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Research Article / Научная статья

Prompts for generative artificial intelligence in legal discourse

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Abstract. The development of generative models of artificial intelligence (AI) poses new challenges for legal science and practice. This requires understanding of the legal nature of prompts (queries to AI) and development of appropriate legal regulation. The article aims to determine the legal significance of prompts and outlines the prospects for their research in the context of the interaction between law and AI. The study is based on the analysis of contemporary scientific literature devoted to the problems of legal regulation of AI, as well as investigation of the first cases of the use of generative AI models in legal practice and education. Methods of legal qualification, comparative legal analysis, and legal modeling are applied. Prompts are qualified as legal actions (legal facts in the strict sense), which opens the path to addressing the applicability of copyright criteria to them. The potential and risks of using prompts in legal practice and education are identified, and the need for standardizing prompts and developing specialized methods for teaching lawyers to interact with AI is substantiated. Prompts, as a tool for human-AI interaction, represent a fundamentally important subject of legal research, upon which the prospects for AI application in law largely rely. The article concludes that interdisciplinary and international studies are necessary to unite the efforts of legal professionals, AI specialists, and the generative models themselves in developing optimal legal solutions.

Key words: AI, generative models, prompts, legal actions, copyright, legal practice, legal education, standardization of prompts, human-AI interaction, legal regulation of AI

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Промпты (запросы) для генеративного искусственного интеллекта в юридическом дискурсе

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Аннотация. Развитие генеративных моделей искусственного интеллекта (ИИ) ставит перед юридической наукой и практикой новые вызовы, требующие осмысления правовой природы промптов (запросов к ИИ) и выработки адекватного правового регулирования. Цель: определить юридическое значение промптов и наметить перспективы их исследования в контексте взаимодействия права и ИИ. Исследование основано на анализе современной научной литературы, посвященной проблемам правового регулирования ИИ, а также на изучении первых случаев использования генеративных моделей ИИ в юридической практике и образовании. Применяются методы юридической квалификации, сравнительно-правового анализа, правового моделирования. Результаты. Промпты квалифицированы как юридические поступки (юридические факты в строгом смысле), что открывает путь к решению проблемы применимости к ним критериев авторского права. Выявлены возможности и риски использования промптов в юридической практике и образовании, обоснована необходимость стандартизации промптов и разработки специальных методик обучения юристов взаимодействию с ИИ. Промпты как инструмент взаимодействия человека и ИИ представляют собой принципиально важный предмет юридических исследований, от которого во многом зависят перспективы применения ИИ в праве. Необходимы междисциплинарные и международные исследования, объединяющие усилия юристов, специалистов по ИИ и самих генеративных моделей для выработки оптимальных правовых решений.

Ключевые слова: ИИ, генеративные модели, промпты, юридические поступки, авторское право, юридическая практика, юридическое образование, стандартизация промптов, взаимодействие человека и ИИ, правовое регулирование ИИ

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Introduction

The rapid development of generative artificial intelligence (AI) technologies is undeniable. At the time of publication of this article, the most advanced of these technologies are pre-trained transformer models that generate text or other data, including visual, in response to user requests. Despite the associated risks, these models have facilitated the widespread AI use, and their application potential is far from being exhausted, with new possibilities continually emerging (Stokel-Walker & Van Noorden, 2023). They have prompted a reevaluation of how texts generated by these tools are created and managed, offering potential benefits for users seeking to stimulate creativity, access knowledge, or save time (Gutiérrez López, 2023).

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The legal implications arising from the integration of generative AI models into various aspects of life are multifaceted. They give rise to questions about the legality of using data to train AI, the application of copyright to AI-generated content, and the AI use in legal practice, including its role in ensuring access to justice. While it is inevitable that established doctrines about individuals, legal entities, businesses, and intermediaries will extend to AI, it does not provide unequivocal solutions to all associated challenges (Sullivan & Schweikart, 2019). Echoing the criticism of E.B. Poduzova and M. Scheufen, who question the recognition of AI as a subject of law and the potential hazards of transferring traditional concepts to the digital realm (Poduzova, 2023: 12-13), Scheufen, 2019), we propose considering the legal significance of the human-influenced element of the content generation process – the request (prompt) – as a starting point for addressing legal issues in the realm of AI. This approach is rooted in contemporary research. For example, E. Lee rightly notes that earlier discussions on protecting AI-generated works via copyright centered on objects that did not involve prompt engineering (Lee, 2024), that is, specific human influence on the generation process through elaborate requests. Additionally, generative AI models are perceived as a challenge to the entire legal profession (Callister, 2020).

