

LEGAL IDENTITY OF ARTIFICIAL INTELLIGENCE

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Abstract: *The tech-tsunami wave has hit the shore, and there's barely any sector remaining untouched by artificial intelligence. We've reached an advanced level in developing Artificial intelligence. However, they're still lying in infancy in establishing their legal identity, adjudications by the Courts acknowledging their legal status, consequences of their actions and omissions, data security, and transparency while developing them. Imagine an artificial persona created which passes the biometric test or an A.I. doing tasks involving risk, financial or civil or criminal liability. Does this rising shift require for a legal personhood to be attached to an A.I. and if then legal identity is established can responsibility be figured out, they can be sued and may sue, be held accountable for unlawful activities and the thin line of being considered as a tool or a human equivalent machine be put off? The reignition of this discussion granting legal identity to an A.I., keeping in mind the lack of capacity of an A.I. to be punished or their disqualification to be a surety or a trustee, remains in question. Additionally, the convergence of legality- Hindrances and Solutions, the applicability of vicarious liability principles, rights or duties in artificial intelligence, and it to be treated as a legitimate subject of law and the facet of human rights in line with artificial intelligence.*

Keywords: *legal identity, artificial intelligence, legal personhood, robots, vicarious liability*

I. INTRODUCTION

As fiction and philosophy, A.I. has evolved with the exponential technological advancements and has now become an integral part and is extensive in every aspect of our daily life, from our smartphones to automated cars to security and surveillance to medical diagnosis and what not.¹ Artificial intelligence has principally focused and has ventured into the components of learning, reasoning, problem-solving, and usage of language, and if it works independent of human intervention, it is to be contemplated as a machine equivalent to humans².

The research for artificial intelligence began in the late 1940s and early 1950s and has gained momentum in the past decade.

II. ARTIFICIAL INTELLIGENCE: DEFINITION

Artificial intelligence is a man-made entity which possesses the ability to imitate the intelligence capacities of the human partner and an expansive process of creating computers and robots, act and think like humans³. It also has the ability to utilize cognitive functions by way

of using its working memory and performing logical deductions, abstract reasoning, and to learn advanced things independently. Colloquially, these machines and robots are having the ability of reasoning and solving problems like a natural person and perform other humanly tasks and this intelligence displayed by machines is in contrast with the natural intelligence possessed by humans.

Recent trends in the development of artificial intelligence lights upon the future of the tech-savvy world. Machine intelligence is heavily adopted in the Business to business, business to consumer as well as consumer to consumer channels and has pervaded in the industries of telecom services, automobiles, home appliances, transportation etc⁴. Partly, thanks to Artificial intelligence for helping in the invention of vaccines by analyzing and researching vast data about the coronavirus, in such a short span of time and is a revolutionary step ahead in this field and the advancements also include self-driving cars, natural language processors etc.

The discussion on A.I. is not just restricted to one territorial border and has now become a

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¹ Bresnahan, T. and S. Greenstein, *Technological Competition and the Structure of the Computer Industry*, 47 (1) *Journal of Industrial Economics*, 1-40 (1999).

² Brooks, R., *Intelligence without Representation*, 47 *Artificial Intelligence*, 139-159 (1991).

³ Minsky, M., *Steps toward Artificial Intelligence*, *Proceedings of the IRE*, 8-30 (1961).

⁴ Nilsson, N. (2010), *The Quest for Artificial Intelligence: A History of Ideas and Achievements*, Cambridge University Press (2010).

universal matter as it is making expeditious impacts globally. Our nation is gradually moving ahead with this sector respectively in the context of powerful artificial intelligence being used and by offering high-performance in multiple sectors⁵.

Identity concerning Artificial intelligence has given rise to curiosity as to the liability, accountability, ownership of an A.I. under the system. With the growing inventions in the field, it is crucial to discuss the identity so as to bring a clarity on the actual status of a machine driven by artificial intelligence as the day is not far when these robots and intelligences will be developing useful inventions autonomously⁶.

Here the question arises that the A.I. helps us to perform our daily chores by making life easy, does it have any identity? Can we sue an A.I. for not performing the requisite? If yes then do A.I. have all the financial resources to represent as compared to humans? These are the few questions which define the identity of artificial intelligence. Talking about the present scenario with the help of an example, we all buy products online and when we do so, we are being guided and processed by an A.I., now if any mistake arises either relating to order, payment, address of delivery, etc. we will sue the platform as whole for compensation. Can't we sue A.I. for malfunctioning? The answer is clear context will be 'NO'. This is because of the reason that at this point of time our law only provides "person" to be sued which also includes a legal person i.e., a legal entity. A.I. does not get recognized as legal entities as it does not have any financial resources to compete its own case, as specified in the realist theory even if we deny the legal existence of Artificial intelligence we cannot negate that these things do not have real existence, the legal personality is a facet to the subject of law and holds a matter of significance, so in relation to this theory only the natural person including humans and the legal entities are enshrined with the capability of having rights and being accountable. Once the ability of artificial intelligence is seen as equivalent to the aspects of legal identity, they will be covered here.

