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Beyond the Algorithm: Exploring Civil Responsibility for AI-Driven Outcomes "Comparative Study"

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Abstract

There is no doubt that intelligent systems that simulate human intelligence and may match it (Artificial Intelligence), pose a challenge to humanity and involve threats, whether they are ethical challenges or legal challenges. One of the most important of these legal challenges and problems was the extent of the impact of artificial intelligence on Civil Responsibility, due to the phenomena it entails that are difficult to predict, as these smart applications may produce new risks of unknown quantity and quality. The dispute lies in the adaptation and application of the two types of civil liability, contractual and tort, not to mention the problem of identifying the person responsible for compensation. Determining the person responsible for compensation, in addition to the issue of Inadequacy of, Civil Responsibility for disproportionateness in one or more aspects of their current situation, for keeping up with and finding solutions to legal problems that arise as a result of the uses of artificial intelligence, which necessitates responding to innovations by amending the legal text in line with the contemporary and future stage. In this research, the study rooted in the specifics of artificial intelligence is analyzed the extent of the legal impact is discussed, and the challenges of traditional Civil Responsibility in keeping up with developments are analyzed in addition to tracking jurisprudential trends in this regard. The study concluded that objective Responsibility based on the element of damage investigation was the ideal solution to the legal problems created to exclude the idea of personal error, and the development of the idea of assumed error to become a talk about the application of product Responsibility due to the lack of legal personality of smart applications.

Key words : Artificial Intelligence- Civil Responsibility- Objective Responsibility- Producer Responsibility.

The Research Problem

There is no doubt that the modern technological inflation is one of the challenges of the contemporary legal system. In determining that effect and clarifying the legislative position and the extent of its reflection on the legal adaptation and the scope of applicable civil responsibilities, this development still needs more studies to reach a legal system that regulates the use and addressing its risks and shows the legal position on the impact of this use, and at the same time solving the legal problems of what results from it. This situation has legal implications, specifically within the scope of Civil Responsibility. (AlNawafleh et al., 2023).

What complicates the situation is the issue of controversy over granting artificial intelligence a legal personality. In his research titled (Property ownership and the legal personhood of artificial intelligence) 10 Dec 2020, (Rafael Dean Brown) addressed the lengthy discussion in that, leading to the conclusion that there are many possibilities and theories. And that the

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controversy still exists, and as a result, we exclude the idea of granting legal personality at this stage until a decision is made in this regard (Chuong et al., 2022).

The Importance of Research

We seek through this study to identify the effects and challenges of advanced technology (artificial intelligence AI) on Civil Responsibility systems, as this new and accelerating component created a legislative gap that suffers from lack of keeping up and compatibility, given that it was organized in the past in an earlier era of this emerging reality (Zhou & Wu, 2023b). This requires a reconsideration of the existing legislation and the need to develop the legal text to keep pace with this development, especially since the practical application of artificial intelligence technology requires a prolonged search for the legal framework to regulate the application of this technology and the resulting legal problems that create various types of responsibilities. From our view of the civil legal aspect, this application must produce new risks that are difficult to predict, which leads us to question the nature of the applicable Civil Responsibility, the identification of the person responsible for compensation, the extent of the scope of compensation, and whether the application of traditional Civil Responsibility in its two parts suffices the purpose? In addition to the necessity of adjudicating the existing controversy and limiting the relevant legal and jurisprudential possibilities that lead to the desired benefit (Van Le & Van Luan, 2023).

Research Methodology: The method used in this research is considered the analytical method, by collecting, organizing, checking and analyzing information, identifying problems, drawing results, verifying the suitability of hypotheses in light of this, proposing alternatives, or possible solutions, or appealing to existing trends that are closest to reality and logic. Here with the results, opinions, and jurisprudence previously achieved, seeking to avoid re-searching from scratch; where he does not deny the existence of previous studies that facilitated the task of presenting the essence of this research related to the effects and legal regulation towards artificial intelligence (Muthuswamy, 2023).

The first Topic

Traditional legal systems of artificial intelligence

1. The nature of artificial intelligence and technology

Artificial Intelligence, abbreviated as (AI), is the most important branch of technological and technical development, and jurisprudence has dealt with many definitions about the concept of artificial intelligence, but they all flow into one crucible, so we can say that the concept of artificial intelligence expresses systems, machines, computers and software of all kinds. Which has the ability to collect various data and information, interact with experiments and perform the required duties in a way that simulates human intelligence, and may resemble or match it⁽¹⁾ (Manthovani, 2023).

And from that we find that artificial intelligence has begun to take shape in the form of machines with a high ability to think and perform the tasks that a natural person usually

(1) See:

Khaled Hassan Ahmed Lutfi, *Artificial Intelligence and its Protection from the Civil and Criminal Points*, p. 14.

Ahmed Kazem, *Artificial Intelligence*, p. 4.

