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Promises and perils of robot-mediated elder care: human-robot relationship in *Android Kunjappan Version 5.25* (2019) and *Anukul* (2017)- SDG -3

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Utilizing robots as caregivers or companions instead of humans is a scenario that raised significant moral and ethical concerns, that can be assessed from the ambit of health humanities. Under the norm of 'care', the human caregiver has a heavily naturalized and paramount role to play. However, what would happen if these roles were taken up by robots? This study explores the rare phenomena of utilizing robotic caregivers for the elderly in two Indian films, *Android Kunjappan Version 5.25* and *Anukul*, through the lens of the health humanities. It examines how these films, as cultural texts, reflect and shape societal attitudes towards aging, caregiving, and human-robot interactions in the context of India. The potential of films as a source for nuanced depictions of aging has been severely understudied in academia. This research seeks to bridge this gap by assessing the technological mediation of caregiving depicted in the selected films and the ethical implications that arise from this. It mainly employs film analysis as its methodology, scrutinizes scenes and themes, and focuses on the roles of these robots as caregivers and companions. Additionally, it explores the ethical implications that arise from utilizing robots in elderly care in the context of the selected films. Overall, this study contributes to the field of health humanities and film studies by offering insights into the cultural representations of aging and technological care and their potential impact on societal attitudes and policy decisions.

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Introduction

Society often overlooks the natural process of aging. We need to develop a more comprehensive understanding of older adults' needs. Aging involves more than just physical changes—it affects how seniors are perceived and treated in communities. Unfortunately, elder mistreatment, including both physical and emotional aspects, remains a concern in various settings. Research shows that cultural factors significantly influence how we view aging (Gullette, 2015). Gullette underscores the profound impact that societal attitudes and perceptions can have on the experience of ageing. Ageism is a pervasive issue affecting older adults across various cultural and societal contexts, with significant implications for their wellbeing. Through stereotypes, prejudice, and discrimination, ageism manifests across a diverse spectrum of age groups, ultimately deteriorating the health and well-being of older adults (Allen et al., 2022; Chrisler et al., 2016; Nyangena, 2023; Xu et al., 2022). Ageism subsequently leads to elder abuse, a pressing concern in numerous countries. Even in South Asian countries, where intergenerational relationships are perceived to be emotionally robust, the incidence of elder abuse is increasing. Nevertheless, simply framing elders as victims alone cannot offer any solution to this problem. This approach may overlook the intricate interplay of societal, cultural, and individual factors that contribute to elder mistreatment (Enguidanos et al., 2012).

Cultural representations offer a possible way to comprehend problems in order to address and improve the condition of such ignored sections of the society. Cultural representations also offer a sense of resistance. Cinema, in particular, is one such medium that acts as a powerful vehicle of resistance, has the potential to influence societal attitudes, and plays a significant role in combating ageism. Films provide a lens through which one can understand how medicine embodies broader cultural ideals, beliefs, and practices (Servitje, 2019). Film, as a medium, offers a rich tapestry for exploring the complexities of human health and the ageing process, providing a visual and narrative space to engage with these themes critically (Medina Bañón, Zecchi (2020)). The integration of feminist film theory and ageing studies, for instance, challenges ageism within visual culture and proposes new affirmative ways of viewing ageing bodies, moving beyond binary narratives of decline or success (Medina Bañón, Zecchi (2020)). Ng et al. (2023), suggests that films can counteract negative stereotypes and contribute to a more nuanced understanding of ageing by presenting older adults with diverse and complex roles. Positive portrayals of the aged in cinema can help to showcase their varied experiences and subsequently quell myths about their lives. Despite criticisms that cinema sometimes reinforces ageist stereotypes, it can offer itself as a platform to enable changes in perceptions. Interestingly, while film studies contribute to the health humanities by offering insights into the representation and experience of ageing, and cultural gerontology has widened the theoretical scope of ageing studies, there is a notable lack of interdisciplinary collaboration within the broader field of medical/health humanities and cultural gerontology (O'Neill, 2021). This suggests a potential for greater integration between these disciplines.

