المجلة الأردنية في القانون والعلوم السياسية

اسم المقال: المسؤولية التقصيرية الناشئة عن استخدام وسائل الذكاء الاصطناعي في ظل قواعد تنازع الاختصاص القضائي الدولي
اسم الكاتب: د. غازي عايد الغثيان، د. محمد القضاة
رابط ثابت: https://political-encyclopedia.org/index.php/library/8275
تاريخ الاسترداد: 2026/11/02 06:58 +03

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Tortious Liability Arising from the Use of Artificial Intelligence Means under International Conflict of Jurisdiction Rules

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Received : 12/03/2024
Revised : 02/07/2024
Accepted : 09/07/2024
Published : 31/12/2024

DOI: 10.35682/jjlps.v17i4.961

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Abstract

The subject of international jurisdiction aims to regulate liability in the context of disputes related to artificial intelligence in relationships tainted with a foreign element, leading to various relationships between the producer and supplier or the supplier and consumer, which may result in conflicts. This necessitates legal protection to obtain compensation for specific damages, especially if caused by artificial intelligence products. It seeks to identify the responsible party for the damage if the injured party succeeds in proving the elements of liability, ensuring compensation. This has raised several legal issues, particularly concerning the legal adaptation of artificial intelligence to regulate liability and thereby define the parameters of international jurisdiction. It also addresses the applicable law governing procedures in such disputes. The research adopts a descriptive-analytical comparative methodology, leading to findings and recommendations. Among these, a notable recommendation is the need for the Jordanian legislature to enact specific legislation regulating provisions related to artificial intelligence and establish a system for compulsory insurance against liability arising from damages caused by artificial intelligence programs.

Keywords: Artificial Intelligence; Tortious Liability; Legal Nature; International Judicial Jurisdiction; Artificial Intelligence Tool Operators.

المسؤولية التقصيرية الناشئة عن استخدام وسائل الذكاء الاصطناعي في ظل قواعد تنازع الاختصاص القضائي الدولي

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ملخص:

إن موضوع الاختصاص القضائي الدولي بغية ترتيب المسؤولية التقصيرية في إطار المنازعات المتعلقة بالذكاء الاصطناعي في إطار العلاقات المشوبة بالعنصر الأجنبي، تنشأ على إثرها علاقات متعددة سواء بين المنتج والمورد أو المورد والمستهلك وما قد ينجم عنها من نزاعات. الأمر الذي يجب معه البحث عن حماية قانونية بغية الحصول على تعويض عما أصابهم من أضرار خاصة إن كانت هذه الأضرار ناجمة عن منتجات الذكاء الاصطناعي، لتحديد الشخص المسؤول عن الضرر في حال نجاح المضرور في إثبات أركان المسؤولية بأداء التعويض للمضرور، الأمر الذي ولد العديد من المسائل القانونية لاسيما مسألة التكييف القانوني للذكاء الاصطناعي بغية ترتيب المسؤولية وبالتالي تحديد ضوابط الاختصاص القضائي الدولي، والقانون الذي يطبق على الإجراءات المتبعة في نظر مثل هذه المنازعات. وقد اعتمد البحث المنهج الوصفي التحليلي المقارن الذي توصلنا من خلاله إلى مجموعة من النتائج والتوصيات لعل من أبرزها؛ ضرورة إصدار المشرع الأردني تشريع خاص يتناول تنظيم الأحكام الخاصة بالذكاء الاصطناعي، وإقرار نظام للتأمين الاجباري عن المسؤولية التقصيرية الناشئة من الأضرار التي تسببها برامج الذكاء الاصطناعي.

الكلمات الدالة: الذكاء الاصطناعي، المسؤولية التقصيرية، الطبيعة القانونية، الاختصاص القضائي الدولي، مشغلي وسائل الذكاء الاصطناعي.