In 2017, in a Macaque selfie case⁷ where a monkey clicked a picture and the same picture

was submitted to be copyrighted, the issue arose that whether a monkey could be given the ownership right. The court observed and ruled that an animal cannot be given ownership and hence the first person related to that act will be given the rights of ownership, in the instant case, the person who owns the camera. Contrary to it, there are some A.I. Robots that have citizenship rights, i.e., identity. Sophia was granted the first robot citizenship in south Arabia. The question that arose here is that are these rights same as compared to humans, but as of now, Sofia is not the only A.I. with citizenship, a "BOY" Shibuya Mirai became the first A.I. bot to get residency status in Japan, Tokyo. Also, an A.I. named "SAM" owns his personal bank account. It has been predicted by Dr. David (Sophia's creator) that by 2045 the A.I. will start insisting on their civil rights.⁸

Again, the question is whether granting citizenship is the same as giving identity and if yes, what will be the consequences.

Recently A.I. has made a product that is "original" and was made without human intervention, and the court observed whether A.I. is compatible with taking ownership on its own. The court also observed that one only does something when he wants to get something out of it, and usually, it can be referred to as profit, name, or money. However, A.I. does not hold any interest in making any of it. Hence the court opined that either his creator would get the rights or the rights would be issued in the public domain.

III. YESTERDAY OF ARTIFICIAL INTELLIGENCE: EVOLUTION

The elusive subject of A.I. has undergone a significant resurgence over the years. Father of A.I., prof. John McCarthy called it "the science and engineering of making intelligent machines, especially intelligent computer programs."⁹ During the 1950s, a game was proposed by Alan Turing to answer the question of, can machines think? Like humans but without human intervention, the interrogator had to be convinced by the computer that it is a human. This game was set to test the extent to which a machine can imitate and think like a human to

⁵ A.M. Abubakar et al, *Applying Artificial Intelligence Technique To Predict Knowledge Hiding Behavior*, 49 International Journal of Information Management, 45-57 (2019)

⁶ J.F. Allen, *AI Growing Up: The Changes and Opportunities*, 19(4) A.I. Magazine, 13-23 (1998).

⁷ Andres Guadamuz, *Senior Lecturer in Intellectual Property Law*, University of Sussex, United Kingdom,

https://www.wipo.int/wipo_magazine/en/2018/01/article_0007.html

⁸ A leading roboticist who developed an advanced *humanoId* robot has predicted that artificially intelligent *androIds* will be given civil rights within 30 years.

⁹ John McCarthy, *What is Artificial Intelligence?* Stanford University (2007). Available.: <http://jmc.stanford.edu/articles/whatisai/whatisai.pdf>

qualify for the title of artificial intelligence machine.

Would you still not accredit the achievement of an A.I. program that has successfully won not just once but twice against the world chess champion Garry Kasparov, it was IBM'S Deep blue, a computer that played chess¹⁰ and defeated a human professional. The creation of A.I. unveils to music albums production and composition, which predicts the autonomous functioning of the program. Today A.I.'s are being trained to perform specializations involving thinking abstractly and reasoning, which have resulted in accurate weather predictions, early-stage disease diagnosis, etc., and this reignites the discussion of granting legal identity to A.I. of its ability to work independently without human control¹¹.

IV. HUMAN CITIZENSHIP AND ITS COMPARISON TO A.I.'S CITIZENSHIP

It has been widely criticized how a robot can be given citizenship rights while the women of that country are not provided with equal rights. In Saudi females are required to wear hijab while in public places but Sophia was not required to do so¹². This implies that the A.I. is more modern in right as compared to human females. This is a hindrance for women of that particular region hence violating basic human rights. Citizenship rights are only available to natural persons and not to non-humans, but here is the case. For extraordinary performance in the field of service, and in extraordinary situations, Sophia has been granted citizenship rights. The same principle has been applied while giving other rights to robots "SAM" and "SHIBUYA". Now the concerns in hand are what are the consequences. Many experts considered it as detrimental to the digital world and civil rights.¹³

Will it be practical for an A.I. robot to vote in elections or to hold any political position by making public interaction and relations?¹⁴ We all know the answer to this question is that this is something not practical. This makes one thing very clear that whether A.I. can perform all human activities but at the end it is not naturally imbibed in, it is something that is being

mechanically installed as features by a human. While taking these issues in consideration the European parliament in 2017 passed a legislation to as the civil law rules on robotics, the report states that the purpose is not to classify robots as a human but to give them a separate legal status. It was also clarified that giving citizenship is very different from providing legal status. Legal status does not entitle someone for citizenship¹⁵.

V. HINDRANCES TO LEGAL IDENTITY OF AN A.I.: THREAT TO HUMAN RIGHTS

A comment was made by Late Prof. Dr. Stephen Hawking marking the dangers associated with robots¹⁶, quoted as "*the development of full artificial intelligence could spell the end of human race*"¹⁷. These presumptions are intensely against the robots and their rights, as there's no guarantee to their performance, who might be built as an ethical robot and show no signs of moral behavior. The eternal existence of robots inflicts having far-fetched thoughts on human extinction, or a fully autonomous robot waging war. The potential achievements by A.I. are appreciated but thinking forward to the coming decade, the risk and security concerns associated with it are highly plausible as accidents caused by A.I. are predicted to be destructive.

