the new advanced techniques of nanotechnology. Similarly, in the movie *Ra.one,* robot name Ga.one serves as protector to the family of Shekhar. After death of Shekhar, Ga.One got emotionally attached with Shekhar's family. This shows the artificial emergence of emotions and sensitivity between the humans and machines. Besides this, *Ra.one* also shows the dangerous version of AI as it was the robot Ga.One that wished to kill Lucifer (Prateek). To kill Lucifer, AI turned into evil and crashed all cars on road. As the repercussion various people on the road got injured within seconds. He also killed Shekhar with its superpowers when he found lucifer's Id did not match with Shekhar's Id. Similarly, in *Robot* movie when Chitti fell in love with Sana, robot built the emotions of jealousy with its own creator, Vaseegaran. At the end of the movie Chitti kidnapped Sana and created a robot army that functioned as Chitti. To save the life of Sana, Vaseegaran cut all the power supply of the city so that Chitti didn't get powers. Due to this Chitti converted into pure evil and he destroyed all the car in the city to get the powers from the batteries of the car. These scenes in the movies show that how dangerous AI can be if it is not controlled properly.

Role of Nanotechnology in the Ra.One and Robot

Nanotechnology is the science and engineering of materials which are at the nano scale. Nano scale ranges from 1 to 100 nanometers. A nanometer is one billion of meter. It involves atoms to create small structures with specific properties. I It increased strength and reactivity. Many properties can be changed at nanoscale like optical, electrical and magnetic properties. Nanotechnology has been used in various fields such as medicines and healthcare sector. It is used for drug

delivery especially for cancer treatments. Nanorobots are used for surgery and disease detection, antibacterial coatings in hospitals.

Robot movie analyses the instances that elaborate the use of nanotechnology during the pregnancy of Latha, Sana's friend. She is suffering from placenta previa, a medical condition where the placenta covers the cervix which causes complication at the time of the delivering the infant. Using the advanced sensor and the nanotechnology-based scanning system Chitti scan the Latha womb and detects the placenta previa that doctors fail to recognize. When Latha was in the critical labor pain, Chitti conducted the C-section to save the life of both Latha and her child. Chitti used the futuristic surgical methods and AI technology inspired by the knowledge of ancient Indian medical practices. Chitti's robotic hands were trained to make the precise surgical cuts this, reduced the risk at the time of the surgery. In this movie, Chitti also used the advanced Micro and Nano sensors as he built in X-ray vision which allowed him to scan the objects and living beings at the microscopic level. In the movie, *Enthiran*, Dr. Vaseegaran, a genius robotic scientist, built an advanced humanoid robot called Chitti. Dr. Vaseegaran conducted the research in his robotics lab and focused on creating the humanoid robot based on artificial intelligence, primarily used for military purposes. His main aim was to develop a highly sophisticated android capable of independent thoughts, learning and human-like action. He developed Chitti in a human-like form, using synthetic skin, a strong metal skeleton and highly advanced motor skills. The robot body is created with high-tech material for flexibility. He also installs sensors and microprocessors to allow the movement and interaction. Chitti is programmed with highly sophisticated AI systems, enabling it to learn, interpret and react to human emotions and behaviors. The robot is programmed with a vast database, including language skills, various field knowledge and self-defense skills.

In *Ra.one*, nanotechnology plays a crucial role in transferring the virtual world into the real world. Nanotechnology helps to converts virtual characters of the game into the real world. In this movie, it shows shape-changing technology, self-repairing technology and AI-enhanced nano suits that is inspired by the real-world nanotechnology. Nanotechnology is used in this movie in self-healing and regeneration. Ra.one can break its own parts and regenerate its body easily which is like the self-replicating nanobots. It reflects self-healing materials are based on the concept of nanotechnology, which can repair and damage at the molecular level. It can also access the use of shape changing or shape shifting technology like Ra.one, it can alter its structure, change itself into different people and take appearance of others dynamically, which exemplifies analyzation of real-world research on shape memory materials. In this movie, G.one has a super power suits abilities also possesses nanotech enhanced technology. Ra.one and G.one work as AI driven nanotech, where tiny nano components advanced the processing of adaptability and physical abilities. This is like the nano chips in real world technology. In *Ra.one*, Barron industry made virtual video game, this industry uses nanotechnology to develop artificial intelligence that uses higher level of AI to develop game characters. The nanotechnology helps to convert virtual game characters into real world. Ra.one can repair itself at molecular level. In this film Ra.one and G.one are composed by nanotechnology which allows them to step out from the virtual game to real world. The nanotech-based design helps Ra.one to evolve in game, making him strong and faster. After fighting, Ra.one regenerates itself and again gain power. The gaming suit worn by Prateek, uses advanced sensors. The suits also play central role in film because after wearing power suits, real world person can fight with the characters of the game. Both Ra.one and G.one wear suits which are made-up of the nanotechnology materials which help them to fight, regenerate and become powerful. These power suits have abilities thus, cannot be devastated. The advanced technology helps to increase the durability of super-power suits and are designed for the security measures of the robots. This suit also has ability to change its shape and structure. The movies *Robot* and *Ra.one* explore the creation of cognitive machines to examine the complex elements of artificial intelligence, autonomy and emotional intelligence. Artificial intelligence technology has accomplished many great things including facial recognition, self-driving cars and medical diagnosis. AI holds a great potential for boosting economic growth, advancing social development and improve human well-being and safety.