تاريخ الاستلام: 2024/03/12
تاريخ المراجعة: 2024/07/02
تاريخ موافقة النشر: 2024/07/9
تاريخ النشر: 2024/12/31

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جميع الحقوق محفوظة، فلا يسمح بإعادة طباعة هذه المادة أو النقل منها أو تخزينها، سواء أكان ذلك عن طريق النسخ أم التصوير أم التسجيل أم غيره، وبأية وسيلة كانت: إلكترونية، أو ميكانيكية، إلا بإذن خطي من الناشر نفسه

1. Introduction

The international jurisdiction rules that address liability in artificial intelligence are among the most critical issues that have emerged on the legal scene recently due to their widespread use and replacement of human beings in many matters. Tortious liability is established when a legal duty to refrain from harming others is breached through committing harmful acts that cause damage to others. Legislation varies on the conditions of the harmful act that warrant compensating the affected party. Jordanian legislation does not require proof of fault; liability is established based on the harmful acts; it suffices that the perpetrator's behaviour deviates even if he was not aware of what he did. This is consistent with Article (256) of the Jordanian Civil Law, which states that any harm to others obligates the perpetrator, even if unaware, to compensate for the damage.

There is no dispute if the parties involved in the relationship are from the same country, where they would be subject to their own country's jurisdiction. However, the situation differs with the increasing volume of trade and investment in artificial intelligence products. The widespread use of these products in the digital world has complicated relationships among parties who may belong to more than one country. This complexity may lead to disputes between parties with a foreign element seeking legal protection to obtain compensation for specific damages, particularly if these damages are caused by artificial intelligence products like smart robots. This necessitates identifying the responsible party for the damage, ensuring compensation if the injured party successfully proves liability. This has raised numerous legal issues, especially regarding the legal adaptation of artificial intelligence to regulate liability and consequently define the parameters of international jurisdiction and the applicable law governing procedures in such disputes.

1.1 Significance of the Study

The research's significance lies in explaining the rules of tortious liability resulting from using artificial intelligence tools. This would enable those affected to obtain fair compensation, particularly with multiple individuals operating and producing artificial intelligence tools. Moreover, it is crucial to identify the internationally competent judiciary to rule in any dispute that may originate among parties involved in the legal relationship related to the operator, producer, or consumer. Additionally, some regulations govern the determination of the law to be implemented in this type of dispute.

1.2 Research Problem

The subject of artificial intelligence remains one where legal scholars still debate its nature and legal personality, thus complicating the determination of jurisdiction to adjudicate disputes related to transactions involving artificial intelligence systems. This prompts us to raise the primary issue concerning establishing a legal framework for liability for damages that artificial intelligence systems and their applications may cause to third parties, whether individuals or assets and which jurisdiction should govern relationships involving a foreign element. This issue raises several questions, among the most important of which:

1- Who should bear the liability arising from the damages caused by artificial intelligence tools, what are the criteria that should be met for this liability to arise, and what is the basis for compensation estimation?
2- To what extent are the legal provisions regulating the subject of artificial intelligence sufficient, especially in Jordanian legislation?
3- What is the impact of using artificial intelligence tools, especially in Jordan?
4- How effective are the legal solutions provided by the European Union in granting legal personality to artificial intelligence entities, and do they conflict with the assignment rules in the Private International Law applied in Jordan?
5- Which judiciary is internationally competent to consider disputes related to artificial intelligence?
6- What is the impact of the availability of liability for damages caused by artificial intelligence systems, and is it possible to establish a compulsory insurance system against the risks of artificial intelligence programs?

2. Research Methodology

The research employs an analytical approach to the texts of Jordanian Civil Law and compares them with other laws. This approach involves comparing Jordanian Civil Law with foreign laws to determine how different legal systems address the research problem. The study also refers to judicial decisions, if available, to understand the practical application of the research topic, and it draws upon jurisprudential explanations to understand the opinions that have addressed the research topic.

Subsequent sections discuss the legal basis for tortious liability resulting from the use of artificial intelligence tools and the international judicial jurisdiction arising from this use.

3. Study Findings and discussion

3.1 The Legal Basis for Tortious Liability Resulting from the use of Artificial Intelligence Tools

Discussion on international jurisdiction in disputes arising from artificial intelligence cannot be addressed without first discussing the legal adaptation of this new entity, which is increasingly being used across various fields and may lead to damages necessitating legal accountability. Recognizing the legal personality of artificial intelligence systems would entail recognizing legal liability. However, this legal personality remains unrecognized by traditional jurisprudence for intelligent systems in all their forms, particularly robots. Regarding legal accountability, these systems remain subject to conventional liability rules based on liability for custody of things or for defective products. Therefore, the issue will be addressed by examining the legal nature of the liability of operators and producers of artificial intelligence systems first and then the impact of liability on users of artificial intelligence systems second.

