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AI and Criminal Liability

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Abstract. Artificial Intelligence is basically a study of how to make a system, which can think, behave and act exactly or better than what a human being can act or react. It tends to the issues of making AIs more wise than human, and guaranteeing that they utilize their propelled insight for good as opposed to ill. In the field of Criminal Law, the ultimate concerns for Artificial Intelligence are whether an autonomous vehicle, drones and robots should also be given a status of electronic person? Or robot considered as a legal personality just like-corporations (as a legal person-who can sue and be sued as given to Sophia-a citizenship in Saudi Arabia) or would it be considered as a like it as an individual person within the purview of law. The likelihood of making thinking machines raises a large group of criminal issues. Artificial Intelligence has evolved out of from four basic subjects: Psychology, Philosophy, Mathematics and Linguistic, they are making a big role in an enhancement of Artificial Intelligence. This paper intends to identify issues and challenges pertaining to crimes and criminals/offenders, especially in terms of whether we should consider software programme as a product or service, as earlier it happened in case of considering electricity as a product rather than considering as a service, now that what is the obstacle is here, in the case of negligence(rash and negligent driving) , strict product liability, and vicarious liability in the field of law of penal and torts, where India lacks specific legislation. The question of legal liability arises when unmanned vehicle is involved in a car accident, the surgical system is involved in a surgical error or the trading algorithm is involved in fraud, etc., now the question is who will be held liable for these offences. Before we delve into the potential of Artificial Intelligence, let's take a step back to understand AI's legal issues pertaining to legal liability of Artificial Intelligence systems under the head of legal categories such as: Law of Torts and, Criminal Law .Such determination is likely to get more muddled with the onset of AI, particularly due to the possibility of it being accorded the status of a person in law. I will explore criminal implications of AI / in relation to the use of AI. This is the most new aspects in the field of the laws of robots, self-driving car and drones in contrast to traditional forms of responsibility-proof for other's behaviour, like children, employees, or pets which gets in addition to new strict liability policies, mitigating through the

insurance models, systems authentication, and the mechanism of allotting the burden of proof. Further this paper will critically analyze the nuances of using AI system in the field of penal law. At the end this paper will suggest and recommend solutions to overcome these issues and challenges through the use of doctrinal with qualitative research methods.

Keywords: Artificial Intelligence, Negligence, Strict Product Liability, Legal Status, Legal implication of AI.

1 Introduction

If we understand criminal liability, which we all know is penal in nature, because punishment is a predominant feature of criminal proceedings, it not only requires culpable act- actus reus (an action) but also requires mental state-mens rea (guilty mind) of defendant. So the fundamental principle of penal liability is *actus non facit reum,nisi mens sit re*a: the act itself is not criminal unless accompanied by a guilty mind . So there might be good amount of overlapping between the conduct which will later give rise to civil and criminal consequences, because for making anyone liable for an overt act/omission-a higher degree of fault require for punishing him/her. Unlike tort law, which basically believes in the concept of objective mental standard-what a reasonable person would have done? But, here in criminal law we are more concerned about the defendant subjective state of mind-what actually did the perpetrator intend or believe to do. Mental requirements is quintessential for a crime and it differs be-tween the legal systems and crimes of panoply, because mens rea requires both will direct to a certain act and knowledge as to the consequences that will follow from a particular act. Sometimes it perhaps happened that guilty mind go beyond and did some acts where the defendant have not foreseen the outcomes and did it, where actu-ally the defendant was not intended, willed/desired for that event to take place (Turner, 2019 pp. 117-121). In English law, a person who throws a hammer off a bal-cony is not likely to be found blamable of murdering a person on whom the hammer lands until and unless the defendant intended either to cause death(culpable) or serious damage[1].

As discussed by legal scholar Gabriel Hallevy (Kingston, 2018 pp. 5-6), how and whether artificial intelligent entities may be held liable-criminally? He classified laws as follows:

[1] Extreme carelessness might not suffice for murder, though it could be enough for the lesser crime of manslaughter (UK Crown Prosecution Service).

- Cases where actually actus reus comprises of an actions, or where the actus reus be composed of a failure to act; and
- In cases of mens rea, whether it requires knowledge or being informed of or whether it only requires only negligence-a prudent and reasonable person would have known or lastly, it requires strict liability where no mens rea needs to be showcase/demonstrated.

Theories of punishment in AI

Which theories of punishment would apply in AI?

In the words of Salmond, The law may be defined as the body of principles recognised and applied by the State in the administration of justice.

In case if an individual fails to carry out legally enforceable duty its state that is empowered to punish the offenders. This theory is based on Sovereign power to administer criminal justice are:

Deterrent theory.

This theory is based on the principle that punishment should be of such nature so as to prove the deterrent for the wrongdoer and for the rest of the society as well. Basically it sets out the example before the rest of the people the effect of breaking the law, so if in any case they intend to break the law they have to face the consequences, i.e. punishment before all at public places. Though in practice it of less use because most of the crimes are carried out in a spur of moment, theory can check conduct but not spontaneous action.

Now moving ahead with the theory of Over-Deterrence with respect to AI, if the programmers are potentially liable and subject to criminal charges then the probability is more of new and powerful AI in future- would likely to be happen, with more progress and development in nature and of its kinds. Now for the actions/inactions caused by AI to victims of danger/harm, the liability and the financial burden of monetary compensation could be passed on to either on an insurer or an employer-or simply taken as a business risk. It is difficult for a person to shirk by telling that he was just following the orders of superior because contrary to that criminal liability is generally personal in nature. Furthermore, talking in terms of monetary- criminality has a social cost which cannot be displaced or obliterate necessarily. If this legal liability would be on programmers, then perhaps would be less chances of inclination towards invent or release which would be otherwise beneficial technology (Turner, 2019 p. 121).

Retributive Theory.

The concept of retributive theory is to take revenge, which is based on the principle of tooth for tooth and eye for an eye. In the absence of state as an authority individual used to take the revenge for the fault/wrong committed against them by themselves, there was no agency to help them out. Retributive theory is considered as mean for the administration of justice but to decide proportion of retributory move is hard. Furthermore, this theory perhaps taken as mean to an end. So, depending on this notion it is said that criminality is such a serious and lasting penalty, which is reserved for a situation in which specific perpetrator offence is of that nature. Massive challenge with regards to AI is that the more advanced it will become the more hard it will be to hold human liable for its act/omission, so let alone guilty for its act/omission without exaggerating the accepted ideas of causation out of recognition. John Danaher- a legal philosopher has explained the delta between humanity expectations that make someone liable for the acts, and because of our present scenario where we are failing to apply criminal law- in AI, is giving and opening a door for retributive gap (Turner, 2019 p. 120).

Though, it quite apparent from the fact as shown above, it is fairly possible to segregate the liability from the monetary/paying compensation when it comes to private law context, but splitting the liability and paying compensation in criminal law is pretty difficult or we can say it is somehow problematic generally.

Retributive punishment is connected to both the approach namely- not just moral desert rather pragmatic approach too. Danaher cautions.....I have noted how doctrines of command responsibility or gross negligence could be unfairly stretched so as to inappropriately blame the manufacturers and programmers. Anyone who cares about the strict requirements of retributive justice, or indeed justice more generally should be concerned about the risk of moral scapegoating (Turner, 2019 p. 120).

So, the two options have been given here:

a. Firstly, either to serve AI actions as Acts of God this would have no legal consequences/results thereof.

Or

b. Secondly, somehow managing to find a liable human for that matter. Unlike floods or earthquakes, then AI acts would not likely to be seen as not fortunate enough but ethically neutral natural disasters (Turner, 2019 p. 121).

2 Human liability- for the actions of AI

As, Hallevy proposes three legal models of AI system which might be considered when the offences committed by it:

Perpetrator-via-another: Humans vicarious Criminal Liability

If crime is committed by a person who is mentally deficient, like-a lunatic, a child, or an animal, then the offender here is held to be an innocent agent because of their mental capacities to form a mens rea (guilty mind) which is pertinent to make anyone liable for it. This holds true in case of strict liability offences too. Furthermore, if the innocent person has been instructed by another person, as an instance if the dog owner instructed his dog to hit and attack someone, and dog did it, so here the criminal liability is on the owner/instructor who instructed his dog, to do such wrongdoing[2]. Likewise AI programs could also be held here as an innocent agent, so if we go by this model, then we could either hold the- users or the software programmer- legally liable for an offence as an offender/perpetrator via another.

