

# ATTRIBUTION OF LEGAL PERSONHOOD TO ARTIFICIALLY INTELLIGENT BEINGS

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## **Abstract**

Artificial intelligence (AI) will become a ubiquitous part of society in the future. Scientist across the world is trying to develop strong AI which will be autonomous and will have the capacity to think. As the human interaction increases with these machines it will consequently give rise to legal issues. Such as who will be held accountable for any criminal liability arising from the actions of AI. Therefore, our legal system needs to be prepared for these upcoming challenges. Attribution of legal personality to artificial intelligence can be an effective measure to check all potential challenges by the introduction of AI in our society. This paper discussed methodologies for attribution of legal personhood to AI. That, how by merely vesting legal personhood in AI our current legal system will be capable enough to resolve any issue arising due to technological development in the field of AI. This will also ensure that our interactions with AI are harmonious and occur as intended.

## **Introduction**

Legal personality states, which entity would “count” under the law, and consists of entities such as corporations, religious idols, international organizations, etc. But how can we consider an entity as a legal personality? Unfortunately, the present day contemporary legal system doesn’t convincingly clarify this question. The contemporary jurisprudence is not well equipped to deal logically and consistently with this question. Therefore, there is an immediate requirement for prompt re-analysis of the concept of legal personality.

The impetus behind this requirement is the emergence of artificial intelligence (AI) technology. Mere evolution of the revolutionary technology does not mandate a change in the principles of law, but when there will be an increase in the interaction of this technology with humans or when this technology becomes a salient part of the human world, it will raise new legal questions. In laboratories across the globe scientists and researchers are

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trying vigorously to furnish various artificially intelligent beings, these beings will have a notable impact on human society and, most probably and importantly on our legal systems.<sup>1</sup> The current traditional legal system draws analogies in similar factual scenarios to cope with legal questions arising from emerging technologies,<sup>2</sup> but artificial intelligence poses noteworthy challenges to these traditional legal systems.

This paper lays down methods to tackle these challenges. It puts forward a unitary theory to facilitate understanding of existing legal personalities, thus laying down a cogent argument which logically points towards the extension of legal personality to artificially intelligent beings. This will make the existing legal system strengthened against challenges arising from the development of artificial intelligence. Though it's still too early to attribute legal personality to artificially intelligent beings, however, it is an appropriate time to prepare the legal system for upcoming challenges.

### Artificial intelligence

On 4 July 1981, the first robot homicide was reported. An engineer, Kenji Udara was performing some maintenance work on a robot at Kawasaki Heavy Industries plant. Kenji didn't completely turn off the robot. As he entered a restricted area of manufacturing line the robot detected him as an obstacle in the manufacturing line and threw him on an adjacent machine using its powerful hydraulic arm, Kenji died instantaneously.<sup>3</sup> This incident was reported on another side of the world, despite being a mere accident. The incident gives us a glimpse of uncertainty in human interactions with artificial intelligence. As was seen in *Frankenstein* and *2001: A space odyssey*,<sup>4</sup> and in several other writing works.

Now the question arises what does artificial intelligence exactly means. For this purpose, the term '*intelligence*' can be divided into two categories.<sup>5</sup> First is most common among philosophers who define intelligence as encompassing the level of human

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<sup>1</sup> JH Sommer, *Against Cyber Law*, 15 *BTLJ* 1145, 1149, 1154 (2000).

<sup>2</sup> British Telecommunications Plc. v. One in a Million Ltd., [1998] 4 All ER 476 (CA) 479 – 80.

<sup>3</sup> Paul S. Edwards, *Killer robot: Japanese worker first victim of technological revolution*, *Deseret News* Dec. 8, 1981, at A1.

<sup>4</sup> M Shelly *Frankenstein* (Dent London 1982); *2001: A space odyssey* (Metro Goldwyn Mayer 1968).

