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Original Research Paper

Algorithm and text: Challenges of artificial intelligence in the humanities with an emphasis on german law and imami jurisprudence

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Abstract

The emergence of artificial intelligence as a semi-autonomous agent has challenged the classical paradigms of knowledge production in the humanities. This study aims to address how the legal and ethical components of responsibility for works produced with AI participation are redefined within the frameworks of Imami jurisprudence and the German legal system. This research employed a comparative-analytical approach and qualitative methodology. Data were collected through the study of authoritative jurisprudential sources, German codified laws, and scholarly articles, and analyzed using inductive reasoning. The findings reveal that the shift from a purely instrumental paradigm to one recognizing AI's relative agency has intensified three structural crises: the crisis of attribution (ambiguity regarding authorship and ownership); the crisis of originality (erosion of human creativity and scientific credibility); and the crisis of accountability (conflict in determining final responsibility). The research proposes the Proportional Responsibility model as an interdisciplinary solution, distributing responsibility among the researcher, developer, and academic institutions. By integrating foundational jurisprudential principles from Imami jurisprudence (la darar, daman, tasbib) with the advanced doctrines of German civil liability (particularly § 280 BGB and producer liability principles), the model establishes a coherent framework designed to preserve scientific integrity in humanities research in the age of artificial intelligence.

Keywords: Artificial Intelligence, Imami Jurisprudence, German Law, Algorithm and Text, Proportional Responsibility

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مقاله پژوهشی

الگوریتم و متن: چالش‌های هوش مصنوعی در علوم انسانی با تاکید بر حقوق آلمان و فقه امامیه

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چکیده:

ظهور هوش مصنوعی به‌مثابه کنشگری نیمه‌خودمختار، پارادایم‌های کلاسیک تولید دانش در علوم انسانی را با چالش مواجه ساخته است. این پژوهش با هدف بررسی بازتعریف مؤلفه‌های مسئولیت حقوقی و اخلاقی در قبال آثار تولیدشده با مشارکت هوش مصنوعی در چارچوب فقه امامیه و نظام حقوقی آلمان انجام شده است. این پژوهش با رویکرد تطبیقی-تحلیلی و روش کیفی انجام شده است. داده‌ها از طریق مطالعه منابع معتبر فقهی، قوانین مدون آلمان و مقالات علمی گردآوری و با روش استدلال استقرایی تحلیل شده‌اند. یافته‌ها نشان می‌دهد گذار از الگوی صرفاً ابزارمحور به الگوی عاملیت نسبی هوش مصنوعی، سه بحران ساختاری را دامن زده است: بحران انتساب (ابهام در تعیین نویسنده و مالک اثر)، بحران اصالت (فرسایش خلاقیت انسانی و تهدید اعتبار علمی) و بحران مسئولیت‌پذیری (تعارض در تعیین مسئول نهایی). الگوی «مسئولیت سهمی» به‌عنوان راهکاری بین‌رشته‌ای پیشنهاد می‌شود که مسئولیت را میان پژوهشگر، توسعه‌دهنده و نهادهای علمی توزیع می‌کند. این الگو با تلفیق قواعد فقهی لاضرر، ضمان و تسبیب با اصول مسئولیت مدنی آلمان (به‌ویژه ماده ۲۸۰ قانون مدنی و مسئولیت تولیدکننده)، چارچوبی منسجم برای حفظ سلامت علمی در پژوهش‌های علوم انسانی عصر هوش مصنوعی فراهم می‌آورد.

واژه‌های کلیدی: هوش مصنوعی، فقه امامیه، حقوق آلمان، الگوریتم و متن، مسئولیت سهمی

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Original-Forschungsarbeit

Algorithmus und Text: Herausforderungen der Künstlichen Intelligenz in den Geisteswissenschaften mit besonderem Schwerpunkt auf deutschem Recht und imamitischer Rechtswissenschaft

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Zusammenfassung:

Das Auftreten Künstlicher Intelligenz als semi-autonomer Akteur stellt die klassischen Paradigmen der Wissensproduktion in den Geisteswissenschaften in Frage. Diese Studie untersucht, wie die rechtlichen und ethischen Komponenten der Verantwortlichkeit für durch KI mitproduzierte Werke innerhalb der Rahmenbedingungen der imamitischen Rechtswissenschaft und des deutschen Rechtssystems neu definiert werden. Die Forschung folgt einem vergleichend-analytischen Ansatz und einer qualitativen Methodologie. Die Daten wurden durch die Analyse maßgeblicher rechtswissenschaftlicher Quellen, kodifizierter deutscher Gesetze sowie wissenschaftlicher Fachartikel erhoben und mittels induktiver Argumentation ausgewertet. Die Ergebnisse zeigen, dass der Übergang von einem rein instrumentellen Paradigma hin zu einem Ansatz, der der KI eine relative Akteursqualität zuschreibt, drei strukturelle Krisen verschärft hat: die Zurechnungskrise (Unklarheit hinsichtlich Urheberschaft und Eigentum), die Originalitätskrise (Erosion menschlicher Kreativität und wissenschaftlicher Glaubwürdigkeit) sowie die Verantwortlichkeitskrise (Konflikte bei der Bestimmung der finalen Haftung). Die Studie schlägt das Modell der proportionalen Verantwortung als interdisziplinäre Lösung vor, das die Verantwortung zwischen Forschenden, Entwicklern und akademischen Institutionen verteilt. Durch die Integration grundlegender Prinzipien der imamitischen Rechtswissenschaft (la darar, daman, tasbib) mit zentralen Doktrinen des deutschen Zivilrechts (insbesondere § 280 BGB sowie Grundsätze der Produzentenhaftung) wird ein kohärenter Rahmen geschaffen, der darauf abzielt, die wissenschaftliche Integrität der geisteswissenschaftlichen Forschung im Zeitalter der Künstlichen Intelligenz zu wahren.

Schlüsselwörter: Künstliche Intelligenz, imamitische Rechtswissenschaft, deutsches Recht, Algorithmus und Text, proportionale Verantwortung

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1. Introduction

Knowledge production in the humanities has entered an unprecedented era with the emergence of artificial intelligence. This transformation is not merely a technological innovation but has given rise to a fundamental confrontation between "text" as the achievement of human consciousness and reflection, and "algorithm" as the manifestation of mechanical and computational knowledge. Artificial intelligence, by claiming "authorship," "analysis," and "critique," has transcended the margins of auxiliary tools and emerged as a semi-autonomous research partner, and this new status confronts the foundational concepts of knowledge production—including originality, authorial intent, attribution, and ethical responsibility—with radical questions.

The transition from a purely instrumental model to one in which artificial intelligence possesses relative autonomy has intensified three fundamental crises in the realm of humanities research. The first is the crisis of attribution, where the presence of AI-generated content makes it increasingly difficult to determine the author and owner of a scholarly work, since what is at stake is not merely the mechanical arrangement of words but analytical reasoning that blurs the boundary between assistance and participation. The second is the crisis of originality, in which the longstanding criteria of innovation, creativity, and human added value are overshadowed by the capacity of algorithms to reproduce, synthesize, and represent existing data, thereby contributing to an erosion of originality and threatening the intrinsic credibility of academic production. The third is the crisis of accountability, which represents the most complex challenge, as it introduces ambiguity and conflict in determining legal and moral responsibility for produced works; when confronted with errors, distortions, algorithmic bias, or unintentional plagiarism generated by systems, traditional legal frameworks—founded on the unquestioned centrality of the human agent—appear insufficient for adjudicating and allocating responsibility.

In order to systematically address these intertwined crises, reliance on a single legal or intellectual tradition is not sufficient. The present study is grounded in the assumption that sustainable solutions must emerge from collective wisdom and diverse intellectual traditions. Accordingly, its main objective is to develop an analytical and practical framework

through a comparative approach between two distinct but intellectually rich legal systems. On the one hand, the German legal system, as a leading model of modern European law, provides precise mechanisms of civil liability, particularly non-contractual liability, along with data protection regulations and principles of transparency that can be adapted to the complex regulatory demands of the age of artificial intelligence. On the other hand, Imami jurisprudence offers a rich repository of legal and ethical principles such as la darar (no harm), daman (liability), itlaf (causing loss), and broader foundations of moral and legal responsibility, all of which demonstrate significant capacity for extension and adaptation to emerging technological phenomena.

Against this background, the central research question is how the components of legal and ethical responsibility for works produced with the participation of artificial intelligence are redefined within the frameworks of Imami jurisprudence and the German legal system, and how this redefinition can contribute to the design of a model for the equitable distribution of responsibility among different stakeholders.