Natural-probable-consequence[2]: AI-an innocent agent.

What happens in this model is suppose AI has been programmed for doing good actions but as it was used inappropriately that it loses its purposes and committed wrongdoing as a result of it. Here moving forward with an example of what legal scholar Hallevy cited as an example where an employee of Japan working in motorcycle factory was hit by an artificially intelligent robot who was working close to him but what made robot to do so? Because robot has perceived that employee as his threat to his accomplishment, so robot in a spur of moment hit that employee in adjacent direction of operating machine by using its hydraulic arm, robot pushed the surprised employee into the machine, caving him spontaneously and then resumed its duties.

Natural and probable consequence legal use is to prosecute the accomplices for an offence and held him liable for the consequences. No demonstration of conspiracy happened still under the purview of US law that accomplice is legally held liable even if the act of the offender were only a natural and probable (DC Circuit Court, 1991). Accomplice is held liable in case he provoked or instigated or encouraged and aided that act and was aware of the criminal scheme as such which was underway (Criminal Responsibility for the Acts of Another, 1930).

[2] Morrisey v. State, 620 A.2d 207 (Del.1993); Conyers v. State, 367 Md. 571, 790 A.2d 15 (2002); State v. Fuller, 346 S.C. 477, 552 S.E.2d 282 (2001); Gallimore v. Commonwealth, 246 Va. 441, 436 S.E.2d 421 (1993).

Likewise, in the same way users or more precisely programmers would be held legally liable if already has the knowledge of the fact that their programs or its use of an application was of natural and probable consequence of that kind. So, here the distinction should be drawn between the AI programs- one who knows that a criminal scheme is under process or have been designed/programmed to do a criminal act, on the other side- those who doesn't know that they were programmed/designed for another purposes. For the latter part of this para, prosecution is exempted because here the mens rea requires knowledge for committing a crime which is not present in this case though it would be applicable in the case of a reasonable person mens rea or strict liability offences (Criminal Responsibility for the Acts of Another, 1930 p. 5).

Direct Liability: This model talks about two ingredients of a crime to an AI system-

a. Act, which is physical i.e. Actus reus, and
b. Intent, which is mental i.e. *Mens rea.*

Relatively easy to ascribe an actus reus to an AI system. For an instance, if a system takes an action which resultant into an offence/criminal act or if it fails to take an action where it was under duty to take and act, so, in this scenario the actus reus of a crime/offence has been caused as a consequence.

What is tough to establish in an offence is mens rea, much harder to prove, perhaps because of its nature it demands the three levels of mens rea which has become important to prove the legal liability, as even under the case of strict liability offences also no intent (guilty mind) is required to commit a crime, indeed possible to hold AI-programs liable-criminally. As an instance- Self-driving cars, if this car speed-up then it will come under the purview of strict liability offence. As, legal scholar Hallevy explained a scenario, where a self-driving car speeding/crossing the speed limit for the road which s/he is on, automatically the law would assign to AI program the criminal liability for breaking the law whilst driving the car in a spur of moment.

The probability raises a number of other issues as well like defences-can a program which is malfunctioning can claim for a defence under defence of insanity similar to humans? Can it claim defences similar to coercion or intoxication if it gets affected by an electronic virus? Who would be directly held legally liable for an act of AI system-if it commits any offences? (Criminal Responsibility for the Acts of Another, 1930 p. 6)

One of the main difficulties that we might experience when we begin to examine Al with respect to criminal justice is the suggestions for one of the essential ideas in criminal law: acting (actus reaus) (Could AI Agents Be Held Criminally Liable: Artificial Intelligence and the Challenges for Criminal Law, 2018 pp. 1-21). Criminal law is characterized by its capacity as a reaction to a wrongdoing, which is understood crosswise

over western wards as a demonstration (Dubber, 2008 pp. 1288, 1320)[3]. It is an entrenched rule of modem criminal law that no one but acts can acquire criminal risk; not considerations, convictions, or aims alone. In both precedent-based/civil law and common law frameworks, the investigation into criminal obligation begins at the fundamental dimension of acting: the idea is reflected in actus reus in the main framework and incorporated into the German Tatbestandsmifj3igkeit in the most noticeable agent locale of the last mentioned' (which means "satisfaction of the components of the offense," while Tat itself signifies "act") (Dubber, 2008). In spite of the fact that there exists no single, predictable definition that applies to every western locale about what establishes a demonstration or "lead" on account of United States law under criminal law, similar parts of acting keep coming up in principle and on the off chance that law in various lawful frameworks, which addresses their significance, paying little respect to whether they are at last embraced or not. In the United States, for example, the Model Penal Code characterizes criminal responsibility all things considered: "An individual isn't blameworthy of an offense except if his liability depends on direct which incorporates a wilful demonstration or the exclusion to play out a demonstration of which he is physically skilled," (American Law Institute, 1962 p. Â§ 2.01) while under "General Definitions" a demonstration is characterized as "substantial development" (regardless of whether deliberate or not) (American Law Institute, 1962 p. Â§ 1.13). Moreover, the demonstration necessity is broadly viewed as the most striking, or maybe the main, special case to the standard that substantive criminal law in the United States isn't managed under constitutional law (Dubber, et al., 2014 p. 197).

In Germany, a main ward in common law, the overarching assessment among criminal law researchers is that a demonstration must be controllable by the performer and "socially pertinent"- as such, it needs to pass on social importance. A case of this would be, for example, a demonstration that alludes, identifies with, or is coordinated at someone else, not only oneself, as liberal scholars would propose in accordance with John Stuart Mill's popular explanation of the Harm Principle that power must be practiced without wanting to so as to counteract damage to other people[4]. Further to that, every single western ward has fused exclusion or inability to act into the ideas of acting or lead. Without broadly expounding, it appears that ideas like substantial development (or disappointment thereof) that are wilful, extroversive, and socially important in a way that is significant to criminal law are basic parts of acting. It is essential to note here that when a culprit utilizes items or devices or machines to achieve the ideal outcome, the wrongdoing is as yet thought about the culprit's activities. At the point when the culprit exploits conscious creatures, similar to creatures, that don't have the

[3] Note that western jurisdictions require an act to constitute criminal liability.

[4] See JOHN STUART MILL, ON LIBERTY (1859) on page 17 ("That the only purpose for which power can be rightfully exercised over any member of a civilised community, against his will, is to prevent harm to others.").

ability to reason or completely handle a circumstance and the pertinent lawful ramifications, criminal law again respects the individual controlling the aware being as the one "acting." Even in instances of human performers that don't have full limit, or on the other hand, human on-screen characters with full limit who are constrained or deceived into representing the advantage of another, criminal law regularly sees this as acting by the individual "off camera," while the individual who physically carried out the demonstration is viewed as a minor instrument of the key on-screen character. For example, the German Criminal Code unequivocally states under Section 25 that a principle is someone who "carries out the offense himself or through another." (Bohlander, 2008 p. 43) Against this setting, artificial intelligence brings up some amazingly fascinating issues. Most importantly, it welcomes us to think about whether Al operators/agents are acting in the feeling of criminal law. Furthermore, also, it urges us to consider distinctive methods of acting with regards to human specialists/agents. These are the opposite sides of a similar inquiry, as an offense that may be "submitted" by an Al specialist/agent, for instance, an autonomous car running over and accordingly murdering an individual should be credited to somebody. Might it be able to be credited to the Al operator/agent in which case, we yield that the self-driving car is acting? Should it be credited to the individual in the background the driver that neglected to recover control or maybe the planner/designer that made a calculation/algorithm that permitted this development? (Could AI Agents Be Held Criminally Liable: Artificial Intelligence and the Challenges for Criminal Law, 2018 p. 5)