R. Romero-Carazas introduces the term "Prompt Lawyer" as a comprehensive keyword for all scientific research into interactions between the legal system and generative AI models (Romero-Carazas, 2023). This universality, among other things, shapes the breadth and interconnectedness of the issues explored, covering the legal essence of prompts, their legal consequences in content generation, as well as their application in legal education and legal practices.

The Prompt Concept (Request for Generative Artificial Intelligence)

There are two main approaches to natural language processing: rule-based and machine learning-based (Belov et al, 2020). In the former, the entire text is analyzed according to predefined rules, while in the latter, a program trained on extensive data predicts the conclusion to be drawn from the input provided. The literature emphasizes that generative AI models, also termed large language models (LLMs), have revolutionized natural language processing by generating human-like text and images based on textual input (Fill & Muff, 2023). Such input of textual (and in later models, other) data is called a prompt.

Prompts serve as a tool for bridging artificial and natural intelligence, enabling discussions on hybrid intelligence: human intelligence trains the model and formulates a prompt (Seufert & Meier, 2023), interprets the outcome, while the AI generates the output. It is undeniable that in the era of a writing revolution more significant than the advent of typewriters (which did not themselves create or suggest texts), prompts represent "prototypical sequences of contemporary hybrid writing" and establish a novel, intriguing, and didactically significant subject area (Steinhoff, 2023), with the legal examination of prompts bearing intrinsic value.

The diversity of prompts has given rise to the distinct profession of "prompt engineering" (developing requests for generative AI models). The capability to produce

a textual, visual, or alternative outcome using generative AI, traditionally arising from human creative efforts, raises the question of whether the outcomes of requests qualify as works of art (McCormack, 2023). Prior to the emergence of generative AI models, this problem did not exist, since computer-generated texts, images, and music lacked the characteristic of art embodied by a particular intention. Conversely, the prompt encapsulates human intent, subsequently reflected in the generated result from the program (model).

A recent qualitative study revealed that artists integrate generative AI tools into their practice in two directions: generating and preliminary embodiment of ideas, as well as final result production (Rajcic et al., 2024). Hence, the role of the prompt and the generated result extends beyond mere request input and output acquisition. For example, a screenwriter may use generative AI for brainstorming script development options, a scientist may use it to structure an extensive outline for an article, and an artist may use it to create sketches of a bold concept's potential appearance. Consider a children's book illustrator tasked with illustrating a fictional character with prominent ears; to avoid limitations imposed by personal imagination, they might rely on AI-generated options for inspiration and select elements for their illustration.

The modern concept of prompts suggests that AI mimics interpersonal interaction (Zheng et al., 2023). In this approach, AI is assigned a specific role, such as a mathematician, poet, or expert in a particular field. The logic is that by imitating, for example, a physics teacher, the model would provide a more accurate explanation of a physical phenomenon than an average Internet user.

At the same time, the potential diversity of "outputs" produced by AI is continuously expanding, allowing for discussions about AI decision-making in the realm of corporate governance, for example (Laptev et al., 2022). This opens up broad prospects for the application of generative AI models and prompts in various fields, including jurisprudence.

However, this raises pertinent legal questions about the nature of prompts and their legal implications. Can a prompt be considered an object of intellectual property? What are the criteria for the protectability of prompts? How to address issues of accountability for results generated by AI based on prompts? These and other inquiries necessitate meticulous legal analysis.

Moreover, exploring the possibilities of using prompts and generative AI models in legal education and legal practices is of great importance. AI is already capable of generating legal documents, analyzing judicial practice, and providing legal counsel. However, the reliability of these results and the role of human attorneys in validating and practically utilizing them is essential. How to train future lawyers to effectively integrate with AI is a crucial aspect for the development of the legal profession in the age of artificial intelligence.

Thus, prompts as a tool for human-AI interaction represent a highly promising yet understudied subject of legal research. The full understanding of the legal nature of prompts and identification of their potential applications and risks largely determine the readiness of the legal system to tackle the challenges of the artificial intelligence.