Shadi Abdel-Wahhab, Ibrahim Al-Ghitani and Sarah Yahya, *Artificial Intelligence Threats Opportunities in the Next Ten Years/Future Report Supplement to the periodical (Event Trends)*, Issue 27, Future Center for Research and Advanced Studies, United Arab Emirates, 2018, p. 2.

performs. The advanced stage of the report (Hereth, 2022).

And as in the modern system of judicial artificial intelligence, in the sense of practicing the profession of a judge, including the computer program invented by scientists at Universal College of London that is capable of balancing legal evidence and accurately predicting hundreds of cases, but research has concluded that this system is not a substitute for judges, The least of them at this stage is artificial intelligence, as it does not have the cognitive structure and application scenarios on humans, and it lacks the ability to adapt to needs and changes, so we can rely on it as an assistant to judges⁽¹⁾(Nawir et al., 2022).

In Contrast, the development of artificial intelligence poses a threat and fears towards human employment, especially as we are in the process of transitioning to the stage of professions of the digital age. Just as the smart application has developed to reach the stage of the judiciary, it also now extends to the legal profession to become a distinguished assistant, and we do not know what the future hides regarding this profession and traditional professions. Which is being replaced⁽²⁾(Zhou et al., 2023a).

All of this requires work on research and studies on the application and safe use and addressing the near and potential effects of these innovative software, all of this constitutes a motivating factor to move forward, and at the same time involves fears that may threaten human life (Hadi et al., 2022)

2. The extent to which the traditional legal regulation of artificial and technological intelligence is compatible

Smart applications have become practicing human intelligence and have become practicing the tasks of the natural human being, but this legally created element in our life is practicing activity and forming behavior in the legal sense, and therefore errors may occur that result in damage to others, whether physical or property, so the question arises here about the nature of the legal rules that It regulates the use of artificial intelligence, the applicable Civil Responsibility to compensate for the damage, and the determination of the person responsible given that the damage was caused by a mechanical or electronic machine or even an intelligent program⁽³⁾.

3. Diversity of traditional civil responsibilities in light of technological development

There is no doubt that civil responsibility is suffering from a crisis that jurists are not ignorant of, and some jurists have described it as (Might Suggest)⁽⁴⁾, in that the idea of error is no longer a sufficient basis for facing the responsibilities that result from the complexities of contemporary society, and is not sufficient to satisfy the needs of society, and protect The victim, and the guarantee of compensation, and this may not be considered a crisis in the true sense, but rather a stage of natural development of the law of Responsibility , like all legal systems related to the reality of society, which prompted the jurists of Civil Responsibility to rethink the search for new legal means to keep pace with these changes.

Contemporary society is witnessing a radical transformation as a result of the industrial

(1) Human Judges in the Era of Artificial Intelligence: Challenges and Opportunities, Sichuan University of Science and Engineering, Sichuan, China, Applied Artificial Intelligence, Article: 2013652 | published online: 08 Dec 2021, Accessed 12 December 2022.

(2) <https://www.theguardian.com/technology/2016/oct/24/artificial-intelligence-judge-university-college-london-computer-scientists> about Aletras et al. (2016), Accessed December 12, 2022
<https://www.cnbc.com/2017/02/17/lawyers-could-be-replaced-by-artificial-intelligence.html>. Accessed December 8, 2022

(3) Abd al-Razzaq Wahba Sayeda Hamad Muhammad, Civil Responsibility or the Damages of Artificial Intelligence, p. 11.

(4) The Lengthy in Civil Code, An Introduction to Responsibility), translated by: Abd al-Amir Ibrahim Shams al-Din, pg. 99, paragraph 38. *Traité De Droit Civil/ Introduction à la responsabilité*, Geneviève Viney

revolution, and the development that resulted from it, and the many risks it led to, and the variety of damages resulting from the use of modern technology. From here, several legal problems arose in light of the introduction of the application of the rules of the two traditional contractual and tort responsibilities, due to the failure to keep up with those responsibility for technological advancement; which imposed modern data that requires modern organization that requires a different responsibility.

Civil Responsibility expresses the legal status of a person who has committed a mistake that has resulted in harm to others person, or money or honor of others, so it becomes possible to judicially compel him to compensate for this damage⁽¹⁾.

4. Traditional theories of civil responsibility

First: The Personal Theory

it lies in the occurrence of error as a basic pillar for the establishment of Civil Responsibility, which is divided into two parts: contractual responsibility; When the damage complained of by the creditor resulted from non-implementation of the contract, and the debtor is obligated to compensate him for that damage⁽²⁾, The Jordanian legislator has offered to deal with the regulation of the rules of breach of contractual obligations in the Civil Code in Article (246/1) with the text: "In contracts binding on both sides, if one of the two contracting parties does not fulfill what was required of him in the contract, the other contracting party may, after notifying the debtor, demand the execution or rescission of the contract"⁽³⁾.