VI. ETHICAL CONCERNS

1. Artificial Intelligence and Human Right Issues- As A.I. is growing rapidly with new technologies and innovations capturing the market in almost every sector. Many companies are adopting these innovations as their primary workers. Big companies including Apple and Microsoft have adopted a face identification system solely working by A.I. and without any human help, Personal assistants are being replaced by Siri and Alexa, well known company Adidas has moved to a robot only factory, and whatnot. Till now, the technology was only affecting the middle and low-skilled workers, but as the technology is advancing, it is affecting every class of people i.e. leading to job polarization. Jobs all over the world have

¹⁰ Deep Blue, IBM'S 100 Icons of Progress, (2011).

¹¹ *Machines are Taking Over - Are we Ready?* 33 SAclJ 24 (2021).

¹² *Artificial Intelligence: Subverting the Fundamental Dynamics of Patent Mechanism*, P.L. July 58 (2019).

¹³ *Artificial Intelligence Generated Works Under Copyright Law*, 6.2 NLUJ LR 93 (2020).

¹⁴ *Judicial Decisionmaking and Explainable Artificial Intelligence*, 33 SAclJ 280 (2021).

¹⁵ *Artificial Intelligence and Evidence*, 33 SAclJ 241 (2021).

¹⁶ Cade Metz, *The Battle for Top A.I. Talent Only Gets Tougher from Here*, WIRED (March 23, 2017, 11:00 AM)

¹⁷ Quote, Stephen Hawking

already been affected by covid and this new wave of A.I. is going to aggravate it further.

This is now supporting the said notion that “poor is becoming poorer and rich is getting richer”. It is interesting to note that these violations are not nation-specific, but are technology-specific, so one can reasonably predict that if a technology violates human rights in nation 'A,' the same technology when applied to nation 'B' will have the same outcome. Thus, it is imperative to understand how this technology violates human rights and what measures should be taken to combat these violations in order to maximize its benefits. Below mentioned are other factors that are affecting the said issue and we have tried to analyse the factors that are affecting the human race.

2. Unfairness, Bias and Discrimination- Unfairness and biases come up as a major challenge related to the use of automated systems. For example, to make decisions related to education, health, employment, credit, and insurance, the A.I. may get biased on one option unintentionally without even providing a reason for it. A.I. may discriminate at any stage either of design, development or operation. To the very serious instances an A.I. may get unfair while appointing people preferring the white young Americans over any other¹⁸. This poses a violation to the fundamental rights of the humans which confers no discrimination of any basis and promotes equal treatment¹⁹.

3. Adverse Effect on Workers- The researchers found that for every robot added per 1,000 workers in the U.S., wages decrease by 0.42%, while employment-to-population ratios declined by 0.2 percentage points - this means that there have been about 400,000 job losses since 1996²⁰. A robot added to a commuting zone (the geographic area used to analyze economic activity) reduces employment by six workers in that area. Industries are adopting robotics to varying degrees and impact differently in different parts of the country and across different groups - the auto industry already uses robots more than other sectors and low- and middle-income workers who perform

manual labor and live in the Rust Belt and Texas are among the places most likely to be affected by robots²¹.

According to Acemoglu, "Our research shows that robots increase productivity, giving firms a competitive edge. However, at the same time, they undermine jobs, reducing labor demand. This must also be considered. Automation technologies generally do not bring shared prosperity by themselves," he added. "That doesn't mean we should reject robots, but we need to have a holistic view about the effects that robots have on society." "Robots must be combined with other technological changes that encourage employment." Men and women are both affected by robot adoption, though men are more so²². The impact of robot adoption on men is greatest in manufacturing jobs while in non-manufacturing jobs, women felt the effects the most.

VII. TECHNICAL CONCERNS

1. Artificial Intelligence a Bargain with Data Protection and Privacy- Prima facie what appears to be helpful can have serious consequences attached to it. Difficulty in detecting an online follower or a Facebook like correlating wide range of your personal choices²³ or inference of your data by companies causing you reputational harm or a picture embedded with geotag revealing your location²⁴ or cyber vulnerabilities, including misuse of private data by selling off data and making commercial gains etc., are all real-time issues remaining unanswered and constitute the flip side of Artificial intelligence. Technological sophistications incorporate Artificial intelligence, cognitive technology²⁵ etc., and the emergence of these advanced systems jeopardizes our privacy and security as these programs optimize our biometric data like fingerprints, face images, iris scanners, voice recordings etc. What poses a serious threat is the proliferation of A.I. in every aspect of human life and the interconnectivity created between various data that connects every sphere of life by linking it, also losing of anonymity of

¹⁸ *What Does it Take to be a Human Being: Issues of Conferring Citizenship and Civil Rights on "Intelligent Machines"*, 7 CMET 1 (2020).