2. Literature Review

Research at the intersection of AI, humanities, law, and ethics falls into three categories. The first includes unidimensional jurisprudential-legal studies examining responsibility within a single legal system (Tabatabaei Hakim, 1988; Mousavi Khomeyni, n.d.; Haydari Khourmizi, 2024). The main weakness of this category is the lack of a structured comparative approach between two distinct systems (e.g., Imami jurisprudence and German law), as well as neglect of the specific challenges of "scholarly production in the humanities" with AI participation.

The second category comprises studies in the philosophy of technology and AI ethics (Ramezani & Fayzi Derakhsh, 2013; Farajpour et al., 2024). While these works effectively outline major ethical challenges such as transparency and accountability, they fail to design concrete legal frameworks or mechanisms for distributing responsibility among multiple actors (researcher, developer, academic institution). In other words, they address the ethical "why" but neglect the legal "how."

The third category focuses on the impact of AI on research and the

humanities (Bahmanabadi, 2023; Rajabi & Darabi, 2024; Zeyn al-Dini & Ghandaqi, 2024; Mostafavi Ardabili et al., 2023). The common weakness here is generalization and one-sided focus on opportunities and effectiveness, while risk-based analysis and legal solutions for managing negative consequences (e.g., academic misconduct) are largely absent.

Despite the richness of sources in all three areas, a clear research gap exists: no comparative, interdisciplinary, and problem-oriented study extracts the common and complementary foundations of Imami jurisprudence and German law to design an operational "responsibility distribution" model for scholarly production in the humanities. The present article aims to fill this gap.

Research Methodology: This research employs a qualitative approach with an applied purpose. The method is comparative-analytical, and data were collected through library research and analysis of primary sources (jurisprudential texts, German codified laws, scholarly articles, and authoritative reports). Data analysis uses deductive reasoning and the extraction of congruent concepts from the two systems under study.

3. Theoretical Framework of the Research: Foundations of Responsibility in Imami Jurisprudence and German Law

3.1. The Necessity of a Comparative Theoretical Framework

The emergence of artificial intelligence as a semi-autonomous agent has confronted classical concepts of responsibility with an unprecedented challenge. Traditional legal systems, founded on the exclusive centrality of the "conscious human agent," appear incapable of explaining and distributing responsibility arising from the actions of this emerging technology. The central question is: "In light of which theoretical foundations can the boundaries of ethical and legal responsibility in collaborative scholarly production with artificial intelligence be redefined?"

To answer this question, this article builds its theoretical framework upon a comparative approach between two profound and distinct systems: Imami jurisprudence, with its rich treasury of responsibility-creating rules based on justice and ethics, and modern German law, with

its precise and progressive mechanisms in the field of civil liability and risk governance. The combination of these two perspectives enables the analysis of the issue from ethical-social and legal-compensatory dimensions and establishes a solid foundation for designing the operational model of "Proportional Responsibility."

3.2. Foundations of Responsibility in Imami Jurisprudence

Imami jurisprudence, relying on comprehensive rules rooted in revealed sources and practical reason, offers a flexible framework for deriving rulings on emerging phenomena. In the matter of responsibility arising from the act of another (such as the operation of an intelligent system), the following rules are of fundamental importance:

The Rule of La Darar (No Harm): This rule, based on the prophetic tradition "la darara wa la dirara fi al-islam" (there is no harm nor injurious reciprocation in Islam) (Koleyni, 1987, Vol. 5, p. 292; Mousavi Khomeyni, 2004, Vol. 2, p. 625), prohibits any harmful action, whether material or spiritual. This principle constitutes the cornerstone of ethical and legal responsibility and necessitates the compensation of any unjust harm and the regulation of relations in a manner that prevents the occurrence of harm (Tabatabaei Hakim, 1988, Vol. 2, p. 373).

The Rule of Daman (Liability): The jurisprudential rule of daman, based on the tradition "'ala al-yadi ma akhazat hatta tu'addi" (one is responsible for what one has taken until it is returned), known as the rule of daman yad, which will be explained further.

The Rules of Itlaf (Direct Causation) and Tasbib (Indirect Causation): The distinction between "direct causation" (itlaf) and "indirect causation" (tasbib) in determining the cause of responsibility is highly effective (Sanhouri, n.d., Vol. 1, p. 750). If an AI system is considered a "tool" under the direct command of the user, the user may be deemed the direct causer (mutlif). However, if the error originates from the system's design or training, the developer can be held accountable as the indirect causer (musabbib).

