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ROMEO - Multidisciplinary Scientific Journal of Knowledge.
ISSN: 2675-9128. São Paulo-SP.

Year V, v.2 2025 | submission: October 8, 2025 | accepted: October 10, 2025 | publication: October 13, 2025

Civil Liability for damages caused by the inappropriate use of Artificial Intelligence

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Summary

In recent years, Artificial Intelligence (AI) has established itself as a strategic tool in various sectors, including law. Its potential to automate complex tasks, analyze large volumes of data, and assist in decision-making represents significant advances, but it poses risks when used inappropriately or without human supervision. This article investigates the impacts of AI misuse and analyzes how civil liability can be applied to compensate for material, moral, and legal damages resulting from failures in automated systems.
research addresses legal foundations, types of damages, international experiences and proposals for regulation, highlighting the need to adapt legal standards and the importance of
ethical and technical oversight. It is concluded that clear regulation, combined with professional training, is essential to balance technological innovation and rights protection, ensuring legal certainty and adequate redress.
Keywords: Artificial Intelligence; Civil Liability; Damage; Legal Ethics.

Abstract

In recent years, Artificial Intelligence (AI) has become a strategic tool in multiple sectors, including Law. Its potential to automate complex tasks, analyze large volumes of data, and support decision-making represents significant advancements but also poses risks when used inadequately or without human supervision. This article investigates the impacts of the inappropriate use of AI and analyzes how civil liability can be applied to repair material, moral, and legal damages caused by failures in automated systems. The study addresses legal foundations, types of damages, international experiences, and regulatory proposals, highlighting the need to adapt legal norms and the importance of ethical and technical oversight. It concludes that clear regulation, combined with professional training, is essential to balance technological innovation and rights protection, ensuring legal security and adequate reparation. **Keywords:** Artificial Intelligence; Civil Liability; Damage; Legal Ethics.

1 Introduction

Artificial Intelligence (AI) has increasingly established itself as a tool strategic in several sectors, including legal, health, public administration and the sector corporate. Its potential to automate complex tasks, analyze large volumes of data and assisting in decision-making represents a significant advance, but presents significant risks when its use is inappropriate or lacking human supervision. In this scenario, the need for critical reflection on its responsible application, ensuring that innovation technological is aligned with the protection of fundamental rights and legal security.

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This study investigates the following research problem: what are the impacts of using inadequate use of artificial intelligence and how civil liability can be applied to repair it the damage resulting from failures in automated systems? The issue becomes even more complex in the face of the growing autonomy of AIs and the difficulty in determining responsibility between programmers, operators and users.

The general objective of this article is to analyze civil liability related to damages caused by the inadequate application of artificial intelligence, highlighting the obstacles, boundaries and possibilities of assigning responsibility in legal and extra-legal contexts.

Specific objectives include examining the legal foundations of civil liability in the context of AI; identify the most common types of harm resulting from the inappropriate use of AI systems; discuss international experiences and regulatory proposals for the assignment of responsibility; assess the ethical and legal implications of using autonomous AI in different sectors.

This study is justified by the growing integration of artificial intelligence in society and by risks inherent in its inappropriate use, which may result in material, moral and legal damages. Furthermore, the research contributes to the development of legal and regulatory parameters that guarantee protection for victims and legal security, balancing technological innovation and civil liability.

2 Theoretical Framework

2.1 Moral Damages

Provided for in the Federal Constitution, in its article 1, item III, and in the Civil Code of 2002, article 186, moral damage is understood as any injury that affects the individual's extra-patrimonial sphere, affecting your psychological, emotional or moral balance. This is a violation that, although not has direct financial implications, compromises essential values linked to the dignity of the person human.

According to Bonna (2021), moral damage corresponds to the loss that compromises the mood psychological, moral, and intellectual well-being of the victim. In this regard, it is a loss that makes it difficult to fix of fair compensation. For Barros (2011), moral damages arise from the disregard experienced by a person or a group, resulting from an unlawful act or risky activity carried out by another, appropriate to achieve personality rights and axiological principles of law, disregarding the economic repercussions.

