ATTRIBUTION OF PERSONHOOD TO ARTIFICIALLY INTELLIGENT MACHINES

Abstract

This research paper explores the concept of attributing legal personhood to Artificially Intelligent Machines (AIMs). It delves into the evolving nature of legal personality, traditionally reserved for humans and certain non-human entities like corporations and religious idols, and examines its potential extension to AIMs. The study is grounded in various jurisprudential theories, including the fiction, concession, and bracket theories, which provide a framework for understanding the legal recognition of non-human entities. By analyzing the attributes of intentionality and autonomy, which are pivotal for legal personality, the paper argues that AIMs, particularly those with advanced self-learning capabilities, could be considered legal persons. Furthermore, it reviews significant case laws and legislative developments, such as the European Parliament's discussion on "electronic personhood," to highlight the practical implications and future possibilities of this legal evolution. The research ultimately contends that while AIMs currently exhibit dependent legal personality due to their need for human intervention, advancements in AI technology may soon warrant a re-evaluation, potentially leading to the recognition of AIMs as independent legal persons.

Keywords: Artificially intelligent machines, legal personhood, autonomy

Author

Shivangi Shukla
LLM Dharmashastra
National Law University

Rahul Pareek
LLM Dharmashastra
National Law University

I. INTRODUCTION

We are entering in world of evolving technologies for which it is imperative to develop the legal nexus to remedy any damage arising out of such technology. With the development of artificial intelligence machinery our lifestyle has evolved but repercussions of these lifestyles has to be faced. In normal cases the damage caused to human beings can be redressed by civil or criminal actions if the law can determine the subjectivity of the wrong doer to such law. However the problem arises when the wrong doer is out of the purview of subjugation to law. Artificial intelligence in machinery equips them with capability to serve humans in tremendous potentiality. The artificially intelligent machineries execute their task by interpretation of the data fed up in it. These machines self-learn by analysing data and during analysis they might commit wrong. It is thus imperative to analyse the personhood of AIM (Artificial intelligent machineries) as they are more than simple machines which involve active supervision of human agency. Fixation of personhood is important for catering the liability of AIM

In this chapter the author shall be dealing with the jurisprudential aspect of inclusiveness of AIM in the ambit of legal personality. The author shall discuss the definition of the term 'person' through the lens of various jurists. Further the chapter shall determine various theories relating to personhood and the resemblance of AIM with any of the theories. The author shall also look into the tests for determining the personality of AIM and shall also deal in landmark case laws for dealing with the personhood of artificially intelligent machinery

II. DEFINITION OF THE TERM PERSON AND CAN AIMs BE CIRCUMSCRIBED TO IT

1. Person in General

'Person' is a term which at first indicates certain attributes which an entity possesses. To qualify as a person there are certain set of attribute which such entity conform. When we think of person the first entity that comes in our mind is human being and foremost qualification of human being is to think and act rationally. From here we may analyse some attributes which could be indicators of being a person which capability to choose, act and think. However it is pertinent to note that this is not the only but one of the primary attributes of being called as a person. Now it is important to consider two terms 'person' and 'personality'. 'Personality' could be understood as an entity which possesses the quality of a 'person'. In according personality to some object there is an attempt to locate the attributes which are similar in that entity and human being and thus personification of that entity is done. Using these exercises even non-humans could be proclaimed as 'person'.

The second attribute which could be figured out is correlation between right and duty. One of the qualities of a person is to exercise right and to be bestowed with the duty. However there is discretion upon persons to exercise or not to exercise such right or duty. Such discretion is subjective and could be ably exercised by some person who may process available data on factual basis i.e. human being. However this is a general perception. In law legal personality is different. There are incidents where human beings are treated as person. For instance in earlier time slaves were not treated as human thus they were not capable of enjoying rights or liabilities. In the same way some persons are not human being as far as they possess rights and duties but they lack human corpus but they enjoy rights and duties Ex. Companies.

It is important to analyse the personality of artificial machineries as through this their accountability could be set up.