It is additionally essential to take note of that Al will present difficulties for criminal law hypothesis and legal practice not just in light of the fact that it may welcome us to consider advanced Al operators/agents as on-screen characters of wrongdoings, yet in addition since it presents further human performing artists in the question to quality criminal risk: an Al specialist/agent will be, both at first and regarding how it gains from information and adjusts, subordinate upon its plan and programming, which fundamentally incorporates human operators, for example, its architects, software engineers, and designers as important on-screen characters. Al specialists/agents will likewise in some cases or rather, quite often, in the ebb and flow phase of technological advancement collaborate with an administrator, just as other human performers that they fundamentally draw in for instance, with different drivers, on account of keen vehicles/cars (Could AI Agents Be Held Criminally Liable: Artificial Intelligence and the Challenges for Criminal Law, 2018 p. 5). Every one of these people is "brought" into the scene of the wrongdoing for addressing, driving criminal law to settle on troublesome yet fascinating choices while crediting risk/liability. Obviously, the response to these inquiries can't be given without information of the response to the most essential inquiry of all: what are Al and what is it equipped for doing? 'Since Al isn't certain something however is always developing, the appropriate response and

with it, criminal law's reaction will colossally subordinate upon the individual realities of the current case. A self-driving car that ought to consistently be managed by a present, equipped, and lawfully authorized driver, for instance, is a very surprising situation than a completely autonomous car that drives a minor or an alcoholic individual securely home. However, criminal law needs to plan for both these conceivable outcomes and give custom fitted reactions. By and large, AI brainpower is related with the capacity to adjust as indicated by the input got so as to take care of issues and address circumstances that go past the predefined set of inquiries and guidelines that the Al was customized with. Basically, AI mirrors the human capacity to process data and learn. All things considered, it can "choose" how to react to remarkable situations and furthermore "pick" how to explore a novel circumstance towards effectively accomplishing some goal. As Al applications extend and people turn out to be increasingly alright with them, many imagine Al that will turn out to be genuinely autonomous from their human partners and go up against its very own real existence. Under the present condition of advancement, it appears that Al activities could barely fall under the meaning of acting. Regardless of whether we put aside as old the "real" measurement of acting, which by definition would never apply to a machine, a wise operator's developments could not be viewed as "socially important" nor as "intentional" as in criminal law infers (Could AI Agents Be Held Criminally Liable: Artificial Intelligence and the Challenges for Criminal Law, 2018 p. 6). Social significance might be grounded in a particular authentic setting, yet it is worked after some time through an advancement of social elements and discernments," and Al operators are still too youthful to even think about having assembled such a "minimum amount" of social significance and significance. This, in any case, may change later on as people and social orders turn out to be increasingly more acquainted with Al specialists/agents, particularly administration robots that acclimatize a human-like appearance. With respect to intentionality, this could be at first look ascribed to any operator that "picks" in view of a given arrangement of realities, so that even a PC picking one of two accessible choices dependent on info and a set target may be said to pick. In any case, on a more profound dimension, intentionality, even in substantial developments, is pulling in the capacity for judgment and unrestrained choice (Could AI Agents Be Held Criminally Liable: Artificial Intelligence and the Challenges for Criminal Law, 2018 p. 7). That is the reason, for example, an individual's real development while sleepwalking or as a reflex does not consider deliberate under criminal law, and this accentuation on the capacity for judgment is reflected considerably further with regards to fault and discipline.' In this specific circumstance, regardless of whether one views an Al operator's/agent activities as acting in the criminal law sense are pivotal for causation (Could AI Agents Be Held Criminally Liable: Artificial Intelligence and the Challenges for Criminal Law, 2018). On the off chance that an Al operator/agent is just an instrument on account of the human specialist/agent, much like a lifeless apparatus, for

example, a mallet or a blade, at that point the appropriate response is straightforward. In any case, matters turn out to be somewhat increasingly complex when we think about Al that is sufficiently intricate to see a circumstance and continue with acting-or, neglect to act where it could have acted and hence enable the unsafe outcome to happen. However regardless of whether we comprehend the "decisions" made by Al as acting is firmly connected to how we see different issues, for example, the significant inquiry of personhood (Could AI Agents Be Held Criminally Liable: Artificial Intelligence and the Challenges for Criminal Law, 2018 p. 7).

3 Revisiting: personhood and blame

Artificial Intelligence reasoning by definition imitates one of the basic qualities of the human species, that of adjusting to one's condition, and accordingly, it welcomes us to return to our comprehension of personhood[5]. Personhood is an idea that underlies criminal law as well as each field of law, as it is firmly connected to our ability to perform legitimately significant acts and realize lawfully pertinent improvements (Bridging the Accountability Gap: Rights for New Entities in the Information Society?, 2010). Verifiably, our comprehensions of being an individual has been associated with human capacity for self-reflection, and self-heart, that is, our capacity to see our autonomous presence and its limits that extend into the past and future. As things stand at present, Al units don't appear to have that equivalent level of mindfulness (or any whatsoever) that would enable us to think about their circumstance as equal to the human experience-in spite of the fact that this may change later on. In some capacity, personhood is likewise connected with our capacity to set objectives for ourselves and seek after them, which for the time being is by all accounts amazingly confined with regards to Al operators/agent. While they may have the capacity to scale and set free, littler destinations so as to achieve their general objective, this more prominent target is as yet set by the human software engineer or client (or significantly another Al developer or client that has been thus at first created by a human). On account of self-governing vehicles, for instance, while the Al programming may be in a situation to settle on choices on the spot with respect to traffic, the general objective of securely exploring to the periodic wanted goal is foreordained. It would be an oversight not to take note of that there is truth in the explanation that our very own

[5] Refer Bert-Jaap Koops and others' work (Bridging the Accountability Gap: Rights for New Entities in the Information Society?, 2010 p. 497) (illustrating a very thorough account of the debate with several further references); (The Outline of Personhood Law Regarding Artificial Intelligences and Emulated Human Entities, 2013 p. 164); (Legal Personhood for Artificial Intelligences, 1992 p. 1231) (discussing the broader issue of personhood with regard to Al).

humanly conceivable impression of our mindfulness and our level of opportunity in defining our own objectives and in settling on decisions is a long way from complete (Bridging the Accountability Gap: Rights for New Entities in the Information Society?, 2010 p. 10). Frequently there are factors having an effect on everything that limit our opportunity and misshape our mindfulness, while savants and researchers are as yet thinking about on how precisely we structure our self-comprehension and our still, small voice. In any case, there is an undeniable subjective distinction between our own, now and again fluffy or mysterious, capacity to self-reflect and an Al specialist's/agent inadequacy on a similar issue. On the off chance that an Al specialist can't be viewed as an individual, it couldn't by all appearances appreciate rights and be bound by commitments as people do (Bridging the Accountability Gap: Rights for New Entities in the Information Society?, 2010). There is again a subjective contrast between a limitation and a commitment, and keeping in mind that an Al unit might be modified to cling to specific confinements, insofar as this adherence isn't the result of its own volition, it can't be considered a "commitment" all things considered. In any case, when we swing to the issue of rights, things marginally transform; it is generally acknowledged that rights work uniquely in contrast to commitments for subjects that are not viewed as equipped for undertaking commitments under the law (Bridging the Accountability Gap: Rights for New Entities in the Information Society?, 2010 p. 11). For instance, a minor can regularly go into contracts that pass on upon them benefits however not commitments, or which are substantial concerning rights met and void with respect to commitments. Of late, a great deal has been said on the issue of perceiving every living creature's common sense entitlement, not least since we have at long last started to comprehend that creatures are aware creatures that experience and a lot more extensive scope of sentiments than already acknowledged; as both research and lawful grant propels on this issue, it may be possible that specific improvements may be reasonable for transposing in the field of Al specialists as to their "rights" or "opportunities." with regards to criminal law, personhood is intently connected with fault, as just an individual who can separate directly from wrong[6] and is in a situation to pick can be accused for fouling up. Fault surmises the capacity to appreciate what every decision will involve and the capacity to openly pick. Verifiably, this goes past essentially connecting one choice with criminal law repercussions and the other with strolling free despite the fact that by and by it might just be decreased to that. In that regard, it must be noticed that the focal point of prevention hypotheses is unequivocally on basically disheartening individuals from perpetrating violations, paying little

[6] "Rights" and "obligations" are used in a generalizing fashion in order to accommodate the scope of this Paper. For a more nuanced understanding of rights and obligations, as well as a starting point to consider more accurate descriptions of legal categories that might better fit Al agents, see Wesley N. Hohfeld's work (Some Fundamental Legal Conceptions as Applied in Judicial Reasoning, 1913 pp. 16, 16-59).