Moral damage, therefore, arises from an unlawful act, whether committed intentionally or negligently, requiring

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if consecutively, the presence of a causal link to prove it. Its repair has evolved, currently achieving a position of broad recognition (Alcântara, 2025), reflecting the legislative evolution and the consolidation of jurisprudence that strengthened the protection of the rights of personality.

Although Article 186 of the Civil Code covers both intent and fault, this distinction is not relevant for compensation purposes. What matters is the extent of the damage suffered (Oliveira; Remedio, 2022). As Rodrigues (2023) explains, guilt is the prerequisite for the duty to to compensate, being linked to the non-compliance with a legal obligation. Failure to comply generates, for the offender, the duty to make reparations, in order to reestablish the broken legal balance.

The severity of the damage, not the intent of the perpetrator, is what guides the assessment of compensation. The purpose of compensation is to rebalance the situation, preserving the victim's rights and guaranteeing equalizing function of civil liability. In this sense, the Federal Constitution, in its article 5th, section V, ensures compensation for moral damages, whether through economic compensation or by right of reply (Moraes, 2003). It should be noted that moral damages consider pain, humiliation or the suffering experienced by the victim as a result of the offense.

Reparation may adopt either compensatory or punitive criteria. The former seeks compensate the victim for the suffering endured, while the second has a pedagogical character, by imposing the offender significant compensation to discourage repetition of the conduct (Brambilla, 2010). Mota (1995) adds that reparation must be comprehensive, reestablishing the *status quo ante.* However, as this is unlikely, compensation is in the form of monetary compensation.

Due to its immaterial nature, moral damage has a double effect: compensating the injured party and discourage the person causing the damage by imposing a financial burden on him (Oliveira, 2003). His fixation on civil sphere depends on jurisprudence and doctrine, which are guided by parameters marked by judgment of subjective values. Thus, the quantification of compensation requires judicial prudence, in order to avoid both trivialization and unjust enrichment (Busato, 2024).

This type of damage affects vital assets, such as freedom, peace, honor, and dignity. Your reparation aims to protect personality rights, which cover both aspects intrinsic (moral and intellectual) and extrinsic (physical), protecting the person in their individual and social integrity (Bittar, 2006). From this perspective, moral damage is consolidated as an instrument for the effective protection of human dignity, the foundation of the legal order contemporary.

The Federal Constitution is the main seat of personality rights, as it provides, in a manner implicit, a general clause protecting human dignity, a fundamental value of the Republic (article 1st, III). This clause provides broad protection of personality, both in its individual dimension and collective (Fiuza, 2004). Thus, the Magna Carta establishes the maximum parameter of interpretation

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for all infra-constitutional norms, serving as a guide for the legal protection of the person.

In view of the above, it is concluded that the essential objective of reparation for moral damages is protect personality rights, acting as a legal response to the shock suffered by the victim in its psychic and affective dimension (Bonna (2021). In addition, it performs a pedagogical function, reaffirming the legal system's commitment to preserving human dignity.

2.2 Civil Liability: Foundations, Structure and Social Function

Civil liability corresponds to the obligation to repair damage caused, in order to restore the balance of the broken legal relationship. This is a violation of a rule pre-existing, which may assume a contractual or extra-contractual nature. As an obligation, is configured as a legal bond that must be fulfilled spontaneously; otherwise, the duty to compensate arises (Gonçalves, 2023).

From an etymological point of view, responsibility derives from the Latin *respondere,* meaning the duty to respond for one's own actions or those of third parties, under legal protection, guaranteeing compensation for damages caused. Its structure is composed of four fundamental pillars: unlawful act, damage, nexus causality and guilt (Rodrigues, 2023).

An unlawful act represents conduct that is contrary to the legal system and causes harm; damage corresponds to the injury to a legally protected interest; the causal link establishes the link between the conduct and the damage, justifying the attribution of liability; and fault, characterized by negligence, recklessness or incompetence, adds a subjective dimension to the analysis (Gonçalves, 2023).

