

Criminal liability for artificial intelligence crimes under Algerian law

المسؤولية الجنائية عن جرائم الذكاء الاصطناعي وفقا للقانون الجزائري

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Abstract: The technological advancements in recent years have contributed to the emergence of a new form of criminality. Advanced programming of some artificial intelligence-based machines has granted them capabilities that can reach the level of autonomous decision-making in various situations, similar to human beings. Examples smart cars TESLA, where sophisticated programming enables them to make independent decisions, as we transition to the new era of AI, we enter an era of AI crimes and robots. There is the possibility of a new criminal phenomenon being committed by criminals through AI systems and robots. The general principles of criminal liability have the potential to address AI criminality and its challenges.

Key words: Artificial Intelligence, Criminalization and Punishment, Criminal Liability.

ملخص: ساعد التطور التكنولوجي خلال السنوات الماضية في ظهور إجرام حديث، حيث أعطت البرمجة المتطورة لبعض الآلات التي تعمل بالذكاء الاصطناعي قدرات تصل خطورتها إلى بناء خبرة ذاتية تمكنها من اتخاذ قرارات منفردة في أية مواقف تواجهها مثل الإنسان البشري، كالسيارات الذكية ذاتية القيادة TESLA، فإن انتقالنا إلى العصر الجديد AI؛ أي عصر الذكاء الاصطناعي، هو انتقال لعصر جرائم الذكاء الاصطناعي والروبوتات، بإمكانية حدوث ظاهرة إجرامية جديدة يقوم بارتكابها مجرم من خلال أنظمة الذكاء الاصطناعي والروبوتات، وفي إمكانية تصدي المبادئ العامة للمسؤولية الجنائية لإجرام الذكاء الاصطناعي.

الكلمات المفتاحية: الذكاء الاصطناعي، التجريم والعقاب، المسؤولية الجنائية.

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1-INTRODUCTION:

Artificial intelligence is no longer a figment of imagination or a dream desired by some; it has become a tangible reality. This is particularly evident with the emergence of self-driving cars that navigate the streets of European and Arab countries without human intervention, intelligent robots that mimic human behavior and combine machine power with human intelligence, unmanned aerial vehicles that fly autonomously, and many other advancements. Artificial intelligence has permeated all sectors and fields, such as industry, commerce, medicine, education, services, transportation, justice, and more.

Since the emergence of science fiction novels and films, robots have captured a significant portion of the collective imagination. While Stanley Kubrick presented us with a robot capable of operating a spacecraft in "2001: A Space Odyssey" in 1968, Ridley Scott imagined electronic entities resembling humans rebelling against their creator in "Blade Runner" in 1982. Meanwhile, as a genre precursor, Isaac Asimov postulated three fundamental laws of robotics as early as 1950. These creative examples of artificial intelligence (AI) belong to the realm of imagination but have nonetheless raised various questions regarding the use of these technologies in the real world.

AI has developed at an astonishing pace in recent years. From personal assistants like Google Home, Alexa (Amazon), Siri (Apple), or Microsoft Cortana to autonomous vehicles, reality has now caught up with fiction. These new technologies can sometimes make our lives easier, but what happens when they make mistakes? The recent accident involving an autonomous vehicle and a pedestrian, resulting in the loss of life, reminds us that technology is not without flaws and that we need to consider the problems that may arise from the use of AI.

In the case of dangerous driving or a hit-and-run committed by a fully autonomous vehicle, there are important questions that need to be addressed to ensure accountability and responsibility in the era of artificial intelligence. Is the company that designed the car and the AI software criminally responsible? Is the person behind the wheel at the time of the offense held criminally liable? Or is the vehicle itself, as an

independent entity with decision-making capabilities, held responsible? These are significant questions that require answers to ensure accountability and responsibility in the presence of artificial intelligence.

1.1 Research problem:

Consequently, we raise the following question: Can the provisions of criminal responsibility in Algerian law be applied to artificial intelligence crimes?