¹⁹ *Ibid*

²⁰ Webb, Michael, *The Impact of Artificial Intelligence on the Labor Market* (November 6, 2019).

²¹ Ajay Agrawal et al., *Artificial Intelligence, Scientific Discovery, and Commercial Innovation Deepfakes and its Iniquities: Regulating the Dark Side of A.I.*, 5.1 NLUO SLJ 41 (2020).

²² *Smart Contracts and Blockchain: The Panacea to the Unequal Bargaining Power of Consumers?* 8 IJCLP 40 (2020).

²³ Michal Kosinski, David Stillwell & Thore Graepel, "Private Traits and Attributes Are Predictable from Digital Records of Human Behavior" 110(15) (2013).

²⁴ Kate Murphy, "Web Photos That Reveal Secrets, Like Where You Live" *The New York Times* (August 11 2010).

²⁵ *Right to Privacy in a 'Posthuman World': Deconstructing Transcendental Legacies and Implications of European Renaissance in India*, 1 SML L Rev 52 (2018).

a person adds up to the privacy concerns. Privacy is a slab between private and public, as articulated by various professionals it is right of a man to be left separate to ensure protection against undesired information circulation or disclosure of private matters which are not to be presented to the public and an individual's right to share data to the public to the extent, they feel pertinent²⁶.

Sensors fitted in many equipment's captures data without due consent and knowledge of the individual, and also data can be abused and be used for many other ill purposes, think of an A.I. being used to gather and generate sensitive information of yours using the insensitive one, this harms even when we are just assuming this but someday this may turn to reality. Privacy can be affected by various ways of data exploitation, tracking and surveillance, profiling or biometric recognition etc.²⁷

All these above said concerns put our security and privacy under serious threat and until stringent legislation for data protection are enforced this puts a bar to give autonomous legal identity to an A.I.

2. Black box: Artificial neurons: Inner Unexplainable Functioning- Imagine yourself going to a bank requesting for an educational loan, and after a moment of going through data and analyzing the manager informs you about the loan request being rejected and when asked the reason you were dictated with the answer that it is an automate generated response by the newly installed artificial intelligence system and they've no reasoning for this disapproval made by the system. And unfortunately, this isn't imaginary anymore, it's a real-time concern.

Massive data is installed in A.I. and it has the potential to use the data dynamically and make human-like decisions where humans are not even able to perceive how the A.I. system concludes and generates outputs. This advanced approach comes with a cost even for the makers²⁸ as understanding the black box is as improbable and as difficult as reading a human brain.

Black box is the internal functioning, the in-between working of an input processed and

output of an AI-driven machine. These complex models can't be tracked of the numerous variables jointly working inside to produce results and the inherent opaqueness²⁹. The possibility to interpret the functioning of the black box is close to a negative answer. The A.I. can do it all like humans or even better but it fails to demonstrate the contemplation and reason for doing a task. For eg. We someday encounter real-time aliens or any high intelligence species which possess completely different sets of senses and consciousness³⁰, will we be able to comprehend as they may not respond to the inquiry of intention and causation?³¹ So what all can be inferred related to the conduct or intent of an A.I. would be by the means of its creator and even the maker may not be able to predict the A.I.'s decisions and way of operating, that's the black box. The internal algorithm of functioning is entirely opaque which is a hindrance to discomfort arising for humans to trust and establish legal identity for these systems.³² Since, the A.I. doesn't get the harms or consequences of making a decision and are incapable of justifying the reason for the result, all this lands onto lack of algorithm transparency, the unexplainable functions of the Black box concept.

3. Uniqueness- A multidimensional composition of identity involves biological recognition, cognitive as well as social experiences encountered and it is difficult to trace the match of robots which distinguishes them from others, unlike Biometrics in humans³³. How is identity established, through MAC address, electronic signatures or some barcodes? These mentioned features form a hardware identity which can be shifted from one to another and hence not forms the real identity of a robot. Not having uniqueness poses a hurdle in the establishment of identity to an A.I.

Not even thinking of a Bollywood movie scene! What if a man and a robot are caught in a situation standing in two different directions and a train approaching them at full speed, and the train master is given a choice to save one and to direct the engine in one direction, who would

²⁶ *Artificial Intelligence Enabled Cyber Fraud: A Detailed Look into Payment Diversion Fraud and Ransomware*, 15 IJLT 261 (2019).

²⁷ *Extraterritorial Algorithmic Surveillance and the Incapacitation of International Human Rights Law*, 12 NUJS L Rev 189 (2019).

²⁸ *DavIde castelvecchi, Can We Open the Black Box of AI?* NATURE (Oct. 5, 2016)

²⁹ *Ibid.*

³⁰ Yavar Bathaee, *THE ARTIFICIAL INTELLIGENCE BLACK BOX AND THE FAILURE OF INTENT AND*

CAUSATION, 31(2) Harvard Journal of Law & Technology, Spring (2018).