3.1.1 The Legal Nature of the Liability of Operators and Producers of Artificial Intelligence Tools

Legal scholars have exerted substantial efforts to determine the legal basis for tortious liability in the field of using artificial intelligence tools, and various theories have been employed to address this issue. Scholars have resorted to traditional theories, such as the concept of duty of care and the liability arising from using defective products. They have also relied on modern theories like the concept of a human surrogate and the independent juristic personality for machines, robots, and automatic operators.

Legal basis according to traditional theories represented by general rules:

A jurisprudence perspective has taken the theory of defective products to determine the liability arising from the use of artificial intelligence tools. This theory has been applied to robots in particular, as the European legislator made a qualitative leap in this regard based on the idea of the defective product and its use impact (Wetherill, 2007, p. 613). This is the liability interpretation of directive number EEC/3/74/85, establishing a legal liability system for defective products.

Some jurists have considered artificial intelligence systems as products, and according to this perspective, liability is based on defects found in these systems (Bensamoun & Loiseau, 2017, p. 206). This entails investigating the technical cause that led to the product not meeting consumer expectations. In such cases, the manufacturing company is responsible for its defective products due to safety and security failures and faults and defects in its software. In this context, Article 1 of the European directive states, 'The producer shall be liable for damage caused by defects in its products.

This type of liability is characterized by its specific legal nature, allowing its application to all victims of product defects regardless of their contractual relationship. Paragraph 1 of Article 1245 of the French Civil Code states, 'The producer shall be liable for damage caused by defects in its products, whether or not it is bound by contract with the injured party. The European Court of Justice further clarified in a 2015 ruling that a product is presumed defective if a defect exists in other products with the same serial number (Méar, 2021, p. 36) .

This liability is directly undertaken by the product manufacturer, operator, and factory, based on the idea of product safety and fitness for use. In other words, the manufacturer is fully liable for the defects that might affect their products (Al-Majali, 2022, p. 23) . It is noticeable that European laws have ensured the legislation of laws regulating this matter due to their extensive use and reliance on the European market. These laws have tended to adopt negligence liability to determine the compensation that might affect the consumer and have overlooked the idea of resorting to contractual liability. This is due to the ease of proving negligence and the broader scope of the compensation that does not violate the general rules. The manufacturer and the producer are also exempted from compensation in some cases if they discover the fault; however, the right is granted to the harmed party to obtain an update or repair for their product at the manufacturer's expense (Al-Karrar & Odeh, 2019, p. 750).

Some have considered this liability a special version governed by its rules. Thus, it was excluded from the basis of contractual and negligence liabilities because it has a special legal

nature that distinguishes it and is inherently different from the first two types. This ensures equality among affected parties, regardless of their degrees, whether the harm was due to a breach of contract conditions, operation fault, or manufacturing fault. Besides, this liability is characterized by its normative nature as it is part of the public order. For instance, Article (12) of the European Directive stipulates that any condition about excluding or reducing the provisions of liability arising from defective products is considered void. Please see Article (1245/10) of French Civil Law.

Accordingly, determining the operator's and manufacturer's liability and entitlement to compensation requires the existence of a duty of care. This means that the person responsible must have actual control over the object or machine that caused the harm and that those objects or machinery must cause harm to others. In addition, the object must require special care (Al-Sarhan, 2010, p. 60).

Legal basis under modern trends:

With the rapid development of artificial intelligence tools, the following question emerged: Can we imagine the existence of a legal personality for these tools or machines given their ability to bear responsibilities and gain rights, mainly as they mostly operate on their own within certain programming?

The European Parliament proposed the necessity of establishing a legal entity for artificial intelligence distinct from human form. On February 16, 2017, it requested the European Legal Committee to explore civil law principles and study the feasibility of creating an independent legal personality specifically for more complex robots, treating them as responsible legal persons liable for any damages they may cause to others, thereby requiring them to compensate for such damages (Reille, 2021, p. 42). Although this idea remains somewhat speculative, it has been partially adopted in the U.S. state of Nevada, where robots have implicitly been granted some powers of legal entities, subject to registration and financial liability.

