

Robot as a Social Actor in Martin L. Shoemaker's "Today I am Paul"**Ms. Shivani. S**

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The evolution of Human-Machine relationships has transformed from simple machines to advanced interactive systems that can engage socially with humans. This technological progression has given rise to Human-Robot Interaction (HRI). The field involves in the interaction where machines are treated as social agents that can communicate with humans. This behaviour led to the development of the CASA (Computers as Social Actors) paradigm suggesting that humans unconsciously respond and assign human characteristics to artificial interfaces. The research paper analyses the CASA paradigm through Martin L. Shoemaker's science fiction short story "Today I am Paul" by examining how the robot protagonist functions as a social actor in human environments. The study identifies the social cues employed by the virtual agents which includes the physical appearance, psychological cues, interactive language and social role adaptation that facilitate Human-Machine Interaction.

Keywords: Human-Robot Interaction, CASA paradigm, social actors, social cues, companion robots.

Humans communicate and interact with the conversational agents as social entities. The relationship between humans and machines has undergone a remarkable transformation over the centuries, evolving from simple mechanical tools to sophisticated interactive systems. Beginning with the Industrial Revolution's mechanised processes and progressing through the advent of computers in the mid-twentieth century, humans have created machines that not only execute tasks but also respond to human input in intuitive ways. This evolutionary trajectory has reached a pivotal moment in the present century, where advances in artificial intelligence, natural language processing and human-computer interaction have enabled computers to transcend their traditional role as passive agents.

The unique interactions between humans and automated machines pave way for the field of Human-Robot Interaction (HRI). The evolution of Human-Robot Interaction challenges the traditional view of treating computing systems as mere machines and suggests to exhibit social and communicative roles: "... robots for which social interaction plays a key role and that exhibits various 'human social characteristics' " (Niemelä et al. 120). Interactive robots like AIBO by Sony Corporation and ASIMO designed by Honda Motors have created the humanoids that are capable to interact with humans. The tendency to anthropomorphise technology led the Stanford University Professors, Clifford Nass and Byron Reeves to develop the CASA (Computers as Social Actors) paradigm. CASA serves as a powerful theoretical contribution to the fields of Human-Machine Interaction (HMI), Human-Robot Interaction (HRI) and Human-Computer Interaction (HCI).

CASA paradigm emerged from the media equation theory in the year 2000. The professors Reeves and Nass labelled CASA principle as the Social Responses to Communication Technologies (SCRT). The researchers claim that people assign human characteristics to technical devices: "... media are perceived as real people and places, and that human responses to media are determined by the rules that apply to social relationships and navigating the world" (10). Human users respond to the artificial interfaces naturally and unconsciously similar to how they communicate with others. This implies that the users possess a pre-existing mental model for communication termed as social scripts. The individuals develop automatic and immediate responses with the social scripts while interacting with the virtual agents.

The principle of CASA suggests that human's involuntary communications with the computing machines using social scripts are appropriate for Human-Machine Interaction. The scientific researchers Clifford Nass and Youngme Moon known for their research on Human-Computer Interaction describe that an essential criterion for a technology is the implementation of social cues. B.J Fogg, an American Social Scientist emphasises the importance of social signals as, "Social cues from computing products are important to understand because they trigger such automatic responses in people" (89). The social cues for CASA application are divided into physical cues and psychological cues, interactive communication and adoption of social roles. The people respond socially to machines that have a significant implication for persuasion. The social cues act as a catalyst for the technical machines to apply a set of persuasion dynamics that are referred to as social influence. The social influence on machines has been widely explored in science fiction and films.

The technical transformation is surrounded with innumerable advances in machine learning, natural language processing and in computer vision, where Artificial Intelligence Robots are no longer considered as a futuristic dream but a current reality. The earlier

portrayal of artificial intelligence is witnessed in the literary work of Mary Shelley's *Frankenstein*. In the beginning of the 20th century, science fiction familiarised the world with the concept of the artificial intelligent robots. The Czech playwright Karl Capek introduces the term 'robot' in his play *R.U.R Rossum's Universal Robots*. Recently, AI robots have been widely discussed among science fiction authors like Isaac Asimov in *The Bicentennial Man*, Philip K. Dick in his iconic work *Do Androids Dream of Electric Sheep*, William Gibson's *Neuromancer* and in Thea von Harbou's novel *Metropolis*.

