Inefficiency of legal laws in Applying to Damages Caused by Artificial Intelligence

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Abstract

The emergence and increasing progress of artificial intelligence has faced the legal science with unsolvable challenges. Artificial intelligence systems, like other new technologies, have faced serious challenges from the principle of accountability and legal rules about civil responsibilities (compensation for damages caused by artificial intelligence systems). This is an important issue and ensures the confidence of potential victims of these systems and trust in the artificial intelligence industry. In the face of changes in smart technology, the courts experience challenges in applying traditional laws that the current laws are unable to respond to, and regulatory organizations and legislators must pay attention to the fact that the current laws are not responsive in monitoring artificial intelligence and exercising legal responsibilities. They need to contemplate to enact the special and new laws. However, the important issue that the legislators in all legal systems are concerned with is whether artificial intelligence is considered as a legal entity or not, and whether artificial intelligence can be tried before the courts, the issue which has not yet been answered. This article, while reviewing the nature and elements of artificial intelligence, which is necessary for lawyers, examines the various aspects of the challenges facing the science of law in the field of artificial intelligence and examines the ineffectiveness of the laws governing the damages caused by artificial intelligence. The result is that the rules of law need to be revised in dealing with the responsibilities arising from artificial intelligence.

Keywords: legal personality, artificial intelligence, ethics, civil responsibility

1. Statement of Problem

Any person can be held responsible for the alleged damage when he has some degree of duty over that damage, i.e. he facilitated it, caused it, or was in a position to prevent, but he/she has refused to do the duty.

In the case of algorithmic decision-making, the issue is complicated. It is not clear whether one who owns the necessary amount of control over the algorithmic decision is held legally responsible or not. One assumption is that due to the black box status of artificial intelligence systems, developers of algorithmic tools may not know exactly how to use them in the future; People who use these tools may not know how those tools work. In this case, can developers and programmers of algorithms or users be held responsible?

Another question that can be raised in this regard is whether it is possible to extend the

rules governing the liability of product defects to the field of software as well? Can the public or private actors who buy the algorithm and use it in their service, without having sufficient knowledge of how it works, be held responsible (Mazeau, 2018:1)?

2. Introduction

Artificial intelligence systems are becoming increasingly complex and are often used in critical areas such as public transportation, medicine, military needs, and even public safety. It is difficult to ignore the profound disruptions that artificial intelligence will create in many social areas. These disruptive changes raise important ethical, legal, social, and technical questions about how society can ensure that the deployment of artificial intelligence is beneficial and not harmful to people. There is no doubt that with the spread of the intellectual system, our societies will inevitably face the problem of limiting the license to use and possess some types of artificial intelligence systems (Roman, Natalia, 2019:343).

Artificial intelligence technology has been used both personally and industrially for years. Artificial intelligence and other digital technologies have the power to transform society and transform our economy into a better situation. AI-enabled tools are already helping physicians to find skin tumors, recruiters to find qualified candidates, and banks to decide whom to lend. Algorithms help power product recommendations, target advertising, article search, employee promotion and retention, scoring and risk rating, image tagging, fraud detection, cyber security defense, and a host of other applications (Channels, Hewcamp. :1401, p. 28).

Practical problems for legislators are caused by the lack of new doctrinal approaches in the science of civil law in dealing with the problems of civil law regulating relations arising from society. Smart technologies as one of the stages of digitalization of society and creation of digital space in the post-industrial society. The lack of norms regulating the features of the legal regime for artificial intelligence carriers, the results of intellectual work created by them, creates uncertainty in regulation (Kamyshanskiy Stepanov etc., 2021:).

The types of applications of artificial intelligence, especially the robot that humans want to use, are nowadays a fundamental issue in the fields of ethics, law, economics, philosophy, technology, psychology, etc. (Pagua, 2019: p. 36). The development of these applications requires adequate safeguards to reduce the risks of harm resulting from these technologies, such as physical injury or other harm. There are regulations in this regard in the European Union. Including product safety regulations, which unfortunately cannot exclude the possibility of damage caused by these technologies. If this happens, the victim will seek compensation. These damages are compensated based on the responsibilities defined in private law, especially the tort law, and possibly with insurance. Only the absolute liability of manufacturers of defective products, which forms a small part of this legal liability system, is harmonized with the Product Liability Directive at the European level, while most trades are under legal supervision from the government.