For the legal purpose persons are of two categories namely: natural and juridical. Human beings are natural persons as they are given the status of person by the reason of their existence; however juridical persons are those, on whom rights and duties are bestowed by law. There are two requisites for qualifying as natural persons. Firstly, the person could be subjected to rights and duties; secondly, he must have taken birth alive. For creating legal personality double fiction has to be adopted, at first corpus or body is considered in which animus or will of the personality is introduced. The body/corpus could be any property, fund or association of people etc. which law, by first fiction, assumes a body in existence. By second fiction personality equivalent to a human being is infused into it. Thus the rights and duties attributable to human beings are equally attributable by these legal persons.

This is a layman understanding of the term person however there are various stages at which the term person has been accorded different meaning. Initially the shallow understanding of law forced society to accept only humans as persons because at that stage most of the interaction was done between humans only, but as the society developed many human agencies got replaced by institutions to serve the needs of the people. Thus this growing interaction between human and institutions opened the gate for personifying other entities.

2. *Development of the Term Person*

The journey of personality could be traced from the time when the meaning allotted to person was very narrow. The term 'person' has been derived from the Roman term 'persona' which denotes mask wore by an individual; it somehow adduced the character which is associated with human and not human solely[42]. Subsequently it meant the role played by an individual and at very later stage it meant individual playing the role. It means that personality is not limited to human corpus rather it has a much larger area of operation. Earlier relevance was given to role attributable to human being which law recognized as person and bodily existence was not sine quo relevant for according legal personality.

Zitelmann defined person as "personality is legal capacity of will. Bodily existence for their subjectivity to personality is wholly irrelevant.[43]" He affirmed the fact that bodily presence of individual is not necessary for law to accept it as a person.

Salmond by "person" denotes "any being to which the law regards as capable of rights and duties. Any being that is so capable, is a person, whether human being or not and nothing that is not so capable is a person even though he be a man"[44].

This definition by Salmond has enlarged the ambit of person as it included human and non-human within the definition of person. The definition suggests that even if a non-living entity is given certain rights and duties under any law it could be presumed as person. Further Zitelmann removed the bodily existence barrier to be called as a person. Thus it could be

---

[42] John W. Salmond,*Jurisprudence* 272(The Ballanyne Press, London,4th ,1920).
[43] V D Mahajan, *Jurisprudence and Legal Theory* 377(Eastern Book Company,Lucknow,5th edition,1962).
[44] Supra note 1

seen that with the development of society not even slaves but also non-living entities became subject matter of rights and duties. In the light of above discussion it could be construed that if there is a law to personify artificially intelligent machineries for its subjectivity to rights and duties, then even machines could be attributed as person.

III. THEORIES OF PERSONALITY AND AIS CONSONANCE WITH THE THEORIES

There are various meanings given to person for defining which entities fall in its purview and which not. As far as natural persons are concerned their existence sine quo evidence their personality, but the case with legal persons are a bit different. The understanding of non-living entities as person is dependent upon various qualifying criteria which is diverse for each jurist. Jurists has defined persons as per their construction, in the same manner they have evolved various theories to understand legal person.[45]

1. Fiction Theory

This theory was propounded by Savigny. According to this theory personality is attached to entities other than humans by legal fiction. The theory presumes double fiction. By first fiction an entity is recognized as legal person and from the second fiction the entity is clothed with the will of an individual person i.e. will of the legal person is different from will of the people who incorporated it. It is alleged that the entity of legal person is completely separate from people at large.

2. Concession Theory

This theory pronounces that the only recognized kind of persons are sovereign and individuals under it, all the other kinds of person are not person unless they recognize by the sovereign as person. Thus this theory mandates that legal personality acknowledged to other things is a concession given by sovereign. Other entities are recognized as legal person by law made by sovereign, it is will of the sovereign to grant or not grant legal personality.

3. Bracket Theory

This theory belongs to Ihering and Hohfield. This theory is also known as symbolist or aggregate theory. Iheing stated that the individuals forming an association have certain tasks to perform and they need a single name to work under it. The real bearer of rights and duties are members of the association. They unite and put themselves in a bracket to serve the tasks according to their combined will. The other variant of bracket theory has been given by Hohfiled. His variant is narrow as he recognizes the legal personality only for fixing liability. He asserts the existence of bracket on the name of some corporation which may be sued together and that rights and duties adjudicated by courts are bestowed upon real members under the bracket. His version of legal personality is only limited to suing capacity. Bracket theory tends to recognize only humans as legal persons.