In Contrast, the French legislator dealt with the rules of contractual Responsibility explicitly in the text of Article No. (1231-1) by stating that: "The debtor shall be judged, if necessary, to pay compensation, either for the reason of non-implementation of the obligation or for the delay in its implementation, and that is every time it is not proven that the failure The execution is caused by an external cause that cannot be attributed to him and that there is no ill will on his part"⁽⁴⁾.

In Contrast, tort Responsibility is the second section in the personal theory, and it expresses the situation in which Responsibility occurs following the breach of one legal obligation that does not change, which is the obligation not to harm others⁽⁵⁾. The Jordanian legislator offered to deal with the provisions of that responsibility in the Civil Code, as in Article (256) in the text: "Every harm to others obliges the one who does it, even if he is not discerning, to guarantee the damage"⁽⁶⁾.

(1) Suleiman Marks, In The Theory of Paying Civil Responsibility, p. 11. Marks defined it in the introduction to his book as the supposed responsibility of the =shepherd for the act of pasture: (the case of a person who is legally obligated to compensate for the damage caused to others). And Hussein Amer and Abdel Rahim Amer, Civil Responsibility, p. 11, paragraph 13.

(2) Boris Starck, Henri Roland et Laurent Boyer, Obligations op. cit, -1996, p.9

Jacques Flour, Jean-Luc Aubert et Eric Savaux, Les obligations, op. cit, p. 144.

And see: Muhammad Hassan Qasim: Civil Code (Obligations, Sources, and Contract), Volume Two, p. 190: Contractual Liability "a general penalty that the contractor. Who breaches the implementation of his obligation, whatever the contract may be the source of this obligation, may receive, and in a more precise sense, the penalty for breach of an obligation arising from the contract"

(3) And see: the Moroccan Law on Obligations and Contracts, Chapter 259: "If the debtor is in a state of divorce, the creditor has the right to compel him to perform the obligation as long as it is possible to implement it. If that is not possible, the creditor may request the termination of the contract and he has the right to compensation in both cases." And see the Civil Transactions Law of the United Arab Emirates, Article 272: "1- In contracts binding on both sides, if one of the contracting parties does not fulfill his obligations under the contract, the other contracting party may, after warning the debtor, demand the execution or termination of the contract. 2- The judge may order the debtor to implement it immediately. Or he looks at it for a specified time, and he has the right to judge annulment and compensation in every case, if it is necessary for him. And see the Egyptian Civil Code, Article 157: "1- In contracts binding on both sides, if one of the contracting parties does not fulfill his obligation, the other contracting party may, after notifying the debtor, claim the execution of the contract or its termination with compensation in both cases if required. 2- The judge may grant the debtor a deadline. If circumstances so require, he may also refuse rescission if what the debtor has not fulfilled is of little importance in relation to the obligation as a whole"

(4) Art 1231-1 du civil code « The debiteur is condamné, s'il y a lieu, au paiement de dommages et interets soit à raison de l'inexécution de l'obligation, soit à raison du retard dans l'exécution, s'il ne justifie pas que l'exécution a été empêchée par la force majeure.

(5) Abd Al-Razzaq Al-Sanhouri, Al-Waseet fi Explanation of Civil Code / Sources of Obligation, Volume One, pg. 847, Paragraph 509.

(6) And see: The Moroccan Law on Obligations and Contracts, Chapter 77: "Every act committed by a person knowingly and voluntarily, and without

In Contrast, the French legislator regulated the rules of tort Responsibility in the Civil Code, as in Article (1240) that: "Every act of any human being that causes harm to others requires the one who made this mistake to fix it"⁽¹⁾.

And if we look at the two responsibilities in general, we find that they share the enumeration of the elements that necessitate their establishment, as the two responsibilities are based on the availability of their pillars from: the element of error, the element of causation, and the element of damage, both material and moral.

The vital pillar that interests us in discussing this research is (the corner of error), so we find that by applying it to the activity of smart machines, confusion and confusion may occur, as the concept of error involves the element of realization at the level of both nodal and tort responsibility, so can we go to apply the idea of error to that The machines in the events that resulted from them that led to the realization of the damage.

Actually it's hard to say, The fact that these smart machines did not take -in the view of legal jurisprudence- the status of a legal personality according to which it bears responsibility for actions in order for it to be said that the element of perception is available, as this is considered a kind of jurisprudential imagination and does not comply with the standards of legal personality, not to mention what entails giving the smart machine a personality Legal and natural rights that people enjoy are inconsistent with charters for the protection of human rights and fundamental freedoms. In Contrast, it is also not correct to say that a legal person is granted, as that legal person is granted to an existing entity and operates under the direction of the owner or the representative, in addition to the contradiction with the rules of justice by discharging the owner of the artificial intelligence from his responsibilities in the event that the legal personality of the smart machine is recognized.

This confirms the clarification of the Legal Committee in the draft report submitted to the Committee on the Civil Responsibility System for Artificial Intelligence that intelligent systems have no legal personality or conscience, and their function lies in the service of humanity⁽²⁾.