In Iranian law, the fulfillment of civil liability, both contractual and non-contractual, under the aforementioned system, is dependent on the identification of defects in artificial intelligence, the occurrence of damage, and the causal relationship between them. Regarding the contractual responsibility, in addition to the mentioned elements, the existence of the contract and its violation is also necessary. In addition, the civil responsibility (tort) of the manufacturer and supplier in compensating for financial losses does not include damage caused to defective artificial intelligence. Rather, it refers to damages caused to other properties as well as physical and spiritual damages caused by the defect of artificial intelligence. In case of multiple persons responsible in the cycle of production and distribution of artificial intelligence, their liability is joint (partnership) in Iranian law and the same in common law (judicial procedure system and judicial precedent). Despite the existence of general laws regarding artificial intelligence technology, it seems that due to the emerging nature of this technology in Iran, we need to formulate a specific legal system that deals with the details of the matter.

Therefore, it seems that the issue of whether artificial intelligence systems can be held legally responsible depends on, at least, three factors: firstly, the limitations of artificial intelligence systems and whether these limitations are clear and announced to the buyer, secondly, Is the artificial intelligence system a product or a service, thirdly, does the violation require a mental element or the violation of strict liability (Kingston, p7).

If an AI system is held responsible, the question arises as to whether it should be held responsible as an agent, accomplice, or perpetrator. While introducing artificial intelligence and its threats, this article examines the issue of the independence of artificial intelligence and raises the issue of the real(legal) personality of artificial intelligence, and at the end, it comes to the conclusion that the system of civil and criminal liability laws against damages caused by artificial intelligence, especially robots or other tools are inefficient and require more consideration by legal scholars. In any case, the robot causes damage and creates responsibility, however, the reason for the importance of the legal aspects of the robot is its visualization and unpredictable actions in addition to the social capacity that is absent in other technologies, because it may be completely independent understanding, thinking and act or be a means to fulfill human commands (Rajabi, 2018, 450).

3. Threats of Artificial Intelligence

Artificial intelligence is everywhere, and its development, deployment, and use are advancing rapidly, contributing to the global economy. Artificial intelligence has many benefits (e.g., improvements in creativity, services, safety, lifestyles, helping to solve problems), at the same time, brings with it many concerns (adverse impact on autonomy, privacy and rights and fundamental freedoms). (Thegmark, 2017: 17) According to Article 17 of the International Covenant on Civil and Political Rights, "No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence". Artificial intelligence threatens the accepted

concept of privacy, because if it is so easy to detect your gender, inner state of mind, hidden attraction, there is no place for privacy. The boundary between private and public life will disappear. (Bergin, 2018, 14-15)

4.Digital Personality: new legal personality

Personality belonged to humans since long ago (Hárs, 2022: 326). One of the most widely debated issues is the compatibility of "legal personality" with computers and the rationale behind this idea. The concept of "legal personality" has changed significantly over the years. One of the first cases of expanding the scope of legal personhood came through an executive order, when black slaves were finally recognized as legal entities after decades as recoverable items of property (Bajpai, 2020).

Legal personality is important for any legal system. The question of who can act, who can be the subject of rights and duties, is the prelude to almost everything else. However, a careful examination of these foundations in the field of artificial intelligence shows surprising uncertainty and disagreement (Chesterman, 2020:822).

The concept of using legal personality in artificial intelligence has been heavily discussed in the scientific literature for some time. An article published in 2007 by Francisco Andrade and his colleagues points out that the development of information technology, communication and artificial intelligence has recently created a new way to conclude contracts and express contractual will. In the corporate sector, intelligent electronic agents are increasingly being introduced. These agents are software that can justify activities in the name of their employers and without any direct human control, they are sufficient and appropriate to have a legal effect (Andrade et al, 2007:359). We can use the word "Agent" for this type of characters. The word is derived from the Latin "agere" meaning "to act".

