

# On Negativism of Legal Personality of Artificial Intelligence

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**Abstract.** Artificial intelligence is an intelligent machine similar to human intelligence and is currently on the stage of weak artificial intelligence. Its application field has been gradually expanding and bringing people much convenience. Therefore, many scholars try to endow artificial intelligence with legal personality. Legal personality refers to the legal qualification of a person in a legal sense. That is, to maintain and exercise legal rights, and to abide by legal obligations and responsibilities. However, artificial intelligence cannot or should not be entitled to any right or interest, nor can it bear any responsibility or obligation. Therefore, artificial intelligence should not be endowed with legal personality.

**Keywords:** Artificial intelligence, legal personality negation, copyright and legal responsibility.

## 1. Introduction

The practice to endow artificial intelligence (AI) with legal personality has challenged many aspects of socio-economic culture of human society that have been formed over thousands of years. [1] Working as a mean of social governance, law should focus on the realistic society and the currently urgent issues arising from weak AI, rather than over-extend to strong AI or even super AI in the future. Do the copyrights in works created by weak AI, such as those new poems and paintings composed by Xiaoice framework system, belong to the AI? Facing the current situation of many accidents due to AI, can AI take the responsibility for those accidents? As far as it goes, AI should not be endowed with legal personality since it does not enjoy any copyright nor can it assume any responsibility.

## 2. Overview on Artificial Intelligence

### 2.1. Definition of Artificial Intelligence

AI belongs to a branch of computer science. It aims to discover the essence of intelligence and manufacture a new intelligent machine resembling the human intelligence. This research domain covers machine vision, fingerprint identification, facial recognition, retina recognition, iris identification, palm-print identification, expert system, automatic planning, intelligent search, theorem proving, game playing, automatic programming, intelligent control, robotics, language and image comprehension, genetic programming, etc. [2]

### 2.2. Categories of Artificial Intelligence

According to theories on AI proposed by many scholars, AI can be divided into three categories, namely the weak artificial intelligence (weak AI), the strong artificial intelligence (strong AI) and the super artificial intelligence (super AI). Among them, the weak AI, also known as applied artificial intelligence, is controlled by code and subject to human instructions. It has no free will but is good at tasks in single aspect. It is what we now commonly know as artificial intelligence (AI). The strong AI, also known as general AI, is almost able to mimic the human brain, to think independently based on autonomous learning ability and to learn reasoning and cognition like humans. It's not confined to single domain but owns self-awareness. Although it's still difficult for human to research and develop the strong AI, the international academic community believes that the strong AI will be available around 2050. The super AI is much clever than the smartest human brain in almost each and every field. Currently, experts in the AI field regard the year of 2060 as a reasonably forecast year to realize super AI.

There have been many research achievements concerning weak AI and they have been widely applied. Sophia, “the first citizen of the world”, came into view in 2016 with her capability to make 62 expressions. In 2017, she gained the citizenship of Saudi Arabia when attending an event in that country. The comment “I will destroy humanity” by her spread around the world in the year. However, Sophia was later proven by industry insiders to be a product whitewashed by tech companies to market themselves. Her core technology is ordinary and her dramatic speech has been prerecorded. She actually cannot generate any thought by herself. [3] The current AI all belongs to the category of weak AI, which includes Sophia, Grace and other humanoid robots, Xiaoice system designed by Microsoft that can compose poems, and self-driving car technology being applied by Google and Baidu. Law focus on practical issues and thus cannot or should not involve too many illusions. Therefore, the focuses herein is on the current situation, and the reasons that weak AI should not be endowed with legal personality has been analyzed on the stage of temporary absence of autonomous consciousness.

### 3. Artificial Intelligence and rights

There is no doubt that works composed by AI should be under protection. However, the creation process of AI does not belong to the composition activities protected by copyright law. In addition, AI itself cannot be a subject of rights in both philosophical and jurisprudence. As a result, AI should not be entitled to any right or interest, nor should it have personalities.