Legal Essence of AI Prompts

For the civil law framework, following the Aristotelian and Thomistic tradition, the incorporation of any concept into legal discourse necessitates determining its legal essence. This principle is equally relevant to the phenomena that have accompanied digital transformation. Attempts are made to position bitcoins within the framework of civil rights, NFT tokens are examined by drawing parallels with securities, and online orders are assessed through the lens of offer and acceptance.

In the case of prompts, the task is especially significant, as the accurate classification of prompts may have fundamental implications for establishing the legal consequences and the legal framework governing the generation of outputs by AI models.

Several national legal doctrines are linked to the doctrine of legal facts – circumstances or situations to which legal consequences are associated (Cesarini Sforza, W. 1930). Are legal consequences tied to the input of a prompt? Yes, but they are yet to be established within the regulatory policy framework. For example, when entering a prompt and receiving a recommendation from AI, a judge is obliged to either agree with it or reject it with reasoning. Similarly, the creator of a "deepfake", by inputting a prompt, initiates preparation for a criminal act. An illustrator, using a prompt, creates sketches or a final work for which they anticipate holding rights.

Historically, this doctrine originated in the Romance countries and is extensively discussed in the legal theories of France, Italy, Spain, Portugal, as well as in theoretical developments related to the legal systems of Quebec and the countries of South and Central America. At the same time, the concept of a legal fact is understood in two senses: in a broad sense (as any circumstance with associated consequences) and in a strict sense (as the opposite of a legal act). In the latter sense, legal facts encompass both natural forces and those actions where the will was "not strong enough", posing challenges for specific applications (Moore, 1996). The primary purpose of this classification appears to be the demarcation of legal acts (Rouhette, 1988), theoretical concepts about the validity of which have long permeated positive law.

Soviet legal theory offers a more systematic classification: legal facts are divided into events (not requiring will) and actions (requiring the will of the subject). Actions, in turn, are categorized into legal acts (directly intended to produce legal consequences) and legal deeds – actions not primarily aimed at legal consequences but entailing them (Krasavchikov, 1958:156). From this point of view, a prompt would be classified as a legal deed, since it constitutes a factual action, undertaken consciously by the party, yet not necessarily directed toward a legal outcome.

Therefore, from the perspective of the Romance legal theory, prompts can be attributed to legal facts in the strict sense of the term, while from the perspective of Soviet and post-Soviet theory, they could be categorized as legal deeds. This qualification, in particular, helps to solve the problem of applicability of copyright criteria to prompts.

Copyright Considerations for AI Prompts

Generative AI is capable of creating new content by combining elements from the data on which it was trained. This technology raises questions regarding the copyrightability of the generated results. However, these uncertainties have not impeded the adoption of the technology, given the potential economic benefits (Díaz-Noci, 2023). From a Platonic perspective, art is seen as an imitation of pre-existing reality, whereas from the Aristotelian viewpoint art is grounded in a system of established conventions. Therefore, the claim that an artist or writer creates something original, not based on existing elements, is, to some extent, a fallacy.

The first massive challenge to legal systems from generative AI arose in the context of copyright cases. In different jurisdictions, courts were confronted with the question of whether images and texts generated by AI models are protected by copyright (Frosio, 2024).

In essence, the initial official stances on this matter across the globe can be distilled into two distinct conclusions, reflecting a stark divergence in the interpretation of the phenomenon of AI-generated content.

E. Lee offers a critique of the stringent framework employed by the U.S. Copyright Office in its approach to generated content. If applied to the vast majority of photographs, this framework would effectively deprive them of copyright protection. This is, in general, the strict model of Western countries, which limits the prospects for protecting the copyrights of prompt creators on the resulting content.

Conversely, the other aspect is illustrated by the renowned decision of the Beijing Internet Court in the case of Li v. Liu, wherein the court acknowledged the visual content generated by the Stable Diffusion model as an object of copyright, considering the creative input of the individual who entered the prompt into the model¹.

The interpretation of a prompt as a legal deed (or, in Romance terminology, a physical legal fact) provides an intriguing framework for understanding creativity in artistic endeavors. By viewing prompts through this lens, we can recognize that they serve as essential initiators of creative potential, much like a contract that establishes the parameters for a particular engagement or partnership.