However, it is important to note that implementing this idea remains distant at present. This prompted the European Economic and Social Committee to prefer using the term 'electronic personality' instead of legal personality, considering that these machines are governed by human will and programmed according to this will (Al-Khatib M. , The Legal Center for Humanoid Robot (Personality and Responsibility: A Comparative Original Study), A Reading of the European Rules for Civil Law for Robots for the Year 2017., 2018, p. 77). This means that while the Council recognizes the legal personality of robots, it does not consider them independent. The issue of independence raises questions about liability for damages caused by robots, which, in its view, currently remains the liability of the human operator.

Tortious liability is achieved in this case if a person breaches the general obligation imposed on him according to the law's provisions by committing acts that cause harm to others. It can be noted that the Jordanian legislator did not require fault in the harmful act but was satisfied with the damage. It suffices that the act deviates from usual behaviour, or the responsible person carries out an act that they are not legally entitled to do, even if they were unaware of what they did, even if they were not distinct (Article 256 of the Jordanian Civil

Law). Moreover, according to the rules of negligence liability, the affected must prove the harmful act, the damage, and the causal relationship between them to obtain compensation.

It is worth noting that applying the law of tortious liability to artificial intelligence faces significant challenges. Courts dealing with requirements of liability arising from artificial intelligence actions must identify the legal or natural person responsible for the damage resulting from these actions. However, the increasing autonomy of artificial intelligence makes assessing the basis of liability difficult, if not impossible, in some cases.

Difficulty in applying the theory of custody to intelligent systems arises because the three authorities (use, direction, and supervision) that a custodian is supposed to provide do not align with the purpose for which artificial intelligence was created—to free human beings from the burden of supervising the things it handles. This was noted by the French Court of Cassation in the Franck case, stating that the custodian does not have actual control over the robot due to its inability to direct it as desired (Reille, 2021, p. 31).

An example can also be drawn from self-driving smart cars, originally designed to grant drivers a degree of freedom from the task of driving and steering. In such cases, it cannot be argued that the driver possesses the powers of use, direction, and supervision. This has led some jurists, including the French jurist J.S. Borghetti, to argue that regarding smart cars, it is more appropriate to discuss the "disappearance of custody rather than its transfer," where the driver consents to delegate supervision to the car's intelligent system, as is the case with Tesla's self-driving cars (Borghetti, 2021, p. 27) . A person in distress cannot be expected to understand the intricacies of a complex, intelligent system, making it difficult for them to prove that harm was caused due to a fault or deviation in its behaviour.

In scenarios where artificial intelligence makes independent decisions, traditional rules are not sufficient to establish legal liability for the harm caused by robots, as they do not help identify the party that caused the damage. According to the law of negligence liability, proving a breach of duty or a fault committed by the manufacturers, operators, or users of artificial intelligence and the causal relationship between them and the damage is not an easy task when it comes to the increasing autonomy of artificial intelligence (Mendoza, 2020, p. 30).

The legislator has permitted the operator of artificial intelligence tools to absolve himself of liability if he proves that he had no part in causing the damage, that he has exercised due care, and that there is no negligence or lack of caution. The operator must also demonstrate that he did everything possible to prevent the damage from occurring. The Jordanian legislator addressed this case in Article (291), which states that anyone who has at their disposal things that require special care to prevent damage or mechanical devices is liable for the harm caused by these things unless it is impossible to prevent this. This, however, does not interfere with any specific provisions regarding this matter.

3.2 The Impact Resulting from the Liability of Artificial Intelligence Tools Users

The impact resulting from a harmful act includes making amends by paying compensation to those who have been harmed. Compensation is a way to rectify the harm suffered by the affected. It is determined as a result of causing harm to others through committing an intrusive act or violation of the law. It is a tool to correct the balance that harm may inflict or lead to a disruption in the affected person's state at the expense of the person liable or obliged to compensate (Markos, 1988, p. 527).