This section raises a question about a potential new legal personality in an AI-based society - the digital person. The concept of legal personality should be understood as a general concept created in a specific legal system that can represent both obligations and interests. The noteworthy point in this context is to what extent the ancient system of "real persons" and "legal persons" is dynamic enough to meet the requirements of the development and use of artificial intelligence (Corrales, Fenwick Haapio: 2019 p 183).

The question of whether there is a need for a new legal personality in the form of a digital person - cannot be answered easily. This issue is so complex that it requires an in-depth analysis of principles with a wide range of academic theses, laws, court decisions, agreements, etc. Probably, digitization is currently increasing in terms of quantity and quality (Von der Lieth, 1987).

To maintain and affirm a humanitarian perspective as machine-based solutions increasingly shape our private, work, office, careers, etc., social dialogue must expand toward new solutions. The hypothesis is that there is a need for some kind of analytical (conceptual) model – here based on a new legal doctrine – that can draw strong arguments about AI and law. However, this approach is not based on the assumption that the new legal entity in the

form of a digital person will solve all legal questions related to AI applications. There are different legal issues regarding accountability, intellectual property rights (copyright, patent, etc.), e-government and e-services for citizens and consumers. However, efforts to legalize artificial intelligence have the ability to support technological advancements for the benefit of people instead of laws becoming an obstacle (Sjöberg, 2019:180).

With this in mind, the need for a more targeted model emerges, one that can properly support the legal analysis of AI. This means understanding and accepting artificial intelligence as an at least partially new phenomenon that fundamentally changes the legal infrastructure. We will most likely encounter an "intelligent agent", defined by Wikipedia as "an autonomous entity that observes through sensors and acts on an environment using stimuli (i.e., is an agent) and directs its activity towards guides", we will face. Therefore, a digital person should not be confused with a digital identity on the Internet. Furthermore, a digital person is not the same as a biological being, although the traditional line between man and machine is arguably blurring as artificial components enter the human body in the form of implants and the like. A digital person is not a person or something that can be defined as a type of legal entity such as a company or institution (Wahlgren, 1992:87).

In such a situation, it can be assumed that no legal action is taken to protect the rule of law. The risk that the concept of "digital person" may never be defined is not difficult. So what would be the consequence of artificial intelligence without the rules associated with a new entity? From a legal point of view, negative consequences can be extracted both at the macro level and at the micro level.

In general, a state of ineffective law can easily emerge in the future, where legal measures are not only impaired, but worse, the existence of law, in the absence of a legal entity that can be held accountable for certain actions, under The question goes. Established principles of transparency will also be at risk. In particular, remaining passive, watching the development of an artificial intelligence-based society without human intervention and legal guidance, requires putting individuals and organizations at risk. Who will be held accountable when things go wrong and there is no real person or legal system to blame? Therefore, the mere existence of a "digital person" has the ability to play a supportive role in future legal affairs (Corrales et al, 2019:185).

The concept of digital person is not just an addition to the vocabulary that already includes the concepts of "real person" and "legal person". Rather, it refers to a legal entity that under certain conditions can be recognized as having a certain legal capacity with related rights and obligations. This is particularly interesting when it comes to executive power, which has a decisive influence on legal actions in various digital environments.

A digital person can alternatively be described as a set of algorithms, some of which represent the original identity. One of the characteristics of the main identity is the possibility of indexing and specifying its features and functions according to a specific purpose (Sjöberg, 2019:183).

To assess whether a digital person governed by a particular algorithmic identity is acting as intended, traditional criteria of ethics,

law, trust, etc. are probably sufficient to begin with. Methodologically, the goal is to achieve what can be referred to as functional equivalence. This has been the dominant approach applied by legislators when trying to regulate laws, standard contracts, etc. that have been established a long time ago and must be adjusted according to the modern digital information society (Corrales et al, 2019:185).