Research Objectives:

The main objectives of the research are the following:

- Identify the multiple definitions of artificial intelligence and its exact concept while addressing its historical development.
- Identify the study terms and identify the criminal responsibility and the crimes of artificial intelligence.
- The possibility of artificial intelligence crimes occurring at the national and global levels, and the extent of the impact of these crimes on traditional criminal law
- Examine the extent to which the rules of criminal responsibility can be applied to the crimes of artificial intelligence, especially in the Algerian criminal legislation

1.2 Research Methodology:

In order to address the research problem, we employed a descriptive methodology that involved studying and describing the phenomenon of criminal responsibility related to artificial intelligence. Through this approach, we aimed to gain a comprehensive understanding of the various aspects and implications of AI's criminal liability. Additionally, we utilized an analytical approach to analyze the relevant legal frameworks and regulations that govern the criminal responsibility

of this novel entity. This allowed us to critically examine the legal principles and considerations surrounding AI's accountability in criminal contexts.

1.3 Research plan:

In order to answer the problem and divided the objectives of our research in the form of two sections as follows:

The first axis: Definition of artificial intelligence and its historical development

The second axis: Determining the mental element in the criminal responsibility of artificial intelligence.

The third axis: Determining the material element of the crime in the criminal responsibility of artificial intelligence.

1. The first axis: Definition of artificial intelligence and its historical development

1.1 The definition of artificial intelligence is composed of two terms:

"Intelligence" and "Artificial." Each term has its own definition. Intelligence refers to the ability to perceive, understand, and learn from new and changing circumstances¹. In other words, intelligence is manifested through perception, understanding, and learning. On the other hand,² the term "artificial" is derived from the verb "to create" or "to fabricate." It refers to materials that are created or formed as a result of human intervention and distinguish them from naturally occurring things without human intervention. Based on the above, artificial intelligence generally refers to the intelligence created or fabricated by humans in machines or computers³, or intelligence that originates from humans and is then imparted to machines or computers.

¹ Nour EL KAAKOUR, artificial intelligence and tortious civil liability, PhD thesis, Faculty of Law University Lebanese, Liban, 2017, p29.

² Russel Norvig, Artificial Intelligence: A modern approach, Pearson Education, New Jersey, Inc.2010, p.201.

³ عمر منيب إدلي، المسؤولية الجنائية الناتجة عن استعمال الذكاء الاصطناعي، رسالة ماجستير، كلية القانون، جامعة قطر، 2023، ص09.

The main idea behind artificial intelligence is to simulate human activity through machines, especially when the required activity involves human intellectual effort, by The World Intellectual Property Organization (WIPO) defines artificial intelligence as a field of computer science that aims to develop machines and systems capable of performing tasks that are considered to require human intelligence⁴, whether with limited human intervention or without human intervention.

Based on the previous definitions, we can define artificial intelligence as a field of study whose primary goal is to enable computers, machines, and robots to acquire intelligence, allowing them to perform human-like activities such as thinking, learning, creativity, communication, and other behaviors that rely on the concept of consciousness⁵. This means that these machines or robots possess artificial consciousness in a manner similar to human consciousness.

1.2 The Historical Evolution of Artificial Intelligence:

Artificial intelligence has gone through several stages. The concept of intelligence emerged over two thousand years ago, and philosophers have been interested in studying various topics related to the concept of intelligence, such as perception, learning, memory, and reasoning. They raised questions about the possibility of creating these things. For a long time, humans have expressed their interest in the idea of creating intelligent machines that mimic human behavior, The history of the ancient Greeks and Egyptians provides many examples of this ancient idea and the human fascination with understanding the nature and possibility of intelligence creation. With the advancement of science, the human dream in this field has evolved. In the 17th century, with the invention of moving machines and their subsequent improvements, many extremists in Britain resorted to sabotaging these machines. This led scientists to refrain from embodying their ideas in machines and focus only on theories, until...

Despite the long research that continued until 1940, researchers were unable to achieve the goal of inventing intelligent machines until the year

⁴ Laura Ellison, la responsabilité criminelle et L'intelligence artificielle, PHD Thesis, University Dalhousi, Nova Scotia, 2018, p179.

⁵ Russel Norvig, *ibid*, p202.

1941, which marked the beginning of the tremendous information revolution with the emergence of the first electronic computer. The invention of the computer gave a powerful boost to all scientific and engineering disciplines and opened the door for artificial intelligence to enter a new era of limitless possibilities⁶.

Research in the field of artificial intelligence continued, and in the early 1950s, specifically in 1951, a computer that used artificial neural networks called SNSRK was developed. However, the most significant development during that period was the organization of a conference by John McCarthy at Dartmouth College in New Hampshire, USA, where researchers were invited to exchange information and opinions about what he called "artificial intelligence", a term that did not exist before. More The 1970s are considered the golden age of expert systems. They received significant attention and wide support from experts, governments, and companies. One of the most important systems during that period was a medical program called mycin, which assisted doctors in diagnosing meningitis⁸.