The physical structure of the Ra.one is core of nanobot swarm. The nanobot swarm is network of many small robotic units which are present in tiny units. These nanobots help to build blocks that formed the physical structure of Ra.one. Ra.one is not made-up of metal but it has fluid and power for organizing the nanobots by itself. Continuously, these nanobots communicate with each other with the help of wireless signals controlled by the AI processor. These wireless signals are at very high speed. This AI processor allows Ra.one to regenerate itself. Nanobot swarm is the concept which is used in swarm intelligence to control the behavior of nanobots. Swarm intelligence is used to solve problems which is inspired by natural systems. This swarm intelligence based on collective intelligence, in which nanobots are fitted with its' body which means whenever its parts get destroyed, it has the potential to regenerate the parts by using the concerned data. As nanobots communicate with each other with hep of AI-controlled signal transmission system that allows to assess the defaults. It also calculates how many nanobots are needed to repair damages within small time. After damage detection, process of self-healing begins in Ra.one. In this process nanobots cluster together and start regenerating the parts of robot. The main feature of this process is that there is structural blueprint of Ra.one carried by every nanobot. So, it can repair itself easily. Ra.One is designed in such a way that it absorbs energy from external sources because it requires high energy for reconstruction of its parts. These energies can be analyzed in the form of electrical or electromagnetic fields. In this movie Dr. Vaseegaran's ultimate goal is to build an army of robots like Chitti, ensuring that human soldiers no longer to put their lives at risk during

the war. Dr. Vaseegaran designed the robot that is capable for performing defence services. During AIRD's testing, robot failed initially to get the approval for military prototype. To some extent the robot is influenced by Dr. Bohra's intervention. Dr. Vaseegaran successfully transformed humanoid machine to a humanlike entity that acquired human emotions and values, which are implanted into the robot through the concept of neural schema via programmed software. Due to this change now, Chitti thinks and behaves like humans. This transformation results into emotional connection and complexity of relationships between humans and robots.

3. CONCLUSION

This paper concludes the technical concepts related to the advancement of robots that emerged from virtual to the real world in the movies. The research analyzed the robots using the advance features like nanobots and self-repairing capabilities. These self-repairing capabilities helped robots to repair themselves and also make more such robots. Both movies successfully represent that robots can be used as protector of the humans also reduced the manual efforts. The research exemplifies how robots develop the relationship with the humans. For instance in the movie *Enthiran* (Robot), Chitti falls in love with Sana and develops the feelings of love towards her also Chitti understands the social ethics very well after inserting emotion sensors into it. Similarly, in the movie *Ra.One*, Ga.one gets emotionally attach to the family of Shekhar and protects them wisely from Ra.One. The research paper also elaborates the concepts of self-regeneration of robots through the concerned movies. The research scrutinized the theme of transformation of gaming characters into real life humans with the advanced level of AI. This paper also concludes that how robots can regenerate themselves using nanotechnology like nanobots which are small units. In the movie *Ra.One*, the robot Ra.one possessed the tendency to generate many robots like him using the techniques of nanobots. Similarly, in *Robot*, Chitti can generate army of robots that looks like him. Even Chitti has power to charge himself by using batteries of car and through the electricity. Both the robots can regenerate itself and produce the huge army of robots. This cannot be possible by the use nanobots that communicate with the use of wireless technology. By using wireless technology it calculates that how many nanobots are required for the purpose of healing. They also use the external energy to reconstruct themselves. These things reflect that how powerful robots can be in the future with the advance technology of AI. Even these robots don't require humans to make more robots because they have a self-regeneration capability. These robots (Ra.one and Chitti) can be used in industries like Medicare and IT sector for the social purposes. In both movies it reflects the how these robots can be helpful for the humans. For instance, Ga.One helps as family protector and Chitti is initially used to help military. These both robots have superpowers which can help humans in every aspects but at the same time these robots can be harmful and dangerous as shown in movies.

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