In the long term, it is conceivable that the legislature will empower digital persons with legal capacities of limited or wider scope. Some rules may even be self-generating. Traditional justice courts and staffed with human judges may have an expiration date sooner than we think. In any case, legal professionals have reason to be wary when it comes to mastering the legal ramifications that artificial intelligence brings, at least. One thing is certain: the position of lawyers regarding artificial intelligence is useless. Instead, algorithms and related automation should be seen as natural parts of a new legal era (Sjöberg, 2019:183).

The Parliament of the European Union, as the highest legislative assembly in this Union, has proposed to create a special status for robots as "electronic persons" who have a set of rights and special obligations. These rights and obligations can be implemented based on the proposal of the European Union Parliament in cases where robots make decisions or interact with third parties, which is at least unknown in the European legal system (Parliament Research Center, 2017, p. 8).

6. The independence of Artificial Intelligence

The issue of the autonomy of artificial intelligence raises its nature in the light of existing legal categories - whether it should be considered as a natural person, legal person, animal or object, or whether it is a new category with specific characteristics and consequences in relation to the assignment of rights and duties. , including responsibility for damages.

Unlike the law, the protection provided by American courts is remedial, not preventive. Courts assess liability and damages based on legal precedent. In cases where harm is alleged to have been caused by artificial intelligence programs, courts are asked to discover the new technology and apply inappropriate jurisdictional rules to determine liability. For example, US common law tort claims often focus on anthropocentric concepts of fault, negligence, knowledge, intent, and reasonableness. What happens when human reasoning is replaced by an artificial intelligence program? What happens when artificial intelligence is the agent or the victim? Claims related to artificial intelligence are novel and there is no valid case law in this field (Sjöberg, 2005:17).

7. Liability Caused by Artificial Intelligence

The emergence of the field of artificial intelligence has changed the views related to intelligence, which was unique to humans (Homo Sapiens). In 1956, when the concept of artificial intelligence appeared, there were discussions about whether artificial intelligence can be beyond the inherent characteristic of biological being and whether it can be artificially created (Paulis and et al, 2015:376).

Therefore, according to the above, it seems that the question of whether artificial intelligence systems can be held legally responsible depends on at least three factors: A- The limitations of artificial intelligence systems, and whether the buyer is aware of these limitations. b- Is the artificial intelligence system a product or a service?

If the artificial intelligence system is found responsible, the question arises whether it should be recognized as an innocent agent, an accomplice or a criminal? (Kingston, 2016:8)

The ability to accumulate experience and learn from it and the ability to act independently and make individual decisions create preconditions for damage. The factors leading to damage that are included in this topic confirm that the operation of artificial intelligence is based on the pursuit of goals. That is, artificial intelligence can cause damage for any reason by its own actions, and therefore, compensation issues are resolved according to the existing legal provisions. The main issue is that neither national law nor international law considers artificial intelligence as a legal issue. This means that artificial intelligence cannot be held personally responsible for damages caused by its actions. Therefore, this question arises: who is responsible for the damages caused by the application of artificial intelligence?

In the absence of direct legal provisions related to artificial intelligence, in the United States, Article 212 of the Convention on the Use of Electronic Communications is applied to international agreements, which stipulates: "Whenever a person, whether real or legal, who becomes responsible for computer programming, the ultimate responsibility Any message is caused by the device. Such an interpretation follows the general rule that the employer of the instrument is responsible for the consequences resulting from the use of that instrument, since the instrument has no independent will. Therefore, the concept of artificial intelligence as a tool (AI-as-Tool) is raised in the context of the legal responsibility of artificial intelligence, and this means that in some cases, vicarious or strict liability for the use of artificial intelligence is considered. It is taken Paulis and et al, 2015:376). Also, the manufacturer will be fully responsible due to the production of inherently dangerous products and the creation of risky activities, taking into account the preventive principle (Hakmat Nia et al., 2018, 231).

8. Inefficiency of tort law for Artificial Intelligence

In the near future, AI will be augmented by more hardware and software solutions such as AI-controlled traffic signals, capable of adjusting light timing to optimize traffic flow, or AI-powered controlled drones capable of optimizing engine rotations to stabilize videos. will be merged. In the United States, several bills related to artificial intelligence have been passed, such as the automatic driving law, the future law of artificial intelligence in 2017, and the law of artificial intelligence jobs in 2019 (Gholinia, Mashhadizadeh, 1401, 307).