---

[45] Supra note 3

4. *Purpose Theory*

This theory was propounded by German jurist Brinz. According to this theory there is no personality of non-human entities. They are subject less entities which are meant to serve certain purposes. They are meant for stifung of Germany and hereditas of Roman law which are trusts. In Germany these foundations or trust are treated as legal person because they have a purpose to serve.

5. *Realist Theory*

This theory is propounded by Gierke. According to this every group of individuals has a real will and real mind, the applicability of such will could be seen in the conduct of its agents. Recognition of such group by law is immaterial, aggregate corporate will is visible by the mutually consensual will of its members. Thus legal personality according to this theory is acquired by the reason of possession of will.

Out of these theories Bracket theory is least applicable on artificially intelligent machineries as it nullifies the separate existence of corporate entity. It only recognizes humans forming the bracket. Further the most favourable theories for the personality of Artificially intelligent machinery are concession and fiction. These theories give a leeway to the intelligent machines that if they acquire authority from legislation even they could be treated as legal person[46].

IV. OTHER NON-LIVING ENTITIES AS LEGAL PERSONS

The quest for the grant of legal personality to non-living entities is not new, the law has been concessional enough to recognize, beyond Homo sapiens entities as persons. For determination of autonomy of legal person legal personality could be divided in two types, dependent and independent legal personality. Every individual possess independent level in their thought process. A human being, in normal circumstances, possesses absolute level of autonomy to think independently. Other entities has this parameter to determine their degree of autonomy, i.e. the less they involve human intervention, the more they are independent, the more autonomous an entity becomes, the more it gains chance to be called as a completely independent legal person.

1. Dependent and Independent Legal Personality[47]

Distinguishing between two kinds of legal personality discerned in legal practice dependent and independent will aid in demonstrating that only the first kind is likely to be accorded to artificial agents unless or until they attain a very high degree of autonomy, while many of the usual objections to legal personhood for artificial agents can be seen as directed exclusively against the second kind. Dependent legal personality requires that the machine might need the human assistance at several points. As far artificially intelligent machineries are

---

[46]https://www.cambridge.org/core/journals/international-and-comparative-law-quarterly/article/artificial-intelligence-and-the-limits-of-legal-personality/1859C6E12F75046309C60C150AB31A29#fn22
(Last visited 29/05 /2022).
[47] Sameer chopra and Lawrence F. White, *A Legal Theory for Autonomous Artificial Agents* 159(The University of Michigan Press, United States of America, 4th, 2014).

concerned they are either very complex or very light. By complex I mean that the extent of autonomy is more in complexly designed machines as they support more independence in machine in formation of decision. Once they achieve this level, they might be allocated independent legal personality. But for now AIMs are not granted generally independent legal personality.

A dependent legal person can only act through the agency of another legal person in exercising some or all of its legal rights. The word dependent denotes the reliability and insufficiency of dependent legal person. Their reliability is based upon an independent legal person is not subject to any such restriction and is said to be sui juris. Such a distinction aligns with Gray's distinction between the subject of rights and administrators of rights. The former may be animals, unborn human beings, or even the dead; but such entities cannot administer rights, for that requires acting to achieve ends. Examples of dependent legal persons include children; adults who are not of sound mind; abstract legal entities such as corporations; and even inanimate objects such as ships and temples Children have a limited capacity to enter legal contracts, and they must sue or be sued via a parent (or guardian ad litem) who decides on the best interest of the child with respect to the litigation. The law, however, acknowledges that children gradually develop their mental faculties, and in recognition of this fact gradually extends the field of decisions in the medical sphere that they can take without the consent of their guardians.

Furthermore, adults who are not of sound mind may enter contracts through an agent who has been appointed, either under a durable power of attorney or by a competent court, and they may sue or be sued through a guardian or similar appointee. A corporation likewise is dependent on the actions of other legal persons, whether members of its governing organs or employees or other agents, in order for it to engage in legal acts. Similarly, inanimate objects such as ships or temples are dependent on the actions of other legal persons, whether owners, trustees, masters, or the like, to represent them and give them legal life.

Hypothetical forms of legal personhood for animals or trees would also be dependent forms of personhood, requiring a suitable representative to be appointed in order to exercise the rights to be granted to those legal subjects.