At the beginning of the 21st century, after unexpected successes, the United States used artificial intelligence in equipping aircraft with projectiles during the Gulf War. It became possible to book a flight seat through dialogue with a computer via telephone in America. In France, Citroen developed an intelligent system equipped with cameras to monitor traffic and communicate with emergency services automatically. And in the first decade of the 21st century, significant amounts of data, known as "big data," were successfully accessed. Computers became faster and cheaper than before.

In 2016, the sales volume of the artificial intelligence market reached over 8 billion dollars. The New York Times announced an unprecedented interest in artificial intelligence, and big data applications began to reach other fields such as economics and environmental science. The

⁶ Jean Lassegue, Artificial intelligence technologies for computer vision of the world, the notebooks of justice, Dallou, N 02/2019, French, 2019, p207.

⁷ The World Intellectual Property Organization (WIPO), WIPO Webinar on Intellectual Property and Artificial Intelligence, Second Session, WIPO Secretariat, available on the website: <https://www.wipo.int/meetings/en>, Visit Date: 05/04/2023.

⁸ Jean Lassegue, *ibid*, p208.

advancements in deep learning have led to progress in text analysis, image and video processing, and speech recognition. Technological advancements continue to surprise us every day with new developments in the field of artificial intelligence⁹. What was once considered fiction has become possible in the future.

The second axis: Determining the mental element in the criminal responsibility of artificial intelligence

2.1 The presence of a mental element and a material element

criminal responsibility was based solely on "the commission of a material act expressly prohibited by law." Therefore, the mere act of engaging in a prohibited action could lead to a criminal or penal conviction. This material element, known as "actus reus," could be committed by the accused themselves or through the involvement of a third party, as demonstrated by various forms of criminal participation outlined in Section 42 of the Algerian Criminal Code. Furthermore, the use of a weapon or an object in order to perpetrate a crime was considered an aggravating factor, enhancing the seriousness of the offense¹⁰.

The commission of an offense alone does not establish an individual's criminal responsibility. This element will be of crucial importance when addressing the criminal responsibility of AI users.

Over time, influenced perhaps by canon law, courts recognized that a moral element must also be present for an individual to be declared guilty of a crime. Thus, criminal responsibility involved two elements: actus reus and Mens Rea¹¹. Therefore, if an individual had the intention to commit a crime and actually committed it, they would be deemed guilty¹².

However, as emphasized by Professor Anne-Marie Boisvert, actus reus and Mens Rea are no longer the only relevant elements when it comes to

⁹عبد النور عادل، مدخل الى عالم الذكاء الاصطناعي، مدينة الملك عبد العزيز للعلوم والتقنية، السعودية، 2005، ص07.

¹⁰ Gabriel Ganasia, Artificial Intelligence between Truth and Reality, United Nations Educational, Scientific and Cultural Organization (UNESCO), France, 2018, p28.

¹¹ Mens Rea: is the mental state of the crime committed and the legal determination of a crime may depend upon both a mental state and actus reus, like the designation of a homicide as murder is a matter of intention to commit a crime.

¹² Laura Ellyson, ibid, p15.

criminal responsibility in Canadian law. The notion of accountability also plays a significant role in determining whether an individual should be found guilty of an offense. According to this notion, only voluntary conduct—behavior resulting from an individual's free will and control over their own body, in the absence of external coercion—leads to the imputation of criminal responsibility and the stigma it entails¹³.

Thus, criminal liability is rooted in "the exercise of a genuine choice by a rational person." This means that a person acting under duress, mental disorders, or automatism cannot be held guilty for their actions. However, criminal law also presumes that everyone is capable of "judging the nature and quality of the act or omission" they are accused of¹⁴. Therefore, unless there is evidence demonstrating the author's inability to judge the quality of their actions, that individual will be found guilty when they have committed the wrongful act with intent, in one form or another.

2.2 The different types of Mens Rea (mental element)

Mens rea, described by Professor Parent as "the cornerstone of moral and legal responsibility," encompasses several variations. It can involve negligence, recklessness, intention, or willful blindness¹⁵.