<sup>5</sup> S.J. Russell & P. Norvig, *Artificial Intelligence: A Modern Approach* 947 (Pearson Education 2<sup>nd</sup> ed. 2003).

capabilities and intelligence. This type is known as “strong artificial intelligence”.<sup>6</sup> There the processing of computer is identical to actual human thinking. The other type of intelligence is known as “weak artificial intelligence”, where the computer imitates intelligence based on external manifestation by the pre-programmed database. The outcomes of any input given to weak AI is certain and predetermined, unlike strong AI.

“Turing Test” is a successful technique for testing intelligence of any machine and to determine as to in which category the particular artificially intelligent being falls. The test involves questioning a human and the machine by a human who is not aware of which answer is from human or computer. If the computer is able to fool the human that it is human, it would be considered artificially intelligent. However, “strong artificial intelligence” is still a philosophical personality and it’s not possible to predict whether developers will be successful in developing a machine with such intelligence. Weak artificial intelligence exists but in a very limited manner.<sup>7</sup> At present, the outputs of an artificially intelligent being are based on a pre-determined algorithm and generate limited predictable outputs<sup>8</sup> and will remain predictable till humans can control the inputs. In such scenario, artificial intelligence doesn’t attract law more than a calculator.

### **Will Bots replace humans?**

Scientists have been successful in developing computers which can beat the greatest of chess Grand Masters. Can we consider this intelligence equivalent to humans? Gary Kasparov was beaten by Deep Blue<sup>9</sup> that leaves us with no doubt that it plays chess as good as Grand Masters. However, it worked on programmed algorithms by its developers who don’t stand a chance against Gary Kasparov. Then can we draw inference that Deep Blue can think like a human. Another thing which requires our attention is that human interaction with such machines has become substantial and will increase in the coming future as the programming techniques and technology evolves. Today we have robot vacuum cleaners, intelligent self-driving cars, rovers in

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<sup>6</sup> HL Dreyfus, *What Computers Still Can’t Do: A Critique of Artificial Intelligence* 8, 36, 37(MIT Press Cambridge 3<sup>rd</sup> ed. 1992).

<sup>7</sup> R Kurzweil, *The Age of Spiritual Machines*63(Phoenix, 1996).

<sup>8</sup> Interviews with Prof. Brooks and Dr. Andrew Fitzgibbon, Department of Engineering, University of Oxford (Oxford 5 Mar 2004).

<sup>9</sup> Deep Blue also makes mistakes: V.Anand ‘More Questions than Answers’, [http://www.research.ibm.com/deepblue/home/may11/story\\_3.html](http://www.research.ibm.com/deepblue/home/may11/story_3.html) (14 June 2017).

space and what not. The philosophers who theorize artificial intelligence and the anthropologists studying the interactions of humans and machines have come up with several predictions which can concern the legislators. Alan Turing predicted that 30% of the computers will pass the Turing Test by 2000.<sup>10</sup> Herb Simon predicted that computers will replace humans in any task by 1985.<sup>11</sup> None of the prophecies eventuated. However, there is general consensus drawn by the researchers that artificial intelligence technology will continue to develop computers and bots which will be capable of replacing humans in many tasks.

### Legal personality and philosophical personality

Many thinkers argue that the primary purpose of the law is to further the welfare and interest of the humans. We are the sole beneficiaries of law, but it would be wrong to say that we are the only ones who must be its only subjects.<sup>12</sup> There is no need to look any further than the unchallenged recognition of legal entities apart from humans to prove this proposition. Philosophers, scientists, theorists, etc. have made several efforts to provide a generally accepted theory for nature of philosophical personality but none of their efforts were successful.<sup>13</sup> Philosophical personality is primarily applied to humans. However, it also incorporates inanimate objects such as corporations or considering pet animals as personified family members.

### Methodology

The human tendency to personify non-human entities is predominant cause for such confusion. Both the concepts share problematic relations and in the same subject exist contemporaneously. The definition of legal personality derives its concepts from the philosophical concept. Therefore we must adopt a methodology that creates the least confusion.<sup>14</sup>

Entity-Centric Methodology focuses on the metaphysical nature of the entity. The methodology aims to resolve what attributes an entity should pose to be a legal entity. Moore advocates that for an

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<sup>10</sup> Alan Turing, *Computing Machinery and Intelligence* 236 (Jester, 59<sup>th</sup> edn., 1950).