Therefore, it becomes clear to us the extent to which the idea of error fails to keep pace with technological developments, and that it is a traditional idea and is no longer suitable for application in this advanced transitional phase to use artificial intelligence in all its forms and fields. Thus, we reach the conclusion that the traditional contractual and tort responsibilities are incompatible with solving problems that may result from the application of artificial intelligence, because they are based initially on the availability of the error angle, which is difficult to apply to the errors that machines cause. Let us come to the conclusion that artificial intelligence applications are not fit to be a party to a contract to establish contractual Responsibility, nor liable for damage within the scope of tort Responsibility (harmful act) due

being permitted by the law, causing material or moral harm to others, obliges the perpetrator to compensate this damage if it is proven that that act is the direct cause of the damage." And see the Civil Transactions Law of the United Arab Emirates, Article 282: "Any harm to a third party obligates its perpetrator, even if he is not distinguished, to guarantee the damage." And see the Egyptian Civil Code, Article 163/1: "Every mistake that causes harm to others requires compensation from the one who committed it.

(1) Art 1240 du code civil modifié par ordonnance n°2016-131 of February 10, 2016: All but fait quelconque de l'homme, qui cause à auto un dommage, oblige celui per la faute duquel il est arrivé à le réparer

(2) Property ownership and the legal personhood of artificial intelligence- Rafael Dean Brown, Volume 30, 2021- Issue 2- Article | Published Information & Communications Technology Law, Online: 10 Dec 2020 | Views: 10282 | Citations: 6. Accessed 1 December 2022.

Proceedings of the Eighteenth International Conference on Artificial Intelligence and Law- Case-level prediction of motion outcomes in civil litigation. June 2021, Pages 99–108. <https://doi.org/10.1145/3462757.3466101>. Accessed 3 December 2022.

And Khaled Mamdouh Ibrahim, Legal Regulation of Artificial Intelligence, p. 129: There is concern about the issue of granting legal personality to artificial intelligence, and in Contrast there are those who moved forward in that, such as: Saudi Arabia granted the robot (Robot Sophia) citizenship in 2017, followed by Japan by granting official residence to the program Chats (Shibuya Mirai) and grants him the legal status of a seven-year-old boy-indiscriminate

to the lack of a legal personality that would bear the obligations and enjoy the rights until it is said that responsibility is established against it, not to mention On the issue of the difficulty of proof of error within the scope of use of those applications.

Second: The theory of supposed error

Modern jurisprudence tends to overcome the obstacles to compensation associated with traditional Civil Responsibility, by alleviating the hardship of searching for the responsible person who caused the error. Which may destroy all hope of compensation for many cases of damage in light of the tremendous development resulting from the technological revolution, so that the focus is on the person responsible for compensation or the guarantor instead of researching the idea of error from the ground up⁽¹⁾, in an effort to overcome the inability of the effectiveness of Civil Responsibility for its compensatory role, To talk about raising the value of the principle that says (full compensation) in light of the low role of error in the operation of responsibility.

We should point out that one aspect of jurisprudence⁽²⁾ believes that the idea of error is incapable of understanding the establishment of responsibility in many issues in which it is difficult to prove error. This led legal thought to search for other grounds for the establishment of Civil Responsibility, as an alternative to error in the traditional sense. As the need to acknowledge a responsibility that is not based on the idea of personal error arose, the tendency was to the idea of the supposed error.

We find here that the idea of supposed error as a development of Civil Responsibility is relatively compatible with the responsibility of artificial intelligence, bypassing the idea of traditional personal error, especially since that special responsibility is based on the legal texts regulating it, which are almost confined to their cases, as in the responsibility of the guard in machines that require special care. The civil legislator has directed to hold the owner or guardian of those machines responsible, so that the affected person finds the easiest and easiest way to obtain compensation for the damage caused by the smart machines, through the legislator identifying the responsible person, removing the hardship from the injured person in the issue of the burden of proving the error, which may be unknown or impossible. Proving it or attributing it to the person responsible for compensation in such cases.

The second topic

Solving the problems of Civil Responsibility towards artificial and technological intelligence

Modern jurisprudence tends to focus on the element of harm as a basis for the establishment of Civil Responsibility, far from the idea of error completely, so that the orientation towards non-fault Responsibility is an alternative and a solution to the problems of Civil Responsibility that are based on an error that must be proven, and even go beyond the idea of assumed error as well, which was agreed upon by that modern jurisprudence (objective Responsibility)⁽³⁾

(1) *Traité De Droit Civil / Introduction à la responsabilité*, Genevieve Viney. p. 95.

(2) Muhammad Sabri Al-Jundi, in the tortious liability, responsibility for the harmful act, p. 147.