Caregiving, which includes assistance with daily activities, medical care, and various support tasks, is central to the wellbeing of older adults (Pei et al., 2017; Parmar et al., 2018). This process is primarily carried out within the family and domestic sphere and can create significant stress for caregivers, especially when balancing employment and caregiving responsibilities (Anastas et al., 1990). Common challenges for caregivers include financial burdens, insufficient access to respite care, difficulty navigating available services, and lack of knowledge about care provision (Strommen et al., 2018). Health humanities—a field grounded in

understanding the quality of life for the elderly—addresses key challenges in eldercare by connecting medical, social, spatial, and relational aspects of caregiving (Yantzi and Skinner, 2009). By focusing on interdisciplinary approaches, Health humanities can help bridge the gap between technological advancements (like AI and humanoids) and the human elements of care, promoting a patient-centered, holistic approach to healthcare delivery while recognizing that technologies, though designed to increase efficiency, may also introduce fragmentation and risks (Frennert and Östlund, 2018; Gordon, 2005; Jones et al., 2015). Cultural representations—especially through film—provide a powerful medium to explore and critique these complexities in caregiving, illuminating both societal attitudes and the lived experiences of the elderly and their caretakers.

Indian cinema has made significant contributions to exploration of the nuances of ageing through various notable works. Films like *36 Chowringhee Lane* (1982) and *Thinkalazcha Nalla Divasam* (1987) sensitively portray the social isolation and loneliness experienced by ageing protagonists in urban settings. *Saaransh* (1984) and *Piravi* (1989) explore the emotional complexities of intergenerational relationships in later life. *Manassinakkare* (2007) and *Pranayam* (2012) illustrate the nuances of love and companionship in old age, often challenging societal norms. Some films examine the tensions between traditional values and modernization through the lens of ageing characters. *Jalsaghar* (1958) presents a poignant portrayal of an ageing zamindar clinging to his cultural heritage in a changing world. *Victoria No. 203* (1972) and *Atanka* (1986) offer unique perspectives on how elderly individuals react to societal changes. Films like *Astu* (2016) tackle the sensitive subject of dementia and its impact on families, highlighting the health challenges that can accompany ageing. More recently, films have begun to explore the intersection of technology and ageing. *Android Kunjappan Version 5.25* (2019) presents an innovative take on how artificial intelligence might interact with and impact the lives of the elderly.

Despite the rich exploration of ageing, age-related issues, and ageism in these diverse Indian films, it is noteworthy that they have largely evaded academic scrutiny. This oversight represents a significant gap in both film studies and health humanities. The cinematic portrayal of ageing in the Indian context offers a unique lens through which to examine societal attitudes, cultural shifts, health-related challenges and caregiving associated with growing older.

The lack of scholarly attention to these cultural texts is particularly striking given their potential to inform our understanding of how ageing is perceived and experienced in Indian society. Films can be avenues that hold the power to influence the motivation of viewers, stereotypes, values, and representations of reality, especially when it comes to treating older adults (Kubrak, 2020). By neglecting this body of work, academia misses out on valuable insights into the intersection of culture, health, and ageing in one of the world's largest and most diverse populations.

In the current sociocultural environment in India, where elders are being increasingly abandoned by younger generations, the prospect of utilizing robots as caregivers cannot be deemed a distant phenomenon. Robotic solutions for elderly care that aim to address caregiver shortages and rising healthcare expenses are an area of research worldwide (Vercelli et al., 2018). In India, studies have been conducted to determine the practicality of using robots for social engagement in elderly care (Natarajan et al., 2019). In addition, the different roles a robot can take as a caregiver, companion, health monitor, etc., while being capable of improving physiological, cognitive, and emotional health among patients (Zhang et al., 2024), also makes the scenarios in which

they are utilized suitable for analysis from multiple perspectives. A in-depth review in Indian cinema along these lines mainly pointed towards two films: *Android Kunjappan Version 5.25* (2019) and *Anukul* (2017).

This paper seeks to address the research gap in analyzing Indian cinema from the prism of ageing and health humanities, by bringing these select cinematic works into academic focus. By analysing these films through this dual lens, we aim to uncover nuanced perspectives on ageing in the Indian context. This interdisciplinary approach has the potential to enrich both fields, offering new pathways for understanding the complexities of ageing as represented in popular culture and its implications for health and social policies. In doing so, this study not only contributes to the growing field of age studies but also opens new avenues for research in film studies and health humanities. It underscores the importance of cultural texts in shaping and reflecting societal attitudes towards ageing, and highlights the need for more comprehensive, culturally specific approaches to studying ageing and ageism.

Methodology

The study primarily employs film analysis as its main methodological approach. Sequences and scenes from the films are scrutinized through the lens of health humanities. The thematic connection between both films, where a robot is assigned the role of caregiver, is the main foundation for analysis. Subsequently, the paper delves into the capacities of these robots to impart care and companionship to the main human characters. The progression of their companionship and how deeply they formulate a bond with the elders they take care of are also explored. A general discussion of the ethical issues that arise in the technological mediation of care in geriatrics and the specific ethical issues portrayed within the selected films are also discussed.