In this context, it becomes apparent that a prompt can possess varying degrees of creative contribution. Just as a simple exercise in rhyming does not guarantee a profound poetic outcome, a prompt may lead to varying levels of creativity depending on the choices made by the artist. The relationship between the prompt and the resulting work can be seen as a dialogue – one that is shaped by the artist's interpretation, intent, and innate capabilities.

¹ Yuqian Wang, Jessie Zhang Beijing Internet Court Grants Copyright to AI-Generated Image for the First Time, February 2, 2024. Available at https://www.chinaiplawupdate.com/2024/01/beijing-internet-court-releases-translation-of-li-vs-liu-recognizing-copyright-in-generative-ai/

AI Prompts and Legal Information Management

The lack of predictability in the outcomes of natural language processing by artificial intelligence, as highlighted by Callister (Callister, 2020:163), "has introduced new uncertainty into the legal field". In general, the challenging aspects of utilizing generative AI models to work with legal information align with the critical areas identified when using such models in scientific research. They include 1) human verification, 2) accountability rules when employing AI, 3) openness of the AI model, 4) leveraging AI advantages while preserving the human role, and 5) ethical evaluation of consequences (Van Dis et al., 2023). This correlation is due to the substantial volume of information in both legal practice and scientific research, creating a necessity for tools to simplify its processing. However, unlike, for example, the creation of artistic texts, both the science and legal practice require precision in the obtained result.

Furthermore, lawyers working with AI encounter complexities inherent in legal texts, as evidenced by initial attempts to train AI for handling legal information. Legal texts are typically lengthy and complex, designed with a preference for formal structure over readability (Oliveira et al., 2024). Specifically, the structured nature of contract texts, which are divided into clauses of equal importance, complicates the use of the popular "chat with document" interaction method (Roegiest et al., 2023). In this method, a document (e.g., a popular science article) is provided along with the request, and the user queries the model, which then produces a summary, omitting less pertinent details. For contract text, such an approach poses the risk of overlooking specific conditions. Similarly, "speed reading" technologies are inapplicable for high-quality legal texts, since they rely on distinguishing between important and unimportant information. Such simplification is not suitable for legal texts, which are inherently composed of legally significant information.

Researchers find the use of AI particularly promising in situations lacking clearly delineated rules. A notable proposal involves training a model on numerous court cases leveraging the principle of good faith (Latin bona fides, German Treu und Glauben) for an initial evaluation of the good faith exhibited by the involved parties (Engel, 2023). Nonetheless, a significant hurdle lies in the challenging accessibility of models to the comprehensive materials of prior court cases (Östling et al., 2024).

It is crucial to underscore that generative AI models are designed to predict the most typical responses that raises concerns about the replication of common positions that may not comply with the law. For example, in instances where numerous decisions and rulings uniformly adopt a restrictive interpretation of the law for specific types of court cases, but the Supreme Court subsequently overturns one such decision, how would the generative model predict the outcome? Another crucial issue pertains to the substantial variability in factual circumstances from one case to another. In such instances, can AI discern the requisite legal norm or the ratio decidendi endorsed in judicial practice for a given scenario? This challenge can be surmounted by resorting to the theoretical (logical) underpinnings of jurisprudence.

One proposition entails training models to interpret a prompt as one of the premises in a legal syllogism (Jiang & Yang, 2023). Here, the AI task is to ascertain the complementary premise (i.e., the relevant legal provision or the precedent from judicial practice) and formulate a conclusion based on the results of subsumption.

Additionally, it is possible to guide the AI's conclusion to conform to legal logic at the stage of prompt formation by specifying which method of legal logic should be applied, such as the IRAC model (Issue, Rule, Application, Conclusion) (Quartey & Schilder, 2022). In this case, the prompt includes a structured instruction on how the AI model should process information.

It is noteworthy that in both cases, the methods employed are not innovations in legal argumentation but rather methodologies that have been documented long before the advent of generative AI. Legal professionals' introspection on their practical activities has formed an extensive body of literature on legal syllogisms, subsumption, IRAC, and other models of legal conclusions. Consequently, the functioning of legal AI models relies more on this self-awareness of legal work than on direct information about how lawyers operate. This introduces risks associated with cognitive errors that may arise during the self-reflection process of lawyers. However, it is worth noting that such approaches significantly enhance the role of actors who train the model or prepare prompt templates. This mitigates potential concerns about the uncontrollability of AI implementation in legal consulting, as the prompt introduces the human factor into digital legal consultation.