(3) Ahmed Abd al-Raouf Muhammad Ali, previous reference, p. 189. p. 350: "Therefore, it was necessary for jurisprudence and the judiciary to make efforts in order to find an interpretation of the current rules, an interpretation that gives acceptable solutions to contemporary problems associated with technical development so that it achieves a kind of balance between social and legal relations And between the conflicting interests. However, sometimes both jurisprudence and the judiciary found it difficult because of the strictness of the legal texts, and the strength of the defense of those who clung to them, which led to the abortion of every attempt to find a legal system compatible with that development, whether it was related to nuclear (radioactive) activities or related to pollution the environment, or as well as related to defective products, or in car accidents and other activities that preceded the development of the legal rule, but it can sometimes be said that it exceeded it, so that the current legal rule became incapable of redressing the harm to those affected, which led to the intervention of the legislator in some cases to establish objective responsibility In some legislations, it is used as a way for the injured to escape, and to redress the harm they suffered without the need to prove their fault.

The principle of objective responsibility for non-living things has been supported by the observed extinction and deterioration of the very idea of error on which responsibility for personal action is based in many cases.

French jurisprudence and jurisprudence at that time, led by the two great jurists (Sally and Josran), began searching for a new standard that would ensure that those affected would obtain full compensation for the damages incurred by them.

This is due to the emergence of cases in which a person suffers damages as a result of the activity or action of another person without there being an error that can be attributed to the latter, so the so-called objective liability theory appeared, which assesses responsibility, not on the idea of error. Rather, on the mere occurrence of damage, that theory is based on the two articles (1382) that have been canceled and replaced by Article (1240), and Article (1/1384) that have been canceled.

And replaced by Article (1242) of the French Civil Code), we find that jurisprudence has limited the elements of objective liability to the element of damage mainly because it is caused by the occurrence of damage to others and the element of causation, which is the realization of damage as a result of the work and activity of an application of artificial intelligence, and it is a responsibility that cannot be proven otherwise. That is, the one responsible for compensation cannot evade his responsibility by denying the error on his part, or denying the causal relationship due to the existence of a foreign cause⁽¹⁾.

Let us find that jurisprudence has restricted the pillars of objective Responsibility to the element of the damage as a basis for its occurrence through the occurrence of damage to others, and the element of the causal relationship, which is represented by the realization of the damage as a result of the work and activity of an application of artificial intelligence, and it is a responsibility that cannot be proven otherwise, that is, the person responsible for compensation cannot evade it. His responsibility is to deny the error on his part, or to deny the causal relationship due to the existence of a foreign cause.

- **Challenges of implementing objective Responsibility on artificial intelligence applications**

The research in adapting the nature of Civil Responsibility in the various applications of artificial intelligence is very difficult to determine what it is sufficiently, and accordingly the legal solutions vary, and for the purposes of standing on a point of separation from which we draw proposals about a legal system that meets the purpose at the present time, we will address the sites of legal rules that would Addressing the regulation of the use of AI applications as follows:

First: Implementing the rules of traditional Civil Responsibility systems

1. Implementing the rules of contractual and tort Responsibility

If we deal with the rules of contractual and tort Responsibility, we find that it is very difficult to apply the idea of personal error, which also includes the element of perception. It is not correct to say that the smart application is held responsible as a result of material behavior or shortcomings emanating from it, especially since artificial intelligence applications in any case are not eligible. Or legal personality, so where are we from the issue of determining the person responsible for compensation.

And based on the idea of the lack of legal responsibility towards artificial intelligence

(1) François Terré, Philippe Simler ET Yves Lequette, Droit civil, op cit, p. 746.

applications, the guarantor of the damages hides behind the idea of personal error, because he did not commit any material behavior that caused damage, in addition to the interruption of the causal link between the damage and the action of the person responsible for compensation, whether he is the owner, producer or operator, and thus According to the traditional rules of Civil Responsibility, Responsibility is not established towards the latter, and the aggrieved person loses his right to compensation.

In Contrast, we find that the traditional civil responsibility is based on the element of error in a fundamental way for its establishment. It was necessary to seek to overcome the issue of difficulty in the burden of proof of fault, which may be almost impossible in many cases as a result of industrial and technological progress, whether in terms of establishing evidence against the perpetrator or the fault itself, and overcoming the obstacles of compensation associated with Civil Responsibility, by raising the difficulty of research. For the person responsible for the error; which may destroy all hope of compensation for many cases of damage, to focus on the person responsible for compensation or the guarantor⁽¹⁾.

2. Implementation of the responsibility of the custodian of things and machines

The civil legislator has done well to deal with the regulation of the rules of the guardian of things and machines based on the idea of the supposed error⁽²⁾. We may consider the application of these rules as the immediate solution to the contemporary applications of the smart machine. However, the responsibility of the producer or the factory may disappear when talking about the issue of transferring the guard to the user or the consumer. The responsibility is in the guard. It requires several elements, as in oversight, guidance, control and direct supervision, and resorting to the application of the responsibility of the custodian of things may raise confusion in the event that the damage was achieved at a time when the machine was outside the control of the operator or user, as in a self-driving vehicle, so that the talk becomes about the responsibility of the producer or programmer.

