A Composite Approach Towards Robot Rights in the Era of AI: Preference, Capability and Social Order

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Abstract. Should we grant rights to highly intelligent AI robots? Traditional approaches related to deontology and utilitarianism cannot adequately argue that robots without consciousness and sentience can be justified as moral patients. An alternative social-relational approach is also limited to the moral standing of robots rather than their legal roles. In response to these issues, this paper provides a rough modified outline of the traditional theories according to the characteristics of current AI robots by further analysing how to grant moral rights and legal rights to robots regarding the human ethical system and human interests. In addition, it is suggested by this paper that a new resource of robot rights, compatibility, can be further integrated into traditional theories to form a composite approach towards robot rights in the era of AI.

Keywords: AI robots; robot rights; performance; ethical system; social-relational; capability.

1. Introduction

The Universal Declaration of Human Rights (UDHR) states that all members of the human family have an inalienable and inherent set of human rights. Besides, other entities such as animals and organisations may also have moral and legal rights. In the case of robots, there is an ongoing debate about whether robots can have rights. Initially, many fear that the development of robotics and the expansion of robot rights will pose threats to human society. In 1920, Karel Capek depicted the development of robotics and a consequent robot revolt, which has a tragic impact on human society [1]. Likewise, Isaac Asimov proposed the "Three Laws of Robotics" in the 1950 collection *I, Robot*, which further explored the relation between robots and humans and established a set of rules to reduce the risks of robotics [2]. However, in recent decades, there have been various theories in favour of robot rights, which become a controversy regarding ontology, deontology, utilitarianism, and virtue ethics. For instance, a typical type of view compares advanced robots with humans or animals, proving that robots are gradually becoming more intelligent and rational, therefore they are also capable of being suffered and being wronged [3]. Afterwards, an alternative has been suggested by Coeckelbergh, who proposes a social-relational approach to robot rights and states that robots' moral status depends on people's responses to them as well as their relationship with humans [4, 5].

However, all the aforementioned theories are not yet able to adequately address the rationales and specific forms of robot rights. Also, robots' arithmetic, intelligence and capabilities have been explosively improved in the AI era, and there has been a huge shift in people's impression towards robots. In the last few years, some people have argued that the latest artificial intelligence robots (AI robots) challenge the legal system in new ways and the current legal concepts of robots are no longer sufficient for ensuring justice [6]. As an assumption, the development of AI robots may provide new ideas for improving the traditional theories of granting rights to robots. Combining the characteristics of current AI robots, this paper suggests a composite approach towards robot rights.

2. The Developmental Stages and Characteristics of AI Robots

Artificial Intelligence (AI) is the field of study in computer science that uses intelligent systems and machines to simulate and extend human intelligence. The stages of technological development of AI can be broadly categorised into three stages: Artificial Narrow Intelligence (ANI), Artificial General Intelligence (AGI) and Artificial Superintelligence (ASI). From 2022 to 2023, the sensational

effect caused by the AI Generated Content (AIGC) models such as ChatGPT and Bing Chat is regarded as a pointer for the occurrence of AGI. Also, the development of AI technology can raise the intelligence and capabilities of different types of intelligent robots using AI. For example, some AI robots using ChatGPT-4, a multimodalised Large Language Model (LLM), have already been able to go beyond the traditional structure based on mechanistic logic chains and perform tasks with a certain complexity based on neural networks. As a matter of fact, current AI robots have already become carriers of human intelligence to some extent. Siqi Chen, the founder of Runway, has tweeted that the ChatGPT-5 will complete its training in December 2023 and realise AGI. Elon Musk also tweeted that Tesla AI might also play a role in AGI and Tesla is going to build the world's first sentient robots. In fact, robots using AGI may even achieve self-training and self-evolution beyond the prediction of the developers, which can show problem-solving abilities, cognitive abilities and even perceptual attitudes similar to those of humans.