Thus, the class of dependent legal persons contains a spectrum of intellectual and physical capabilities, from the total mental incapacity of those persons who are not officially brain-dead but are in a vegetative or comatose state, to the near-independence of a seventeen-year-old of sound mind. As far as dependent legal personality is concerned, the most common form of legal person other than humans, the corporation, can only act by its agents (or its board of directors or general meeting); by itself it is completely helpless. So a technical inability to perform a task personally is no bar to being accorded dependent legal personality. Now let us consider the other non-human entities and their degree of autonomy to determine their legal personality.

2. Corporations

The corporation is normally an association of individuals for carrying out some task which is not limited to carry out business. As we have read earlier that according to fiction theory of legal personality a non-human entity could be granted personality if they subjectivity to

rights and duties could be guaranteed by their being recognized as legal person. For recognition as legal person law has determined various ways. For example: Companies Act 2013. Corporations once a company is incorporated it becomes distinct from other persons who had formed association to be incorporated in the form of company.

Industrial Revolution that took place in England and also other Continental European Countries, that gave rise to the phenomena of people joining together and getting formally incorporated for the purpose of doing business .Only idea behind the incorporation of people, is to make, carrying out that business relatively easy and limit liability in case of loss. But the question is if this third entity does something which qualifies as crime, who would be responsible. Issue was brought through *Salomon's* case[48]. The fact of the case is simple. There was a family shoe business and Salomon formed a company. They were doing it without formally incorporating it. If it's not incorporated it's not considered as a corporate body and the moment it is incorporated they assume a different identity all together. Salomon argued that he's not liable for any fault of the company because company has a different entity all together. Their lordships were in dilemma as certain kinds of wrong require malice which is comprehendible to human mind and not a wholly personified piece of non-living entity, thus there was a need to remove veil of corporate entity and figure out the real wrong doer. It was then held that a Company has no mind of its own and you'll have to identify the controlling limb, mind and those who are at the helm of affairs.[49] Thus corporations were recognized as legal person. However this personality is not completely independent, as regulation of a corporation requires human interference. Thus corporations are dependent legal persons.

3. Idols, Mosques, and Religious Books

It is important to focus upon the already decided cases in which the apex court has granted legal personality to non-human entities. Through this a ground could be formed to discuss the legal personality of artificial intelligence. There has been mention of various qualifications in these cases to be called as a legal person, but for the optimistic consideration one thing can be validly inferred from these judgements, which is, that legal personality could be more than human beings who breathe.

In the case of **Pramatha Nath Mullick V Pradyumna Kumar Mullick**[50] the Privy Council had considered the Hindu religious idol as juristic person. it was held in that once an idol is consecrated is considered to be juristic person who could claim all his rights through its shebait(manager of idol to enforce the rights and duties on behalf of idol). The court also stated that such idol through shebait could hold properties, sue and be sued. The court reasoned by basing itself on the judgement of **Mukerji J. in Rambrahma v. Kedar**[51]. Mukerji J. had observed that upon consecration the deity is incorporated in the form of a person who is likewise treated, the deity is offered food, being cleaned and his premise is being cleaned as well. This incorporation is done according to Hindu customs. Customs are one of the sources of law which has its enforcement because of being immemorial. If we recall the principle of Salomon's case and fiction theory of personality, it was established that legal

---

[48] Salomon v Salomon and Co Ltd [1897]AC 22.
[49] ibid
[50] (1925)27 BOMLR 1064
[51] (1922)30 CLJ 478(pg. 483)

personality could be granted if any entity is recognized by law. Thus deities are recognized by law (customs) as legal persons. Also in the case of *Yogendra Nath Naskar V Commissioner income tax*[52]*,* the Supreme Court went a step ahead and recognized Hindu deities as taxable individual. The court observed that if Hindu deities could acquire property under the shield of legal personality, why they shouldn't be taxed upon it.

Further in the case of *Masjid Shahid ganj V Shiromani gurudwara Prabandhak*[53]*,* the hon'ble court decide that only for the purpose bringing suit in that particular case the mosque could not be considered as 'juristic person' however the court reserved its words on the point of law that whether upon any other scenario the mosque could be considered as legal person.