³¹ *Ibid.*

³² *Determining the "Domain" of Trademark Laws - Application in the Interception of Cyber Squatters*, 1.1 IJLPP 63 (2014-15).

³³ J. Carbonell, et al, *An overview of machine learning*, TIOGA Publishing Co., Palo Alto, California (1983).

it be? Would the robot be saved as it couldn't protect itself?

VIII. LEGAL LACUNE³⁴

1. Degree of Autonomy- Autonomy in a lay man's understanding means independence, and this independence here includes having the freedom to control and manage your own affairs, ruling your decisions independently without anyone's interference. Breaking down this word into two sections where *autos* is self and *nomos* means laws. Forming of a self-sufficient free decision by an A.I. in the unpredicted situations with no form of human intervention in its operations will be termed as actual autonomy to a machine intelligence³⁵. This counts self-awareness, self-consciousness, intelligent interaction and the learning ability³⁶. This high upgradation in the system brings along the serious consequences of the rise in responsibility gap. Autonomous machines may vary from a vacuum cleaner to an automated plane. These self-reliant devices are likely to adapt in the dynamic environment and are seen to avoid harmful situations³⁷. How far we go with these complex machines still needs humans at the end of the day for the purpose of maintenance. A negative perception is carried by humans in relation to the autonomous robots as compared to the non-autonomous ones³⁸. The identification risk has raised the negative attitude and opposition towards these bodies as it is difficult to trust a fully autonomous robot so as per author there must be set standards for specific field of work for setting the level of autonomy, no such general measure can be made as every machine works differently in their area of operation. Complete autonomy puts a big question on liability, will the fully automatic machine be held liable?

2. Liability- Machine Intelligence or Maker or Owner- Science, the scientific community is well known to the advancements and future of A.I. which would supersede humans in all

aspects. The biggest impediment in granting legal status is set back due to the liability concerns, who would be liable for the actions of an A.I.? Can these intelligence machines be legislated by criminal and civil laws? Will these *machina-sapiens* be treated equally as *homo-sapiens* and be made accountable? Since, the fact that an A.I. doesn't fit in the definition of a legal person does not relinquish it from the suffering of consequences for its acts. Artificial intelligence machines can't be held liable for the destruction caused by them as they are not legal or natural persons, as was pronounced in the instant case of *United States v/s Athlone Indus Inc*³⁹. The European parliament⁴⁰ mentioned in the resolution passed on the day October 20, 2020, the aspects of civil liability of artificial intelligence and remarked that our legal system lacks discipline in issues concerning liability of A.I.'s. till now we only talked at the basic level i.e, civil liability, what about criminal one? Criminal fatalities caused by A.I.'s and one such example includes an incident from India where the man adjusting the sheets of the device was pierced by a robotic arm⁴¹. Each year one man is killed by an industrial robot in the United States alone⁴². How long will these robots be acquitted under the blanket of not having proper subject of law in the matter. Victims of harm inflicted by A.I. cannot be compensated without proving the liability of the operator⁴³. So, liability has to be traced back from the operator up till the A.I. whose liability still remains as an interrogative statement⁴⁴.

3. Legislations for A.I.- Currently, no legislature regulates machine intelligence. The laws are applicable on persons and these persons include, natural persons, corporations etc., and there's no mention of robots and machine intelligence till date⁴⁵. The principle of vicarious liability plays a significant role here as stated in Article 12 from the United Nations Convention, which can be interpreted as the person on the behalf the A.I. or machine has been programmed and

³⁴ Cath, C., *Governing artificial intelligence: ethical, legal and technical opportunities and challenges*. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 376(2133), p.20180080 (2018).

³⁵ Law, *Technology and Public Health: The Privacy Implications of the Storage and Use of Electronic Health Records*, 13.2 NSLR 1 (2019).

³⁶ The Internet of Citizens: A Lawyer's view on some technological developments in the United Kingdom and India, 12 IJLT 53 (2016).

³⁷ Bayamlıoğlu, E., *Contesting Automated Decisions*, 4 Eur. Data Prot. L. Rev, 433 (2018).

³⁸ Law and Technology: Two Modes of Disruption, Three Legal Mind-Sets, and the Big Picture of Regulatory Responsibilities, 14 IJLT 1 (2018).

³⁹ 746 F.2d 977, 979 (3d Cir. 1984)

⁴⁰ Valeria marcia and Kevin c. Desousa, *the E.U. path towards regulation on artificial intelligence*, (2021).

⁴¹ R.J. Singh & S. Yadav, *Terminator redux? Robot Kills a Man at Haryana's Manesar Factory*, *The Times of India*, (2016).

⁴² Gabriel Halevy, *The Criminal Liability of Artificial Intelligence Entities – From Science Fiction to Legal Social Control*.

⁴³ Brożek, B. & Jakubiec, M., 2017. *On the legal responsibility of autonomous machines*. 25(3) *Artificial Intelligence and Law*, 293-304 (2017).

⁴⁴ *Role of Virtual Learning Amidst Covid - 19: Challenges & Recommendations*, 5 UPES LR 18 (2020).