The fundamental principle regarding the limitation of compensation in German law is the causal relationship. German courts are more inclined toward the theory of "adequate cause." According to this theory, if a person's fault has specifically increased the probability of a type of

damage, they are responsible for the damage. For the proportional model, the theory of adequate cause provides a precise tool to measure the share of each actor (developer, user, institution) in the occurrence of damage. If a design error increases the probability of damage, it is considered an adequate cause.

It is important to note that these rules, along with jurisprudence's emphasis on intention and knowledge in certain responsibilities and the obligation according to one's capacity (wus'), provide a rich framework for analyzing the different shares of responsibility in the chain of scholarly production with AI participation. The requirements and conditions of knowledge production can be examined both in the individual domain and the governance domain. The individual domain includes: spirituality-orientation, responsibility, etc. The governance domain includes: jihadi management, national resolve, free thinking, development of basic sciences, transformation in the humanities, etc. (Zeyn al-Dini & Ghandaqi, 2024, p. 281). The present discussion concerns humanities knowledge production in the individual domain, where the ethical and legal responsibility for the produced work is distributed in a share-based manner among three main actors: the researcher (human: responsible for supervision and verification of accuracy), the developer (AI creator: responsible for transparency and warning), and academic institutions (university: responsible for standardization and oversight).

3.3. Foundations of Responsibility in German Civil Law

The German legal system, with its precise codification and risk-oriented approach, has developed advanced mechanisms for distributing responsibility in the age of complex technologies. The key foundations relevant to the present study are:

Non-Contractual Civil Liability (Tort Law): Section 823 of the German Civil Code (BGB) is one of the most important and fundamental provisions concerning civil liability in German law. This provision states that if a person, through fault (intentional or negligent), injures the right or property of another, they must compensate for the damage.

Section 823 has two main paragraphs listing the protected rights:

Paragraph 1: A person who, intentionally or negligently, unlawfully injures the life, body, health, freedom, property, or any other right (such

as intellectual property rights, business rights) of another is liable to compensate for the resulting damage.

Example: If a company produces defective software (negligence) and this software causes damage to a customer's financial systems (financial loss), it falls under this paragraph.

Paragraph 2: A person who violates a statute that is intended to protect others is liable for any damage arising from such violation.

Example: Violation of specific data protection laws or product safety regulations. If a company discloses user data (violation of a protective law), it is liable for the resulting damages.

Thus, developer liability: If damage (e.g., dissemination of false information or a discriminatory decision) results from fault in design, training, or failure to warn about system limitations, the developer may be held liable under Section 823 of the German Civil Code (Wagner, 2023, § 1, para. 1).

Similarly, user/researcher liability: If a researcher negligently (e.g., without any review) accepts and publishes an erroneous AI output, and this action damages academic or individual credibility, they may bear personal responsibility.

The General Data Protection Regulation (GDPR) mandates the principles of transparency, accountability, and the right to an explanation for automated systems (European Parliament and Council, 2016, Articles 13-15, 22).

Therefore, this German legal principle aligns with the jurisprudential rule of daman or la darar in Imami jurisprudence. Both seek to compensate for unjust damage and determine responsibility. In the case of artificial intelligence, the developer may be subject to a standard of "stricter liability" due to their expertise. The principle of fault is one of the foundational principles of German law, its main point crystallized in Section 276 of the German Civil Code. According to this provision, "a person is liable for their intentional acts and omissions unless a stricter or milder standard of liability is stipulated..." (Hoseyni, 2020, p. 140).

A famous and fundamental case from the German Federal Court (BGHZ 3, 261—1951), concerning damage and non-contractual

relationships, clarifies important points regarding damages (Hoseyni, 2020, p. 144).

1. If the developer, through defective design, provides sufficient conditions for the occurrence of error or damage by AI, they are responsible.

2. If the user, through reckless use or input of incorrect data, completes the sufficient conditions for an erroneous result, their share in the responsibility is established

4. The Triple Challenges of Artificial Intelligence in the Humanities: Instances and Implications

The entry of artificial intelligence into the realm of intellectual creation has confronted classical questions about the nature and legitimacy of intellectual property with new complexity. Determining the "owner" and "creator" of a work directly impacts the issue of attribution of responsibility, as accepting the right of ownership for a person or institution is usually accompanied by the burden of responsibility for that work. In the tradition of Imami jurisprudence, there are different views regarding the legal nature of works such as authorship and invention, ranging from the complete denial of any legal right (Mousavi Khomeyni, 2004, Vol. 4, p. 477) to the full acceptance of intellectual property similar to material property. Some intermediate views also consider these matters as non-financial rights or respectable moral preferences.