As reinforcement learning brings more autonomous decision-making capabilities, the law must adapt to the new reality. For example, what if an AI-controlled traffic signal learns that it is more efficient to

change the traffic light one second earlier, but the chance of accidents increases?

The traditional concept of civil liability (contract and tort) may not be very responsive to developments in autonomous AI, especially when the AI program causes harm that cannot be easily traced to human error. Therefore, many aspects of civil liability law may need to be revised, including provisions related to liability for damages. It may also be difficult to determine what caused the damage in certain situations, especially if the AI can learn new things on its own. (Susskind, 2017:63)

Today, the only possible important and general consideration about the artificial intelligence system is that there is no philosophical, technological, or legal basis for them as objective, except for the artifacts of artificial intelligence and the resulting products. From the ontological point of view, advanced technologies are not subjective and are only objective, and there is no reason to grant rights and hold them legally responsible. Even in the shadow of the existing laws, it is always possible that a person can be considered a person who is responsible for the damages caused by the use of the device. In this sense, the legal framework can be unhelpful, for example, because it is costly and has a complex litigation process, but it excludes the existence of a gap in responsibility (Bertoloni, 2020, 10).

On the contrary, from a functional point of view, we can consider some conditions whereby it is appropriate to attribute an unrealistic form of legal responsibility to a certain class of applications, as is done in companies today. Such a situation requires, first of all, the pursuit of coordination among several parties, for example, when several issues are involved in the provision of services or products based on artificial intelligence, it can be difficult, if not impossible, to separate the responsibilities of each. Secondly, it requires separation of assets and limitation of liability in order to facilitate the distribution of income and the distribution of losses caused by technology, and thirdly, it requires the pursuit of transparency through registration and disclosure of duties in order to identify the parties who benefited from the economic benefits or other benefits of the operation of the device and It seems desirable to motivate the development of that product and service. (Ibid, 11).

9. Burden of Proof

The issue of accountability and responsibility in the legal field are intertwined with the burden of proof mechanism. Typically, in every US state, a plaintiff bringing a tort claim against a robot manufacturer must prove that the defendant sold a product that was defective and unreasonably dangerous when the product was out of the defendant's possession. and submitted to the plaintiff and the defect caused damage to the plaintiff. Under the theory of negligent design, the plaintiff seeks to prove that the robot manufacturer owed a duty to use reasonable care in the construction of the robot, that it failed to exercise reasonable care in the construction of the robot, and that the defendant's conduct proximately caused the plaintiff's injury. (Sjöberg, 2019:187) In criminal law, the burden of proof is on the shoulders of the prosecutor, who must prove the guilt of the accused based on any act or omission

prohibited by special norms or special written regulations. Regarding the contract, the burden of proof is on the shoulders of the party who claims that the other party violated the contract (Pagola, 2019, p. 206). But in the case of artificial intelligence, which produces products similar to the behavior of animals and humans, they create a new type of human responsibility towards the behavior of others. Therefore, despite the efforts of researchers and lawyers, this question remains unanswered as to who is responsible for the behavior of artificial intelligence, and to determine the civil and criminal punishment, old laws are referred to, including the product liability law, which unfortunately has not been answered.

10. Application of laws on Artificial Intelligence

Regarding artificial intelligence, there is a question: should the government set specific regulations for the possession, use and distribution of this type of artificial intelligence? In part, the answer is simple. When artificial intelligence technology is combined with prohibited dangerous items or substances in a device, the existing laws may apply in the first place.

Devices that incorporate artificial intelligence technology and prohibited items or substances must comply with both systems of rules. For example, if someone mounts a machine gun in their AI-controlled drone, their actions with an autonomous vehicle would be covered by both the Firearms Control Act and the Drone Flight Regulatory Act (Sjöberg, 2019:188).