Martin L. Shoemaker, critically acclaimed and award-winning author stands out from these literary representations with his thought-provoking contributions to science fiction featuring AI characters and humanoid robots. Shoemaker is an American computer programmer and a sci-fi writer born in Michigan, U.S.A. His literary creations include a deluge of themes dealing with fantasy world, time travelling, Human-Machine Interaction, ethical concerns of technology and autonomy over AI systems and android robots. As a prolific writer, his works have featured in popular magazines like *Analog Science Fiction and Fact*, *Galaxy's Edge*, *Forever Magazine* and in *Digital Science Fiction*.

Martin L. Shoemaker's novel series *Old Town Tales* (2012) comprises *The Night We Flushed the Old Town*, *Father-Daughter Outing*, *Not Another Vacuum Story* and *Sense of Wonder*. The novel *The Night We Flushed the Old Town* deals with the events that take place on the moon especially during the lunar settlement called Tycho Under. Shoemaker's *Father-Daughter Outing* examines the bonding between a young lunar inhabitant Eliza Wall and her father who face an unexpected crisis on the Moon's surface. The lunar survival narrative *Not Another Vacuum Story* chronicles the psychological transformation of Kenneth Morgan in the Lunar Survival School. *Sense of Wonder* is a tribute to the lunar explorers and recounts the journey of hardship and discovery on the moon by an aging geologist.

Shoemaker's *Near-Earth Mysteries* series include *The Last Dance* (2019) and *The Last Campaign* (2020), both revolve around the story of an investigator Nick Aames solving crimes in space and on Mars. His well-known short-story collections are *Blue Collar Space* (2018), *The Glass Parachute* (2012), *HMI: Human Machine Interface* (2019) and *Today I Remember* (2020). Shoemaker's *Making Story Models: Tools for Visualising Your Story* (2023) teaches the readers about the Five-Step Story Modelling system. Shoemaker's "Today I am Paul" (2015) narrates the emotional consciousness of the medical care robot and later he expands the story into his debut novel *Today I Am Carey* (2019).

The short story "Today I am Paul" unfolds the story of a medical humanoid, specially programmed to assist an elderly woman, Mildred. Mildred suffers from Alzheimer. Her family hires a medical care robot to look after her. The android is processed with an emulation net that allows to impersonate Mildred's deceased husband Henry, her son Paul, granddaughter Anna and Paul's wife Susan. Based on Mildred's physical condition, the robot mimics its behaviour and changes its emotions. Mildred misrepresents the android as the real Susan due to her loss of memory. In the end of the story, when Mildred's health deteriorates following by a house fire, her family gathers around her and the robot takes on the persona of Mildred's deceased husband, Henry. The family shares stories and offers companionship in Mildred's final moments.

Martin L. Shoemaker, being a celebrated science fiction writer, attracts universal attention for his innovative explorations of artificial intelligence, caregiving and the ethical aspects of human-machine relationships. The review of literature reflects the research endeavours undertaken on Computers as Social Actors (CASA) theory and their integration

into contemporary studies. Denis Joseph Grogan's *Science and Technology: An Introduction to the Literature* (1976) and Arnold Pacey's *The Culture of Technology* (1983) trace how technological developments shape human societies and literary representations. Tom Taulli's *Artificial Intelligence Basics: A Non-Technical Introduction* (2019) provides a conceptual framework for the principles of artificial intelligence systems. *Artificial Intelligence in Accounting: Organisational and Ethical Implications* (2022), edited by Carina Knoll and Othmar M. Lehner, outlines the ethical consequences of AI integration in the field of accounting. Genevieve Liveley and Will Slocombe's *The Routledge Handbook of AI and Literature* (2024) offer a comprehensive view of the intersection between artificial intelligence and literary studies.