heed to their inward intentions, while fundamental lawful positivist lessons are to a limited extent devoted to liberating adherence to lawful guidelines from the weight of inseparable relationship with good contemplations. Against this setting, it is critical to take note of an occasionally neglected angle, in particular that mens rea and accuse necessities were initially formulated as a shield against maltreatment of state control in the activity of criminal law authorization; they were intended to guarantee that nobody would be considered responsible for a wrongdoing if the individual was rationally uninformed of what had occurred or did not participate in it with some level of volition or quiet submission (Some Fundamental Legal Conceptions as Applied in Judicial Reasoning, 1913). Anybody held criminally at risk for direct ought to have had some dimension of learning and goal (or the obligation to have known and to take care to maintain a strategic distance from) concerning the after-effects of their activities. This once noteworthy improvement took advantage of our group inborn human capacity to comprehend, pass moral judgment on, and control our activities. It additionally mirrored a profound admiration for people, as it treated them based on their educated decisions; one would just languish the outcomes over their activities since they picked so. This methodology rests, on a more profound dimension, on admiration for the opportunity to try and act wrongly and perpetrate hurt it is just when one reliably settles on that decision, that they will be rebuffed (Some Fundamental Legal Conceptions as Applied in Judicial Reasoning, 1913 p. 11). This is the reason youngsters, for example, who don't yet completely capture the outcomes of their activities, or people with psychological well-being difficulties that keep them from thinking legitimately, are dealt with distinctively under criminal law. At last, criminal risk/liability is a reaction held for the individuals who could have met people's high expectations yet decided not to. Once more, this methodology is seemingly an alternate route; it throws away an especially advanced worries about how human plan is figured just as any questions about whether our through and through freedom is without a doubt free and our very own all things considered. As law so regularly does when all is said in done, this is both a speculation and an improvement and one may even detect a trace of revelation caught in it (Some Fundamental Legal Conceptions as Applied in Judicial Reasoning, 1913 p. 12). Regardless, the move far from torment, constrained work as discipline, and the death penalty (for the majority of the Western world) similarly reflected appreciation for a culprit's intrinsic humankind; on a basic level, the law isn't permitted to contact a convict's body or end their life. Correspondingly, the general standard that a reasonable and only preliminary by a legal body is required before any detainment can genuinely be forced is again the consequence of appreciation for being human. In that sense, it appears that modem criminal law and all its dynamic improvements were structured by people for people and constantly rotated around the way that we as a whole offer some intrinsically human quality that should be regarded even in our ugliest hour (Some Fundamental Legal Conceptions as Applied in Judicial Reasoning,

1913). Obviously, this dynamic inclination isn't without special cases or infrequent relapse, yet it lies at the core of modem criminal law hypothesis and practice (Some Fundamental Legal Conceptions as Applied in Judicial Reasoning, 1913). At the season of this improvement in criminal law hypothesis, just human operators had this kind of keenness that frames the premise of criminal risk. Animal, in spite of the fact that they do be able to convey and settle on qualified decisions to some degree, don't have a similar dimension of capacity to comprehend or pick among good and bad or, regardless, between what the laws restricts and what it permits or requests[7]. Lawful people, then again, which are the sole noticeable case of broadening criminal obligation past human performers, are as yet dependent on human organization. In the first place, they are fundamentally legitimate fictions, an interpretation of our aggregate endeavours into lawfully applicable terms, and thusly are not invested with brains in spite of the fact that there is something to be said about corporate culture what's more, the manner in which an aggregate operator can after some time set up instruments and procedures that outperform its individual individuals (European Commission, 2019 p. 12). However as opposed to creatures, which are plainly something profoundly not the same as people yet don't have the equivalent legitimately pertinent capacities, organizations grabbed the attention of criminal law unequivocally on the grounds that they are so intently laced with human specialists. Organizations are made up by people who now and then intentionally use them to escape obligation regarding criminal lead, and this is a piece of the motivation behind why criminal law in numerous locales has ventured in and presented some type of "criminal risk" for legitimate people. However there is something to be said for the way that, in numerous purviews, lawful people are not expose to criminal punishments, yet just authoritative authorizations, decisively in light of the fact that criminal law can't worry about specialists that can't settle on good choices and along these lines can't be accused (European Commission, 2019). Artificial Intelligence consciousness is totally not the same as the two creatures and lawful people. It isn't alive, similar to creatures, yet it isn't just a fiction, similar to partnerships. However it could be considered existing (in any event after its underlying creation) freely and without the contribution of people and it could reason, which separates it from both legitimate people in the primary appreciation and from creatures in the last mentioned. At last, it is an open inquiry whether Al may later on build up a type of still, small voice and even the limit with respect to morals and thinking that may enable it to be exposed to fault comparable to a human specialist which isn't the situation with legitimate people or creatures. Be that as it may, as long as both our

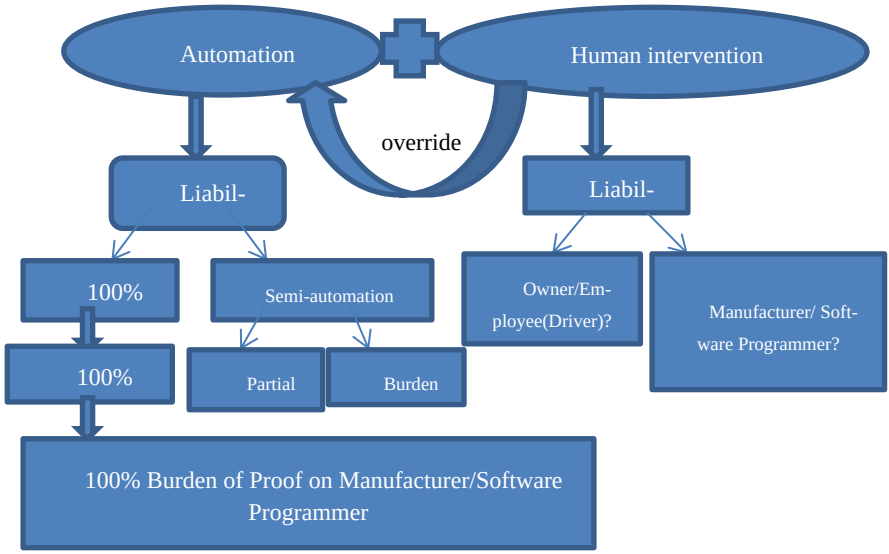
[7] For example, in 2009, the EU with the Lisbon Treaty recognized that animals are "sentient beings," building on its previous legacy of recognizing the Five Freedoms for animals kept for farming purposes: "Freedom from hunger and thirst, Freedom from discomfort, Freedom from pain, injury, and disease, Freedom to express normal behaviour, and Freedom from fear and distress." (European Commission, 2019)

comprehension and the common sense of fault are related with mindfulness and cognizant choices established in the human experience, Al operators can't share. A similar point could be made about discipline. Despite the fact that we could consider disciplines for Al specialists that are generally "proportional" to those for people, there is as yet a contention to be made that these counterpartsâ€™ sanctions are marginally unimportant. Every significant hypothesis about discipline, from retributivism to recovery (spare maybe for explicit discouragement), surmise an open perspective among operators that in principle take an interest similarly in a mutual affair of the world and an attention to their very own and each other's presence (European Commission, 2019 p. 13). Discipline is an aggregate method for reacting to wrongdoing coordinated at an operator that can comprehend its criticalness just as its pertinence to their criminal conduct which is the reason individuals with lessened limit are, when in doubt, not expose to criminal authorizations. In the event that an Al programming were erased as a type of the death penalty, would anybody say that "it got what it merited" with regards to the "appropriate reward" approach? What's more, in the event that it was deactivated for a specific timeframe, might we be able to genuinely trust that other Al units would be deflected from participating in comparative direct? Until a positive response to no less than one of these inquiries seems likely, a discussion about criminal discipline for Al specialists appears to be to some degree lost.[43]

Potential options for assigning criminal liability for the actions of AI

For the situation where an outcome is achieved by an "activity" (or "oversight") on part of an Al specialist, at that point a request about crediting criminal risk emerges. The response to how and if-criminal responsibility ought to be credited will vigorously rely upon the conditions of each case, as laid out beneath. In every one of these cases, methodologies and ideas effectively commonplace to criminal law may offer the arrangement; in any case, the centre will move to the way legitimate experts, administrators, judges, and professionals will adjust, enhance, or choose to solidly clutch their present understandings of these ideas (European Commission, 2019 p. 14).

Determination of liability?



Instrumental Use of an AI Agent.