Theoretical framework

This study draws upon concepts from health humanities to analyze the complex human-robot interaction in the context of elder care. Additionally, it draws upon ethical implications that are commonly identified as key factors in the context of human-robot interaction. Some of the basic concepts used in this research are the idea of care and the role of the caregiver in the context of geriatric care. The idea of care encompasses not only the physical aspects of caregiving but also the emotional, social, and ethical dimensions of support for older adults. In a geriatric context, this means considering the individuality of older adults, amplifying their autonomy and choice, nurturing their relationships, and creating a collectively supportive environment. The role of the caregiver can be considered a complex interplay of personal, social, and cultural factors. The same dimensions of care as a process are applicable to the caregiver whose emotional challenges, ethical dilemmas, and societal expectations are huge, especially in the socio-political context of a country like India. As the role of the caregiver is replaced by a robot in the selected films, it creates a peculiar scenario in which all the emotional aspects of caregiving are compromised. This study utilizes these concepts and attempts to address the issues that arise in this context.

To address the ethical dimensions of utilizing robots for elder care, this study identifies three major ethical implications: safety, privacy, and consent issues. Safety in the context of elder care refers to the potential life-threatening aspects of human-robot interaction. Privacy refers to how these robots influence the decision-making skills of elderly subjects. Consent as an ethical implication refers to the degree to which permission is sought from older adults before introducing robots into their lives. The

chosen films mainly address these three ethical implications to a large extent.

Technological care- AI or robotics?

A fundamental theme that connects both films is the use of robots within the domestic environment. This scenario raises many questions from the perspective of healthcare, family dynamics, and ethics. These questions are highly relevant in the sense that they prepare the wider public to be accustomed to these systems which could possibly be introduced soon. At the outset itself, both films situate their respective contexts in the idea of Artificial Intelligence. “The development of full artificial intelligence could spell the end of the human race” (Poduval, 00:03:08) - a famous quote by Stephen Hawking, imprinted on a glass, is the first shot in *Android Kunjappan*. Chowringhee Robots presents Anukul as an advanced AI model, with learning capabilities. Even though AI and robotics are used as synonymous terms in these films, in reality, both are quite distinct in terms of their meaning and functions. Though Artificial Intelligence (AI) is the broader term used for describing intelligent systems, the challenges put forward by these systems are separate. Hence, there needs to be a clear distinction between both terms before any sort of discussion about the select films.

Although interconnected, AI and robotics are clearly distinct fields. While AI primarily focuses on developing computational frameworks that exhibit intelligence and offer assistance in achieving certain goals (Hassan et al., 2022), robotics is concerned with the physical embodiment of these intelligent systems (Murphy, 2000). AI systems process information, learn patterns, make decisions, and solve problems without necessarily having a physical form. They operate in digital environments, handling tasks like language processing, image recognition, and strategic decision-making. Their intelligence is software-based, designed to mimic or supplement human cognitive functions. Robotics deals with machines that interact with the physical world through sensors, actuators, and mechanical components. Robots are engineered to manipulate objects, navigate physical spaces, and perform tangible tasks. Their primary concern is physical interaction and environmental manipulation rather than cognitive processes.

Robots can operate without artificial intelligence, functioning through pre-programmed routines and mechanical designs. However, AI can enhance their sensing, navigation, and planning capabilities (Murphy, 2000; Bogue, 2014), allowing robots to adapt to changing environments and perform more complex tasks autonomously.

Despite their close relationship and frequent integration they are semantically distinct concepts with varying regulatory and ethical implications (Begishev, 2021). AI raises questions about decision-making transparency and potential bias, while robotics introduces concerns about physical safety, job displacement, and human-machine interaction in shared spaces. These different domains require tailored approaches to development, implementation, and governance.

The robots in the select films can be further distinguished into android and humanoid. As the title suggests, *Kunjappan* is an android, a mini robot equipped with many functions for caregiving. *Anukul*, on the other hand is a humanoid, that is very hard to distinguish from a human. According to Huroshi Ishiguro, when people interact with android robot that possess human-like and animate characteristics, they react as if it is human (Mazuz and Yamazaki, 2024). The distinction in their appearance also makes their functions different. While *Kunjappan* is enabled with latest forms of technology, which makes life relatively smoother for Poduval, *Anukul* acts as a human

companion to Nikunj. Kunjappan is able to do health checkups, differentiate between household objects, cook, clean, etc., which shows that it is a robot with advance AI abilities. Anukul is also able to do these in a more human-like manner, again showcasing how advanced AI is conceptualized in its physical manifestations.