For Pereira (1999), civil liability is the realization of the abstract reparability of damage in relation to a subject of the legal relationship, with reparation and passive subject being the essential binomial that subordinates the duty to make reparation to the one who caused the damage. Whether or not it is linked to fault, if If compensation is imposed on someone, civil liability will arise.

Thus, it can fall on a person to repair both patrimonial and moral damages. caused to others, whether due to the exercise of productive activities or in other situations (Civil Law, 1999), presenting itself as a mechanism for social balance and reparatory justice.

In this sense, Silva (2000) states that civil liability means the obligation to compensate patrimonial damages and, in certain cases, also moral damages, arising from the conduct of an agent. The the duty to compensate arises from the non-fulfillment of an obligation, with damage being its prerequisite essential.

According to article 944 of the Civil Code, compensation is measured by the extent of the damage, the judge may reduce it when there is a clear disproportion between the gravity of the fault and the

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extent of the damage (Oliveira; Remedio, 2022), ensuring balance in the application of justice, preventing reparation from becoming undue enrichment of the victim or excessive punishment to the offender.

In this way, civil liability plays an essential role in the legal order. contemporary, as it ensures compensation for the injured party and promotes social balance by imposing limits on individual freedom in respect of the rights of third parties, acting as a preventive mechanism, encouraging responsible behavior.

2.3 Artificial Intelligence and Transformation of the Brazilian Judiciary

Artificial intelligence (AI), also called cognitive computing or machine learning, machine, refers to computer systems designed to perform tasks that, under normal conditions, normal, would be carried out by human beings (Cardoso, 2024). These systems have been transforming the the way activities are performed, allowing automation and decision-making with greater precision.

There are different types of AI, according to Roque (2023), *Artificial Narrow Intelligence* (ANI), limited to the execution of specific objectives, such as a program designed to play chess; Artificial *General Intelligence* (AGI), capable of imitating human reasoning; and *Artificial Super Intelligence* (ASI), which in certain areas surpasses the intellectual capacity of the human brain.

Among the attributes that serve as a reference for the development of AI are communication in complex contexts, self-awareness, external knowledge, orientation by goals and objectives and the creativity to propose alternatives to challenges, bringing your functioning of human cognition.

In the legal field, the normative structure and logic of legal rules designate conditions favorable for the application of AI allowing computers to process complex standards, interpret legal documents and perform tasks traditionally performed by lawyers (Cardoso, 2024th), helping to reduce human errors and optimize legal research.

The technology operates from large data sets analyzed by professionals, who feed cognitive systems capable of processing information at high speed and generating results accurate, which saves time, reduces human error, mitigates fatigue and greater efficiency, making AI a strategic resource for both legal practice and the legal information management (Cardoso, 2024).

In the Brazilian Judiciary, the adoption of AI is resulting in concrete transformations. The Supreme Court Federal Court (STF) uses the VICTOR system to read extraordinary appeals and identify topics of general repercussion, with the prospect that, in the future, it can pre-process resources and anticipate

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the admissibility judgment (Gonçalves, 2023). The Federal Court of Auditors employs robots as Alice, Sofia, and Monica to detect fraud in public tenders, demonstrating the application of AI in the inspection and prevention of irregularities (Silva, 2022).

Another example is the Justice Automation System (SAJ), used in the state justice system to manage large volumes of processes, strengthening the connection between judicial institutions, parties involved and citizens. In this way, Artificial Intelligence modernizes judicial processes electronics and enhances the use of existing systems, promoting integration, speed and greater efficiency in communication between all participants in the process (Cardoso, 2024).

2.4 Damages and Civil Liability for the Misuse of Artificial Intelligence

The application of artificial intelligence in Law poses significant challenges in the field of civil liability due to the unstructured nature of legal data and the complexity of judicial decisions (Cardoso, 2024). Although digitalization and machine learning accelerate research, allow analyzing documents and predicting results, the inappropriate use of these tools can generate errors with serious consequences for all parties involved.