#### 3.1 Composition and Creation by Artificial Intelligence

Weak AI has many advantages over humans in the fields where it has been developed and designed. It is productive in some specialized fields. Xiaoice, for example, can create sentences, drawings, music and videos for human beings through the programming by Microsoft and material input by users. A WeChat user uploads a photo, on which a man is looking through his books in a hurry, to Xiaoice who then find out which verb, adjective or noun may match with, such as "happy" and "sad". Based on the foundation of those words or sentences, Xiaoice expands her vocabulary and embeds the structure and rules of poetry.

As for drawings, users input a sentence or a poem, or point out the direction with another picture first, so as to show AI their target instructions and ideas. Then, the AI, such as Xiaoice, learns to imitate the painting skills and styles through countless data. Finite deep learning allows AI to create styles similar to but different from its human predecessors. Multi-modal interaction can allow AI to perceive the external scene and thus generate corresponding images.

#### 3.2 Negation of rights based on Creation Process

First of all, it's necessary to identify whether the creation by AI belongs to a work and whether AI is the author or not, so as to decide whether AI should be entitled to copyright. Works refer to those intellectual achievements in the fields of literature, art and science that are of certain originality and can be expressed in certain forms, according to Article 3 of *the Copyright Law of the People's Republic of China*. From the perspective of originality, the current creations by weak AI have a high probability of being mistaken for human creations under multiple Turing vision tests. They have been considered as unique and thus meeting the requirements of the Copyright Law in their form. If those works are not protected, the rights of both owners and users of AI will be greatly damaged and their enthusiasm for creation will thus be compromised. This is not conducive to market development and scientific and technological progress. Therefore, creations by AI can be protected under law and regarded as works. Then, from the perspective of creation process of AI, if the creation process also belongs to the main creation activity, artificial intelligence itself should belong to the author under protection of the Copyright Law. However, AI is not an author and its creation process is not a creation activity by an author as per law. [4]

Currently, creation processes by weak AI have been divided into two types. One type follows a fixed rule while the other type is based on algorithms invented during the scientific and technological progress. In the latter type, AI keeps learning during its creation process and thus gains a certain level of autonomy and innovation. The first type of AI relies on the large amount of data selected and input by human beings. This type of AI works through algorithms, leads to results, applies output templates and then outputs works that meet the design requirements of human beings. During this process, AI is completely executing human instructions, which is similar to the process from A and B to \* and C. Such creation process is completely initiated and controlled by human beings. AI works completely as a tool. Therefore, the process cannot be regarded as a working process by AI but by human beings through the tool of AI. With the technological development, the second type of weak AI can automatically grab and extend information through deep learning after human beings input part of the data. However, this type of AI still operates and creates works by following established procedures under the influence from algorithms and data. Such AI doesn't possess its own will, emotion or artistic judgment. In this case, AI only plays a role in reducing the workload of human beings. It is still unable to create works independently free from human instruction and control. The behaviors by owners and users also play a part in the creation and even determines its direction and result. Therefore, the second type of creation process cannot be regarded as the creation activity by AI, either, in which AI works as a secondary helper. In this case, AI doesn't and shouldn't be entitled to copyright. Instead, both owners and users of AI should be authors. [5]

### **3.3 Negation of Personality based on Subject of rights**

#### **3.3.1 It goes against both philosophical and ethical principles to treat AI as the subject of rights.**

Human beings share common sense, common temperament and common convention according to the three-common theory that determines subjects of social relations in law circle. They can be specifically interpreted as human feeling, human nature and human wisdom, which work as the unity of knowledge, emotion and consciousness. As far as AI is concerned, it can possess neither ethical personality nor legal personality since its rational power cannot cross the perceptual gap. AI has always been a product and tool manufactured by human beings, and a simulation of human rational thinking. It has been established upon data and algorithms, and not equipped with will, belief or emotion. It's a tool for human beings to create artistic works. The creation by AI cannot independently replace the activities by human beings that integrate reason and emotion based on three commonalities.

Sociality works as an inherent attribute of human beings and consciousness is the product of the society. Human society protects human activities on the premise of human beings. Whether it is a rational and emotional natural person with three commonalities or a legal person formed by a group of natural persons, the premise is always the subjectivity of human beings. Human beings are fundamentally different from all animals and machines. Animals and machines with only partial human characteristics and thoughts are not human beings. To set AI as the subject of rights, which only has a part of specific creation functions but not all human characteristics, is equivalent to acknowledging AI's humanity, rationality and sensibility. That practice goes against human philosophical and ethical principles.