Representation of technology in cinema has significantly influenced public perception regarding robotic technologies. The evolution of portrayals of robots in films has both reflected and influenced societal attitudes towards this emerging technology. Initially, AI and robotics in films were often depicted as antagonists or deadly weapons, shaping public fear about the potential dangers of AI (Datta and Goswami, 2020). However, with the advent of CGI in the 2000s, AI representation in cinema became more nuanced and diverse, exploring various roles, from protagonists to romantic interests (Datta and Goswami, 2020). This shift has helped broaden public imagination of AI and robotics and their potential applications and impacts.

Shankar's *Enthiran* (2010), became the first of its kind film to properly discuss the theme of robots and AI. The film featured a robot that was invented to aid humanity towards advancement. The robot was later enabled to have consciousness, which resulted in it becoming vengeful towards humanity. This idea is taken a step further in *OK Computer* (2021), a series directed by Anand Gandhi, where robots and humans coexist in imaginary futuristic India. The underlying theme of these films is the danger that an entity called artificial intelligence poses to humanity. *Android Kunjappan Version 5.25* (2019) and *Anukul* (2017) present a particular scenario in which these dangers are identified in the context of elder care.

Robotics in elder care. The use of robotic caregivers in elderly care is a contested field in medicine and the broader idea of health. While many scholars argue that robotic caregivers can provide numerous benefits to elderly care services, addressing the various challenges faced by the ageing population and healthcare systems. Care robots can help the elderly navigate through loneliness and depression, subsequently improving their cognitive functions and quality of life (Lewis, 2014). They can perform a wide range of physical, cognitive, and social tasks to help people live healthier lives (Dankar and Badr, 2022). Specifically, robotic assistants can improve the lives of elderly individuals, ensure healthy and active ageing, and extend their life expectancy in familiar home environments (Koceska et al., 2017).

Many are also sceptical about utilizing their services in elderly care. There are limitations in their application in elder care services arising mainly from the conventional attitude towards technology, attitudes, ethics, and lack of adequate knowledge and skills associated with care robots (Dankar and Badr, 2022; Johansson-Pajala and Gustafsson, 2020). However, the overall outlook towards interacting with care robots in general is predominantly positive, but the main issue concerning humanized robots is regarding the aspect of emotions (Johansson-Pajala et al., 2022).

Kunjappan and Anukul as caregivers. The concept of care and caregiving in health humanities encompasses an approach to healthcare that integrates clinical practice with humanistic perspectives. It emphasizes cultivating empathy, resilience, and self-reflection among health professionals. Care is viewed as a fundamental human quality, often inversely correlated with professional status, with families and patients being the true experts. The health humanities challenge the traditional divide between scientific objectivity and cultural subjectivity, proposing a more radical approach that acknowledges the body as a complex bio-cultural entity and care giving as an engaged, dynamic and ever-

evolving process. Care is also understood as a moral-emotional responsibility, with "care-as-worry" being a significant dimension often overlooked in health science literature.

Caregiving as a practice can occur in both the clinical and domestic settings. In a medical setting, doctors and nurses typically handle the practice as caregivers of patients. In terms of elder care or geriatrics, this practice of caregiving has a very high chance of being extended to the domestic setting. The support offered by family members towards elders includes emotional support and decision-making (Demiris and Hirschman, 2020). In health humanities, these aspects are given more prominence as they value health as more than just medicine (Klugman, Lamb (2019)). Ageing and caregiving broaden the field's horizons into the social unit of family and attempt to study the wider idea of health in terms of diverse socio-cultural contexts.

Some of the major questions the study attempts to answer are: How are these robots perceived by the elderly? Do they impact Poduval and Nikunj's present conditions positively or negatively? What is the degree to which they influence the central characters?

Perceived as companions. To answer the question of perception, it is important to understand what elders seek in their late age in terms of caregiving and companionship. Preserving the dignity of an individual is a major principle in caregiving (Anderberg, Lepp et al., 2007). In the geriatric context, dignity can be defined as the ability of patients to live in semblance with their standards and values with no transgression from caregivers (Barclay, 2016). Respect and individuality are closely related. Poduval in *Android Kunjappan Version 5.25*, and Nikunj in *Anukul* seek different things in terms of dignity, respect, and individuality. Poduval seeks the physical presence of his son to provide care and companionship. As an aged patriarchal male in Kerala, Subrahmanian (Chuppan) is the only person in his life who can provide these to his satisfaction. He wants his son to be around him to live his life as a dignified and respected individual in the society that he is part of. Poduval perceives Kunjappan as a direct replacement for Chuppan. The loss of individuality and identity when Chuppan left was regained by Poduval through Kunjappan.