The first and most effortless situation is very direct: imagine a scenario where a human on-screen character controls an Al specialist/agent into doing the human's offering, with the expectation to carry out specific wrongdoing. In such cases, the conspicuous arrangement is to hold the individual controlling the Al operator/agent responsible (European Commission, 2019 p. 15). This could be a developer that effectively embeds a calculation intended to murder into Al programming or an administrator that educates Al programming with the goal that it will incur mischief to other people. Regardless, the Al operator can't be viewed as whatever else yet an apparatus in the hands of the human "behind the drapery." However, the way by which to attribute obligation may vary as per the dimension of refinement that the Al specialist/agent has. On account of apparatuses like a sled, for instance, we are never discussing "crediting" (European Commission, 2019) the activity of the mallet to the human utilizing it the development of the device is promptly comprehended as the activity of the human operator/agent. On account of creatures, we frequently liken them in lawful terms with things that can be controlled by their lord (in spite of the fact that they would never be controlled in an outright sense, similar to an instrument). In both these cases, we view the human on-screen character as the culprit of the criminal demonstration. Things begin to change when we experience the likelihood of a human utilizing another human as a "signifies" to carry out wrongdoing. In these cases, for instance,

when an individual is deceived so as to shoot at somebody feeling that the individual was possibly shooting at a lifeless target or when an attendant is deceived into offering toxin to patient reasoning they were just controlling a drug/medicine, we could discuss execution by another (European Commission, 2019). However, these methodology directions the presence of a middle person (the "another") who is, in principle, in a situation to mediate as the occasions that establish the criminal lead unfurl an individual who could comprehend what is happening or who, regardless, could act generally. On the off chance that this isn't the situation, we would not discuss execution by another but rather basically about "execution," as we do with creatures. "Another" is an immediate reference to "another human." In request, at that point, for this hypothesis to bode well with regards to Al specialists/agents, they ought to be advanced and many-sided enough to have the capacity to comprehend what was happening and to pick in like manner regardless of whether at last they were deceived into the ideal direct by the culprit in the background. One could contend that a self-driving car that was essentially customized to go in the city and keep running over individuals is a significant unexpected situation in comparison to a driver who controls an Al vehicle into seeing a specific individual as an insignificant item they can securely keep running over. One could even start to feel the "pull" of moral judgment against the human performing artist in the second case, as a (misleadingly) smart specialist is controlled into submitting an unsafe activity it would somehow never do. Eventually, it all relies upon whether technological advancement will enable us to see Al operators/agents as adequately human-like or not. Now, it is additionally fascinating to take note of that there are cases that may happen where an Al specialist goes past the initially expected criminal act. For instance, a self-ruling vehicle is modified to go out and harm a human however rather winds up slaughtering the human (European Commission, 2019 p. 16). In those cases, the final product is something other than what's expected than the human performing artist has planned, and the hypothesis of attributing obligation dependent on the predictability and likelihood of the wrongdoing that was really carried out as a result of the proposed criminal direct may demonstrate useful. This model is typically utilized while crediting risk to an assistant or an instigator and depends on a sort of carelessness on part of the accessory or instigator. Under this model, criminal responsibility is credited to an assistant or an instigator when they could and ought to have predicted the distinctive outcome that happened as a plausible result of the first planned act. In this way, in our model, the human performer could be held at risk if the slaughtering was a plausible and predictable result of the human's structure to the autonomous car/vehicle to go out and harm a specific person. If, be that as it may, the wrongdoing/harm eventually carried out had nothing to do with the one proposed (e.g., a robot is requested to take a letter and rather bums down a house), at that point the culprit in the background can't be held criminally responsible (European Commission, 2019).

Recklessness and Negligence

On a comparative note, carelessness is the model that most fittingly can be utilized to credit criminal responsibility for unintended direct that happens with regards to an Al specialist's/agents typical programming or use-that is, as it does its obligations without glitch (European Commission, 2019). Here, the emphasis moves on a considerate originator or administrator who fail to take due consideration so as to keep a bothersome result that could happen inside the typical execution of the Al specialist/agent and which the software engineer or client ought to have anticipated. In these cases, the Al specialist/agent works suitably and in the release of its responsibility carries out a wrongdoing/harm a basic precedent would be a cleaning robot that pulverizes significant property confusing it with dirt (Could AI Agents Be Held Criminally Liable: Artificial Intelligence and the Challenges for Criminal Law, 2018). In such cases, the fundamental inquiry to be addressed is whether the developer or the client could have anticipated this improvement and whether they were in a situation to act so as to avert it. Carelessness, fundamentally, spins around the liability to take suitable and sensible consideration to avert damage to other people and spotlights on the predictability of the unfortunate result. In situations where the human operator really anticipated the result and chose to dismiss it-and as indicated by the purview carelessness would be the suitable model to credit responsibility.

Respondeat Superior?

Strict liability isn't incomprehensible in criminal law, however it remains in obvious pressure with a large number of its hidden standards some of which, in regards to through and through freedom and the naturally human ability to make (even unjust) choices, were examined previously. However in numerous western purviews/jurisdiction, strict responsibility offenses exist, from medication ownership to especially minor offenses like driving infractions. The idea of vicarious risk (or, in fitting to the current topic terms, of respondent prevalent/superior--"let the master answer") gets mostly from tort law, where it is especially connected to vicarious liability on an individual responsible for another, (for example, a business/employer with respect to a worker/employee) for the bad behaviour of their operator. This connection between an operator/agent and a better/superior shows up at first extraordinarily appropriate than the current circumstance. Much the same as with Al operators/agents, on account of vicarious risk/liability[8], the specialist that submitted the bad behaviour is an

[8] See generally Sophia H. Duffy & Jamie Patrick Hopkins (Sit, Stay, Drive: The Future of Autonomous Car Liability, 2013 p. 453) (explaining how applying a strict liability regime for autonomous cars will equitably assess liability without unduly hindering innovation); (Of Frightened Horses and Autonomous Vehicles: Tort Law and Its Assimilation of Innovations,

autonomously smart and proficient one. Be that as it may, the idea is drastically changed when transposed in criminal law and in light of current circumstances. One can't endure a similar low edge of scholarly and volitional inclusion for the commitment to embrace obligation regarding a tort and for a wrongdoing. Criminal law is regularly connected with grave ramifications for the one found to tolerate risk, so the edge must be higher. This point has additionally an increasingly broad understanding to offer: any potential model of crediting obligation for the human operator/agent who is some way or another engaged with a wrongdoing perpetrated by an Al specialist should differ not just contingent upon conditions, for example, the complexity of the knowledge of the Al operator/agent or the level of control of the human operator/agent, yet in addition on the sort of wrongdoing/harm submitted (Dubber, et al., 2014). As such, the limit ought to be higher for genuine violations, for example, executing, and could be lower for moderately minor ones, for example, the devastation of a modest thing that has a place with an outsider. On account of strict responsibility, not exclusively is our more profound comprehension of what criminal law is and what it does in question, yet in addition extraordinary and going after strategy concerns. Presenting strict liability/responsibility may fulfil a social interest for responsibility that could demonstrate vital in the acknowledgment and more extensive utilization of Al specialists/agent; then again, it could undermine the possibility to additionally create Al applications on the grounds that the planners or administrators would be debilitated by the probability of being found criminally at risk for acts they didn't mean or yield to (Dubber, et al., 2014). In this specific circumstance, strict responsibility could either be held just for minor offenses when they fall inside the room for mistakes with respect to the human specialist/agent, regardless of whether it is a programming or a working blunder, or it could be disposed of totally as a model for crediting criminal responsibility. Maybe the most ideal approach to consider strict legal liability is in a setting where it is joined with carelessness necessities, in a methodology displayed after (criminal) responsibility/liability for flawed items (Dubber, et al., 2014).

Direct Liability or Bad Luck

Regardless of whether everything is done legitimately with respect to human specialists, an Al operator may even now glitch and therefore cause hurt. In these cases,

2012 p. 1241) (discussing the uncertainty in predicting the interplay of innovation and liability in the context of autonomous cars); (The Coming Collision Between Autonomous Vehicles and the Liability System, 2012 p. 1321) (discussing how autonomous cars will reduce the number of vehicular accidents yet still pose liability concerns for manufacturers); (Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies, 2016 p. 354) (advocating for the application of a tort system as opposed to direct regulation of autonomous vehicles).

no human is to blame, and the topic of how to manage criminal obligation stays open.[58] Another critical and extraordinary situation to consider is the point at which an Al specialist "purposely" exacts hurt. The second situation appears to be fantastical until further notice. As Al isn't yet at a phase where it could truly foul up, as talked about above, forcing direct criminal risk ought to be precluded. In the event that and when Al adequately creates to comply with a portion of the criteria set out above, at that point, this inquiry may be rethought. Indeed, even in those cases, in any case, a breakdown can't be accused of an Al operator anything else than acts performed while inebriated can be accused of a human specialist. In such instances of glitch, it is recommended that people ought to figure out how to live with this terrible advancement, much in a similar vein that they have figured out how to live with the consequences of a scaffold crumbling because of a tropical storm or a punctured tire that prompts a fender bender (Sit, Stay, Drive: The Future of Autonomous Car Liability, 2013). Not all things can be anticipated, forestalled, or contained, and in regular day to day existence, there are a few examples where nobody is to be faulted considerably more be held criminally obligated for an unfortunate result. As it were, not all things can or ought to be controlled under criminal law. Contingent upon the nature that people will create with Al operators later on, this choice may end up being a suitable option in contrast to criminal risk, despite the fact that strategy suggestions must be considered as almost certainly, Al acknowledgment rates may endure at first." (Dubber, et al., 2014; Dubber, 2008)

Last Thoughts: Can Al Agents Truly Murder?