When the elements of tortious liability for actions of artificial intelligence are fulfilled, including a harmful act, damage and a causal relationship between them, an obligation arises against the owner, the person responsible for its operation, its manufacturer, or its user at the time of the damage. That person is obliged to compensate the affected for what they suffered because of these actions. The impact lies in remedying the harm suffered by the affected. The principle is to be compensated per se, and if that is impossible, it resorts to pecuniary compensation represented by paying a monetary amount as a result of the harmful act, provided that it is equivalent to the actual value of the damage incurred (Al-Sarhan, 2010, p. 60).

As for the affected artificial intelligence systems who claim that they have the right to compensation, this claim implies that such affected people have the right to resort to the judiciary to demand what they claim. However, this compensation method does not necessarily work in reality with some cases that constantly appear in the modern era due to the Industrial Revolution. These include the damages of robots based on artificial intelligence that are characterized by their danger and the difficulty of assessing the risks resulting from them. This has prompted legislators in various countries to search for new systems to provide suitable protection for the affected people and enable them to obtain compensatory damages for the harm they have suffered without much trouble and at exorbitant costs.

3.2.1 Judicial compensation:

In this regard, it shall be referred to Article (269) of the Jordanian Civil Law, which states that compensation is estimated to be in cash; however, it is permissible for the judge, according to the circumstances and upon the request of the damaged party, to order the return of the condition to what it was and to rule the payment of a specific, harm-related obligation, as part of the guarantee. Moreover, Article (363) states that if the compensation is not estimated in the law or the contract, the judge estimates the equivalent of the actual harm at the time of occurrence.

By examining the texts regulating the topic of compensation, it can be found that the legislator has referred to in-kind compensation and material compensation, as well as to the mechanism to calculate the compensation. The Jordanian legislator also referred to the forms of in-kind compensation in Article 48, stating that anyone who has suffered an unlawful attack on a right that is an integral part of their personality can request the cessation of this attack along with compensation for the damage caused to them. This indicates that the legislator has focused on rectifying the harm and restoring the condition to what it was before the harm occurred. This indicates a process of removing the harm directly by eliminating its cause.

Typically, compensation awarded to victims of artificial intelligence-related damages is monetary, covering all forms of harm caused. The responsible party is obligated to pay a sum of money as compensation to the victim, which an insurance system or fund usually provides. An example of monetary compensation for artificial intelligence-related damages is Ford Motor Company paying millions to the Williams family due to an incident where a robot attacked Williams, who was working at a Ford car manufacturing plant. The robot did not recognize Williams while he was transporting goods to a storage room, resulting in his death—the first human fatality caused by a robot (Wahba, 2020, p. 33).

The researchers find it challenging to determine non-monetary compensation for damages caused by artificial intelligence programs to third parties, especially in cases involving consequential damages. In such instances, financial compensation to the deceased's family members is appropriate, and non-monetary damages like emotional distress, damage to reputation, and honour should also be considered.

Given the proposal to establish a compulsory insurance system for tortious liability arising from damages caused by artificial intelligence programs, victims or their heirs, in the event of death, deserve a legally stipulated insurance amount without resorting to litigation. Additionally, they have the right to take legal action against the party responsible for the incident and liable for civil rights violations, seeking compensation beyond the insurance amount. Finally, victims or their heirs may combine the insurance amount specified in this law with any additional amounts due under optional insurance documents covering bodily injury or death resulting from actions by artificial intelligence programs and their physical applications.

3.2.2 Automatic Compensation:

Automatic compensation refers to a system or mechanism where compensation is automatically provided or triggered under certain predefined conditions without the need for additional action or adjudication. Undoubtedly, automatic compensation is achieved through insurance and compensation funds, which are explained as follows:

3.2.2.1 Insurance:

The robot insurance policy provides financial protection for physical damages and injuries resulting from any robot-related incident. Among the risks covered are medical expenses and compensation for any person injured by the robot (including mental harm), in addition to damage to the robot if caused by another robot or any other properties (Besserman, 2020, p. 76).

If insurance is a fundamental tool to enable technology's transfer to markets and create new industries, it requires appropriate risk assessment methods. These include both physical and psychological risks for robot evaluations. This leads to establishing basic conditions to develop the insurance industry for robots, subsequently creating a new insurance market to manage risky and technically advanced industries.