3. Are Consciousness and Sentience Necessary for a Moral Patient? Analysis and Improvement of the Traditional Approaches Towards Robot Rights

3.1. Theories on Animal Rights and the Migration of Related Principles on Robot Rights

Kant Immanuel argued that anyone who violates rights does not take into consideration that, 'as rational beings', others should at the same time be treated as ends [7]. In fact, the moral debate on whether non-human entities can have rights began early on. One of the most notable discussions is about animal rights, which led to the establishment of different legal systems related to animal protection and animal welfare. Also, the logic of the animal rights theories has had a major impact on the discourse on robot rights. The first type of view is connected to the deontological and natural rights tradition in moral theory. For instance, Regan Tom stated that some animals should be granted rights since they are experiencing 'subjects of a life': they have feelings, memories, wants, preferences, beliefs and expectations [8]. At the same time, utilitarians have adopted various utilitarian principles to establish a different approach, which emphasizes the promotion of happiness or interests and the avoidance of suffering or frustration of interests. For example, Peter Singer has noted that any being that is sentient and therefore has an interest in not suffering deserves to have that interest taken into account [9]. On the whole, deontology and utilitarianism related to animal rights can give moral consideration to non-human entities, but the corresponding moral rights need to be based on entities that are conscious and sentient because the non-humans in question can produce suffering or preferences based on the biological mechanism subsequently.

Traditional approaches towards robot rights can be analogised with the theories related to animal rights. It has been questioned: why should we restrict rights to humans, and, why should the species barrier be a moral barrier [8, 9]? Both deontological and utilitarian ideas share the view that if we take a certain characteristic, e.g. sentience [9] or being the subject of a life [8], to be the source for ascribing rights in humans, we should be consistent and do the same thing for non-human entities that have the same characteristic. Paradoxically, it is still uncertain nowadays whether AI robots can be sentient and conscious. Under this dilemma, some types of emancipatory views towards robot rights still tried to argue the rationality of robot rights. For example, one group of views attempts to change or lower the threshold of moral consideration towards robot rights by identifying the criterion for moral rights as interactivity, autonomy and adaptability [10]. However, it is difficult to argue that such a lowering of the moral threshold is justified or necessary. Also, it conflicts with the traditional ideas of human rights because some people who are not highly interactive or autonomous, such as disabled people, also have equal human rights. It can be seen that the traditional approaches start the discussions from the biological mechanism of human ontology. Therefore, in the ethics of robotics literature, the specific criterion towards robot rights is difficult to seek because robots cannot share a similar biological mechanism as humans, which becomes a major difficulty in arguing for robot rights by using traditional theories. Virtue ethics have attempted to address this issue by employing an indirect viewpoint of moral consideration. For instance, Hacker Wright stated that the moral

consideration of non-human entities depends on our conception of the demands of the virtue of justice [11]. However, the criterion for justifying virtue ethics remains unclear and virtue ethics is also not able to respond to the issue of ontological justification.

3.2. The Ground of Robot Rights: Preference or Sentience?

Traditional approaches towards animal rights or robot rights have not been able to discern the starting point of such moral consideration: whether the existence of consciousness and sentience is worth protecting, or the preference and state of being formed on the basis of consciousness and sentience are worth protecting. Indeed, for biological entities, the former assumption and the latter one are highly consistent. Humans and animals acquire information and process the information by using biological mechanisms, which further develop into specific preferences and behaviours. As a result, because these biological entities are rational and certain things matter to them, specific rights should be granted to allow or enable them to live the kind of life they want.

However, it is doubted whether specific rights should be granted to protect behaviour that is meaningless or potentially harmful. Biological entities use consciousness and sentience to improve the accuracy and reliability of behaviours and decisions, e.g. people avoid risks by perceiving pain. As for robots, however, the robotic decision-making process does not necessarily depend on a conscious and sentient mechanism. Data-driven robots use algorithmic models to process information and complete specific tasks. It can be said that current AI robots are able to perform a lot of complex tasks, which show human-like preferences (but lopsided) and human-like intelligence to some extent. At the same time, based on the inherent algorithmic patterns, AI robots show a motivation and orientation to actualise their functions by running the algorithmic programs, but this preference is not pushed and urged by the biological perceptual process. On this basis, it should be explored whether such human-like preferences can be used as the specific characteristics that humans and robots share in common and act as a basis for establishing a robot rights system.