However, the main focus of this research is on the aspect of "compensatory and supervisory responsibility" (daman, civil liability) for works and consequences produced with the participation of artificial intelligence, rather than definitively determining the proprietary ownership rights over those works. Therefore, in the present analysis, this broader discussion is mentioned as background, and the proposed "Proportional Responsibility" model—independent of the acceptance or rejection of any of these views on ownership—will focus on the equitable distribution of supervisory duties, transparency, and compensation among various actors. In other words, whether the produced work is considered "property" or not, the unjust harm arising from the dissemination of error or fraud within it requires compensation and

accountability of those at fault, which the present model seeks to regulate.[1]

4.1. The Crisis of Attribution and Ambiguity in Intellectual Ownership

When a system generates a substantial portion of an article or tools like DALL-E create an artistic work, determining the "author" or "creator" becomes ambiguous. This directly leads to challenges in granting authorship rights and determining the ultimate responsible party for the content.

4.2. The Crisis of Originality and the Erosion of Human Creativity

Over-reliance on artificial intelligence can lead to methodological reductionism and the weakening of critical thinking and genuine innovation. For example, using algorithms to automatically extract "research trends" may result in the repetition of pre-existing formulas and undermine academic credibility.

4.3. The Crisis of Accountability and the Distribution of Error

The most complex challenge is determining responsibility for errors. A concrete example: Suppose a historical analysis algorithm, due to incomplete data, reaches an incorrect and discriminatory conclusion that is published in an article. Who bears responsibility for this harm—the developer, the researcher, or the academic institution? Traditional legal systems are incapable of answering such multi-actor questions.

The combination of the above frameworks shows that although the foundations of Imami jurisprudence and German law are distinct historically and philosophically, they are aligned in practical goals: preventing unjust harm and equitable compensation. Imami jurisprudence, with rules such as la darar, provides a comprehensive ethical-legal framework emphasizing the prohibition of injustice and the

1. Imam Khomeini explicitly states in Tahrir al-Vasileh: "What is called by some 'copyright' is not a legal right; thus, depriving people of their dominion over their property without contract and stipulation is not permissible. Therefore, merely printing a book and recording therein that the right of publication and reproduction is reserved for its owner does not create any right and does not constitute an agreement with others. Hence, it is permissible for others to publish and reproduce it, and no one may prevent them from doing so. The common practice of registering an invention for its inventor and prohibiting others from imitating and reproducing it has no legal effect, and preventing others from imitating it and trading in it is not permissible, and no one has the right to deprive another of their dominion over their property and themselves" (Mousavi Khomeyni, n.d., Vol. 2, p. 625; Mousavi Khomeyni, 2004, Vol. 4, p. 477). Even writing the phrase "copyright reserved" does not in itself create a right or obligate others.

pursuit of justice. German law, with institutions such as producer liability, has designed precise executive mechanisms for distributing risk and responsibility among multiple actors (producer, user, supervisor).

The proposed "Proportional Responsibility" model in this research is the outcome of this theoretical synthesis. This model combines the principle of harm prevention and compensatory justice (derived from jurisprudence) with the mechanism of share-based distribution of responsibility among multiple actors (derived from German law) to provide a practical response to the triple crises of attribution, originality, and accountability.

Artificial intelligence can accelerate research processes, facilitate the analysis of massive data, and improve access to resources. However, limitations such as algorithmic bias, infrastructural costs, and the reduction of philosophical depth in human thinking are among the challenges facing this interaction (Rajabi & Darabi, 2024, p. 61). The use of artificial intelligence in research carries its own specific challenges and risks. Plagiarism, error or bias in text, manipulation or distortion of scientific records, intellectual property of the produced work, and occupational risks are among these issues (Bahmanabadi, 2023, p. 33).

The agency of artificial intelligence refers to the emerging role of intelligent systems as a semi-autonomous actor that has transcended the status of a passive tool and acquired the ability to act, influence, and even initiate action. This transition is not merely a technical advancement but signifies a transformation in the very nature of the human-machine relationship. Artificial intelligence is no longer simply an executor of commands; rather, by utilizing capabilities such as deep learning, natural language processing, and machine vision, it has to some extent gained the ability to interpret situations, make decisions under conditions of uncertainty, and even propose novel solutions.