When it comes to criminal negligence, an objective standard must be adopted to determine if the accused had the necessary criminal intent to establish their guilt. It will be necessary to determine if the accused's behavior constitutes "a marked departure from the standard of care that a reasonable person would have exercised in the circumstances." This is particularly applicable in cases of dangerous driving, an offense that is likely to be at the center of debates in incidents involving autonomous vehicles¹⁶.

¹³ Sam Levin and Julia Carrie Wong, Self-driving Uber kills Arizona woman in first fatal crash involving pedestrian, The Guardian, available on the website: <https://www.theguardian.com/technology>.

¹⁴ عمر منيب ادلبي، المرجع السابق، ص13.

¹⁵ Dafni Lima, Could AI Agents Be Held Criminally Liable: Artificial Intelligence and the Challenges for Criminal Law, South Carolina Law, Review in 2018, USA, 2018, p680.

¹⁶ عبد الرحمن أسامة، الذكاء الاصطناعي ومخاطره، ط 01، دار زهور المعرفة للنشر، مكة، السعودية، 2018، ص43.

Regarding criminal negligence under section 119 Bis of the Algerian Criminal Code¹⁷, the applicable standard is one of a marked and significant departure from the conduct of a reasonable person. This more serious offense requires a greater departure for the accused to be found guilty. This standard is notably applicable in cases of criminal negligence causing death (section 288 of the Algerian Criminal Code)¹⁸.

Recklessness, on the other hand, "includes both a subjective awareness of a risk and indifference to the realization of that risk." Recklessness implies a positive state of mind and should not be confused with negligence. Negligence is assessed based on an objective criterion, while recklessness must have a subjective element to form part of the criminal Mens Rea.

Finally, crimes of intention can be divided into two categories: crimes of general intent and crimes of specific intent. In the former case, the individual only needs to have the intention to commit the illegal act, regardless of the consequences. As emphasized by the Supreme Court, "assault is a classic example [of crimes of general intent]. The accused must intentionally use force; however, it is not necessary for them to intend to cause harm." Recklessness or willful blindness can be substituted for the required general intent. In the latter case, the accused must not only have intended to commit the illegal act but also have a specific purpose in mind. For example, murder and qualified theft are crimes of specific intent¹⁹.

¹⁷ Article 119 of Law 66/156, dated June 8, 1966, containing the Algerian Penal Code "Any person who..... through their evident negligence,..... causes theft, embezzlement, damage, or loss of public or private funds, shall be punished with imprisonment....."

¹⁸ Article 119 of Law 66/156, dated June 8, 1966, containing the Algerian Penal Code "Anyone who unintentionally causes the death of another person, through their recklessness, lack of precaution, inattentiveness, negligence, or failure to comply with regulations, shall be punished with imprisonment....."

¹⁹ محمود نجيب حسني، الجرائم الواقعة على الأشخاص، دار الفكر العربي للنشر والتوزيع، مصر، 1982، ص102 .

3. The third axis: Determining the material element of the crime in the criminal responsibility of artificial intelligence

3.1- Actus reus: an act intentionally committed

As we mentioned, actus reus is generally described as the wrongful act committed by the accused. However, it is also important to note that this act must be committed voluntarily, meaning it should not be the result of an accident or muscle spasm, for example. The requirement that the wrongful act be committed voluntarily forms the basis of the defense of automatism²⁰. Automatism negates the voluntary nature of the act committed by the accused, justifying a complete acquittal since there is no actus reus committed by the accused.

In the case of AI, the voluntary nature of actus reus may take on renewed importance. Indeed, the wrongful act will no longer be committed by the accused themselves but rather by a machine with some level of intelligence²¹. Does this mean that the user of AI can absolve themselves of any responsibility due to the absence of actus reus?

In a scenario where the user of AI intentionally utilizes a machine to commit a crime, the issue of actus reus does not seem to pose a problem. As we have mentioned before, the use of a weapon does not absolve the perpetrator of their criminal responsibility. Therefore, it can be considered that the accused voluntarily commits the wrongful act, even if they used AI to do so. This could be the case, for example, if an individual uses a robot to start a criminal fire or uses AI to remotely hack computers. In this specific situation, establishing the required mens rea should not be problematic either, making it relatively easy to establish the criminal responsibility of the user of AI, based on the specific facts of the case²².

²⁰ Laura Ellyson, *ibid*, p87.

²¹ Mohammed Ahmed Al-Sharairi, "Smart Civil Liability for Artificial Intelligence Damages," *Kuwait International Law Journal*, N02, 2022, College of Law, Kuwait. 2022, p370.