If an AI device is brand new, the use of the technology is likely not covered by the law. In this case, the only possible way is to apply the "dangerous things" law. For example, if a new AI system is equipped with a gun, it must at least comply with the laws on the use and trafficking of firearms.

An equivalent method is used in testing a new military weapon based on international law. As one researcher claims: "If we have an autonomous robot that has already been used and a weapon that has already been used, it may be possible to use them without further authorization". This means that the legal norms applied to new artificial intelligence technology only A set of legal norms that apply to parts of a new independent device or software. Sometimes it is possible and reasonable, but there is a high risk that the characteristics of a new technology do not combine the characteristics of its parts.

Inefficiency, shortcoming and negligence in dealing with the damages and losses caused by digital technologies, causes the non-compensation of the injured party in full or incompletely. The social effects of this inefficiency in the existing legal systems, taking into account the possible risks caused by the up-to-date digital technologies, question the expected benefits.

11. Civil liability(Tort) and law Enforcement

In many legal systems, it is generally necessary to prove three elements to realize civil liability: damage, fault and the causal relationship between fault and damage. It is now challenging to prove all three elements

of harm caused by artificial intelligence systems:

Regarding the first element, i.e. the existence of loss, the concept of compensable damages does not allow compensation for some types of damages related to artificial intelligence (for example, as long as the data are not considered property or financial rights, their destruction will not be compensable or If the ability to predict loss can be claimed from the conditions of loss, it is very difficult to achieve such a condition in artificial intelligence decisions.

Regarding the second element, it should be said that in different legal systems, civil liability is mainly based on fault; However, there are differences of opinion on whether the objective criterion for establishing fault should be based on the personal criterion. Fault means doing something that should have been done conventionally or according to laws and regulations. In any case, it must be proven that there were duties on the person and that he violated them. The desired tasks are also determined by various criteria and factors. Sometimes they are defined in advance and according to the laws, sometimes they are established by social customs and ethics, and sometimes the courts infer them based on social beliefs and reasonable expectations for rational and reasonable behavior from the members of the society. It is now difficult to apply fault-based liability rules to emerging digital technologies. The lack of well-established models for the proper functioning of these technologies (lack of acceptable behavior patterns) and the possibility of their development and evolution as a result of learning without direct human control has made it difficult to know whether their functions are right or wrong. Considering that so far, behavioral rules have been set for humans and not for machines, should the behaviors of artificial intelligence systems be evaluated with reference to the behaviors of other artificial intelligence systems? What are the rules of behavior or ethics that can be applied in word artificial intelligence systems?

In fact, the problem is more serious in terms of causation. The black box feature of artificial intelligence does not allow to know exactly how much the harmful event that happened is related to the performance of artificial intelligence. For example, if a smart environment smoke detector fails to sound an alarm due to a wiring fault, this fault is detectable, but if the smoke alarm system fails to activate due to a software error, this may be easily provable. not (even if the existence of an alarm in itself is possible and easily proven), proving that the system does not turn on requires a detailed analysis of the operating system code and its suitability for the Dodiab hardware components. If the system has been updated several times since the initial installation, it becomes more difficult to attribute defects and incur losses: did the original algorithms for which the seller accepted responsibility cause the defects, or changed algorithms (which may be the responsibility of other parties) (Ansari, 1400, pp. 246 and 247)?

12. Criminal liability

The last quality of legal personality is the most profound and worthy: the ability to punish. Given legal personality comparable to a corporation, there seems little reason to debate whether an AI system can be prosecuted under criminal law. Provided that the material element and the spiritual

element are verified, (Yockey, 2016:22) such an institution can be fined or its property confiscated. The activity license can be suspended or revoked. In some jurisdictions, a dissolution order can be issued against a legal entity. Where this is not available, a fine large enough to bankrupt the entity may have the same effect. In an extreme case, a "criminal robot" can be imagined to be destroyed. But will this be desirable and effective?