This transformation raises fundamental questions in the fields of philosophy of technology, ethics, and governance—questions about responsibility in conditions of distributed agency, transparency in algorithmic decision-making processes, and the preservation of human will and control. Today, artificial intelligence appears in arenas such as advanced recommendation systems, intelligent assistants, medical diagnosis, and algorithmic trading, in the role of a semi-autonomous

partner capable of dynamic and adaptive interaction with users. This new level of agency necessitates the development of new regulatory and ethical frameworks that both support the transformative potential of this technology and protect human values and the privacy of human agency, while simultaneously ensuring accountability and transparency. This matter not only helps improve the quality and efficiency of artificial intelligence systems but also reduces social and ethical concerns. This issue encompasses ethical aspects in science (Farajpour et al., 2024, p. 48).

5. Capacities of Imami Jurisprudence and German Law

5.1. Capacities of Imami Jurisprudence

Within the system of Imami jurisprudence, foundational concepts such as "daman" (liability), "itqan al-amal" (precision in action), "haqq al-mo'allef" (author's right), and the "rule of la darar" (no harm) can serve as theoretical supports for formulating responsibility in the age of artificial intelligence.

The rule of daman, based on the tradition "'ala al-yadi ma akhazat hatta tu'addi" (narrated in Sunan al-Bayhaqi and Kanz al-Ommal), provides a solid foundation for civil liability. In terms of chain of transmission, the mentioned narration in Kanz al-Ommal by Allameh Ali al-Mottaqi al-Hendi (Ibn Housam al-Din al-Mottaqi al-Hendi, 1979, Vol. 1, p. 45) and in Tarikh al-Bayhaqi by al-Bayhaqi (Bayhaqi, 2019, Vol. 1, p. 285), as prominent texts in history and literature, demonstrates the importance of authenticity and narration. Within this framework, any exploitation or possession that leads to damage requires compensation. Regarding artificial intelligence, the question arises whether the developer or user can be considered a "possessor" (mutasarrif) and, in the event of damage, be recognized as "liable" (damin). This concept can encompass damages arising from decisions or mistakes of intelligent systems (Haydari Khourmizi, 2024, p. 210).[1]

1 Sunan al-Kobra (or al-Sunan al-Kabir) is the most significant hadith work of the Shafi'i scholar Ahmad ibn Husayn ibn Ali al-Bayhaqi al-Naysaburi (d. 458 AH) and constitutes a comprehensive compendium of hadith jurisprudence. Researchers consider al-Bayhaqi's motivation for composing al-Sunan al-Kobra to be the defense of the authenticity of al-Shafi'i's opinions and the demonstration of their narrative foundations. This work has been published in eleven volumes under the editorship of Mohammad Abd al-Qader Ata (Bayhaqi, 2019, Vol. 1, p. 285). Kanz al-Ommal fi Sonan al-Aghval

The principle of itqan al-amal, derived from the tradition "But God Almighty loves a servant who, when performing an action, performs it with precision" (Isfahani (Majlesi II), 1990, Vol. 79, p. 49), necessitates accuracy, correctness, and adherence to technical standards in the production and application of tools. In the context of artificial intelligence, this principle can be interpreted as a technical obligation for developers, requiring them to guarantee the accuracy, reliability, and safety of intelligent systems before market release. Any negligence in observing these standards will incur liability.

Regarding the author's right (haqq al-mo'allef), although this concept does not exist in its modern form in classical jurisprudential texts, its jurisprudential infrastructure can be observed within the framework of discussions on "right of usufruct" (haqq al-entefa'), "right of invention" (haqq al-ekhtra'), and the "prohibition of acquisition through falsehood" (hormat al-kasb an tariq al-batel). In a general classification, property is divided into two categories: corporeal property and incorporeal property. Corporeal property has physical existence and can be touched, such as tables, chairs, and houses (Emami, n.d., Vol. 1, p. 19). Incorporeal property has no physical existence, but society recognizes its existence and the law protects it (authorship rights, composition rights, patent rights). When confronting AI-generated outputs, the question arises whether textual, artistic, or scientific productions created by artificial intelligence fall under these rights. It seems that by invoking the rules of "la darar" and "maslahah" (public interest), one can utilize the "author's right" as a protective tool to encourage innovation and prevent unfair use of AI-generated productions. The main point concerns the nature of the "author" in traditional jurisprudence. In jurisprudence, the "author" is a human being. However, regarding works independently created by artificial intelligence, identifying the "right-holder" becomes problematic (the programmer, the owner of training data, the hardware owner, or the user themselves?).