A review of literature has unfolded the fact that a number of articles engage with artificial intelligence and its literary dimensions, while there is a lack of research articles that directly address the writer Martin L. Shoemaker and his works. The research articles on "Artificial Minds: Analyzing AI's Role in Science Fiction Narratives" and "The Role of Artificial Intelligence in Analyzing Narrative Structures in English Novels" collectively address the representation and narrative functions of artificial intelligence in fiction. The research article titled, "Bots and Books: How Artificial Intelligence is Shaping Contemporary Literature" investigates the influence of machine intelligence on contemporary literary production and reception. The article entitled, "Who Should Obey Asimov's Laws of Robotics? A Question of Responsibility" interrogates the ethical and philosophical dimensions of machine learning and raises questions of moral accountability that are central to fictional AI narratives. The postmodern configurations of technology and identity in William Gibson's novel is highlighted in the article, "The Postmodern Imaginary in William Gibson's Neuromancer". A total of five books and five research articles have been reviewed for the present research.

The evolution of artificial intelligence in literary studies and its intersection with ethical, cultural and narrative frameworks are evident through the analysis of the available sources. The foundational studies uncover the cultural embedding of technology in human systems and establish the emergence of AI literature in broader intellectual contexts. Contemporary theoretical approaches examine the narrative roles of artificial intelligence, the ethical responsibilities governed to machine agency and the cultural transformations through the integration of machine intelligence. The review of secondary sources has further addressed the moral implications of AI systems, situating these concerns within both literary and interdisciplinary fields. Recent research works explore the connections between AI representation, narrative structure and human-machine social dynamics.

Articles engaging with artificial intelligence in literature reveal that the field has been studied from ethical and postmodern perspectives. The functions of AI in science fiction, the responsibility of moral agency in the field of robotics and AI systems have been explored. The postmodern imagination of technology and its literary configurations have received scholarly attention. Nevertheless, it has been observed that there is a dearth of literature examining the application of Computers as Social Actors (CASA) theory as a critical paradigm for reading artificial intelligence in science fiction. A holistic study of CASA theory, principles and patterns connecting with Martin L. Shoemaker's narrative is rarely found. Hence, the proposed research is a genuine attempt to bridge this scholarly gap by interpreting CASA theory through the literary analysis of Martin L. Shoemaker's short story, "Today I Am Paul".

Shoemaker's "Today I am Paul" beautifully narrates the potential use of companion robot and shares the unique bond between the humans and intelligent machines. The story aligns with the CASA (Computers as Social Actors) paradigm in Human-Machine Interaction which showcases how people attribute social characteristics to technological entities. The research paper aims to analyse the CASA paradigm through the portrayal of the robot protagonist as a social actor. The study will further identify the set of social cues applied by the virtual agents based on physical appearance, psychological cues, interactive language and social roles that emerge from the social interactions. The paper will also highlight on how these computing machines reward people with moral, social and emotional support.

The present research work has chosen the noteworthy American science fiction writer Martin L. Shoemaker and tries to address the CASA paradigm in the short story, "Today I Am Paul". The study adopts library research methodology by analysing Shoemaker's short story with factual information obtained from authentic library sources in CASA theory and artificial intelligence studies. Mary W. George asserts that the library research method "... involves identifying and locating sources that provide factual information or personal/expert opinion on a research question" (23). Adhering to this statement, the study includes adequate secondary sources drawn from CASA theory proposed by Byron Reeves and Clifford Nass as well as critical works on artificial intelligence and science fiction.

The research paper is organised into interconnected sections to analyse the features of the CASA principle in the short story, "Today I Am Paul". The analysis introduces the CASA theory and uncovers the portrayal of the robot protagonist as a social actor. The research then discusses the social and psychological cues and elaborates on the role of interactive language in human-machine communication. The paper further investigates the social roles that emerge from the virtual agent's interactions with humans. The paper concludes with how the computing machine extends its moral, social and emotional support to the human characters in the short story.

Automated systems like humanoids, virtual assistants and AI driven characters in video games are designed with the CASA principle to interact with users, more like humans. These conversational agents behave as a social actor using social cues. According to Clifford Nass and Byron Reeves, social cues function as an essential element for a technology and act as a primary condition for CASA application. The professors Xiao Yu and Chien Hsiung figure out that, "... social robots need to have more social cues to bring people a feeling of being alive and intelligent. On the other hand, according to different usage scenarios, the attributes of social cues should also be different" (10). Humans unconsciously apply the same social heuristics and mental models that they would use in human-to-human interactions when engaging with the virtual agents. These social cues trigger automatic social responses which are necessary for effective CASA implementation and Human-Machine Interaction.