Hindu deity has been bestowed with legal personality however mosque has been denied the legal personality the answer lies to this through the case of *Shiromani gurudwara prabandhak committee V. Somnath das*[54]*.* In this case the question was raised whether Guru granth sahib holds a juristic personality or not. The court observed that there are various attributes which parts an entity a legal personality and one of them is being perceived by senses. As far as Hindu deities are concerned they are in the form of idols and they are consecrated and treated as a person by offering of food etc., however mosque is not in idol form and worship could be done at any place i.e. mosque is no necessity for worship. While determining the question of personality of guru granth sahib the court traced back to the words of Guru Gobind singh who while dying declared that from now there would be no guru in Sikh religion and the only eternal guru is, Guru granth sahib. Thus he constructively consecrated the book in the form of guru whose guidance is followed. In the light of before mentioned observations the court took no hesitation in declaring Guru Granth Sahib as legal person.

In the light of the above scholarly and judicial discussion there is a leeway that AIMs could also be treated as legal person. There is only one requirement for granting such juristic personality which is the recognition by law. Most of the self-learning machines work like an agent. Human recognize deity as person by making offerings, in the same manner by recognizing an entity as agent, there is a likelihood that they are fulfilling their intention through machines. This course of action creates an anticipation of personifying an intelligent machine.

V. LEGAL PERSONHOOD TO ARTIFICIALLY INTELLIGENT MACHINES (AIMs)

In the previous pages the researcher has tried to justify the legal basis upon which legal personality of AIMs could be established. On the basis of technological advancement the AIMs have been classified into soft and hard AI. Soft AI equipped machineries requires more human interference thus they could be granted dependent legal personality. As far as hard AI is concerned, they are created with more complex coding and autonomy. Most exclusive form of hard AI is super intelligent machines which is an aspirational goal presently. Nevertheless those hard AI would be eligible to qualify for independent legal personality. This part of the chapter is mainly concerned with the incidents of recognition of AIMs as legal person and most relevant theories for grant of legal personality to these AIMs.

---

[52] 1969 SCR (3) 742
[53] 1940(42) BOMLR 1100
[54] Civil Appeal 3968 of 1987

1. AIMs as Legal Person

The talk over legal personality of AI machines gained pace when in 2017 a Saudi Arabia based robot Sophia was granted citizenship because grant of citizenship few characteristics had to be determined like place of birth, time of birth etc. However it was averred that in case of robots time of birth could be the time when their switch turn on. Place of birth could be the company where it was made.[55] In 2010 Japan took a household registration for companion robot 'Palo' this determined the pragmatic approach taken by law that they understand nexus between legal personality and citizenship. In the previous parts researcher has tried to substantiate her contention that 'person' is not limited to 'humans'. As the definition of term 'person' has evolved over time, subjectivity of AI machines to legal personality could be a more pragmatic approach of law. The elimination of the qualification of 'being human' for being 'person' already favours anticipation of inclusion of AI machines as legal person.[56] The world has been accepting the legality of entities by validating it under the ambit of some already existing thing. For example the acceptance of drone machines under the ambit of term 'aircraft'. In the same way for the purpose of acknowledging liability there has been a quest to recognize an entity as person.

2. The Quotient of 'Intelligence' in Machines.

The world has been in a race to multiply their wealth and divide their labour, for this purpose there has been immense development in the field of technology. Till date Homo sapiens are one of the most efficient individual who can think independently. If this autonomous thinking capacity could be developed in machines there would be birth of a new species i.e. 'machina sapiens.[57] Thus the most crucial part of being intelligent is to 'think' and if any machine could think it could suggested to be intelligent. Gabriel Hallevy[58] suggests that there are basically five components associated with thinking namely:

- Communication
- Internal knowledge
- External knowledge
- Goal driven conduct
- Creativity

Communication is an important aspect of intelligent species. Communication could be in oral or written form. Communication makes sure that the thing which is communicated is comprehendible by the other person. The art of communication could be used to test the other individual in understanding the complicated ideas, but being intelligent is not limited to mere communication. The important factor of being intelligent is internal knowledge or self-awareness. Self-awareness means the knowledge about one's own capabilities. An intelligent individual could assess his own capabilities and act accordingly. External knowledge is another attribute of intelligence. External knowledge refers to the knowledge about the prevalent ideas in outside world and act accordingly. AI machines gain this outside

---

[55] https://www.britishcouncil.org/anyone-anywhere/explore/digital-identities/robots-citizens (last visited 29/05/2022)

[56] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8734654/ (last visited 29/05/2022)

[57] Gabriel Hallevy,*When Robots Kill: Artificial intelligence under criminal law* 25(Northeastern University Press,Boston,5th edn.,2013).