The rule of la darar, crystallized in the tradition "la darara wa la dirara"

va al-Af'al is one of the most important hadith sources of Sunni Islam, authored by Ala al-Din Ali ibn Abd al-Malik Ibn Qadi Khan al-Qaderi al-Shadhili al-Hindi, known as al-Mottaqi al-Hindi (888-975 AH). He compiled this work as a reorganization and rewriting of important books by Jalal al-Din al-Suyuti, such as Javame' al-Jame', al-Jame' al-Saghir, and Zava'ed al-Jame' al-Saghir (Ibn Housam al-Din al-Mottaqi al-Hindi, 1979, Hadith: 4563).

(no harm nor injurious reciprocation), is one of the most key foundations for regulating artificial intelligence. This rule prohibits any action or technology that causes unconventional harm to individuals or society. Accordingly, intelligent systems that lead to discrimination, privacy violation, dissemination of false information, or any systematic social harm are unacceptable from a jurisprudential perspective. This rule imposes a heavy preventive and supervisory responsibility upon the government and relevant institutions to prevent the emergence and spread of such harms.

Summary: These concepts together form a coherent jurisprudential framework that addresses "compensatory responsibility" (daman) after the occurrence of damage, emphasizes "precautionary responsibility" (itqan al-amal) before the introduction of technology, pays attention to "economic and moral rights" (haqq al-mo'allef), and establishes the "preservation of public interests and prohibition of harm" (la darar) as an overarching red line governing all areas.

5.2. Capacities of German Law

Claiming damages for breach of contractual obligations has common roots in common law and Romano-Germanic systems (Hoseyni, 2020, p. 136). A rule in Roman law—"everyone is responsible for the damage caused by their act"—is the origin and basis of claiming damages in these legal systems (Jansen, 2016, p. 234; Gotanda, 2006, p. 3).

In the field of intellectual property, one of the most key capacities of German law is the explicit recognition of text and data mining (TDM) as a legitimate activity and the creation of a "special exception" for it in intellectual property laws. The German legal system regulates data protection as a fundamental right, primarily based on the European Union's General Data Protection Regulation (GDPR) and its national implementing law, the Federal Data Protection Act (BDSG). In the field of intellectual property, by creating a mandatory TDM exception within the framework of copyright law, the German legal system has opened a clear legal pathway to overcome the fundamental challenge of the conflict between protecting works and the necessity of research utilization of texts. A prominent feature of this solution is its non-waivable nature, which prevents rights holders from prohibiting or restricting this research right. This pioneering approach demonstrates how the necessary foundation for

advancing humanities research in the age of AI can be provided without weakening the rights of creators.

In the field of liability, one of the most profound concerns is the "ambiguity in allocating responsibility." The German legal system, understanding this challenge, has designed a transparent and multi-level framework for allocating responsibility based on the "principle of algorithmic transparency" and "responsibility based on the level of influence." Within this framework, algorithm developers are required to observe "security and fairness by design" principles. Humanities researchers, as end-users, bear the responsibility of active supervision over algorithm outputs and critical interpretation of results. Research institutions are also obligated to establish supervisory systems to ensure the ethical use of AI. This preventive approach assures humanities researchers that while benefiting from AI's analytical capabilities, the limits of their responsibility are clearly defined.

6. Comparative Analysis: Examining the Capacities of German Law and Imami Jurisprudence for Overcoming the Challenges of Artificial Intelligence

In the domain of data and privacy, fundamental concepts in Imami jurisprudence such as the "prohibition of spying" (hormat al-tajassos) and the "necessity of preserving secrets" (lozoum hefz al-asrar), which are rooted in Imami hadiths, can function equivalently to the "right to data privacy" in German law. In particular, the "rule of la darar" (no harm)—which, in final analysis, renders the processing of personal data without consent impermissible due to the unjust spiritual harm it causes—together with the "principle of enjoining good and forbidding wrong" (al-amr bi al-marouf wa al-nahy an al-munkar), which justifies social oversight over data privacy, makes possible the formation of a comprehensive ethical-legal framework.