²² يحيى إبراهيم الدهشان، المسؤولية الجنائية عن جرائم الذكاء الاصطناعي، مجلة الشريعة والقانون، كلية القانون، جامعة الإمارات العربية المتحدة، الإمارات، العدد 02، سنة 2019، ص41.

3.2- When machines act autonomously

However, what happens when the AI itself, autonomously, performs the wrongful action? It then becomes more difficult to attribute the reprehensible act to the user of the AI. Through the study of various scenarios, we will attempt to present the possible solutions regarding this matter.

3.2.1 The responsibility of the user of AI:

In certain specific cases, it could be possible for the user of the AI to remain responsible for the actions taken by their machine if legislative changes were to occur. For example, we could envision the possibility that an individual behind the wheel of an autonomous car remains responsible for an accident caused by the AI system, not because they deliberately caused the accident themselves, but rather because they should have been able to prevent it. This delegated criminal responsibility seems possible only in cases of negligence (criminal or penal). In fact, in cases of specific or general intent offenses, the user of the AI could not be held criminally liable, as they lack any intention.

The offense of criminal negligence under the Criminal Code states that an individual can be found guilty of this offense if they fail "to do something that it is their duty to do." The provision also specifies that the term "duty" refers to an obligation imposed by law. Thus, it would be possible to be found guilty of this offense if the law required the AI user to take appropriate measures to prevent the AI from autonomously engaging in violent actions, for example, or if autonomous car drivers were mandated to supervise the vehicles at all times²³.

²³ Laura Ellyson, *ibid*, p88.

In the specific case of driving, it is uncertain whether a person inside an autonomous vehicle could be found guilty of dangerous driving in the event of an accident caused by the AI software used, without legislative modification taking place. Indeed, according to the current wording of section 119 Bis or 288 of the Algerian Criminal Code, the *actus reus* is the act of driving the motor vehicle that causes the accident in a dangerous manner. Thus, it might be conceivable to amend the wording of this provision to clarify that an individual behind the wheel of an autonomous vehicle is deemed responsible for the "decisions" made by it and has an obligation to remain alert in order to regain control of the vehicle at any time.

3.2.2 The responsibility of the creator of AI:

There may also be situations where the creator of an AI software is held responsible. This could particularly specific be the case if the individual intentionally created an AI causing accidents, or if they exhibited criminal negligence in this regard. Indeed, if the wrongful action taken by the AI was foreseeable and evident, the programmer could be held responsible for the crime committed by the AI. The type of *Mens Rea* applicable would depend on the situation under study²⁴.

It has also been suggested that the creator of the AI be held responsible in the same way as accomplices under section 43 of the Algerian Criminal Code²⁵. According to this provision, "a person may be a party to an offense committed by another person who actually perpetrates it, if they know or ought to know that the offense would be a probable consequence of pursuing an unlawful common purpose with that other person."²⁶ Thus, the creator of the AI could be responsible for the action taken by the AI if it was a probable consequence of how the AI was programmed to act. This provision could also allow for the conviction of any individual (not just the creator of the AI) who knowingly uses the AI to commit an offense, in the specific situation where the AI also commits a separate

²⁴ Ali Atif, Artificial Intelligence and Criminal Liability, *International Journal of Instructional Technology and Educational Studies*, v02 2021, Tanta University, Egypt, 2021, p22.

²⁵ Article 42 of Law 66/156, dated June 8, 1966, containing the Algerian Penal Code "A person is considered an accomplice to a crime if they do not directly participate in it, but assist in any way or facilitate the perpetrator or perpetrators in carrying out preparatory, facilitating, or executing acts, with their knowledge."

²⁶ محمود نجيب حسني، المرجع السابق، ص109.

offense that was not intended by the user themselves. For example, if a user employs the AI to rob a bank, they would also be guilty of the assault against the security guard carried out by the AI during the burglary²⁷.

3.2.3 The responsibility of the AI itself:

Professor Gabriel Halevy reports in one of his texts a true story that seems straight out of a science fiction film. In 1981, a Japanese worker was killed by an AI-equipped machine that mistakenly identified him as a threat. The machine pushed the employee into another nearby machine, instantly killing him in order to neutralize the perceived threat, this astonishing story not only highlights the fallibility of AI but also raises several questions regarding the consequences of such an error.