Artificial Intelligence reasoning and its advancement in the following years will without doubt present incredible difficulties for criminal law, which go past the topic of criminal risk. With new innovation and unquestionably more far-reaching utilization of Al specialists than is at present possible, new open doors for wrongdoing will emerge (Sit, Stay, Drive: The Future of Autonomous Car Liability, 2013). For example, if independent vehicles wind up typical on our boulevards, we will at some point or another need to consider new sorts of wrongdoings that could be carried out by programmers and how to keep the commission of fear-based oppression offenses that could be executed by utilizing the all-inclusive capacities of savvy autos (Sit, Stay, Drive: The Future of Autonomous Car Liability, 2013). Furthermore, new legitimate standards should be conceived to control safe driving and applicable violations; the connection between a self-sufficient vehicle, its driver and travellers, and outsiders (different drivers, travellers, or people on foot); protection and tort cases; and security as to self-sufficient vehicles. At long last, law implementation should be furnished with new powers and obligations so as to address the new circumstance; for instance, we should consider under which conditions a law authorization officer may be permitted to pull over an independent vehicle, and how. Be that as it may, the absolute first rush

of vibrations that will be felt in criminal law will without a doubt incorporate issues that spin around criminal obligation. In this unique situation, legitimate experts will be welcome to return to, enhance, and reshape central ideas, as examined previously. Legislators and precedent-based law judges should think of models that enough location designation and burden of criminal responsibility, specialists/agents and adjudicators should see how to best apply them by and by, and inquire about by legitimate researchers should move centre so as to illuminate this discussion (Dubber, et al., 2014). The outcomes may be as earth-shattering as Al innovation itself; these changes may even one day lead us to re-evaluate the very establishments of criminal responsibility, unjust acts, and fault. There exist among legitimate researchers' assessments as of now for the burden of criminal risk/liability on Al specialists/agents (Dubber, 2008; Hallevy, 2013). However comparative recommendations appear to depend, at any rate with respect to how things at present remain, on a roundabout contention that makes one wonder. They seem to underestimate the adage that Al specialists/agent can satisfy the prerequisites for mens rea, despite the fact that mens rea as an idea was unmistakably imagined in light of human operators/agent including criminal obligation/liability of legitimate people, since these are close to aggregate ventures comprised of human agent, in which case the criminal risk/liability guarantee lays on the law's powerlessness to "penetrate the cover/veil" and credit obligation to the human behind the corporate fiction, as clarified previously. However, Al is something totally extraordinary (Hallevy, 2013 p. 20). It is absolutely no fiction any longer yet free and conceivably ready to end up completely autonomous. In the event that it is to be taken care of with legitimate apparatuses that were contrived for people, we should set up either that it is adequately human-like, which does not yet appear to be the situation, or that the current apparatuses are additionally reasonable for non-people, which particularly on account of mens rea and fault is, somewhere around, a matter of question, as the entire idea mirrors our aggregate involvement of being human. In this way, underestimating mens rea prerequisites could suitably be satisfied by non-human (or, rather, non-human-like) insightful specialists fundamentally surmises the impression of verifiably and observationally educated ideas, for example, decision, wilfulness, learning, and purpose as essentially specialized terms with no inseparable establishing in the human experience. This is an intense and maybe forward-looking methodology, however one that can't be taken as plainly obvious without first analyzing those points of view that would neutralize it-some of which this Paper has endeavoured to verbalize (Hallevy, 2013). On the off chance that present criminal law ideas were contrived for those partaking in the human experience of the world and its moral situations, and if the manner in which Al operators/agent experience the world isn't (yet) by then, at that point what is there left to do with criminal obligation/liability? (Hallevy, 2013) It is critical to take note of that despite the fact that AI consciousness is still not at a similar dimension of limit with regards to scholarly and passionate speculation as

people, it might just one-day be-as incalculable works of sci-fi have been endeavouring to caution us. In the event that and when that day comes, the circumstance may be altogether different with respect to criminal law and its application to Al operators/agent. On that day, we might be set up to straightforwardly attribute criminal obligation to Al performing artists and see them as similarly equipped for settling on morally educated decisions and carrying out bad behaviour we may even welcome each other to partake in the authoritative and legal procedure of reacting to wrongdoing (Hallevy, 2013). Be that as it may, up to that point, criminal law probably won't be the fitting vessel for considering Al specialists/agent responsible. Albeit criminal law conveys with it an implication of good judgment that is particularly socially wanted in circumstances of mischief to other people, particularly in genuine wrongdoings, for example, real damage or executing, a milder variant of the State's forces to restrict and rebuff conduct may be progressively suitable for instance, authoritative assents or an entirely different field of law in the middle. The longing to call an authorization "criminal" and all things considered fulfil the need to react to unfortunate direct by the gravity and goals that criminal law intends to convey with them, bear a covered up yet pivotal threat. Rather than fortifying our reaction to destructive and unfair conduct, it may very well debilitate our impression of what criminal law is and what it has the ability to do, and in this manner qualify it with a level of levity that will thusly enable us to think little of its capability to cause hurt on people and sap our watchfulness concerning its advances (Hallevy, 2013).

4 AI as a subject of law

Within the current and prospective legislation across the world using AI as a subject of law looking above the mentioned restraints mostly many countries are fast to make the necessary and important legislative framework as to solve the issue pertaining to regulating AI as a newly formed subject of law as designed by advisory councils (Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, 2018 p. 773 â€“ 782).

Thus, in the House of Lords (Shead, 2017), the UK constituted the AI Committee. With respect to AI legal definition and legal status as an individual person, the US government does not struggle to take these issues in considerations. Section 3 of the bill on AI gives the general definitions of AI as follows (Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, 2018 p. 6): -

2. Artificial systems capable of performing tasks without human presence (autonomous systems)

3. Systems that think as by analogy with the human brain and are able to pass the Turing test or another comparable test by processing natural language, representing knowledge, automated reasoning and learning.
4. Systems that act rationally achieve goals through perception, planning, reasoning, learning, communication, decision making and action (Cantwell, 2017).

As, per EU countries they pay very particular attention towards making legal regulation for self-driving cars. The German Traffic Act (Czarnecki, 2017) put the responsibility on the owner to manage and work on an automated or semi-automated car as it contemplates only a partial involvement of the Federal Ministry of Transport and the Digital Infrastructure. As presented in the EU resolution on robotics (European Parliament Resolution, 2017), they talked about the most current, comprehensive and conducive approach to the definition of present and potential legislation in terms of robotics. It explains the types of AI use, ethics, covering all the liability issues, and for operators, developers, and manufacturers in the field of robotics- provides basic rules of conduct, these norms are based on three laws of robot technology--by Azimov (1942) (Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, 2018).

Firstly, the autonomy of the robot as provided with AI-is the first key issue. Secondly, it enumerates about the involvement of the third-party in controlling the robot. If we go by the current legal framework of the present legislation, then the new legal issues comes out regarding the liability of robot-for action or inaction, who will bear the responsibility? Would it be the user, software developer, or manufacturer? (Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, 2018 p. 7) Here the question as raises by the EU resolution is on the issue of liability- in case of robot who caused damage to others depending on its own decision itself, based on the given algorithms and the definition of the third party who will become liable to pay the compensation- this notion will become impossible now. Though at the same time, a special attention will be given to AI, laying down the principles of neural net-works known as self-learning mechanism, where no prediction can be done in principle and as a result, the present legal structure will not be handicap to take into account their actions respectively, and as a result it will determine/fix the guilty party in this process as well. So, they end up saying in this EU resolution that it is a very important legal document pertaining to legal harmonization in the field of AI-robotic (Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, 2018).