In the domain of intellectual property, through the conceptual development of the "right of invention" (haqq al-ekhtra') and the "right of authorship" (haqq al-ta'lif) in Imami jurisprudence, and by invoking the "rule of dominion" (qa'edat al-taslit: al-naso mosallatona ala amvalihem—people have dominion over their property) on one hand, and considering

"public interest" (al-maslahah al-ammah) and the "rule of no hardship" (qa'edat la haraj) on the other, a permission similar to the "TDM exception" for research purposes can be established. Particularly by distinguishing between "material ownership" and the "moral right of the creator," and by adhering to the inclusion of "religious governance" (hokoumat al-shar') for public interests, reasonable limitations on intellectual property rights can be defined in pursuit of scientific progress.

In the domain of liability, by integrating jurisprudential rules such as "la darar" (no harm), "daman" (liability), and "itlaf" (direct causation), a transparent framework for allocating responsibility can be designed. The "rule of daman yad" (liability of the possessor) explains the responsibility of the user, the "rule of itlaf" explains the responsibility of the producer, and the "rule of la darar" explains the supervisory responsibility of research institutions. Furthermore, the "principle of innocence" (asalat al-bara'ah) in cases of doubt regarding the attribution of damage, and the "rule of tasbib" (indirect causation) in distributing responsibility among multiple factors, enable the creation of a stratified system of liability.

Final Summary and Outlook: Although German law speaks the language of "positive law" and Imami jurisprudence speaks the language of "deduction of rulings," both systems ultimately seek the "realization of justice," "repulsion of harm," and "achievement of public interest." This research demonstrates that Imami jurisprudence, with its thousand-year heritage of jurisprudential deduction and its possession of a "flexible" and "rich" capacity, is not only capable of responding to the emerging challenges of artificial intelligence but can also offer distinct "indigenous and ethics-oriented solutions." Therefore, "overcoming the challenge of the AI revolution" in humanities research is not only possible but, by relying on these two legal systems and with a proper understanding of the capacities of each, can be achieved in a manner that is "responsible, balanced, and grounded in human dignity." This path is not a "repetition of the past" but a "new ijtihad" in re-reading the jurisprudential heritage to respond to the needs of the present age.

7. Conclusions

The artificial intelligence revolution has confronted the research paradigm in the humanities with three fundamental challenges: ambiguity in the attribution of works, the erosion of scientific originality, and conflict in accountability. Through a comparative study of Imami jurisprudence and German law, this research has demonstrated that an effective confrontation with these challenges requires the formulation of a novel framework for the equitable distribution of responsibility.

In response to the main research question, the "Proportional Responsibility" model was presented as an innovative solution. By distributing responsibility among three main actors—the researcher (responsible for supervision and verification of accuracy), the developer (responsible for transparency and warning), and academic institutions (responsible for standardization and oversight)—this model provides a comprehensive response to the present challenges.

The integration of the capacities of Imami jurisprudence (relying on rules such as la darar, daman, and tasbib) and German law (with systematic mechanisms of civil liability and data protection) provides solid foundations for this model. This integration demonstrates how the challenges of artificial intelligence in humanities research can be overcome.

This research has practical implications for academic institutions: the development of ethical charters for the responsible application of artificial intelligence, the establishment of supervisory mechanisms to ensure the originality of works, and the definition of transparent protocols for disclosing AI participation in content production. Therefore, overcoming the present challenges is possible by relying on this integrative model, and it provides an opportunity to enhance the quality of research in the humanities.

The proposed model, by integrating the aforementioned foundations, defines responsibility in a share-based manner among three actors:

The Researcher (Human): Bears the primary responsibility for active supervision, editing, review, and final verification of the accuracy and authenticity of the content. Their share in the ultimate responsibility is realized through negligence in fulfilling this duty.

The Developer/Creator: Bears the primary responsibility for

transparency regarding limitations, potential errors, and the system's operational mechanisms. This responsibility arises from the principle of itqan al-amal (precision in action) in jurisprudence and producer liability in German law.

Academic Institutions (University/Journal): Bear the primary responsibility for formulating clear standards and establishing supervisory mechanisms. This role is the manifestation of the supervisory duty arising from the rule of la darar and principles of governance.

By rejecting the traditional model of "centralized responsibility," this model enables a more equitable distribution of responsibility and creates a balance between innovation and academic integrity.

Conflict of Interest

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