#### **3.3.2 It goes against legal principles to treat AI as the subject of rights.**

In a sense of jurisprudence, a legal subject must have legal capacity and disposing capacity. Some subjects may lack disposing capacity but legal capacity work as an essential prerequisite. A natural person automatically and continuously has legal personality simply due to his existence and human attributes, which also demonstrates the affirmation and protection of human beings by law as a manner of social governance. Weak AI is completely different from a natural person and therefore shall not be entitled to legal capacity even if it's partially anthropomorphic. When it comes to the legal capacity, a person incapable of disposing or a person limited in disposing capacity as per law

has his own independent individual will. However, weak AI does not have a will and its creation function in a given domain does not explain its legal will. In addition, there is also inconvertibility between the subject and the object of rights. [6]

To sum up, the creation activities by AI do not fall into the scope protected by copyright; furthermore, AI is not entitled to copyright based on philosophy and jurisprudence and thus cannot be endowed with the legal personality advocated by finite personality theory.

## 4. Artificial Intelligence and Legal Responsibility

### 4.1 Artificial Intelligence Accidents

When there is a weak AI accident, the reasons are usually as follows:

(1) Failure in robustness: The system encounters abnormal or unexpected input, which result in an accident.

(2) Failure in normalization: There are differences between what the system is trying to achieve and what the designer or the operator has intended, thus resulting in unexpected behavior or side effects.

(3) Failure in guarantee: The system cannot be fully monitored or controlled during its operation.

#### Robustness

The “robustness” of AI refers to its ability to resist external interference. If AI deviates from its expected operation trajectory when encountering errors, abnormalities or attacks, it demonstrates a weak robustness. Weak AI displays a weak reliability. Therefore, its system is susceptible to external impact, which may result in accidents.

For example, when encountering with the input different from those in the training phase, weak AI is particularly prone to failure. Most of the training data for the skin cancer detector, an APP downloaded by many Americans, actually come from Northern Europe. During its process of practical application, this product shows an obviously decreased accuracy among black people. As a result, the App has misdiagnosed many black users.

Another issue is due to external interference. Researchers from University of Washington, University of Michigan, Stony Brook University and University of California, Berkeley, conducted an experiment on “autopilot recognition technology”. They printed two colorful stickers, one with the word “love” while the other with “hate”, by a simple home printer. However, the corresponding road sign classifiers mistook both for speed limit signs of 45 MPH (72 km/h). That is to say, once someone maliciously obliterates those signs, human eyes can easily identify them but AI cannot, which proves the fragile robustness of weak AI.

#### Normalization issues

Normalization issues refers to the fact although the designer provides instructions to regulate the behaviors by AI, there may be misunderstanding when a machine learns those instructions. For example, many social platforms adopt algorithms to recommend contents for their users, with the hope to maximize their user base and increase their revenue. Hence, algorithms recommend many conspiracy theories and other types of harmful contents to attract users. Although those platforms really attract many users, this is not the designer’s original intention. The goal for “maximum participation” cannot justify the illegal or harmful content promotion but AI may do so. Even the most stringent tests may fail to forecast the potential instruction misinterpretation by AI system. With the development of AI, the increasing number of Apps and a growing exposure range, the potential failure becomes inevitable.

#### No guarantee

No guarantee indicates the difficulty in prevention. Like all other technologies, we need to ensure the safe operation of AI. However, it’s difficult for us to track the operation status and the failure cause of AI system. AI systems are highly complex and variable with millions or billions of calculations behind each move. Therefore, it cannot be thoroughly tested. The cause of many AI

accidents is untraceable. The inner working mechanism of machine learning algorithms often cannot be interpreted in familiar logical and motivational terms.