Challenges to AI as separate subject of law- Not equal to man

A challenge is treating AI as a new subject of law which needs to be governed by different rules of law where it is surely not equal to man. In the ongoing discussion of the EU countries, the EU Parliament and Russia, discussed about the robotics-and its

legislative initiatives which is in vigour and assumed to be similar in kind. So, because the robot has restricted legal capacity so all the liability for their actions will be borne by the owners only, dealing with the number of other demanding factors as well. The EU resolution does not nudge into this issue which is very much possible in the robotic application (Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, 2018 pp. 7-8).

In the case of drone, now using drone as a tool for the purpose of taking and fulfilling an order under the guidance and control of serviceman- the legal liability will be imposed upon the serviceman only for its proper or improper use. Supposedly, using robot for the purposes of military use, now the threat and risk to a person that has been caused by using robot as a tool to complete the respective tasks. Therefore, using robot contradicts the fundamental principles of Azimov which has formed the basis of the EU resolution which was later used as an analogy for drafting the bill. Even many other countries have started using robots (drones) for military purposes like Russia (Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, 2018).

Now, this arises many conflicting questions in Azimov principles and the EU legislation, so forth regarding the applications and its dual use for the purposes of current robotic AI.

Another important factor which needs to be taken into account is the lack of autonomous function of the robot (Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, 2018 p. 8). And this is what made this robot as good as just another vehicle of different kind. So the need for the â€˜modernized machine is the additional regulation requirements which needs to meet for fulfilling this criteria in the spirit of the law, which seems to be disappear now because the liability for any of the actions lies solely on the owners, developer and so forth. In case of complete autonomy of a robot as given under would exonerate the third party liability for any actions of the AI robot, as highlighted by the EU resolution which needs more considerations and specific solutions over it. Eventually, they ended-up saying the authority of the national executive agencies needs to specify in a separate/different legislative act about robotics rather than going on for any of the country Civil Code (Legal Status of Artificial Intelligence Across Countries: Legislation on the Move, 2018 pp. 8-9).

5 Comparative Studies Between India, California and Germany with Respect to Already Existing Legislation on Vehicles

What law we have in India.

Though by virtue of Section 2 of the Indian Penal Code, 1860, every person□is liable to punishment under the Penal Code, so the word person includes a company or

association under Section 11 of I.P.C. Thus, a corporation is liable to punishment under the Code.

Offences in Relation to Use of Motor Vehicles which are Punishable under Indian Penal Code:

- Rash Driving or Riding on Public Way under Section 279 of Indian Penal Code[9]
- Causing Death by Negligence under Section 304A of Indian Penal Code[10]
- Act Endangering Life or Personal Safety of Others under Section 336 of Indian Penal Code[11]
- Causing Hurt by Act Endangering Life or Personal Safety of Others under Section 337 of Indian Penal Code[12]

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[9] Section 279 I.P.C.: states that whoever drives any vehicle or rides on any public way in manner so rash and negligent as to endanger human life or to be likely to cause hurt or injury to any other person shall be punished with imprisonment of either description for a term which may extend to six months or with fine which may extend to one thousand rupees or with both. The offence under section 279 is cognizable and bailable and triable by the Magistrate having territorial jurisdiction over the area wherein such offence has been committed.

[10] Section 304A I.P.C. dealing with causing death by negligence, whoever causes the death of any person by doing any rash or negligent act not amounting to culpable homicide shall be punished with imprisonment of either description for a term which may extend to two years or with fine or both. The offence under this section is cognizable and bailable and triable by the Magistrate of the first class. This section has been couched in general terms, based on the main ingredients of rash and negligent act which would; naturally, include the act of rash and negligent driving.

[11] Section 336 I.P.C.: deals with Act Endangering Life or Personal Safety of Others. It is provided in the act that whoever does any act so rashly or negligently as to endanger human life of the personal safety of others, shall be punished with imprisonment of either description for a term which may extend to three months, or with fine which may extend to Rs. 250/-, or with both. The offence under this section, as under section 279, is an offence independent of its consequences, and if consequences also follow, the offence would become aggravated and taken account of under section 336 and 337. The offence under section 336 is cognizable and bailable and triable by the Magistrate having territorial jurisdiction over the area wherein such offence has been committed.

[12] Section 337 I.P.C.: deals with cases causing hurt act endangering life or personal safety of others. It is as stated below: whoever causes hurt to any person by doing any act so rashly or negligently as to endanger human life, or the personal safety of others, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to five hundred rupees, or with both. The offence under section 337 is cognizable and bailable and triable by the Magistrate having territorial jurisdiction over the area wherein such offence has been committed.

- Causing Grievous Hurt by Act Endangering Life or Personal Safety of Others under Section 338 of Indian Penal Code[13]

Grant of Compensation.

Hearing of Accused Necessary is defined under Section 357 (1) of Criminal Procedure Code (Cr.P.C.) which deals with a situation when a court imposes a fine or sentence of which fine also forms a part. Its discretion of the court- to order as to how the whole or any part of the fine recovered to be applied. For bringing in application of section 357 (1) it is statutory requirement that fine is imposed. Section 357 (5) it talks about the situ-ation where the court imposes the compensation/ damages in any subsequent civil suit relating to the same/similar matter, while awarding compensation/damages, the court is required to take in to account any sum paid or recovered as compensation/damages under section 357 of the Criminal Procedure Code (Cr.P.C.)

What law we have in California.

- Offences in Relation to Use of Motor Vehicles which are Punishable under California Criminal Code, 1872[14]

[13] Section 338 I.P.C.: deals with cases causing grievous hurt by acts endangering life or personal safety of others and it states that whoever causes grievous hurt to any person by doing any act so rashly or negligence as to endanger human life, or the personal safety of others, shall be punished with imprisonment of either description for a term which may extend to two years, or with fine which may extend to one thousand rupees, or with both. The offence under section 338 is cognizable and bailable and triable by the Magistrate having territorial jurisdiction over the area wherein such offence has been committed.

[14] Section 192 sub-section 2(c)--Vehicular:

(1) Except as provided in subdivision (a) of Section 191.5, driving a vehicle in the commission of an unlawful act, not amounting to a felony, and with gross negligence; or driving a vehicle in the commission of a lawful act which might produce death, in an unlawful manner, and with gross negligence.

(2)Driving a vehicle in the commission of an unlawful act, not amounting to a felony, but without gross negligence; or driving a vehicle in the commission of a lawful act which might produce death, in an unlawful manner, but without gross negligence.

(3)Driving a vehicle in connection with a violation of paragraph (3) of subdivision (a) of Section 550, where the vehicular collision or vehicular accident was knowingly caused for financial gain and proximately resulted in the death of any person. This paragraph does not prevent prosecution of a defendant for the crime of murder.

(d)This section shall not be construed as making any homicide in the driving of a vehicle punishable that is not a proximate result of the commission of an unlawful act, not amounting to a felony, or of the commission of a lawful act which might produce death, in an unlawful manner.

- Vehicular under Section 192 sub-section 2(c) of the California Penal Code, 1872 Another section which is newly added to the list under the, Section 38750-38751 of Autonomous Vehicle defines under the Vehicle Code of California, 1959 (State of California, 2020)

(a)Â This section enumerates about the definition part like what does[15]:

Autonomous technology is a technology that has the capability to drive a vehicle without the active physical control or monitoring by a human operator.

How does it define Autonomous vehicle in this section, so it means any vehicle equipped with autonomous technology that has been integrated into that vehicle?

Sub-Clause(B) talks about an autonomous vehicle does not include a vehicle that is equipped with one or more collision avoidance systems, including, but not limited to, electronic blind spot assistance, automated emergency braking systems, park assist, adaptive cruise control, lane keep assist, lane departure warning, traffic jam and queuing assist, or other similar systems that enhance safety or provide driver assistance, but are not capable, collectively or singularly, of driving the vehicle without the active control or monitoring of a human operator.

(e)Gross negligence, as used in this section, does not prohibit or preclude a charge of murder under Section 188 upon facts exhibiting wantonness and a conscious disregard for life to support a finding of implied malice, or upon facts showing malice.

[15] Section 38750 Autonomous Vehicle:

Sub-section(c) (D)The autonomous vehicle shall allow the operator to take control in multiple manners, including, without limitation, through the use of the brake, the accelerator pedal, or the steering wheel, and it shall alert the operator that the autonomous technology has been disengaged.