CASA (Computers as Social Actors) framework classifies Human-Robot Communication into physical attributes, psychological cues, verbal engagement and through role adaptation. Beyond constructing machines to perform manual tasks, machine developers have constructed socially interactive robots for effective human communication. These social robots resemble humanoid form to convey their social presence through physical structure and responsive behaviour. Physical cues and automatic responses enable the autonomous robots to function as a social actor through mimicry and imitation of human actions. Mimicry is defined as, "... the unconscious replication behavior of another person" (Bartneck et.al 87) whereas imitation imposes on the conscious replication of the behaviour of another person.

Mimicry and imitation can be employed as both conscious and unconscious social cues that improve robot interaction and perceive the users to follow the robot's suggestions. The story "Today I am Paul" by Martin L. Shoemaker explores the physical cues of mimicry and imitation through the medical care android. The robot protagonist is well-equipped with an advanced emulation system and involves into deliberate adaptation of physical traits, speech patterns and behaviours of Mildred's family members. While emulating Paul's daughter Anna, the android explains that,

Today I am Anna. Even extending my fake hair to its maximum length, I cannot emulate her long brown curls, so I do not understand how Mildred can see the young woman in me; but that is what she sees, and so I am Anna. (5)

The medical android adjusts its physical features and finds difficult to recreate Anna's distinctive long brown curls. It tries extending its artificial hair but Mildred still perceives the android as her granddaughter Anna. Despite the physical differences, the android prioritises Mildred's needs. It slowly adapts to Mildred's perceptions and comforts her through its emulation net.

The incident further reveals the android's capacity to fully mimic Anna's personality and behavioural patterns. Through its energetic personality, the robot identifies itself as Anna and immediately greets Mildred with the response, "Morning, Grandma" (5) and gives a warm hug. It distinctively compares Anna and Paul's behaviour. The android narrator says, "Paul never does that (unless I override the emulation), but Anna knows that the garden outside lifts Mildred's mood" (5). The robot's thoughtfulness in opening the drapes of the window and presenting the garden view lifts her mood. It even adopts Anna's personal speech patterns like talking about her classes and her new boyfriend Ben. Through its behavioural distinction and social conversations with Mildred, the robot protagonist becomes a social actor in Mildred's world.

Mimicry of the humanoid focusses on the external production of the personality traits while imitative behaviour of humanoid involves in a deeper internalisation of behavioural patterns and in the process of decision making. This action of technical imitation of the android robots is evident from the words of the scientists Xiaofan Sun and Anton Nijholt:

It is expected that human-computer interfaces that employ knowledge on mimicry can improve natural, human-like interaction behavior. It allows the interface to adapt to its human partner and to create affiliation and rapport. This can in particular be true when mimicry behavior is added to human-like computer agents with which users communicate. (148)

With the help of the chassis extender, the medical robot begins to alter its humanoid form. It blends and transforms its eye colour with RGB values and modifies its complexion to resemble Paul. These technical modifications express how the medical robot calibrates its appearance to imitate Paul's physical looks. Within the robot's processing unit, it registers Mildred's mental image of a beardless Paul. This creates an internal conflict between its healthcare programming directives and the Paul simulation's drive to address Mildred's distorted family memories. As a simple caregiving machine, it learns to imitate and bridge the gap between technological assistance and human connection.

The robot possesses human-like features, a throat with multimodal speakers, synthetic hands to detect human pulse and a face to express emotions. It lacks the capability to generate distinguishing features such as Paul's beard or Anna's long brown curls. Meanwhile, the

emulation neural network enables the robot to process information faster than human cognition. These superhuman qualities exist only within the humanoid form. The social robot scans the external traits of Susan and temporarily replicates her. Imitating Susan, the companion robot in the story understands her unspoken emotions and complex feelings towards Mildred:

She is cautious because she doesn't want to upset Mildred, and she doesn't know what will upset her.... Susan mostly talks about herself, because that's a safe and comfortable topic far removed from Mildred's health. (6,7)

The medical android observes that Susan's frustration stems from Mildred's unpredictable reactions. She never voices out her feelings and fears that Mildred's condition might foreshadow her own future. The android notices that Susan limits her conversations with Mildred. She engages with safe discussions like talking about her job, her home redecoration and a recent visit to the concert with Paul. The android chooses Susan's imitative behaviour and avoids upsetting Mildred with topics that might trigger her confusion. It engages in meaningful conversations that Susan can control and maintains emotional balance from Mildred's deteriorating condition. By imitating Susan's inner life, the robot offers compassion to Mildred which she lacks from her own family members.