Based on the current state of technology, it seems unlikely that the AI itself would be considered an actor in criminal law. Although AI is capable of learning on its own to solve problems, it is unlikely that we can currently consider existing forms of AI as advanced enough to act on their own. The "decisions" made by AI are primarily a result of programming and integrated algorithms, as well as user requests. Therefore, AI cannot be attributed with legal capacity, including criminal responsibility. However, this observation may change with technological advancements in the field of AI. If AI-equipped machines become sufficiently advanced to make decisions completely autonomously, without human input, criminal law will likely need to evolve to address this issue²⁸.

Furthermore, some authors argue that criminal responsibility of AI is already possible. According to Halley, if the AI entity is advanced enough to have both the actus reus and the Mens Rea, there is no reason not to hold it criminally responsible for its actions. In this case, the more advanced the AI, the more it would be possible to attribute offenses to it with a higher Mens Rea, including subjective offenses (as opposed to objective Mens Rea, such as criminal or penal negligence). However, this position is vehemently criticized by some authors

²⁷ Laura Ellyson, *ibid*, p90.

²⁸ عمر منيب ادلبي، المرجع السابق، ص 41.

Furthermore, family law considers that the different scenarios proposed regarding the criminal responsibility of the various actors involved are not mutually exclusive. The criminal liability of an AI entity does not replace the criminal liability of the programmers or users if criminal liability is imposed on them through any other legal means. Criminal liability is not to be divided but rather combined. The criminal liability of the AI entity is imposed in addition to the criminal liability of the human programmer or user. Therefore, the different scenarios discussed above could be combined in the same case, depending on the specific applicable facts²⁹.

3.2.4 The absence of criminal responsibility:

On the opposite end of the spectrum from what we have just examined, there remains the possibility of considering incidents caused by AI as irresistible acts that do not warrant the attention of criminal law. As presented by Another aspect of legal professionals.³⁰

In such cases of malfunction, it is proposed that humans should learn to live with this unfortunate development, much in the same vein that they have learned to live with the results of a bridge collapsing due to a hurricane or a flat tire that leads to a car accident. Not everything can be foreseen, prevented, or contained, and in everyday life, there are several instances where no one is to blame – much less be held criminally liable – for an undesirable outcome³¹.

Certainly, this approach is the easiest to apply in the immediate term and may sometimes be the most just, particularly in cases where the incident caused by AI does not involve any human error or malicious intent. For example, in the case of autonomous vehicles, serious accidents are likely to occur for which no one will be held responsible. However, in specific cases where a third party is injured or killed by AI, the absence of any accountability could be unsettling³².

²⁹ Laura Ellyson, *ibid*, p91.

³⁰ Gabriel Halevy, *The Criminal Liability of Artificial Intelligence Entities*, Akron Law Journals, v04 2016, The University of Akron, Polsky, 2016, p193.

³¹ Gabriel Halevy, *ibid*, p195.

³² Laura Ellyson, *ibid*, p92.

4. Conclusion:

Sooner or later, there will come a time when Algerian courts will be called upon to interpret criminal law in a case related to the autonomous behavior of an AI entity. Through the study of different scenarios, we have attempted to illustrate how criminal law could adapt to this reality, without claiming to have all the answers. What is clear from our analysis is that Algerian criminal law is currently not ready to address these various questions, although many principles of criminal law can be adapted to such a revolution. Indeed, through simple modifications, it may be possible to address the main issues brought about by the use of AI, particularly concerning autonomous vehicles that are now present on Canadian roads.

It will undoubtedly take a few years before such questions arise before Algerian courts. Nevertheless, it remains true that the technological shift undertaken for several years already inevitably leads us to a world where AI will play a larger role and become inexorably intertwined in our lives.

4.1 Recommendations:

- It is imperative for the Algerian legislature to issue special legal texts to regulate criminal liability in the information sector.
- In modern times, contemporary legal challenges require the adoption of modern legal measures to address current legal problems, particularly in the field of artificial intelligence.
- The necessity of enacting punitive laws to deter the threats posed to this social order by humans, corporations, or artificial intelligence entities.
- The training and development of judges in the field of artificial intelligence crime in order to ensure the smooth application of the provisions of criminal liability for artificial intelligence crimes.

- The legislative authority in Algeria should regulate the technical roles on the Internet in order to accurately define cybercrimes in general.
- It is necessary for the Algerian legislature to keep pace with modern legislation that enacts laws regulating artificial intelligence.

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