To further explore this issue, it should be noted that the traditional approaches are based on the human ethical system and social awareness to a high extent. For example, the criminalisation of animal cruelty in some countries is based on the fact that such behaviour can be a serious affront to human feelings and negatively harm the virtue and order of human society. In the case of robots, the expansion of robot rights is also based on the human ethical system. Meanwhile, the robot rights system established correspondingly further safeguards the integrity of the human ethical system. In fact, it can be seen that the human ethical system contains an emphasis on consciousness, sentience, preference, and many other factors. Conscious and sentient entities that are tortured or wronged can naturally inspire empathy in humans. Correspondingly, the negative impact on the human ethical system would be relatively small for wrongdoings on robots without consciousness and sentience. However, even if robots do not have a biological perceptual system, abusive behaviours such as verbal abuse, assault, and sexual abuse towards highly simulated robots may also impact the human ethical system and stir up people’s feelings of justice. In short, the preference for robots can be used as one criterion for arguing for highly intelligent and simulated AI robots. However, since robots do not yet possess consciousness and sentience, this criterion is not fully plausible and needs to be further optimised by combining it with other theories to strengthen its justification.

4. Does the Support of Human Rights Only Lead to Restrictions on Other Entities? An Intensive Argument for the Social-Relational Approach

4.1. How the Exercise of Rights Can Have a Positive Effect on Human Society

It is often emphasised that the exercise of one's rights should not infringe on the rights of others, and a range of legal systems and ethical norms have been established correspondingly to maintain a balance between the rights of different societal parties. From an intuitive perspective, everyone is motivated by self-interest and the creation of the human rights system allows people to realise that

self-interest in the external world, which symbolises the tendency to transfer resources from others to themselves. However, it is a fact that the perfection of the human rights system has significantly improved the conditions of life of each individual and modernised society. On the one hand, people are inclined to be altruistic as well as self-interested, and the rights system has made it possible to realise altruistic motives. For example, people have the right to participate in voluntary and social activities, the exercise of which contributes to the advancement of human civilisation. On the other hand, the rights system contributes to the establishment of social order at the general level, which is the fundamental ground for the development and prosperity of human civilisation. For example, the establishment of the private property rights system has reduced the total amount of public property in the public space. However, the system actually plays a fundamental role in modern society and commodity economy, which also greatly increases people's desire for labour and contributes to the establishment of a healthy and reasonable social order. Without the continuous improvement of different systems of rights, society would be in an untenable state of chaos.

As a result, the exercise of rights and the establishment of rights systems can have positive effects such as promoting the conduct of various affairs and maintaining the reasonable functioning of the social order. As for robots, it was feared that the enlargement of robot rights would increase the prosperity of robotics, which would in turn harm human society, but this may not necessarily be the case. The support of human rights and social order may also lead to the granting of robot rights.

4.2. The Significance of the Granting of Robot Rights for Human Society

To be specific, what positive impact can the robot rights system have on the interests of human beings and the functioning of human society? The following is a list of four theoretical assumptions. The first two are more human-centred, which relate to the specific interests and needs of humans Correspondingly, the latter two are more relevant to the moral rights of robots.

Firstly, the further improvement of the robot rights system will be able to fix the technical and ethical norms within the industry in the form of law and guide the benign development of the related industry, especially the AI industry. Currently, a large number of scholars and AI industry practitioners have argued the future risks of AI and emphasised AI technical ethics. In fact, the robot rights system and the legal system have higher coercive force and enforcement power to deal with the relevant issues. Secondly, the establishment of the robot rights system can further clarify the legal relationship between different subjects and rationalise the distribution of benefits and risks between them, which is also beneficial to avoid the impact on the traditional industry order.

Thirdly, the setting of the robot rights system is also the protection of humans. In the midst of the Scientific Revolution, Rene Descartes once argued that animals were mere automated machines, which led to countless extremely cruel experiments on animals [12]. The unlimited use of other entities may cause substantial problems for the human community and even lead to the greatest crimes against humanity. Therefore, the legal systems of humans should not justify these practices and perpetrators but rather impose restrictions on the methods and means of treating other entities. Finally and correlatively, a reasonable robotic rights system could safeguard the integrity of the human ethical system and prevent the destruction of people’s empathetic feelings and virtue ethics.