In Contrast, we may find in many applications of artificial intelligence the lack of these elements, as in the autonomy of the robot, as there is no actual control by the guard. In addition to the possibility of paying responsibility to the guard in the event that a foreign cause or force majeure is proven, thus losing the right of the victim to compensation, which raises confusion in application and adaptation, especially in the absence of a contracting situation between the producer and the user, but the idea of dividing the responsibility of the guard may be the solution Immediate and fair to activate the rules of the machine guard, that the producer bears responsibility for the defect of his product, and in return the responsibility towards the user or consumer in the event of damage as a result of use.

(1) *Traité De Droit Civil / Introduction à la responsabilité*, Genevieve Viney. P. 95.

(2) See the Moroccan Law of Obligations and Contracts, Chapter 88: "Any person is liable for the damage caused by the things in his custody, if it turns out that these things are the direct cause of the damage, unless it is proved: 1- He did what was necessary to prevent the damage; 2- And that the damage is due either to a sudden accident, or to force majeure, or to the fault of the injured person. See French Civil Code, Article 1241: "A person is liable not only for the damage he has caused by his own action but also for the damage caused by other persons for whom he is responsible or for the damage caused by things in his custody". =

=Art: 1241 du code civil "Chacun est responsable du dommage qu'il a causé non seulement by son fait, mais encore par sa négligence ou par son imprudence.

And see the Jordanian Civil Code, Article 291: "Anyone who has at his disposal objects that require special care to prevent their damage, or mechanical machines, is liable for the damage caused by these objects, except for what cannot be avoided, without prejudice to the special provisions contained therein". And see the Civil Transactions Law of the United Arab Emirates, Article 316: "Whoever has at his disposal objects that require special care to prevent their damage, or mechanical machines, is liable for the damage caused by these objects or machines, except for what cannot be avoided, without prejudice to what is stated there are special provisions in this regard. And see the Egyptian Civil Code, Article 178: "Whoever takes over the custody of objects whose guarding requires special care, or the guard of mechanical machines, shall be responsible for the damage caused by these things, unless it is proven that the occurrence of the damage was due to a foreign cause that he had no part in, without prejudice to what is stated in the This is a special provision

Second: Implementing the rules of objective Responsibility

Hence the qualitative shift lies in the transition from the personal theory based on the element of personal error, which may be related to an aspect of it with the issue of awareness, whether awareness, intentionality, or even transgression, to the idea of implementing objective responsibility based on achieving the element of harm, as we find Islamic jurisprudence has adopted the rule of responsibility based on Harm by referring to the hadith "There is neither harm nor harm"; It requires preventing the occurrence of damage (no harm), or removing it after its occurrence (no harm), and the occurrence is directly related to the responsibility for the harmful act that necessitates reparation for the damage by resorting to compensation.

However, the trend towards objective responsibility within a wide range opposes the theory of personal responsibility in both its doctrinal and tortious parts, because people are accustomed to only being asked about their actions, excluding the idea of a guarantor who is not at fault, so that we move after that to the obligation of the official to achieve a result, that is, an obligation not to The damage was achieved from the ground up by the person who caused it, and as a result we find the logical implementation of the rules of objective Responsibility in light of the industrial and economic developments that do not establish Responsibility if it is attached to proving the availability of the fault of the person responsible for compensation, and in Contrast, the investigation of the idea of will from the world of responsibility that entails the realization of damage. Justice for the injured.

Where some jurisprudence believes⁽¹⁾ that the approach to objective Responsibility involves several benefits: the first: lifting the burden of the difficulty of proving the traditional error, and the second: the official does not evade responsibility through the defenses that he can raise in the traditional Responsibility, and the third: ensuring compensation for any risk of harm Third parties resulted from new dangers, as in things, machines and modern technologies, and we add to that that the one liable for compensation does not bear any share of the causation with regard to the damage caused to the injured party⁽²⁾.

It should be noted here that the Anglo-American systems approach several methods regarding Responsibility towards smart applications within several models: as in models based on the theory of risk and negligence, another model based on the strict (objective) Responsibility theory, and another related to the issue of compulsory insurance⁽³⁾.

Product Responsibility may be one of the most important applications of objective Responsibility over Responsibility in artificial intelligence, so whatever the search mechanism is on the product side, and proof of his fault by the consumer upon realization of damage; We do not find a sufficient and satisfactory way, if the injured person resorted to applying the rules of contractual and tort Responsibility, since those two responsibilities and according to their provisions are very difficult to establish the responsibility of the producer for that damage⁽⁴⁾,

(1) Khaled Hassan Ahmed Lutfi, previous reference, p. 56. Ahmed Abdel Raouf Muhammad Ali, previous reference, p. 190.