Sub-section(c) (G)The autonomous vehicle has a separate mechanism, in addition to, and separate from, any other mechanism required by law, to capture and store the autonomous technology sensor data for at least 30 seconds before a collision occurs between the autonomous vehicle and another vehicle, object, or natural person while the vehicle is operating in autonomous mode. The autonomous technology sensor data shall be captured and stored in a read-only format by the mechanism so that the data is retained until extracted from the mechanism by an external device capable of downloading and storing the data. The data shall be preserved for three years after the date of the collision.

Sub-section (h): The manufacturer of the autonomous technology installed on a vehicle shall provide a written disclosure to the purchaser of an autonomous vehicle that describes what information is collected by the autonomous technology equipped on the vehicle. The department may promulgate regulations to assess a fee upon a manufacturer that submits an application pursuant to subdivision (c) to operate autonomous vehicles on public roads in an amount necessary to recover all costs reasonably incurred by the department.

Sub-clause (4) defines the term operator of an autonomous vehicle is the person who is seated in the driver seat, or, if there is no person in the driver seat, causes the autonomous technology to engage.

Sub-clause (5) defines manufacturer of autonomous technology is the person as defined in Section 470 that originally manufactures a vehicle and equips autonomous technology on the originally completed vehicle or, in the case of a vehicle not originally equipped with autonomous technology by the vehicle manufacturer, the person that modifies the vehicle by installing autonomous technology to convert it to an autonomous vehicle after the vehicle was originally manufactured.

Sub-section (b) talks about an autonomous vehicle may be operated on public roads for testing purposes by a driver who possesses the proper class of license for the type of vehicle being operated if all of the following requirements are met:

(1) The autonomous vehicle is being operated on roads in this state solely by employees, contractors, or other persons designated by the manufacturer of the autonomous technology.

(2) The driver shall be seated in the driver seat, monitoring the safe operation of the autonomous vehicle, and capable of taking over immediate manual control of the autonomous vehicle in the event of an autonomous technology failure or other emergency.

Sub-section (c) of (A): The autonomous vehicle has a mechanism to engage and disengage the autonomous technology that is easily accessible to the operator.

Sub-section (c) of (B): The autonomous vehicle has a visual indicator inside the cabin to indicate when the autonomous technology is engaged.

Sub-clause(C) The autonomous vehicle has a system to safely alert the operator if an autonomous technology failure is detected while the autonomous technology is engaged, and when an alert is given, the system shall do either of the following:

(i) Require the operator to take control of the autonomous vehicle.

(ii) If the operator does not or is unable to take control of the autonomous vehicle, the autonomous vehicle shall be capable of coming to a complete stop (State of California, 2020).

And, Section 38755 of the Vehicle Code of California talks about authorized to conduct a pilot project for the testing of autonomous vehicles that do not have a driver seated in the driver seat and are not equipped with a steering wheel, a brake pedal, or an accelerator (State of California, 2020).

What law we have in Germany.

Offences in Relation to Use of Motor Vehicles which are Punishable under German Criminal Code[16].

[16] Please refer to https://www.gesetze-im-internet.de/englisch_stgb/englisch_stgb.pdf

- Dangerous interference with road traffic under Section 315 b of German Criminal Code[17]
- Endangering road traffic under Section 315 c of German Criminal Code[17]
- Driving under influence of drink or drugs under Section 316 of German Criminal Code[18]

6 Case-Study on AI

Random Darknet Shopper: A case study

In Switzerland, a piece of software which is known by the name of Random Darknet Shopper created by an artistic, was into functions once a week to run/access the deep

[17] Section 315 c: Endangering road traffic
(1) Whoever, in road traffic,
1. drives a vehicle although they are not in a condition to drive the vehicle safely
a) due to having consumed alcoholic drinks or other intoxicating substances or
b) due to mental or physical deficiencies, or
2. in gross violation of road traffic regulations and carelessly
a) does not observe the right of way,
b) overtakes improperly or otherwise drives improperly in the process of overtaking,
c) drives improperly in the vicinity of pedestrian crossings,
d) drives too fast in places with poor visibility, at road crossings, junctions or railway crossings,
e) fails to keep to the right-hand side of the road in places with poor visibility,
f) turns, drives backwards or contrary to the direction of traffic, or attempts to do so on a motorway or a main road or
g) fails to make vehicles which have stopped or broken down recognisable at a sufficient distance although this is required to ensure the safety of traffic, and thereby endangers the life or limb of another person or property of significant value belonging to another, incurs a penalty of imprisonment for a term not exceeding five years or a fine.
(2) In the cases under subsection (1) no. 1, the attempt is punishable
(3) Whoever, in the cases under subsection (1),
1. causes the danger by negligence or
2. acts negligently and causes the danger by negligence incurs a penalty of imprisonment for a term not exceeding two years or a fine.

[18] Section 316: Driving under influence of drink or drugs
(1) Whoever drives a vehicle in traffic (sections 315 to 315e) although they are not in a condition to drive the vehicle safely due to having consumed alcoholic drinks or other intoxicating substances incurs a penalty of imprisonment for a term not exceeding one year or a fine, unless the offence is subject to a penalty under section 315a or 315c.
(2) Whoever commits the offence negligently also incurs the penalty specified in subsection (1)

web-which is a hidden portion of the Internet, which purchased an item randomly. So, the Random Darkent Shopper bought many items namely- a pair of fake diesel jeans, baseball cap with a hidden or secret camera, 200 Chesterfield cigarettes, and a set of fire-brigade master keys along with ten ecstasy pills. Now, it all came under notice of the local St Gallen Police Force, who now seized the physical computer hardware which used to run the Random Darknet Shopper, along with all belongings which he purchased.

Intriguingly, for purchasing an illegal controlled substance, both the human designers and the AI system were held liable/charged for this purchase as an offence. Then, after three months, the charges were dropped which resultant into releasing of all property to the concerned person-artistic, leaving behind all the ecstasy, which has already destroyed (Criminal Responsibility for the Acts of Another, 1930 p. para. 2).

In 2011, Nevada was the main state to permit and control the activity of self-driving vehicles, and starting at 2017, thirty-three states have acquainted enactment that is connected with the issue; twenty of them have just passed significant enactment, and a further five have seen important official requests issued[19].

7 Conclusions

For as long as couple of decades, artificial intelligence reasoning (AI) appeared as though something out of a sci-fi work; the idea of a AI judgment that could increase adequate independence so as to make its own, autonomous decisions is still very new for most. As of late, fast technological advancement has prompted items that have developed to progressively join Al components. From shrewd items to automatons to the Internet of Things, social reality has progressed past what was innovatively attainable when applicable laws were drawn up and established. Savvy specialized frameworks that can work without consistent human info suggest a lot of conversation starters especially trying for ideas notable for criminal law and its application by and by. Savvy vehicles that can securely explore traffic are not really a dream any longer; they have been being developed for a few years now, and the principal forms are as of now in the city of major U.S. urban communities. Operation of autonomous cars accompanies have incredible focal points: it will apparently expand versatility for social gatherings like the older or individuals with handicaps, it will give more noteworthy security out and about by giving a progressively tranquil travel to proficient drivers and seemingly ensure expanded adherence to traffic laws, just as enable drivers to be

[19] Self-Driving Vehicles, National Conference on State Legislatures, http://www.ncsl.org/research/transportation/autonomous-vehicles-self-driving-vehicles-enacted-legislation.aspx#E nacted%/o20Autonomous%2OVehicle%20Legislation, for these figures as well as further information on actions taken by the fifty states regarding autonomous vehicles.

increasingly beneficial when voyaging, as the autonomous vehicle could assume control generally. The eventual fate of independent autos is as yet not by any stretch of the imagination moulded as forms dependent on a differing level of robotization are created, some requiring a reserve human driver and others being completely self-sufficient, yet autonomous vehicles, all in all, depend intensely on Al so as to work. The coming of what is by all accounts the principal mass use of Al in regular daily existence and specifically one that massively influences transportation as fundamental human movement that is strongly managed by law and where sufficient open doors can emerge for criminal law to intercede will without a doubt have suggestions that will influence how criminal law is interpreted and how it is connected. More than that, it will give a significant chance to return to and think about conventional criminal law ideas, for example, personhood, hurt; what's more, at-fault since it will present another "specialist" into the customary organization range that is characterized by able human performing artists.

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