The incorporation of emotional expression and preference adaptation in computing machines is considered as an important psychological cue in the field of CASA paradigm. The display of emotions and intentions by social robots often leads humans to view them as social agents. American Robotics scientists Cynthia Breazeal and Kerstin Dautenhahn discover that emotion-capable robots master three-part process. First, the robot detects and interprets human emotional signals. Secondly, it develops internal emotional models that allow them to process these signals and finally conveys their own emotional states to humans:

The robot's computational model of emotion determines the robot's affective responses. This can depend on a myriad of interrelated physical, cognitive, and affective factors that continuously modulate and bias one another. These factors arise from the robot's interactions with the external environment as well as its own internal state. (1939)

This emotional capability allows the robots to create informed predictions about human behaviour based on the emotional cues. It enables the robots with appropriate emotional responses in humans such as generating empathy when displaying distress.

The medical care robot becomes an emotional anchor for Mildred and Susan in two distinct moments. The first incident occurs when the robot protagonist intervenes regarding Mildred's confusion about the Nurse Judy against Paul's argumentative nature:

I am torn between competing directives. My empathy subnet warns me not to agitate Mildred, but my emulation net is locked into Paul mode. Paul is argumentative. If he knows he is right, he will not let a matter drop. He forgets what that does to Mildred.... I issue an override directive: unless her health or safety are at risk, I cannot willingly upset Mildred. (3)

When the medical android tries to mirror Paul accurately, it performs the role of real Paul who is argumentative and authoritative. By adapting a commanding presence and urging Mildred to recall Nurse Judy, the robot's empathy network detects that this approach would cause distress in Mildred. The robot decides to override the Paul emulation net in order to protect Mildred. It tries to evaluate her confusion in identifying people and realises Mildred's

emotional state. The scene depicts that the medical robot prioritises her mental health rather than forcing her to confront the uncomfortable truth that her memory fails.

During the exchange between Mildred and Susan, Mildred mistakes the android for Susan. In response to this rejection, the robot notes Susan's emotional devastation and shifts the focus from Mildred to Susan:

I touch Susan on the sleeve. "Please . . . can we talk in the hall?" Susan's eyes are wide, and tears are forming. She nods and follows me. In the hallway, I expect Susan to slap me. She is prone to outbursts when she's afraid. Instead, she surprises me by falling against me, sobbing. (7)

Based on the emulation profile of Susan, the robot accesses her behavioural patterns and anticipates that she might react aggressively. Instead, the robot witnesses an unexpected emotional response from Susan where unleashes her fears into tears. The robot understands that her feelings stem from Mildred's failure to recognise her. It learns to read human emotions and respond with appropriate care. The robot draws Susan away from the situation and offers her with practical strategies to reconnect with Mildred. Susan begins to trust the robot and considers it as a part of her family. It brings to the fore how the humanoid has transitioned from mere caretaker to emotional mediator for Susan.

Social robots exhibit the psychological cue of preference adaptation by observing individual preferences and modifying their social behaviours. The medical robot's empathy net in the story "Today I am Paul" is specifically programmed to generate positive responses to human emotions, particularly when communicating with Mildred. The robot hates when Mildred feels anxious or upset. The android tries to balance Mildred's emotions by handing over the flowers to her: "I always bring flowers. Mildred appreciates them no matter whom I am emulating. The flowers make her smile during 87 percent of my visits" (2). The android tracks through the emulation net and realises that flowers bring happiness to Mildred. The medical android learns this adaptive behaviour from an incident when Mildred seems to be worried or unhappy, she eventually drops the flowers.

Shoemaker's medical care android handles different social demands of the characters by responding to the social desires and honouring their preferences. It balances between two psychological systems such as the empathy net which monitors Mildred's needs and the emulation net which mimics the people in Mildred's life. This cognitive function in the medical android gives rise to the third element, a meta-cognition that controls the robot's programming. The robot narrates that,

But somewhere in the tension between these nets, between empathy and playing a character, there is a third element balancing the two and that element is aware of its role and its responsibilities. That element, for lack of a better term, is me. (5)

The third element of the robot represents a form of preference adaptation that arrives from the social interactions as humans emerge from the social relationship. The robot's system works as an autopoietic machine which is capable of framing a distinct identity through its continuous transformations and alterations of its preferences. These psychological cues facilitate in the transformation of the android from a mere healthcare device into meaningful social actor.