Reflecting on this, the United Kingdom, which had a fault-based insurance system for regular vehicles, recently enacted the Automated and Electric Vehicles Act of 2018. Under this law, the insurer is responsible for damage when it is entirely or partly resulting from an insured automated vehicle at the time of the accident, without considering the liability of any person, such as the driver to the manufacturer. Hence, it has created a form of fault insurance - although it is not mandatory - concerning vehicles that operate with artificial intelligence (Benhamou, 2020, p. 14) .

In attempting to apply objective liability to cases of damages that artificial intelligence programs may cause, we encounter the issue of determining the responsible party for the harm. Those involved in the production process of such programs and their physical applications—including manufacturers, programmers, developers, owners, and users—each contribute to a presumed joint liability for negligence in compensating for these damages, even before the damage occurs. This is facilitated through their participation in a compulsory insurance system, where the law specifies the insurance amount for the beneficiary or their heirs in case of their death, as well as the compensation amount due for damages affecting the property of others resulting from actions by artificial intelligence programs.

The insurance company may seek reimbursement from the responsible party for compensation paid after fulfilling the insurance amount to the victim in cases where tortious liability is established towards an uninsured or unauthorized user of the physical application of artificial intelligence programs. This recovery is based on a legal recourse in such instances. Additionally, the insurance company may seek reimbursement from the insured for the value of compensation paid if the physical application of artificial intelligence programs, such as robots or self-driving cars, was used for purposes that conflict with those specified under the authorization or license.

3.2.2.1 Compensation Funds:

According to the decision issued by the European Parliament on February 16, 2017, compensation funds are a tool to guarantee the possibility of compensation for damages in cases with no insurance coverage. This fund should be a last resort and applied only in cases of insurance issues or for individuals owning robots without having an insurance policy (Al-Khatib M. , 2020, p. 120). However, compensation funds effectively address the risks arising from artificial intelligence systems in cases where insurance does not provide full coverage for damages. That is, the fund aims to fully compensate the harmed party when they have been partially compensated. These funds can be financed through taxes paid by the owner, developer, or artificial intelligence user to ensure the harmed party receives full compensation. The costs of these taxes would be relatively low compared to the financial value generated by artificial intelligence.

3.3 International Jurisdiction in Conflicts Arising from the Use of Artificial Intelligence Tools

Given an increase in dealing with artificial intelligence tools and the higher demand for them, the volume of legal relations and disputes resulting from their request and operation have

consequently grown. There won't be any problems if these disputes are among parties belonging to one country. However, the general nature governing these disputes, considering the technologies operating them, especially from foreign countries, and their proliferation in the digital world, place us in front of conflicting laws and differing jurisdiction rules that govern them.

3.3.1 Jurisdiction in Conflicts Related to Artificial Intelligence Components

As previously mentioned, if the dispute involves parties subject to the same law or belonging to the same country, there is no ambiguity in determining the jurisdiction. Domestic laws resolve disputes or disagreements and determine the jurisdiction of the court that looks into the conflict (Al-Khatib M. , 2013, p. 419). However, the problem arises in transactions related to artificial intelligence tools usually associated with a foreign element; the jurisdiction is determined by national or foreign courts, according to the assignment rules.

The moral component of artificial intelligence is the significant part around which all legal issues revolve, the most prominent of which is the electronic personality that gives the device complete autonomy in making decisions without referring to human beings. General rules shall be referred to to identify the parties in the legal relationship. The parties have been researched and identified as the inventor, producer, operator, consumer, and the third party that may suffer from harm. Based on identifying the parties to the legal relationship, the need arises to identify a legal standard and control to determine the judicial jurisdiction in the dispute arising from using these tools, which is inherently likely to involve a foreign element. Legal scholars have adopted several standards to solve this problem, perhaps the most prominent being the fixed and variable or movable standards.

Fixed Standard

This standard is related to dealing with and interacting with artificial intelligence applications, which may sometimes cause harm to the user or a third party, thereby creating legal liability. One of the most prominent fixed or traditional standards is the harmful act standard, which relates to physical or moral behaviour, intentional or unintentional, causing harm to others. The law determines the jurisdiction based on the occurrence site of the harmful act, which gives rise to the obligation. Thus, if the harm resulting from dealing with smart machines is due to a software flaw or a manufacturing defect, the jurisdiction would be assigned to the country's courts where the actual damage occurred (Arab, p. 17) .