⁴⁵ Writ Petition (Civil) No 494 OF 2012

functions will be liable for the damage caused by the machine during performance of the task. Simply, as propounded in the master-servant relationship, it is applicable to this case of A.I. where the maker or owner will be liable for its actions.

Indian constitution along with the Citizenship Act of India⁴⁶(1955)⁴⁶ provides no room for artificial intelligence, the nation recognizes citizens as natural beings which doesn't comprise machino-sapiens also not even the corporations.

The concept of providing citizenship to robots is highly criticized by experts as it somehow diminishes human rights, where millions of people are struggling for gaining citizenship and to be protected as a citizen by the state⁴⁷.

As the line is getting thinner to differentiate between a robot and a human, can we deduce an answer for whether robots should have the right to vote or can a robot contest an election?

As per the author all this is based upon the consciousness of a robot the day robots are built upon this, they may get a right to vote but in the present scenario, this trait is still absent so keeping it as an open question till the time when robots and machine intelligence are made complex enough to understand correctly. Also, providing free travel to robot's choice and giving them to choose their citizenship or transfer their citizenship is still followed by a question mark. The traditional rules may be taken into reconsideration upon the upgradation and adoption of highly advanced technology. If they are made a voting citizen, then the very essence of humans and their rights might slowly disappear to a situation never imagined where the voters, doers, politicians all are machines, this is a social concern as we people still do not trust robots on their emotions, moral behavior and ethics. Assuming a robot as a leader, holding rallies, addressing the public with speeches, promising development where they are certainly looked upon as a destroyer to wipe out the human race.

Practically, these characteristics are not imbibed by the machine intelligence by their own or from societal interaction, whereas these features are installed into them which keeps them

distant from natural persons. Since the intentions of a robot can't be determined, it becomes hard for us to trust them in their actions as they could inflict danger upon humans, so it is suggested not to reward this section with human rights which would similize them to humans or even more.

"The rise of the machines is here, but they do not come as conquerors, they come as creators"⁴⁸

Creating works using artificial intelligence can have a very significant impact on copyright. Traditionally, the copyright of computer-generated works has not been disputed, as the program was just a tool to support the creative process, like a pen or paper⁴⁹. Creative works, if original, are protected by copyright, and most definitions of originality require a human author. Most jurisdictions, including Spain and Germany, state that only human-made works can be copyrighted. But with modern artificial intelligence, computer programs are no longer a tool, they make many decisions related to the creative process without human intervention⁵⁰.

We are already using A.I. in producing music and gaming. These works can be considered free of copyright and can be used by anyone freely. Think about it. It will become derogatory for the companies when they get to know that the produced thing is being used for freely and at the same time, they are producing music for gaming using A.I. by investing millions of dollars for the same. In this situation the company of the developer has a doubt that the investment being made will get a copyright or not than why the investment in such a system. It has been seen that when in an invention, the human intervention is minimal, either a copyright law is being declined or given to the developer. Many countries, including the developed ones, deny copyright to non-humans, and these laws are even not amendable.

For example, in the United States, the Copyright Office⁵¹ states that "the original work is registered, provided that the work was created by humans." This stance comes from a case law that states that copyright only protects "the creativity of the mind" and "the outcome of intellectual labor". Similarly, a recent Australian

⁴⁶ Citizenship Act of India, 1955

⁴⁷ The Wheels of Justice Delivery Mechanism: An Introspection, 97 SCC OnLine Blog OpEd (2020).

⁴⁸ Andres Guadamuz, Artificial intelligence and copyright, WIPO Magazine available at https://www.wipo.int/wipo_magazine/en/2017/05/article_0003.html.

⁴⁹ Scotchmer, S. (1991) "Standing on the Shoulders of Giants: Cumulative Research and the Patent Law," 5(1) Journal of Economic Perspectives, 29-41 (1991).

⁵⁰ Impact of The Digital Payments, and Neo Banks on Financial Inclusion in India and Its Interplay With The Data-Protection and Cyber Security Regulations, 9 (1) SCHOLASTICUS 1 (2021)

⁵¹ The United States Copyright office stating about Copyright Law.

proceeding ruled that computer-generated works were not created by humans and therefore cannot be copyrighted. It was done. In the landmark Infopaq decision⁵², the court opined that to give something copyrights, it has to be an original work, and the originality must reflect the "author's own intellectual creation." and it will only be original if the developer is a human and not a coded AI. The court while making it simply said "it is necessary that the author is human".

Considering the second option, i.e., giving the rights to the developer, this system is prevalent in the UK, India, Hong Kong and Ireland. These countries follow U.K. model of copyright and section 9(3) of the said model states that:

"In the case of a literary, dramatic, musical or artistic work which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken."⁵³

Also, Section 178 of the CDPA⁵⁴ defines a computer-generated work as a "work generated from a machine", work in the absence of a human author. The idea behind these provisions makes an exception to all human copyright requirements by recognizing the work of building programs that can produce works even when creative sparks are emitted from machines.