<sup>11</sup> H. Simon, *The Shape of Automation for Men and Management* 96 (Harper & Row NY 1965).

<sup>12</sup> J. Harris, *Human Beings, Persons and Conjoined Twins: An Ethical Analysis of the Judgment in Re A*, 9 *Medical L Rev* 221, 233 (2001).

<sup>13</sup> R.A. Brooks, *Robot: The Future of Flesh and Machines* 194-95 (Penguin Press London 2002).

<sup>14</sup> M. Wolff, *On the nature of Legal Person* 54 *LQR* 494 (1938).

entity to pose attribute of legal personality it must be autonomous and rational, having an identity between moral and legal personality.<sup>15</sup>

It is the most popular approach towards legal personality. The advantages of this approach are that enables us to directly engage with the commentators and judges who engage it.<sup>16</sup> It is arguably the most easily understandable methodology and fits with our understanding about human and artificial intelligence co-existence.

### **Artificial intelligence must be vested with legal personhood**

Artificial intelligence entities must be treated as legal personalities so as to make them accountable under the law just like corporations. If we derive the analogy from the logic behind according legal personality to corporations, which was to limit the corporate liability on an individual's shoulder which would in turn motivate people to engage in commercial activities by means of corporations. In the same vein, the concept of legal personhood should be extended to artificial intelligence entities as is accorded to corporate bodies. This will enable the existing legal system to have enough potential to tackle upcoming challenges by artificial intelligence. Moreover, there will be no requirement to make substantial changes in our legal system to effectively solve artificial intelligence related problems. One such concern which pertinently worries developers of artificial intelligence is the liability arising from its actions. Once artificial intelligence develops to a level where it begins to actually think, it will be engaged in several tasks. Criminal and Civil Liability may tend to arise from these actions, what if a computer enters into a contract which is not accomplished or what if a computer hurts another person. Now the question arises who will be held liable for these actions of the computer, will its owner or the developers be solely attributed to these liabilities though they never intended such an act. What if an autopilot of fighter aircraft detects its pilot as an obstruction in its mission and ejects the pilot when he aborts the mission due to bad weather which kills the pilot. The developer of autopilot may be held accountable though he had no intention to kill the pilot in the current legal system. However, if the artificial intelligence is considered a legal entity it can be held liable for its own actions. In this case, the autopilot can be held accountable which will save the developers from liability. Then the algorithms of the AI can be corrected by reprogramming. This will save the

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<sup>15</sup> M. Moore, *Placing Blame* 595, 636 (Clarendon Press Oxford 1997).

<sup>16</sup> *Salmon v. Salmon & Co.*, 22 AC 45 (1897).

innocent developers of the AI as well as its owners from liability arising from an act which they never intended and will promote the development of the AI field as it will save discouragement of AI developers and its users and will also promote more innovations into the artificial intelligence field.

Moreover, after developing weak AI scientist are also trying to develop strong AI which will be sentient, they will be unique like humans, therefore they must have their own identity. These machines will have emotional intelligence which will diminish the line demarcating among humans and the machines.<sup>17</sup> They will in their capacity to perform any work and also in their pattern to perform a task. They may even demand basic right to facilitate their well-being. Granting legal personhood to artificial intelligence will not only ensure that our current legal system gets prepared for the technological change but it will also ensure that our interactions with these artificially intelligent beings are harmonious and benefits the human beings.

However, this could provide offenders a shield from the legal system in form of artificial intelligence and can take the legal personality of AI as a statutory privilege to commit an offence.