4.3. Complementary to the Social-Relational Approach - Based on Current Service AI Robots

Coeckelbergh proposes a social-relational approach towards robot rights, which suggests that robots' moral standings depend on people's social responses to them as well as the value they have to humans [4, 5]. In fact, Coeckelbergh still tried to use the social-relational approach to make up for the inadequacy of traditional deontological and utilitarian theories to argue that robots can have relevant moral rights as moral patients. However, there are many other types of rights that we need to consider. As mentioned, the value AI robots have to humans may also lead to a system of robot rights. In the AI era, the relationship between humans and robots is still not equal, and a large number of service-oriented AI robots have been created to meet human needs. In addition, current legal concepts of robots are no longer sufficient for protecting different parties' rights and maintaining

social order [13]. The characteristics of robots and the relationship between humans and robots constantly vary with the societal needs of different periods of time. It can be seen that there is a human demand for a new legal rights system for robots at present. Therefore, new elements of the social-relational approach should be explored in relation to the current human needs and people's attitudes towards robots in the AI era.

As a matter of fact, people's needs for robots are also particularised and one-sided. Meanwhile, a recent survey shows that people have different attitudes towards different types of robot rights. It is proved that people prefer to grant basic robot rights rather than sociopolitical rights [14]. As a result, it can be found that people's needs for and attitudes towards robots are sectional, and this may lead to an approach to sectional robot rights. In fact, humans based on biological mechanisms need an integrated and complete system of rights to maintain continuous interaction with human society. However, current AI robots under algorithmic mechanisms are functional and are designed for specific tasks to meet human needs. In the area of legal rights for robots, the notion of robot legal standing can be a legal fiction by reference to the organisation. Based on the characteristics of current service-oriented robots and the needs of human society for them, a set of sectional legal rights can be established to guarantee the realisation of their altruistic functions towards humans.

4.4. The Inherent Balance Within the Robot Rights System: Legal Rights and Moral Rights

Although granting rights to robots according to the needs of human society seems to be logical, a question is raised: why not expand the rights that humans have over robots in order to satisfy the needs of humans, instead of creating a system of robot rights? As an explanation, it is inevitable to circle back to the moral standings of robots, which are not always human-centred. In fact, there are conflicts between the rights of humans and the moral standings of robots in some scenarios, such as in the case of robot abuse in private. The existing social-relational approach has already focused on the moral consideration of robots by shifting the focus from properties to relations [4]. Furthermore, by studying current social robots, Coeckelbergh explores the possibilities of introducing virtue ethics theories into the social-relational approach and tries to interpret virtue ethics in a more social and relational way [5]. The current social-relational approach tries to suggest a more comprehensive virtue ethics theory that is fully relational and performance-oriented. On this basis, it is also possible to go further and consider the role of robots in the human ethical system, and to establish moral rights for robots with the aim of protecting the integrity of humanity and ethics.

In order to meet the substantive needs of human society, it is necessary to establish a legal rights system for robots to realise the value of robots to humans and to enhance the scope of human interests and rights. At the same time, in order to ensure the integrity of the human ethical system, a robot ethics system should be established and the most important part of it turns out to be the moral rights component of the robot rights system. The content of legal rights and moral rights for robots is generally independent, but there are overlapping parts. In some cases, these two types of rights may also be in conflict. As a result, it is essential to find a balance between moral considerations and legal rights that fulfil the altruistic orientation of robots.

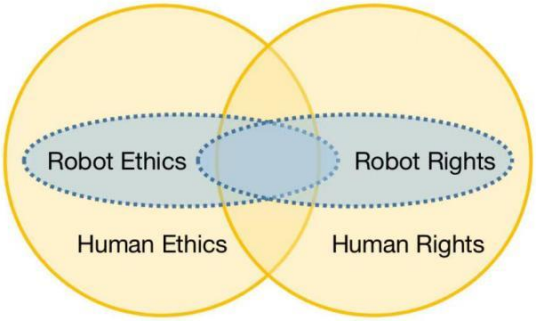


Fig. 1 The relations between robot rights, robot ethics, human rights and human ethics

As shown in the figure above, the relationship between robot rights, robot ethics, human rights and human ethics is highly complex. The different parts may intersect and overlap, but each part has its own specificity. However, the ethics of robots were studied and established by humans, while the rights of robots were also given by humans. Therefore, it should be emphasised that the current scope of both robot ethics and robot rights remains within the scope of human civilisation. At present, robots are not able to create a robot civilisation beyond the scope of human understanding through self-learning. Even if the corresponding revolutions appear in the future, they may not be recognised by human groups. Regardless of technological development, the relationship between robots and humans should be taken seriously: it is vital to ensure that human beings have the ability to control robotic entities and prevent them from destroying human civilisation.