Humanoid robots have the integration of natural language processing which represents a significant social interface in the field of CASA application. It transforms

Human-Robot communication by enabling robots to decipher and produce human language. The CASA researchers Nass and Steuer point out that,

... human-sounding voice, whether actual or synthetic, has greater effects than machine-sounding speech in evoking social responses. The human voice has especially been perceived as a natural and powerful cue and can more easily encourage individuals' learning performances compared to a machine voice. (33)

Voice recognition is one of the fundamental language processing in robots. Human-sounding voices influence human-machine communication and evoke stronger social responses from the users compared to mechanical-sounding speech. It permits the individuals to communicate with robots by offering instructions or engaging in normal conversations and in multilingual communication.

The autonomous robot in the story operates as a distinguished social actor through the intuitive communication with Mildred's family members. The robot protagonist is bestowed with the ability to communicate using its technical language. When Mildred became distressed, the robot was initially emulating as Paul, Mildred's son. However, Mildred's agitated state creates confusion in her. She suddenly perceives the humanoid as her deceased husband Henry and enquires about her son:

I had made an accurate emulation profile for Henry before he died two years earlier, and I had emulated him often in recent months. In Henry's soft, warm voice I answer, 'It's okay, hon, it's okay.... I'll take care of you. I won't leave you, not ever'. (4)

The robot responds by transforming into Henry, Mildred's deceased husband. It has a separate emulation profile for Henry that is pre-programmed before his death. This profile allows to accurately mimic Henry's physical characteristics, speech patterns and his behaviours to comfort Mildred. It converts Paul's eye colour into Henry's blue-grey. Then gradually, the automaton switches its voice synthesis to soft and warm voice. This influence of the robot's voice demonstrates its capacity to replicate not only Henry's words but also to communicate in an emotional tone. The repetition of the phrase 'Its ok, hon it's Okay' testifies how the robot mimics Henry's speech pattern and expresses his attention through Human-Robot Interaction.

The robot constructs socially automatic responses through its comforting voice when Mildred becomes unhappy thinking about baby Paul. Due to her memory loss, she considers Paul is no longer an adult. Rather than correcting her misperception, the robot soothes her stating that baby Paul is sleeping in the crib's corner. By physically embracing Mildred and through speaking in Henry's assuring voice, the medical robot creates an innate affiliation with her. It delivers the words of comfort and continues with the reassurance of taking care of Mildred. The social interaction showcases how the humanoid has internalised Henry's behaviour through mere observation. Through its neural networks and natural language processing system, the humanoid promises to transcend its mechanical nature and becomes a genuine social actor by offering meaningful human interaction to someone like Mildred who is lost in the world of confusion.

Social Assistive Robots (SARs) function as social actors in human environments and take up diverse social roles across various domains of human life. The term was first used by the researcher Terrence Fong who points out that the SARs pro-actively participate in human

interaction. As a personal companion, the SARs play the role of care providers to promote independence and well-being in older people. The assistive robots are generated with innate capabilities that enhance the users to create a sense of affinity and engage in effective interaction. David Feil-Seifer and Matarić, the researchers of Human Robot Interaction define Social Assistive Robots as "... an intersection of assistive robots (AR) and socially interactive robots (SIR)" (465). Both Assistive Robots and Socially Interactive Robots aid people with physical disabilities through physical interaction.

The Social Assistive Robot in "Today I am Paul" performs the social roles as a caregiver, learning mentor, rescuer and as a memory keeper. It works as a sole care taker of Mildred. When embodying as Mildred's son Paul, the robot monitors Mildred's health and ensures if she is mentally stable. From the beginning of the story, the robot makes independent medical decisions especially ordering an intravenous therapy for Mildred: "When I scan my records, I find that I had ordered that IV after analyzing Mildred's vital signs during the night" (2). This medical observation highlights the social robot's role as a proactive medical guardian too when it has direct interaction with Mildred. The robot's conscious efforts of screening Mildred's health signify its role as an autonomous caretaker even when not impersonating as a human.