It may be possible for court jurisdiction to be incidental, i.e., jurisdiction is assigned to a court not geographically or temporarily related to the case's circumstances, in which case the jurisdiction for these courts is exceptional and not original, according to assignment rules. This jurisdiction is based on the standard or principle of optional subordination or connection to expedited or temporary procedures related to the lawsuit (Article 22 of the Jordanian Civil Law).

Variable or Movable Standard

This standard is related to conditions characterized by flexibility and freedom, as they can easily be changed by the parties, such as nationality, domicile, and will. They grant the parties of the legal relationship freedom in choosing the controls on which the international jurisdiction governing the dispute is based (Atroush, 2017, p. 150) . Hence, the law to be applied and the competent court to consider the dispute are determined.

As previously mentioned, these standards are regarded as the traditional application of determining conflicts involving a foreign element in traditional conflicts, for which jurisprudence and justice have paved the way. However, it becomes more apparent in artificial intelligence tools, as they present a new idea that needs standards that keep up with development to address issues related to judicial competence. Given the topic's importance, recent jurisprudence has tended to resort to more accurate and somewhat modern standards to keep up with developments and changes in these modern matters, including the criterion of the prototype and actual application and the criterion of trading and consumption.

Considering these standards, jurisdiction may be granted to the country that grants nationality to intelligent machines. Jurisdiction can be assigned to the place of residence of the natural person who operates these machines or has actual control over them (Al-Asadi, 2020, p. 121). The idea of circulation depends on the place or the country where these machines are traded or consumed. This idea is subject to regional or personal rules that contribute to determining the country whose jurisdiction will govern the dispute. Intelligent machines do not follow the rules of the natural person according to this standard; instead, they rely on the idea of the place of circulation or consumption (Al-Batayneh, 2002, p. 194) .

3.3.2 Jurisdiction for Personal Use of Artificial Intelligence Tools

Activating jurisdiction due to personal use of artificial intelligence tools is about confining the dispute within one assignment rule to determine the competent court or judiciary ruling the conflict. As they arise from individuals using artificial intelligence tools, this rule or standard changes as the user changes their place of residence. It practically relies on the place for personal use of these machines or tools, i.e., it mainly depends on the location of the harmful act. Additionally, it relies on the nature of the relationship that governs the affected party and those responsible for remedying this harm before it occurs, be it potential or assumed harm (Maluki, 2009, p. 32). The harm can be direct or indirect, and therefore, these two cases should be distinguished as follows:

Activating the judicial jurisdiction in the case of direct damage

This trend highlights the role of the consumer, who plays an important role in these contracts, especially when contracting with a foreign producer or manufacturer. It considers the consumer the weaker party with a modest understanding of these contracts and their consequences. In this case, and to protect the consumer, the jurisdiction is assigned to the courts of the country to which they belong by their nationality or where their residence is located. This rule is based on the bond uniting the person to the territory of the state to which they belong by

their nationality. Since it is a rule based on legal considerations when using artificial intelligence tools, non-criminal damage may result in the state of the manufacturer or producer. Therefore, it would be in the consumer's interest to file a lawsuit before their national courts based on the place of harm and to protect the weaker party represented by the consumer (Al-Asadi, 2020, p. 14).

This approach has been adopted by many international conventions, which are considered a source of private international law. The Brussels Convention of 2013 took this approach, where it assigned jurisdiction to the courts of the consumer or provider alike under Article 14, which says that a consumer may bring proceedings against the other party either in the courts of the state in which that party is domiciled or in the courts of the Contracting State in which he himself is domiciled. To apply the jurisdiction rules referred to in the article above of the convention, the consumer should perform the necessary acts to conclude the contract in that state (Al-Haddad, 2020, p. 111).

As a result, among the established and agreed-upon regulations in most legislations, we find the principle of optional submission or the principle of party autonomy (Sadiq & Haddad, 2015, p. 392). This principle allows contracting parties to agree within a contract to accept the jurisdiction of a specific state's courts, even though the courts of that state are not competent to adjudicate the dispute according to any jurisdictional rules.