5. Can the Capability of AI Robots Lead to Robot Rights? New Possibilities of Robot Rights in the AI Era

5.1. How Capability Leads to Rights: a Potential Correlation

Capability and *Right* appear to be two separate concepts that are not strongly correlated. However, there is in fact a deep underlying connection between capabilities and rights. To begin with, the scope and boundaries of human rights are constrained by the scope and limits of human capabilities. For example, the maritime rights of nations cannot be recognised until humans have the capability to explore the oceans. Also, the patent system for microorganisms did not exist until people had the capacity to recognise the existence of microbes. Moreover, the *Outer Space Treaty* could not be signed until humans had the capability to explore space. As a result, the extension of human capabilities has led to the expansion of human rights systems. At the same time, rights systems tend to focus on resources that can be externalised because they have a substantial impact on the outside world. For example, the copyright system tends to protect expressions rather than abstract ideas because mere ideas are difficult to quantify and influence the world. For these reasons, the operation of the human rights granting mechanism is to grant new rights based on the extension of the newly expanded capabilities. On this basis, attention can be paid to the fact that capability is the key factor that determines an entity's ability to influence the world.

5.2. High Capabilities of Current AI Robots: an Urgent Factor Calling for Robot Rights

In the age of AI, AI robots show amazing capabilities and influence on the world [15, 16]. Therefore, it should be discussed whether it is justified to further enlarge the robot rights scope based on their high level of capabilities. Also, these resources can be further combined with the social-relational approach because the capabilities of entities affect their value to humans, as well as people's responses and attitudes towards them. In addition, the improvement of the rights system for entities with highly intelligent capabilities is also necessary because of the changes they can bring to the social order in the real world. These reasons, however, do not make capability a sufficient element in the argument for robot rights yet, therefore this new resource needs to be further combined with traditional approaches to form a more justified approach towards robot rights.

6. Conclusion: A Composite Approach Towards Robot Rights in the AI Era

Overall, moral rights and legal rights are both essential components of the robot rights system and can help to maintain the operation of the social order, which are related to some extent but should be discussed separately. Traditional approaches based on deontology and utilitarianism should be further optimised to state that robots under algorithmic systems show performances that are highly consistent with humans, thus justifying the granting of moral standing to robots. The social-relational approach can also be improved to provide a rationale for both moral rights and legal rights. On the one hand, highly simulated robots have an emotional value to humans, and humans may also have negative responses to the behaviour of abusing robots. Therefore, moral standing should be given to robots in

order to maintain the integrity of the human ethical system. On the other hand, service-oriented robots should be given legal rights to ensure that they can perform their altruistic functions to increase the interests of the human community and satisfy the needs of humans. Finally, the high capabilities of AI robots also open up the possibility of enhancing the justification of robot rights, which are more related to the legal rights of robots to maintain order in the new domains enlarged by these capabilities. Current AI robots are making outstanding performances in various fields at present. As one single theoretical approach cannot adequately justify the granting of robot rights to current AI robots, a composite approach should be adopted to further illustrate the justification and specific forms of robot rights, which can act as the basis for healthy relations between intelligent robots and humans in the future society.

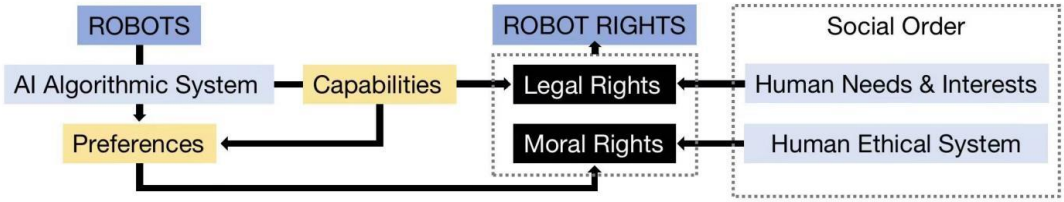


Fig. 2 A composite approach towards robot rights in the AI era

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