When an AI system makes mistakes that result in harm, the attribution of responsibility becomes complex, involving programmers, operators, users and institutions that depend on technology (Silva, 2024). This difficulty intensifies as AI becomes an integral part of judicial decisions, raising ethical dilemmas regarding the impartiality of algorithms and the protection of fundamental rights. In this context, one of the greatest challenges of Civil liability is determining who is at fault for the damage caused by autonomous systems.

To address this issue, Pinto (2023) highlights the need for clear and specific, capable of providing safe parameters for the correct assignment of responsibilities and ensure legal security in the digital age. This challenge is not limited to the legal field. medicine, for example, the incorporation of AI into diagnostics brings clear benefits, but requires redefine the responsibility of professionals in the face of errors resulting from the use of technology.

França and André (2025) emphasize that legislation needs to evolve in order to contemplate participation of the IA in the decision-making process, ensuring the correct assignment of rights and duties for all those involved, in addition to the legal security necessary for individuals, institutions and developers can act responsibly in the face of the consequences of systems automated.

The advancement of AI, therefore, transforms several sectors, including the legal sector, where its ability to process large volumes of data and perform complex comparisons allows a sophisticated knowledge management (Cardoso, 2024). However, the inappropriate use of these technologies can cause significant harm, reinforcing the urgency of strong legal guidelines.

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In this context, European Parliament Resolution 2015/2103-INL proposed the creation of a specific legal status for autonomous robots, suggesting, in certain cases, the attribution of a status of “electronic persons”. This classification aims to hold such systems legally accountable for any damage they may cause, offering a regulatory framework that seeks to balance innovation technological and legal protection (European Union, 2017; Negri, 2020).

Negri (2020) notes that the increasing anthropomorphization of technology, such as social robots and conversational algorithms based on deep learning, establishes the Law innovative approaches, often using metaphors and analogies to deal with non-human beings biological. However, authors such as Alexy and Figueroa (2007) emphasize that the attribution of electronic personality does not immediately guarantee the promotion of human rights, breaking the traditional paradigm that links the ownership of rights to the biological person.

The launch of GPT-5 by OpenAI in 2025 has clearly demonstrated both the transformative potential and the risks of large-scale AI, when applied in contexts complexes without adequate supervision (Assunção, 2025). According to Cardoso (2024), the biggest challenge is to understand the purpose of AI to train professionals in its proper use and avoid harm resulting from improper applications.

In this way, the incorrect use of AI exposes individuals and institutions to material losses, moral and legal, imposing on society the need for regulation, definition of civil liability and adaptation of legal norms, ensuring that the damages caused are repaired.

Final Considerations

Given the rapid advancement of Artificial Intelligence (AI) and its increasing integration into practice legal, this study shows that, although technology offers unprecedented opportunities for optimization, efficiency and analysis of large volumes of information, its inappropriate use can generate significant consequences, both material and moral, for individuals and institutions. The civil liability therefore emerges as an essential mechanism to ensure the reparation of damages and balance in legal relationships, ensuring that innovation does not compromise rights fundamental.

The ethical and transparent use of AI faces several obstacles, including: complexity of algorithms, the growing autonomy of systems and the difficulty of assigning responsibility when there are failures. The interaction between programmers, operators, users and institutions makes identifying culprits a central challenge, requiring clear regulation, specific and up-to-date, capable of guiding the application of responsibility

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civil and ensure legal security.

The quality of training data, human supervision and transparency in processes of AI development are determining factors in minimizing risks and preventing harm. In addition, addition, the definition of adequate legal parameters, such as the regulation of autonomous robots and the discussion on electronic personality, contributes to creating protection mechanisms and accountability in complex contexts, aligning technological innovation and parties' rights involved.

Thus, it is concluded that Artificial Intelligence is redefining legal practice, requiring a constant adaptation of the legal system and professional culture. The construction of standards clear, combined with education and training of operators and professionals, is necessary to balance the benefits of AI with the protection of rights and civil liability, ensuring that technological advances are integrated into society safely.

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