IX. WHY IN THE NEWS: INDIAN CONTEXT?

India, a developing nation that is moving towards development at its own pace, some consider it good and other questions the same. A.I. is Working in India and at the same time growing in India, for example there was a case in the copyright office of India where the issue was whether a product designed by A.I. with the help of humans can be copyrighted⁵⁵. The concern here was that the law only allows original work of an author, here in this case it is guided by an author and the creativity is of an A.I. The office has given the rights to the owner/creator and said that at this point of time it is not feasible to give these rights to A.I. At the same time, it was also observed that it is time we start thinking about giving an identity or status to A.I. as an individual. A 153-page

report⁵⁶ has been submitted in parliament which talks about the crucial importance of A.I. in the growing economy. This report is limited to making amendments in patents and copyright laws. The steps taken in 2018 regarding A.I. do not touch this at all.

Let's consider a situation where the author wants to take copyrights of a product invented by an A.I. Shall the author go before an A.I. for the rights? Here the cause of concern is that if an A.I. is competent at making new innovation and not ready for negotiation, isn't our law becoming redundant with such ownership rights. Courts are of the opinion that these rights listed in our constitution cannot be enjoyed by machinery and artificial intelligence devices but only by humans. Also, machine intelligence can't be compared to human personalities. However, whether this observation by Indian courts will be applicable in the future as the scope of artificial intelligence expands is an open question that will be decided depending upon the cases concerned in the near future.

X. PROPOSING SOLUTIONS

The concerns being played by the A.I. are like putting our own species in danger of complete wipe off. But, the future of fearing advancement of the techno world and not chalking out solutions⁵⁷ would be equally or more detrimental, as one putting a blanket ban would suffer a disadvantageous position in the competitive world. As it is known that these synthetic intelligences have an intellect, skills to understand, ability to create, potential and efficiency they should be recognized, and a feasible way out should be searched for to surpass them with a legal identity. Mere debates would not suffice as the coming ages look upon a world driven by A.I. and this matter being of utmost importance in public domain demands for actual solutions.

A broader approach is to be adopted for bringing a swift actionable mechanism dealing with the advent risk of vulnerabilities to humans and curbing the transgression fueled by these synthetic bodies.

1. developing an A.I. featured with an eye to protect the rights of humans⁵⁸. There has to be formulation of legislation and A.I. development

⁵² Infopaq International A/S v Danske Dagblades Forening.

⁵³ Section 9(3), U.K. model of Copyright.

⁵⁴ Section 178, Copyright, Designs and Patents Act, 1988.

⁵⁵ Andres Guadamuz, Artificial intelligence and copyright, WIPO Magazine available at https://www.wipo.int/wipo_magazine/en/2017/05/article_0003.html

⁵⁶ Final Report, National Security Report on Artificial Intelligence.

⁵⁷ Surabhi Agarwal, Robots will have full consciousness in five years, says Sophia creator, economic times (February 20, 2018)

⁵⁸ What Does it Take to be a Human Being: Issues of Conferring Citizenship and Civil Rights on "Intelligent Machines", 7 CMET 1 (2020).

to be made in a way to safeguard human interests and determination, gearing them with the notion of enhancing and helping the human species.

2. Research methodology to predict potential dangers and future harms by making worthy investments in this field for creating mechanisms to respond and resolve it.

3. High standards infused with fully transparent governance of the A.I. system⁵⁹.

4. Ethical policies to be formulated internationally⁶⁰, nationally and internally to uphold rights of the humans⁶¹specifically.

1. The Key Ways to the Solution Are:

i. Minimization: Reducing the risk and aftereffects of the A.I. by identification⁶², testing and evaluation.

ii. Advance development: Development of advanced methods for resilience of these impacts.

iii. Handling of the dysfunction: Stricter policies, statutes and regulatory bodies for tackling the ground level cause of risk caused by an A.I.⁶³

A thorough meticulous assessment by states⁶⁴ and organizations to investigate risk to human rights if any is associated with A.I.⁶⁵ starting from the developing stage and keeping it alive throughout the timespan of the A.I. This set standard would be used as a surveillance tool to examine the harms or interference if caused by A.I. to the human rights which should include the method to mitigate risk and measuring of the competency of the system, building a legal safeguard for the protection of human right and a specialized failsafe mechanism to disrupt an terminate developing, acquired or an operational system which if caught violating the mentioned rights. The testing to be done by field experts and involvement of third-party developing A.I. to help and investigate the legitimate consideration of human rights by the intelligence system. The laws enforced should be outlined with the current and future

technical considerations and these laws need to be overseen to maintain the relevancy.

2. Rights to be Enforced

Another path to solution is granting reasonable rights in a modified way so to the existing rights, these includes right to access, right of restricting the usage and prevention of data, deletion of data when redundant, right to modification of the data collected by specific A.I. and most importantly the user brings informed about the transfer and copying of their data to some other system or for some varying purpose. An A.I. should be launched by proper guidelines to their purposes, working mechanism, type of field to be used at, meaningful inside information that may allow a person to judge how the data put in there, impact them and every necessary detail which promotes maximum transparency of the system. The transparent processing duly includes either complete restriction on the usage of black-box mechanism⁶⁶ or the limited use of the processors which are able to fulfill the clause of examinability of how the output is produced. A portal creation within A.I. for instant complaint resolution and recovery mechanism should be created for benefitting the users.