The cultural model of intergenerational reciprocity is pertinent to the sociocultural context in which Poduval lives. It is a cultural model followed across Asia, where the responsibility for elder care falls on the shoulders of the younger generation, in return for the tremendous sacrifice their parents have made in raising them (Lamb, 2015). Poduval's insistence on Chuppan staying close to him is fundamentally because of the invisible existence of this cultural model in Kerala, where it has become heavily normalized. He bluntly asks Chuppan, "What about me?" (Poduval, 00:16:26) when he informs Poduval that he had received an offer from Japan. The question is posed in a rhetorical sense in the film and can also be interpreted as representative of the anxiety faced by many elders across Kerala. A similar tone can be read from another dialogue to Chuppan- "Find a job here itself that lets you come home by night" (Poduval, 00:09:41).

Subrahmanian took the liberty of bringing the robot to Poduval. Hence, the individuality and identity that Poduval enjoyed were compromised by the introduction of Kunjappan. He explicitly tells Subrahmanian that a metal piece cannot replace what he has lost. However, initial aversion later paved the way for the growth of a warm relationship. The song "Shilayude" comprises sequences that establish a strong bond between Poduval and the robot. It was carefully crafted to showcase the robot's abilities. The shots are of Kunjappan cooking, cleaning, helping Poduval walk, etc., suggestive of the different ways a caregiver can help an elderly person. From Poduval's perspective, these are things that should have been done by Subrahmanian.

The song was placed after an injury to Poduval, when Chuppan was unable to communicate with his father. Poduval was shown to be deeply emotional because of this negligence. The help Kunjappan offered afterwards made Poduval closer to the robot.

Nikunj in *Anukul* is not portrayed as having an emotional connection with the robot like Poduval. The urban background of Kolkata contrasts with the experience of ageing between the two characters. Although old, Nikunj was portrayed as part of a professional environment as an experienced teacher. He maintains a dignified and respected identity with the freedom to exercise his individuality. He has the autonomy to live a life without family. Apart from Ratan and the reference to an uncle living far away, no other information was provided regarding the other family members of Nikunj. This loneliness might have prompted Nikunj to purchase *Anukul* from Chowringhee Robots. In contrast to Poduval, Nikunj asserted his individuality by buying *Anukul*. This is a conscious decision.

Within a limited timeframe, the narrative establishes the importance of *Anukul* for Nikunj. He is showcased as being highly impressed by *Anukul*'s abilities. As a humanoid robot, the robotic features of *Anukul* are not openly visible and are similar to those of Kunjappan. Thus, the usual awareness that one has towards robots itself is waived off in the case of *Anukul*. It was only after the introduction of Ratan that the audience became slightly more aware that *Anukul* was a robot. Ratan attacks *Anukul*, as he is insecure about his future in a world that employs robots rather than humans. A portion of *Anukul*'s head fell off, and his mechanized parts were visible for a while.

There is no proof of the existence of a father-son bond between *Anukul* and Nikunj. However, the events towards the end of the narrative are suggestive of the amount of trust Nikunj has in *Anukul*. The electrocution of Ratan by *Anukul* raises significant questions in both the narrative of the film and in general. When Nikunj looks at *Anukul* in the last shot of the film, he returns a knowing smile, suggesting a sense of loyalty to Nikunj. However, in the context of caregiving, their bonds have become cemented through *Anukul*'s actions.

Ambivalent impact- the question of trust and influence. The impact of robots on elderly care appears to be increasingly positive, with potential benefits for both caregivers and elderly individuals. However, successful implementation requires careful consideration of ethical issues, stakeholder involvement, and alignment with care-work values. *Android Kunjappan Version 5.25* and *Anukul* are far ahead in thinking compared to how far robotic technology is currently being utilized in the country. They position themselves as advanced in their storytelling to present their scenarios to the wider public to elicit discussions. However, the position they take towards the robots can ultimately be interpreted as ambivalent. In the context of interaction between emotional and programmed minds, things can go wrong, says Deepa Soman (2019). Even though both films present robots as a form of scientific curiosity, they refrain from fully committing to a robotic future by portraying the potential downsides.

Trust in robots is a significant factor in their acceptance (Erebak and Turgut, 2018), and a user-centered approach is necessary to ensure that robotic technology meets the real needs of older persons and professional caregivers (Johansson-Pajala and Gustafsson, 2020). The amount of trust placed by Poduval in Kunjappan is important for understanding the influence of the robot on his life. In the absence of Chuppan, Poduval develops a fatherly bond with Kunjappan. When authorities take away Kunjappan, citing legal issues, Poduval creates a huge scene as if they have taken away his own child. The emotional

pain he experiences around that time is evident of how influential the robot has become on Poduval. Another influence that showcases the influence of the robot is the climax of the film when Poduval attempts to leave home with Kunjappan. Subrahmanian's attempt to take the robot back to his company prompted Poduval to take such a drastic step, showcasing that Kunjappan has become more influential in his life than Chuppan. In *Anukul*, the climax sequence stands as evident for the amount of trust Nikunj has in *Anukul*. Even though the film ends with more questions than answers, the smile Nikunj gives *Anukul* is evident from the fact that he is happy with how things ended up. He becomes the sole heir of all assets of his uncle.