[58] *ibid*

information through data processed into them. Goal driven conduct is different from random conduct, the former involves planned execution of predetermined act however later is not based upon any such anticipation. Goal driven conduct shows the intention to act and knowledge about the result of such conduct. Creativity is one of the most important attribute of being intelligent. It showcases one's desire to do a course of action through other means which involves less input and more output. Thus Hallevy determined as to when can a 'machina sapiens' be considered as intelligent so as to call it 'intelligent machine sapiens' or 'artificially intelligent'.

However it is not always necessary that 'thinking' or 'intelligence' is sine quo for entity to be recognized as a person. Even rivers are recognized as legal person which neither living nor intelligent.[59]

3. Attributes Favouring Legal Personality to AI Machines.[60]

David J calverley had mentioned two attributes which determines whether legal personality could be granted to an entity or not. He says that 'intentionality' and 'autonomy' are two features which denote whether an entity is prudent enough to be called as legal person. The term intentionality could be understood in two ways i.e. philosophical intentionality and legal intentionality. He asserts that if these and attributes could be found in any entity then it could be construed as legal person once declared by law as so.

Philosophically the term intentionality means ability of an individual to feel something or to represent its expression. Intentionality is a way by which mental states are guided to act. This understanding of 'intentionality' could be just in philosophy, yet it's acceptability in law is under shadow. Legally intentionality is not limited to rationale which regulates the behaviour of individual. Intention in legal domain means the desire in the eyes of the doer to achieve an anticipated outcome and belief about the result of an act before commission of that particular act. Intentionality requires four coextensively things:
  ➢ There has to be an intention
  ➢ Action accompanied with intention
  ➢ Skill to perform the act
  ➢ Awareness about the act

If following above things exist then an AI machine could be considered as legal person. Coming to the essential of legal personality according to calverley the second is 'autonomy'. According to him an individual is said to be autonomous when he acts according to his will anticipating consequence of his actions. In the same an intelligent machine is said to be autonomous when it works as an agent on the part of its human principle. There is predetermined and calculated degree of discretion exercised by AI machines.

---

[59] Mohd Salim V. State of Uttarakhand 2017 SCC OnLine Utt 367
[60] David J. Calverley, "Imagining a Non-biological Machine as a Legal Person"22 AI and Society Springer 523-537(2008)

The personality of AI machines was talked upon in European parliament which coined the term 'electronic personhood' upon the personality of AI machines. The Parliament then requested a study upon AI by Professor Andrea Bartolini[61] who discussed the meaning of the term 'electronic personhood'. This electronic personhood was understood in two senses. Firstly, the machines which has adopted such level of independent intellect that it can act without human intervention, in that sense they are eligible to claim rights and duties. Professor Bertolini has denied to this proposition as currently there is no such AI machine which has achieved such level of autonomy.

Secondly the notion of electronic personhood could be put at par with legal personhood. While considering it the functional approach of granting legal personality to corporation could not be ignored. The corporation are allotted legal personality to work like representative of cluster of people for enforcing their interests as a whole. This representation also encompasses liabilities put on corporation as a whole. For example: if any compensation is imposed on environmental violation of a company it is payable by the company as whole.

VI. CONCLUSION

The concept of 'person' has shifted from human interaction to organization, human interaction and, now to a human, machine interaction. Due to this the concept of personality has seen a major shift. The attribute of being a human was sine quo for recognition as a person, but now we are at a situation where 'living' is no criteria for grant of personality.

Currently there are few AI machines which possess high level of autonomy, intelligence and intentionality which gets them qualified for being a legal person. However we must wait realise that legal person are also eligible for rights which they, or on their behalf someone else can claim. In the case AI, this balance between right and duty is more bend towards only duty which again raises a supposition that the legislators wait for a time when there would be emergence of super intelligence with full autonomy.

---

[61] Andrea Bertolini, "Artificial Intelligence and Civil Liability"Pg 38(Study requested By European Parliament,2020)