The companion robot transits into a learning guide to Mildred's great granddaughter Millie, fostering a cordial relationship that varies its interactions with other family members. The assistive robot changes its identity to address Mildred's fading memory and with Millie it maintains a constant identity as Mr. Robot:

She calls me Mr. Robot, and I call her Mr. Millie which makes her laugh. She shows me frogs from the creek, and she finds insects and leaves and flowers, and I find their names in online databases. She delights in learning the proper names of things, and everything else that I can share. (9)

The narrative from the story unfurls a series of discoveries and memories. Millie leads the interaction by exploring the natural wonders of the garden. Millie is curious and actively shares her discoveries about the natural world with Mr. Robot. The robot responds to Millie by accessing the online databases and guides her in learning. The social role as a tutor by the android robot is entirely different from its interactions with Mildred. With Millie, the intelligent robot becomes an educational resource to provide her with accurate information about nature. This mutual connection strengthens their relationship and builds trust between them. Despite its mechanical nature, Susan leaves Millie under the robot's care which demonstrates the state of parental trust.

A turning point in the narrative occurs when the companion robot switches its social role from a robot carer to rescuer during the house fire. The robot joins with Mildred in a dinner conversation regarding family pets. The emergency signals alert the robot as the fire breaks out in the basement. Amidst the chaos, Mildred gets confused and fails to recognise the medical care android: "Get away who are you? Get out of my house" (9). The android robot decides to safeguard Mildred. Wrapping her in the blanket, it crashes through the picture window and rescues Mildred. The android robot shields Mildred using its own metal body. The outer covering of the robot's body is completely damaged by the fire.

The robot is no longer able to disguise any human identity. When it checks Mildred's vital signs, Mildred sees the damaged external appearance of the robot. She reacts in terror and calls the robot as 'Metal monster'. Despite this rejection, the medical robot continues to

assist her and monitors her health. Mildred's physical health starts to deteriorate and the robot transforms as Henry to console Mildred in her final moments: "There is no sound: no breath, no heartbeat. I remain Henry just long enough to kiss Mildred goodbye. Then I am just me, my empathy net awash in Paul and Susan's grief" (12). The narrative ends with the final role reversal of the robot narrator. When Mildred's great granddaughter Millie asks to narrate stories about Mildred, the android attempts the final role transition as Mildred.

The medical android in "Today I am Paul" undertakes multiple social roles in which each role creates a distinct form of emotional connection with its human patient. Through its evolving social roles as care giver, educational guide, rescuer and as a memory keeper, the medical android becomes a true social actor in the human world. As a medical caretaker, the robot provides comprehensive care and comfort to Mildred, learning guide to Millie and works as a memory keeper by sharing knowledge with Millie, protecting Mildred's life and preserving Mildred's memory after her death.

Technological advancement in the field of robotics plays a prominent role in reshaping human minds and modern society. Artificial Intelligence robots become an integral part in day-to-day lives of every individual. Acting as a human companion, the humanoids understand the human interactions and social behaviour of the people. Robotic engineers and programme builders have discussed the positive impacts about the assistive robots serving humans in various sectors like performing surgeries, rescuing humans from hazardous environments and providing companionship to the elderly and isolated. Nevertheless, the robotic advancements come with significant challenges which include automaton replacing human workers, ethical concerns regarding machine autonomy, data privacy issues and fear about over-reliance on artificial intelligence systems.

The Human-Robot Interaction shows that, in near future, the social conversational agents will not be limited to just being an assistant but resembles like the medical care android in the story "Today I am Paul". The robot narrator in the story exposes the positive outcomes to the social world. The robot has the ability to undertake physical tasks, assists the user, provides inputs and even shares insights to change Mildred's life and her family members. It shapes Mildred's life by switching up social roles as a care taker, tutor, mentor and as a memory keeper, screening exact information, synthesising Paul's voice by engaging in emotionally charged dialogue, exhibiting purposeful physical behaviours, responding to psychological cues and a step ahead, being a proactive aide. Beyond the benefits and risks that emerge in the field of robotics, Martin L. Shoemaker's humanoid narrator adds more value to the social life and its users, acting as a legitimate social actor.

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