The agreement on jurisdiction to adjudicate an existing or potential dispute as part of contract terms is explicit, applying the principle of party autonomy. It is also conceivable that the parties' submission to the jurisdiction of a state's courts is implicit.

It is worth noting that many international agreements have addressed the issue of determining the competent court to adjudicate disputes arising from international contracts, such as the Brussels Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters among European Union member states in 1968. Article 17 of this convention stipulates the condition for choosing the judge to resolve the dispute, whether in writing or verbally, with written confirmation. However, the European Union Council has amended Article 17 to align with the nature of electronic contracts, where the concept of writing includes everything exchanged electronically and can be retained permanently.

Among the agreements adopting the principle of jurisdictional freedom are the Lugano Convention of 1988 and the Hague Convention on Jurisdiction and Foreign Judgments in Civil and Commercial Matters issued by the Special Committee on 10-30-1999. The same principle is affirmed by Article 23 of European Regulation No. 144-2001, which entered into force on 01-03-2002.

Activating the International Jurisdiction Rules in the case of Indirect Damage

To activate the rules of international jurisdiction resulting from indirect harm within the rules of liability for a harmful act (negligence liability), it is crucial to identify the parties of the

relation and then the legal nature of this relationship to subject it to the original or incidental jurisdiction rules and tailor it to fit the special nature of artificial intelligence tools.

Therefore, the source of harm is usually either due to a manufacturing defect or a mistake by the inventor. If the damage is between the consumer and the source of this damage, it results from an indirect link. Activating the model from the innovation stage to the final production stage, including marketing and supply until it finally reaches the consumer, is a compelling reason to activate the rules of jurisdiction, given several legal considerations. The most prominent among these are the places where the harm is realized and the reasons for the harm. Once these requirements are determined, it will be easier to identify the international rules governing the dispute and the law to be applied accordingly. However, a significant problem arises if the jurisdiction is established for a third country. Suppose damage occurs to the user using these tools or machines, and the compensation follows a different person other than the producer or user. In that case, it must resort to the distinctive performance standard, i.e., jurisdiction is determined by the courts of the performance debtor, making the jurisdiction assigned to the court most closely related to the subject of the dispute (Al-Asadi, 2020, p. 15).

4. Conclusion

This study discussed tortious liability arising from using artificial intelligence tools under the rules of international jurisdiction disputes. To summarize, several conclusions and recommendations were reached, of which the most prominent are:

1- Jurists and civil legislation have not yet agreed on a specific definition for artificial intelligence due to the diversity and novelty of this topic and its applications. It still has the potential to make our lives better every day, as it is continually developing and becoming more innovative. It is dynamic, evolving, and full of challenges and obstacles.
2- Liability for damages caused by artificial intelligence systems or programs is based on objective liability, which rests on three pillars: the act or incident devoid of fault or defect, the damage, and the causal relationship.
3- The injured party is entitled to monetary compensation for damages caused by artificial intelligence systems or programs, which is fulfilled by the compulsory liability insurance system for negligence arising from such systems and programs.
4- The bases for establishing liability for intelligent systems vary across many countries' legal systems.
5- Difficulty applying traditional controls to determine international judicial jurisdiction in disputes arising from intelligent systems.
6- The principle of will determination is the most suitable principle for determining international judicial jurisdiction.

5. Recommendations

1- The necessity of issuing specific legislation in Jordanian law that addresses the regulation of provisions related to artificial intelligence.
2- Enacting a regime of strict liability, devoid of fault or even defect, to broaden its application and scope to include cases where artificial intelligence programs may cause harm to others.
3- There is a need to adopt a compulsory liability insurance system for negligence arising from damages caused by artificial intelligence systems or programs, similar to mandatory insurance imposed on vehicles.
4- Establishing guarantee funds specifically for compensating damages arising from artificial intelligence applications in specific cases, such as lack of insurance covering these items for the benefit of others or cases of complete or partial insolvency of the insurance company.
5- Applying the principle of optional submission or the principle of will determination to determine international judicial jurisdiction.
6- Incorporating specific provisions within the rules of attribution related to private international law for issues that may arise concerning the use of artificial intelligence systems or programs.

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