The protagonists of both films are elderly Indian men of different ages. Poduval can be understood as the oldest and one who needs more care. Both men were shown to be capable individuals. But their experiences are diverse in relation to the socio-cultural space that they are part of. In the absence of other family members, Poduval performs all household activities and insists that no one else should do it for him. This is highly uncommon in the conventional setup of Kerala. However, in terms of caregiving, he was a traditionalist at the heart, who later accepted a modern entity into his life. Even though the robot is presented as gender neutral, Poduval and the villages assign a male identity for it.

Nikunj is part of an urban society, which enables him the purchasing power to have a robot at his disposal. In contrast to Poduval, Nikunj acts as a teacher or mentor towards *Anukul*, who is keen to learn and adapt to his environment. His interest in learning is solidified in the following sequence. There occurs a conversation between Nikunj and *Anukul* about conscience in the context of *The Gita*.

Nikunj: How can he die? He is a god.

Anukul: Even I cannot die.

(Confused laughter by Nikunj)

Nikunj: No....These are two separate matters. Tell me, what do you not understand in the *Gita*.

Anukul: Sir, Lord Krishna asking Arjun to kill his own brothers. Isn't that wrong?

Nikunj: No. *Anukul*, you are making the same mistake as all my students do. The Lord is not asking Arjun to kill anyone. He is asking Arjun to do his duty. And in life. Nothing is more important than duty. What is Arjun's duty? To fight!

Anukul: Even with his own?

Nikunj: Yes of course. Because what is the duty of his own people? To fight Arjun.

Anukul: But what about one's duty as a brother?

(Nikunj is confused again.)

Nikunj: See...duty changes with circumstances. For example, when I am in school,

what is my duty? To teach students. But when I am home, my duty changes. My duty

is to maintain the house and pay bills.

Anukul: My duty is to look after you.

Nikunj: Yes.

Anukul: But if the two warriors' duties are the same, then how can one decide who is right and wrong?

Nikunj: This depends on which side of justice you are on. Are you on the right or wrong side?

Anukul: And what decides what is right?

(Nikunj smiles, taps his heart.)

Nikunj: Dilse (Your Conscience).

(*Anukul* imitates his master).

(Ghosh, 2017, 00:10:43)

The accelerating music that accompanies this scene falls into crescendo towards the end when Nikunj says ‘Dil Se.’ This sequence becomes more important after Anukul electrocutes Ratan. It leaves the audience with more questions about the robot and the safety of Nikunj, than answers. What prompted the humanoid to electrocute Ratan? Was he acting on his own will? Or was he applying the principle of duty he learned through Nikunj? If so, who is more dangerous, the humanoid or the human? Will he electrocute Nikunj too?

As attitudes continue to evolve and technology improves, robots have the potential to become valuable tools for enhancing elder care services while supporting, rather than replacing, human caregivers. Ethical concerns persist, including potential reduction in human contact, loss of privacy, and issues of control and autonomy in elderly individuals (Sharkey and Sharkey, 2010). Additionally, the adoption of robotic technology in elder care remains slow owing to various factors, including technical limitations and socio-institutional inertia (Pekkarinen et al., 2020).

Ethical implications

Films such as *Android Kunjappan* and *Anukul* offer a nuanced exploration of human-robot interaction in the particular context of geriatrics. Even though these films eschew any kind of technical or scientifically driven analysis of the use of these robots in a particular context, they prioritize the ethical, philosophical, and emotional questions that arise through this human-robot interaction. Since the subjects of the chosen films are elderly individuals from diverse spectrums of ageing, they showcase a highly imbalanced power equation between a vulnerable category of population and an all-powerful artificial being.

Sabanovic et al. (2023) posits ten prominent questions for robotic developers that can be crucial in developing human-friendly robots. Some of these questions are highly relevant in relation to geriatric care. What are the limitations of the robot: “What can it not do?”, “What are the potential negative consequences of the robot?” “What structures are to be put in place to be guarded against the consequences and by whom?”, “How have you protected the users against the potential harms of the robot?”, “How and to what degree do you make the capabilities, limitations, potential consequences, and biases of robots transparent to specific audiences?”. These questions offer an ethical perspective that can address many issues that commonly arise in human-robot interaction. Although each question is put forward differently, they address the ethical side of human-robot interaction in a common manner.