In such a scenario we can again derive analogy from the legal personhood of corporations. Like in corporations if a person is found to take unfair advantage of the legal personality of the corporation, then the courts pierce through the corporate shield and hold such person accountable. This process of lifting of corporate veil can be adopted in case if any person uses artificial intelligence as a means to satisfy his own selfish motives or to save himself from any criminal liability.<sup>18</sup>

Over years many precedents have been established, a pertinent example is the case of “*computer raped by telephone*” which was widely covered by the media. In this case, a computer programmer broke into a computer to steal private data by using a telephone link. During the investigation it a search warrant was issued to the computer for examination of its data and components. This was the first case where the world witnessed that a machine was being treated like a legal person.<sup>19</sup>A leading example into this field is legislation on the auto-pilot. In *Klein v. U.S.*,<sup>20</sup> the pilot put the

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<sup>17</sup> Rafael A. Calvo, Sidney K. D'Mello, Jonathan Gratch & Arvid Kappas, *The Oxford handbook of affective computing* 176 (1<sup>st</sup> edn., Oxford 2015).

<sup>18</sup> *BSN (UK) Ltd. v. Janardan Mohandas Rajan Pillai* [1996] 86 Com Cases 371 (Bom).

<sup>19</sup> *Ward v. Superior Court of California* [1972] 3 C.L.S.R. 206.

<sup>20</sup> *Klein v. U.S.* [1975] 13 Av.Cas. 18137.

plane on autopilot at the time of landing while the regulations strictly prohibit the use of auto-pilot for landing. The auto-pilot erroneously did a bad landing causing severe damage to the plane. In this case, though there was an error on the part of auto-pilot but pilot was behind such an error and therefore he was held liable for the damages caused to the plane. In United States legislations have been passed by four states to treat self-driving cars as traditional drivers.<sup>21</sup> Nevada was the first state to pass such legislation.<sup>22</sup> The law would consider these self-driving cars as traditional human drivers and hold them accountable for any accident caused or any other liability arising from their acts.

## Conclusion

Having set out the Entity-Centric Methodology which explains attribution of legal personhood by law to any entity. The theory clearly lays down that any entity which is rational and autonomous can be attributed legal personality and there is no legal barrier in doing so. Strong AI will introduce a new dimension to our society. The technological world is changing rapidly which warrants the adaptive reforms in the current legal system. So, that our legal system is capable of finding solutions to the legal issues raised by technological developments in our society. There is sufficient legal consideration arguing in favor of attribution of legal personality to artificial intelligence, which in no case would be conceptually different from legal personhood of corporations, trade unions, etc. When the strong AI develops as a sentient being then it would be our moral obligation to provide rights to them. The strongest argument favoring extension of legal personhood to artificial intelligence is that this will prepare our legal system for this technological change without making a substantial change to it. This would also ensure that the technological development is not divorced from our society. As strong AI would be autonomous and may tend to attract liabilities under provisions of law due to its actions. If it is not held accountable for its own actions, the liability shifts to its developers or owners. In such case, they may refrain from developing such technology which could bring revolution to our society. If AI is held accountable for its own

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<sup>21</sup> Thomas Halleck, *Google Inc. Says Self-Driving Car Will Be Ready By 2020*, INTERNATIONAL BUSINESS TIMES, (Jan. 15, 2015), <<http://www.ibtimes.com/google-inc-says-self-driving-car-will-be-ready-2020-1784150>> accessed 12 February 2016.

<sup>22</sup> Alex Knapp, *Nevada Passes Law Authorizing Driverless Cars*, FORBES (June. 22, 2011) <<http://www.forbes.com/sites/alexknapp/2011/06/22/nevada-passes-law-authorizing-driverless-cars/#17c7344a5b73>> accessed 12 February 2016.

actions no innocent would have to face consequences of an act which was not intended by him and will also protect AI from being abused by people for their selfish or illegal motives. Initially, people were afraid of corporations and refrained from participating in the corporate world due to the huge risk of liabilities. But as the safeguards were being provided by corporate laws, more people started engaging themselves in the commercial activities. Thus, the goal of social control and development was achieved. Similarly, AI can be the solution to several problems currently being faced by the human society but it can solve those problems only if we make a suitable environment for its development. Artificial intelligence is already an important and influential part of our world and its importance will rise unprecedentedly. The legal system has already started facing challenges due to AI which is yet at a developing stage, therefore, there is a strong need that we start preparing for the upcoming technological development.