A watchdog over the laws and essentially over the system is required to keep the check and balance⁶⁷, a test including risk management programmers, recovery mechanism, examining of high protection software has to be passed by A.I. in order to be released to the real world. A pipeline of biasness discovered and process to alleviate this hindrance led us to the development of an A.I. Fairness 360⁶⁸ which has been launched as a source to enable the makers of the intelligence to examine, report and alleviate the biases found in the software, the toolkit would also help in regulating and checking the unwanted partialness followed by the system. Other modes to bring fairness would be by developing fairness metrics to overcome discrimination⁶⁹.

⁵⁹Ananny, M. & Crawford, K, 'Seeing without knowing: Limitations of the transparency Ideal and its application to algorithmic accountability, 20 (3) New Media & Society, 973-989 (2018). DOI: 10.1177/1461444816676645.

⁶⁰ German Yearbook of International Law 2017 (vol. 60), Duncker & Humblot, Berlin, 91-108 (2019).

⁶¹ Artificial Intelligence: A Threat to Privacy? 8.2 NULJ 21 (2019).

⁶² Čerka, P. et al, Is it possible to grant legal personality to artificial intelligence software systems? 33(5) Computer law & security review, 685-699 (2017).

⁶³ Coglianese, C. & Lehr, D., Transparency and Algorithmic Governance. 71 Admin. L. Rev., 1 (2019).

⁶⁴ Lindsey Andersen, Human Rights in the Age of Artificial Intelligence, (nov,2018).

⁶⁵ Assembly, P., Technological Convergence, Artificial Intelligence and Human Rights, (2017).

⁶⁶ Bath is, Y., The Artificial Intelligence Black Box and The Failure of Intent and Causation, 31 Harv. JL & Tech., 889 (2017).

⁶⁷ Dignum, V., The ART of A.I.-Accountability, Responsibility, Transparency. Medium, (2018).

⁶⁸ Bellamy, et al., A.I. Fairness 360: An Extensible Toolkit for Detecting and Mitigating Algorithmic Bias. IBM Journal of Research and Development, 1-1. 10.1147/JRD.2019.2942287 (2019).

⁶⁹Courtland, R., Bias detectives: the researchers striving to make algorithms fair, Nature (2018).

The skill and training of the population⁷⁰ is becoming a necessity for the survival in the generation of synthetic intelligence. For liability a major curtain to legal identity, the issue has to be addressed under the facet of consumer protection law and making an A.I. liable for the intellectual rights of the property is a possible way, by the means of either practicing dysfunction, disruption or breakdown of the software.

Working on the solutions would not only bring efficiency to the system but also an ease for the humans to accept the paradigm shift in the world's working. The solutions proposed area to be worked upon as an urgent and immediate priority to build the trust of mankind into these software's and to go a long way ahead developing highly advanced extra super-intelligent intelligences.

XI. CONCLUSION

Systems that think and systems that act, are the two dimensions on which we can differentiate an A.I., one that only thinks and the one that also acts. In this whole paper we have tried to deliberate the practicability in the legal sphere in the interest of A.I. and the need to think on the transformation of A.I.

A.I. is an intriguing area of study for legal scholars, scientists etc. and no doubt is beneficial to each and every sector with full potential whether it be medical, education or commercial and serves as a helping hand to mankind. There are no such major discrepancies we have seen till now, but in the changing time, my friend, we will see more complex and sophisticated A.I.'s around the corner that will have the full potential to work independently and autonomously. If A.I.'s are going to work independently then where will the humans go? If an A.I. can think independently and write a paper, again where will the authors go? It is the emerging need of the hour to think of building a mechanism that will help differentiate A.I.'s while keeping the issue of human rights in hand. This paper gives a broader way to think of human rights and also directs those who are concerned about the human race.

At present we are not in the position of granting an individual legal identity to an A.I. as there are other big concerns in our hand relating to data protection, liability and human rights that straight ahead depicts imminent danger placed if once, machine intelligences are left fully

autonomous with their separate legal identity. This is time to analyze the current situation and look into the working of an A.I. We have to critically examine A.I. in all possible directions for building a mechanism that will aid in providing identity. By leaving it in a gray area, it would not be feasible to provide someone with the identity and not just the analysis but also there's a need to understand the major implications of A.I. that will have an effect on society as a whole. This is the one thing that we can go with, another one is giving a partial identity, as have already researched the positive implication of A.I. and its needs, we can provide it with some legal rights that are not in conflict and this way out will help to create a balance between humans and technologies to go hand in hand.

⁷⁰ Demiaux, V. & Si Abdallah, Y., *How can humans keep the upper hand. Report on the Ethical Matters Raised by*

Algorithms and Artificial Intelligence, Paris: Commission Nationale Informatique et Libertés, (2017).