The most commonly stated reasons for criminal punishment are: retribution, disability, deterrence and rehabilitation. Retribution is the oldest reason for punishment, sublimating the victim's desire for revenge into a social demonstration that wrongdoing has consequences. Literally in the lex talionis: an eye for an eye, a tooth for a tooth. The obvious impact of fining a company or an electronic "person" may outweigh a crime that would otherwise go unpunished (Wringe, 2016).

The penal system can also be used to physically incapacitate those convicted of crimes and prevent them from reoffending. This is usually through various forms of imprisonment, but may also include exile, amputation, castration, and execution. In the case of large companies, it may include the revocation of a license to operate or a mandatory liquidation order. (Mulligan, 2019) A direct analogy can be drawn here with the treatment of dangerous animals and machinery, although actions such as putting down a vicious dog or disabling a dog the villain Defective vehicle is administrative rather than criminal and does not depend on a finding of 'guilt' (D Legge and S Brooman, 2000). If convicted of a crime, they may still be detained by the government. A danger to themselves or society. (Loughnan, 2012) Such people do not lose their personality. In the case of artificial intelligence systems, they do not need to be given personality in order to be subject to imprisonment-like measures if their license is revoked or revoked. By structuring penalties, it imposes costs on behavior that are intended to outweigh potential benefits. The ability to reduce crime to economic analysis seems particularly applicable to companies and artificial intelligence systems. However, in the case of the former, the incentives are really directed at human managers who might otherwise act in concert through the firm for personal as well as corporate interests. (Hamdani and A Klement, 2008) In the case of AI systems, the deterrent Punishment shapes behavior. Only if its planning seeks to maximize economic profit regardless of the criminal law itself.

The last reason for punishment is rehabilitation. Like disability and deterrence, it is prospective and aims to reduce recidivism. However, unlike disability, it seeks to influence the decision to commit a crime rather than the ability to commit it; (Bentham, 2018:174) Contrary to deterrence, this effect is considered to act intrinsically rather than extrinsically, theory versus practice; especially in the United States, it fell out of favor in the 1970s. (T Ward and S Maruna, 2007) However, according to companies, clearer leverage, experiments with punishments aimed at encouraging good behavior as well as deterring bad, has encouraged The approach may work well for AI systems, since criminal law violations are errors to be debugged rather than sins to be punished. Issue. However, neither legal personality nor coercive government authority should

be necessary to ensure that machine learning leads to outputs that do not violate criminal law.

Conclusion

It is not easy for a lawyer to understand the vocabulary of recent technological achievements in the field, such as cognitive computing, neural networks, natural language processing, big data repositories, data mining, machine learning, etc. Algorithms are based on artificial intelligence in that they are self-learning and are modified during the operation of a pre-implemented system. In such a digital environment, it is difficult to maintain the rule of law. How can we maintain openness and provide solutions when even developers can't track code changes applied?

Maybe it's time to expand the concept of legal entities and introduce digital entities in addition to real and legal entities. One reason, beyond the well-known legal guarantees of transparency, predictability, etc., is the attraction of innovations such as intelligent digital agents.

Artificial intelligence has the potential to improve the management of digital resources, but this requires legal education and extensive analysis of how a legal system is created. Finally, it seems worthwhile to examine the digital person as a new legal entity.

Because artificial intelligence systems have general and specific limitations, legal claims regarding such matters may be based on the specific wording of any notice regarding such limitations.

Who should be responsible depends on which of Hallevy's Three Models is applied (commitment by another, possible natural consequence, or direct liability): A- In perpetration by another, the person who, The AI system commands – whether the user or the programmer – is likely to be held responsible. B- In the responsibility arising from natural or possible consequences, the responsibility may be towards the person who has foreseen the use of the product in the way it was. Developer, seller (of a product), or service provider. Unless the instructions provided with the product/service describe in unusual detail the limitations of the system and the possible consequences of misuse. C. Artificial intelligence programs may also be held liable for torts of strict liability, in which case the programmer is likely to be found guilty.

However, in all cases where the programmer is held responsible, there may be more debate as to whether the error is the programmer's fault or not. program designer; The expert who provided the knowledge. On the other hand, a manager who has appointed an expert, program designer or non-expert programmer.

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