Safety as an ethical implication. Anthropological research suggests that when people engage with an android robot that possesses human-like and animal characteristics, they react and behave as if it is human (Mazuz and Yamazaki, 2024). The process of making sense involves varying reactions of verbal and non-verbal, subconscious and unconscious- such as curiosity, wonder, laughter, disgust, and fear- in their effort to rationalize what they already know, feel or do not know (as some reactions are uncertain and unexpected).

The potential inability of robots to process human commands accurately with the same intended emotional weight is a common factor addressed in both films. There is a heavy emotional weight in the human-to-human caregiving process. The emotional aspects of caregiving are central to understanding caregivers’ experiences and outcomes. Gérain and Zech (2019) proposed adapting the concept of burnout to informal caregiving, emphasizing emotional exhaustion as a key dimension. This

framework highlights the importance of caregivers’ appraisal of their situation and relationship with the care recipient, thus underscoring the emotional component of caregiving (Gérain and Zech, 2019). Similarly, Son et al. (2007) demonstrated that both objective and subjective stressors, including caregivers’ feelings of overload, significantly impacted caregiver health across multiple dimensions (Son et al., 2007).

Many emotional elements such as humor, sarcasm, satire, jest, and figurative language are complex aspects that rely heavily on context, tone, and shared cultural understanding. All these elements are portrayed as difficult for robotic systems to correctly interpret. Both films presented this aspect in life-threatening situations that compromised the safety of the subjects. In *Android Kunjappan*, a particularly tense moment occurs when Poduval jokingly tells Kunjappan, the robot, to “wipe faster and kill me.”

Poduval: Slow Down.

Kunjappan: If I wiped your hair slowly, it would not dry.

Poduval(Jokingly): Then, you wipe faster and kill me.

(Kunjappan pauses for a moment and thinks about it. Ominous music is played in the background.)

Kunjappan: Wrong Command.

(Poduval, 2019, 01:18:25)

The pause in Kunjappan’s response of “Wrong Command” underscores the dangerous potential for literal interpretation of figurative language. This scene echoes an earlier incident in the film, where a similar misunderstanding leads to fatality, highlighting the persistent risk of such miscommunications. Kunjappan’s misinterpretation of Poduval’s figurative language demonstrates the vulnerability of elderly patients to potential harm due to AI limitations. This scenario raises questions about the extent to which we can trust AI to make critical decisions in caregiving situations, especially when dealing with vulnerable populations that may have difficulty expressing themselves clearly.

Anukul presented the risk factor more explicitly from the outset. The film introduces the idea that a robot can electrocute people if it feels threatened, creating an underlying tension throughout the narrative. This anxiety is realized at the end of the narrative when Anukul finally electrocutes Ratan, demonstrating the potential dangers of AI decision-making in high-stake situations. This plot element highlights the potential power imbalance between robotic caregivers and their human charges. This raises ethical questions about the appropriateness of equipping care robots with self-defense mechanisms that could potentially be used against the very people they are meant to protect.

Consent. The issue of consent is closely tied to ethical concerns regarding the use of robots in elderly care. Sharkey and Sharkey (2010) outlines six main ethical concerns, including “an increase in the feelings of objectification and loss of control” and “a loss of privacy.” These concerns directly relate to the importance of obtaining informed consent from elderly individuals before introducing robotic caregivers to their lives. The paper emphasizes that robots should be introduced “with foresight and careful guidelines” to ensure they improve the lives of the elderly while respecting their autonomy (Sharkey and Sharkey, 2010). Taking prior consent from the elderly subject is completely neglected in the case of Poduval. It can be argued that Chuppan imposes the robot into Poduval’s life without even bothering to ask him. When Chuppan suddenly comes home, Poduval was under the impression that he came back for good, and won’t leave again. At the introduction of the robot, Poduval was visibly disappointed at Chuppan and lashes out at him - “A piece of metal cannot provide the peace I wish for in my life”. This dialogue prompts a

response from Chuppan regarding how selfish his father is. He leaves the next day leaving the robot behind. In *Anukul*, Nikunj purchases the humanoid by his own choice. Consent in the case of *Anukul* is breached in a more dangerous manner. By electrocuting Ratan, *Anukul* exhibits complex traits that are potentially dangerous for Nikunj as well. The fact that a robot can react violently to any action makes Nikunj's life in danger.

As the natural caregiver to his father, it was the guilt inside Chuppan that prompted him to introduce the robot to his father. The intention was pure from his part. He feels that the robot can protect Poduval from danger, and alleviates his guilt this way. In *Anukul*, no kind of consensus building is showcased to suggest any type of consent being obtained from people. The robot is a novelty, produced to be made use of. This disparity highlights the need for a nuanced approach to obtaining consent, taking into account the varying perspectives and needs of different stakeholders.