(2) See the Moroccan Code of Obligations and Contracts, Chapter 106-7: "In order to be entitled to compensation, the victim must prove the damage he suffered from the defective product," and Article 106-13: "In application of the provisions of this section, all conditions that limit, cancel or limit the liability of the product or The importer towards the victim, as well as all the conditions for exemption from it." Article 106-12: "The responsibility of the producer towards the victim is not diminished due to the presence of third parties who contributed to the occurrence of the damage".

(3) Council of Europe study DGI (2019)05 Rapporteur: Karen Yeung. <https://rm.coe.int/responsibility-and-ai-en/168097d9c5>, Accessed 8 December 2022.

(4) Sanaa Khamis, Product Objective Responsibility as a Compensatory Mechanism for Victims of Defective Products Accidents, p. 13. Consider this: Muhammad Raed Mahmoud Abdo Al-Dala'a, Civil Responsibility of Drug Producers for Defects that Appear in Pharmaceutical Products, p. 48: The researcher finds that the product's Civil Responsibility does not It falls within the scope of contractual liability, based on the application of the issue of hidden defect, and does not also fall within the scope of tort liability on the basis of the principle of wrongful act. Rather, the jurisprudential approach to applying objective responsibility towards the producer was in an effort not to enable that producer to defend responsibility by denying his mistake, but rather to adopt the idea of the supposed error and the realization of the damage.

where the responsibility of the producer or manufacturer is based on his product in the event of damage, and this responsibility is based on The aggrieved party here is not required to prove the fault, but rather it is sufficient to establish evidence of the damage, and that it was the result of the defect of the product as a causal relationship, as this responsibility is considered one of the necessities to protect the consumer regardless of his relationship with the product, whether it is linked to it by a contract or not⁽¹⁾.

It must be noted here that the Moroccan legislator has explicitly dealt with the responsibility of the producer in the text of Chapter (106-1) of the Code of Obligations and Contracts by stating that: "The producer is responsible for the damage resulting from a defect in his product." Rather, he made the responsibility of the producer an outsider's responsibility. The scope of contractual and tort Responsibility and its basis is the availability of the element of damage and the element of captivity without personal error on the part of the person responsible for compensation, and thus we find a realistic application of objective Responsibility, as indicated by Chapter (106-14) of the same law by stating that: "The requirements of this chapter do not affect the rights that the victim can Obtaining them on the basis of the ordinary law related to contractual Responsibility and tort Responsibility and a special system in progress regarding specific products and services"⁽²⁾.

In Contrast, we find that the French legislator relied on the establishment of Responsibility towards the producer that it is necessary to prove the defect of the product that caused the damage without proving the fault of the person responsible, as in Article (1245) of the Civil Code, which stipulates that: "The producer shall be liable for the damage caused by the defect in his product, whether it linked⁽³⁾ or not to a contract with the injured party⁽³⁾. This is in support of what was stated in the directives issued by the European Parliament on (July 25, 1985) related to the Responsibility of the producer as a result of damages caused to the consumer by his defective products, and we find the same approach with the Egyptian legislator in Article (67) of the Trade Law, and with the Jordanian legislator in Article (19). Of the Consumer Protection Act.

We assert here that the responsibility of the product is not based on any personal error. As a result, it is an objective responsibility, and whether the injured or liable are contracting parties or from third parties, it is placed on the producer with objective responsibility. Commitment to the safety of the product or sold is obligatory towards the public without distinguishing between the contracting party or the non-contracting party, which is considered one of the general legal duties that are binding, even if contractual text This requires activating a special kind of responsibility in light of the nature and state of the reality of the product that reaches the consumer's hand after going through several roles and stages, and the direct relationship between the producer and that affected consumer is cut off, so that responsibility is objective,

(1) Muhammad Sami Abdel Sadiq, *The Responsibility of the Drug Producer for the Damages of His Defective Products*, p. 127, Paragraph 49. And Muhammad Hassan Qassem, *Civil Code / Obligation*, Volume Two, p. 294.

(2) See Moroccan Code of Obligations and Contracts, Chapters 106-1, 106-14. And see the Jordanian Consumer Protection Law, Article No. 19/1: "The supplier shall be liable for the damage resulting from the defective good or service, except in any of the two cases: a- If he did not put the good or service into circulation. relationship to the provider. And see the UAE Federal Law on Consumer Protection, Article 9: "The supplier shall be liable for the damage resulting from the use and consumption of the commodity. He shall also be liable for not providing spare parts for durable goods within a specified period of time and for not providing the guarantees announced or agreed upon with the consumer." All of this is in accordance with the rules issued by a decision from the Minister, and if the commodity was produced locally, the producer and the seller are jointly liable for the above. And Article 16: "The consumer has the right to compensation for personal or material damages in accordance with the general rules in force, and any agreement to the contrary is null and void." And see the Egyptian Trade Law, Article No. 67/1: "The producer and distributor of the commodity shall be liable against anyone who sustains physical or material harm caused by the producer if this person proves that the damage arose due to a defect in the product.

(3) Art. 1245, A producer is liable for harm caused by a defect in his product, whether or not he is bound by a contract with the victim.

which is considered here the best solution.