#### **4.2 Basic Premise of Legal Responsibility — Interpret-ability**

One can only make legal arrangements for what has already been comprehended. Legal subjects are entitled to rights, and undertake the due obligations for their behaviors only when those behaviors can be interpreted. If one wants to acknowledge AI's legal personality and make it the holder of rights and the bearer of obligations, the behaviors of AI should be explicable from the perspective of legal philosophy. Based on the thought of legal interpretation, the interpret-ability of AI can only be proved as its "cognition, judgment, move and performance" can be clearly depicted. When the decision-making and behavior of AI can be understood, the responsibility assignment of legal personality can be reasonable. Legal responsibility is designed to safeguard the rights and obligations stipulated by law, and to punish and have responsible violators to assume their responsibilities and fulfill their obligations, so as to provide right relief and prevent future infringement. If AI's responsibilities cannot be interpreted, the purposes will be unreachable.

#### **4.3 Lack of Interpret-ability in Artificial Intelligence**

AI outputs the final results through algorithms and data analysis. Humans control their behaviors through consciousness while AI makes decisions upon algorithm. According to the above categorization of AI accident causes, AI with weak robustness cannot adapt to the complex and changeable external environment during its training and thus becomes uncontrollable. Failure in normalization shows AI's misunderstanding of instructions themselves or its only focus on completing instructions without taking into account other environmental factors. There is opaque process between data input and result output by AI, namely the information black box. Therefore, the reasons for AI's misinterpretation of instructions are intricate and those misinterpretations are also difficult to prevent. The safe operation of AI cannot be guaranteed because it cannot be thoroughly tested. For the same reason, the direction of finite deep learning is uncontrollable.

AI accidents are missing a key ingredient for legal responsibility — interpret-ability. "The interactive influence between general law and fundamental rights work as the inherent limitation on fundamental rights, which balances the interests among the subjects of fundamental rights through interpretation and reconciliation practice." On the level of legal philosophy, there are two scientific indicators for entitlement theory. One is interpret-ability and the other is practicability. Furthermore, interpret-ability not only lays a foundation for but also forecast practicability. [7]

It's difficult to comprehend the working mechanism and the cause of results during the decision-making process of AI. Currently, there is no unified perception on interpret-ability and algorithmic decision is still uninterpretable. In 2018, an unmanned vehicle of Uber killed a lady during its test run in the US. The vehicle detected the lady 5.6 seconds before the accident and identified and categorized her as another vehicle, namely a moving ground object. Later, the vehicle identified and categorized her as another immovable ground object, and decided that she would not interfere its running. Being confused between "vehicle" and "others", the autopilot system failed to brake in time finally and caused the tragedy. It was AI that identified the worker as steel plate, and then MCAS sensors detected a wrong elevation and went around the pilot to lower the machine head during the robot murder case in Hiroshima, Japan, 1978. From the first step of "recognition" to the subsequent judgment and decisions by AI, there will be unaccountable mistakes. Even the first mistake in recognition are unexplainable. Another problem is that AI itself is currently unable to interact and communicate with human beings to account for its own behavior. Algorithms make decisions after receiving big data, during which there are uncontrollable stages. Therefore, weak AI is still highly unexplainable at present.

#### **4.4 Negation of Legal Responsibility based on Interpret-ability**

The uninterpretable nature of weak AI deprives it of the ability to take responsibility. Legal responsibility is designed for punishment and prevention. If judiciary authorities have to punish AI, they can directly punish the person behind AI, destroy or improve AI rather than making a civil apology for damages, imposing a criminal life imprisonment, or administratively imposing a fine and detention because AI cannot feel the pain of physical punishment. If AI is endowed with legal personality, its legal responsibility should be stipulated by law and probably go through trials and other procedures. A trial is based on facts and regulated by law. The fact without evidence or justification creates obstacles to the judgment of legal responsibility in the first place and may not lead to a desired punishment. If judiciary authorities want to prevent AI from making mistakes, they should revise AI programs and algorithms, or the unexplainable AI can make a similar mistake again. Therefore, fundamentally, weak AI cannot assume legal responsibility, nor should it be endowed with legal personality. [8]

### **5. Legal Solutions under Current System**

Some solutions should be proposed in terms of rights and responsibilities since AI's legal personality has been denied.