Privacy. A holistic approach to privacy is necessary, encompassing informational, physical, social, and psychological dimensions (Grabler and Koeszegi, 2024). This nature of privacy aligns with the health humanities' focus on the human experience of healthcare. Privacy concerns in robot-assisted caregiving include data privacy, trust, and transparency issues. The human-robot relationship raises questions about personal and non-personal data handling, which are critical in maintaining the dignity and autonomy of elderly patients (Chatzimichali et al., 2020). The select films do not offer any insights into the aspect of data privacy. They are more aligned towards showcasing the situational complexities involved in maintaining an effective human-robot interaction with insistence on the issues of trust and transparency.

Allen et al. (2006) put forward the skeptical stance that it is deceptive to believe that robots are able to detect basic human gestures and respond to human-like social cues. The relationships that form between elders and pets (in this case, robots) stem from a mistaken belief of perceiving the robot as a real being and requires a form of sentimentality that is morally deplorable (Sparrow, 2002). Among the two films, the character of Poduval has the most misconceptions regarding the robot in his life. Poduval's affection towards Kunjappan is aggravated because of the absence of Chuppan. The timely intervention of Kunjappan as a caregiver at an emotionally challenging time period prompts Poduval to perceive the robot as his own child. Even though Kunjappan mentions his limitations as a robot many times to Poduval, he remains ignorant. In *Anukul*, the driving factor for Nikunj to purchase *Anukul* was the curiosity in occupying a humanoid robot as his caregiver. In many sequences, Nikunj is showcased as at awe at the abilities of *Anukul*, and at the fact that he is highly indistinguishable from a human. Even though *Anukul* has highly advanced capabilities, his own limitations are showcased through the sequence where he discusses the Gita with Nikunj. There are two perceptions at work here. One is the Nikunj's anthropomorphic perception of *Anukul* as a human. The second is *Anukul*'s perception of Nikunj as a human source of learning. The potential danger of having a caregiver like *Anukul* is exhibited evidently in the electrocution of Ratan. But Nikunj chooses to ignore this danger, and embraces his new companion into his life. Hence, the kind of love and trust that Poduval and Nikunj shows towards their respective robot companions in their life can be interpreted as deceptive.

Conclusion

The steady increase in the elderly population in India points to increasing interest in assistive technologies, including robots (Hegde et al., 2024; Natarajan et al., 2019). However, there is

increasing scepticism among elderly individuals regarding the utilization of these robots (Hegde et al., 2024; Natarajan et al., 2019). The development of social assistive robots (SAR) is a process that requires careful consideration of ethical principles (Espingardeiro, 2014). There is a lack of regulatory frameworks within the country for dictating and regulating the use of robots in diverse fields. The only official document that is remotely connected to the purpose is NITI Aayog's discussion paper on the National Strategy for Artificial Intelligence, where five focus areas for AI intervention are mentioned. These are healthcare, education, agriculture, smart cities and infrastructure, and smart mobility and transportation (2018). Researchers are calling for the development of culture-specific interventions, state-run elderly care facilities, and a separate robo-ethics framework for the efficient development of SARs for the elderly (Natarajan et al., 2019; Harbishettar et al., 2021; A. Espingardeiro, 2014). Implementing robots after the development of an effective regulatory framework has significant benefits. These include reducing the workload of human caregivers, monitoring, and mobility. (Lee et al., 2018). Although these robots can assist the elderly in living independently, their successful implementation requires addressing ethical challenges through ethics by design and clinical ethics committees (Johnston, 2022).

The human-like nature ascribed to AI and robotic entities in terms of emotions, cognition, and morality is largely shaped through fiction and media coverage of AI and robotics (Bartneck, 2013). Movies tend to simplify the complicated nature of AI and robotics in a bid to familiarize themselves with technology. There may be drastic differences in terms of scientific development and what is represented on the screen. Although assistive and caregiver robots are not yet a lived reality in India, *Android Kunjappan Version 5.25* and *Anukul* present the scenario as a possibility in the near future. *Android Kunjappan* can be argued to be taking a more firm stand in demanding a human hand within robot-assisted caregiving. *Anukul* is more sceptical of its narrative, where it perceives the situation as already out of grasp for any kind of intervention. However, in a general sense, both films are aligned under the idea of a need to regulate technology. Both underline the idea that more precautions are necessary before imparting technology to critical areas such as healthcare, especially eldercare.

Data availability

No datasets were generated or analysed during the current study.

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Informed consent

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