And if we look at the various jurisprudential approaches that consider the smart application a "harm-leading tool" or a "productive"! We come to the conclusion that the whole matter obeys the rules of objective Responsibility in terms of conditioning and application, as they all flow into one crucible, which is the absence of the personal fault of the responsible, and at the same time the responsibility here is based on the pillar of harm as an essential pillar for its establishment⁽¹⁾.

In terms of the aspect of proof, the application of the rules of objective Responsibility revolves around proving that the damage has arisen due to the defect of the product or as a result of the use or activity of the smart machine, without addressing the proof of the fault of the person responsible for compensation, in his capacity as the owner, manufacturer, tenant, supplier, operator, or owner of legal possession, and requires Here is the search for a manufacturing error or a defect in the product's components or design, which in turn was the cause of the damage, and in Contrast, it may not be required! It may happen that the product that caused the damage did not have a fault or a manufacturing defect, such as if the self-guided vehicle caused damage by hitting a person or destroying the property of others, then the Responsibility is against the person responsible for compensation.

However, in our contemporary time, we find that artificial intelligence applications do not operate with complete autonomy, but are based on the intervention and guidance of the user, operator, or programmer, although developments have reached the stage that the smart machine has the advantage of independent decision-making, which makes the Producer is not wrong, so let us go back to counting Responsibility rests with the supervisor operator or programmer, as in the case of an automated robot that works in the medical field and performs surgeries.

As a result, smart machines do not bear any legal responsibility because they do not have a legal personality and do not have financial capacity. Therefore, we can say that the objective Responsibility that is based on the element of damage is a logical issue, achieves the goal, and enables the injured person to obtain his fair compensation, both material and moral.

We derive an indication of the widening of the scope of compensation in objective Responsibility to include material and moral damages by referring to the legal text of the Moroccan legislator that came at all, as in Chapter (10-106) of the Law of Obligations and Contracts that: "The person must repair all the damages suffered by the victim"⁽²⁾.

If the damage occurred as a result of the defect of the product, then the producer, the manufacturer, the supplier or the distributor will be held accountable without any personal fault on their part. If the damage occurred as a result of use, the Civil Responsibility shall be towards the user, operator, programmer or supervisor, even if they did not make any mistake, but rather by virtue of operation and use.

Conclusion

In light of the issues and axes that were addressed in the content of this research, we reached

(1) See: UNCITRAL Conference - on modernizing international trade law to support innovation and sustainable development / held on July 4, 2017 in Vienna - www.uncitral.un.org/ar/commission. Ayman Muhammad Al-Assiuti, Legal Aspects of the Application of Artificial Intelligence, p. 106.

(2) See Moroccan Code of Obligations and Contracts, chapters 10-106

a number of conclusions and recommendations as follows:

First- Results

1. The research concluded that the traditional Civil Responsibility of contractual and tort suffers from partial or more than one deficiency in order to keep pace with technological developments and the resulting new dangers. Artificial intelligence applications are not suitable to be a party to the contract nor responsible for the harmful act, and the idea of error Traditional practices have proven incapable of addressing the challenges and are an obstacle to determining who is responsible for compensation.
2. The legislative and jurisprudential development of Civil Responsibility based on the supposed fault did not fulfill the purpose of ensuring compensation for the injured party, and specifically the extent to which the responsibility of the custodian of things is appropriate and applied to Responsibility in artificial intelligence applications.
3. It was found that the legal system did not recognize the legal personality of artificial intelligence because it conflicts with the reality and nature of that personality and conflicts with human rights charters. Accordingly, smart machines cannot be held accountable for direct damage or even the infringement element.
4. The research concluded that objective Responsibility is the ideal solution at this stage to address the legal problems that arise from applications of artificial intelligence, as in the issues of legal adaptation, applicable Responsibility, identifying the person responsible for compensation, and ensuring compensation for the injured in the easiest way.

Second- Recommendations

1. We recommend that you be very careful about the issue of granting an artificial intelligence a legal personality, even if it must be granted a legal personality without granting legal responsibility and remains under the tutelage of the representative, owner, producer or manufacturer.
2. We wish the legislator to expedite the development of civil legislation to include modern rules that regulate the responsibility of artificial intelligence applications and its tools at the present time, and at the same time keep pace with future developments, as in taking the idea of objective responsibility extensively, and at the same time organizing mandatory rules for the right of contractual information regarding the nature of smart and technological application And the risks that may result from it, and determining the person responsible for compensation.
3. We suggest that the legislator approve the establishment of a symbiotic insurance fund to ensure compensation for those affected in the impact of the damage resulting from the uses of artificial intelligence, and to oblige the producer, manufacturer and owner of smart applications to participate in insurance for their damages.
4. We suggest obligating manufacturers or producers to be aware of and abide by national and international legal and contractual standards that determine the mechanisms of use and Responsibility for resulting damages, and to provide effective guarantees.

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