#### **5.1 In Terms of rights**

Weak AI has no independent consciousness and its behavior is essentially under the control of human beings who design and operate programs. For example, if poetry composed by Xiaoice system is regarded as "human works", it is Microsoft that benefits behind. Works composed by AI based on data and procedural algorithms are analogous to the current regulations governing computer derivatives. As authors, AI's owners and users should be protected by the Copyright Law. The rights arising from those works should belong to the designers, developers, owners, users, etc. of AI.

Works composed by AI have lowered the time, money and other costs, which creates difficulties for the market to prices them and even the market order may be disrupted. In addition, when encountering infringement, AI may benefit far more than it costs under current compensation standards. However, the Anti-monopoly Law and the Anti-unfair Competition Law can adjust the market impacted by AI composition. The amount of infringement damages can be adjusted through the changes in individual cases or the enactment of new judicial interpretations. There have been cases at present, such as Tencent vs WDJZ-OFFICIAL. The court has ruled that the works by Tencent through AI are protected under the Copyright Law and the rights belong to Tencent. WDJZ-OFFICIAL website constitutes infringement due to its plagiarism and thus shall pay Tencent 1,500 RMB yuan in compensation. This article serves as a good reference in terms of works, authors, ownership of rights and compensation amount.

#### **5.2 Responsibilities**

The interpretable weak AI accidents are still subject to current legal system, the causes and the process of an accident can be described upon subsequent investigation and research, and the accident is due to the man-made fault. That is to say, the accident is caused by some intentional or negligent acts of existing legal subjects, such as natural persons and legal persons. For example, there are obvious loopholes in the programs input or the accident is deliberately planned for profits. In civil cases, the imputation principles of fault liability, presumption of fault liability and strict liability are adopted according to different ways of responsibility undertaking. Designers, manufacturers and users can assume corresponding responsibilities according to the determination method of tort liability. In criminal cases, according to the principle of four elements and in light of subjective motives and objective reasons, the court can clarify the causal relationship, identifies the person responsible, and keeps crime, responsibility and punishment compatible, so as to make the right person bear the corresponding criminal responsibility.

Property losses shall be reasonably distributed under the fairness principle for civil affairs in an “uninterpretable” weak AI accident, namely an accident in which the facts cannot be ascertained, and the cause and effect cannot be separated from fault, or an accident in which it is possible to find out the truth but it is due to uncontrollable causes, such as AI identification errors, algorithm errors and information black boxes. The insurance system can also be introduced in a proper manner so that insurers can bear risks, which is beneficial to protecting both high-tech companies under development and people suffering from property losses. In terms of penalty, people behind, such as manufacturers, users and owners, should not bear criminal responsibility if they are not guilty of intentional negligence. After reasonably apportioning monetary losses, the most reasonable and appropriate way is to destroy the AI, restrict and improve its utilization, and increase caution, so as to do whatever we human can to prevent the next accident.

## 6. Conclusion

In terms of rights, AI is controlled by human beings in each hotly debated creation which is essentially artificial composition. Therefore, the rights arising from those works should be taken by human beings. Furthermore, AI is not suitable for the transformation from object to subject in a sense of philosophical jurisprudence. In terms of responsibility, most of the AI accidents are uninterpretable or uncontrollable. AI itself cannot take the legal responsibility, nor can artificial personality play a good effect in assuming responsibility. AI has made significant contributions to enhancing social efficiency but the potential risks of losing control and external affiliation are its external effects. Law is adopted to govern the society and maintain its stable operation and development. To endow AI with legal personality is to acknowledge the equal status between AI and human beings. If so, AI can no longer be utilized or destroyed as needed, which leaves AI with more space for development but do harm to human control over AI. People prefer AI as an auxiliary tool for human beings to better serve all mankind rather than the scary one in the movies that can destroy us all. Humanity is boosted by science and technology while science and technology is regulated by humanity. Anthropologists ask questions in order to solve them while scientists keep improving those answers in light of viewpoints from anthropologists. In that sense, humanists are not worrywarts and scientists are not technocrats, either. People explore and research the combination of technology and law, with a good wish and strong belief in a better scientific prospect.

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