The primary challenge with using generative AI in justice remains the risk of so-called hallucinations: such models can produce incorrect but plausible results (Longo, 2023:194). However, identifying a hallucination is possible by clearly understanding the expected result and the procedure for achieving it, underscoring the importance of controllability and non-arbitrariness in prompt design.

A team of authors studying the prospects of using generative models in legal practice highlights the lack of standardization of prompts as a major issue, which, according to experimental data, leads to inconsistent and sometimes incorrect results (Sivakumar et. al, 2023). Another study, examining the judicial practice of the People's Republic of China, demonstrates that using appropriate prompt templates aligned with the data on which the generative AI model was trained allows for the fastest and most accurate results (Sun et al., 2024). This productive experience will probably influence regulatory policy in AI across different countries. However, there is concern that if AI regulation focuses solely on court use, it risks neglecting the regulatory needs for private use of the AI systems in legal services (Schneider, 2022:250). In our view, the risk is not only in the limited scope of regulatory policy but also in the restricted access to modern generative AI models, controlled by private corporations that determine the territories where their services will be available. This approach contradicts market principles and the principle of legal diversity, ultimately hindering technological development.

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Therefore, a multinational team of researchers has reached a pivotal conclusion that distinguishing legal information (primarily within judicial rulings) into distinct categories – legal issues and factual circumstances – is the most effective approach to mitigate "interference", "noise" and other extraneous artifacts (Tang et al., 2022). Empirical data suggest that not individual prompts but their interconnected sequences are promising for legal applications (Trautmann, 2023). Consequently, the sequential differentiation of analyzed data within such a chain represents an essential intellectual undertaking for a lawyer interacting with a generative AI system, and this set of skills can be cultivated within contemporary legal education.

Prompts and legal education

Empirical research focused on the initial integration of generative AI into legal education has underscored the necessity of preparing law students to adeptly utilize these tools in practice, while emphasizing that the foundational skills in legal research and argumentation cannot be simply relegated to language models (Choi et al. 2022:397). As expounded in the previous section, the arguments presented support this finding: for generative AI to assume a portion of a lawyer's responsibilities, it is imperative to not only infuse the creative dimension into prompt formulation but also integrate the framework of legal argumentation inherent in the legal system. This framework could encompass a legal syllogism, subsumption, or a model of legal reasoning such as IRAC. Instilling in students the ability to gauge the relevance of received legal information in both form and content, necessitates commencing with manual execution of analogous operations. Drawing a parallel from mathematical disciplines, it can be posited that prior to employing mathematical software, a specialist (whether a mathematician or engineer) must undertake comparable calculations manually to develop the skills to verify the accuracy of the resultant output.

When discussing prompts in the context of legal practice and education, it is important to note that creating sets of prompts for educational and practical purposes can serve as both an educational task and a potential avenue for the commercialization of research results (Saripan et al., 2023). Although there is a current trend towards transitioning from formalized to natural prompt formulations, the specificity of legal discourse requires that a legally relevant outcome depends on the template nature of the prompt and the formalization of intellectual operations performed or imitated by AI based on it. Therefore, the development of legal prompts is a promising area for academic research groups comprising both faculty members and students. This collaboration can enhance the educational experience while also contributing to advancements in the field.

Conclusion

The use of prompts as a tool for interaction between humans and generative AI is not only a promising but also an inevitable subject for future legal research. The readiness of the legal system to face the challenges of the era of artificial intelligence largely depends on how thoroughly the legal essence of prompts is revealed and the potential risks and benefits of their application are identified.

The attempt to analyze the legal nature of prompts has led to their classification as legal deeds (in the terminology of Soviet and post-Soviet legal theory) or as legal facts in the strict sense (in the terminology of Romance legal theory). Such classification opens avenues for addressing the issue of applying copyright criteria to prompts. For example, determining whether a prompt is creative in nature or not needs to be assessed on a case-by-case basis, considering all relevant circumstances. It is crucial to acknowledge that generative AI creates new content by amalgamating elements of its training data, which raises concerns about protecting generated results under copyright law.

The significance of using prompts and generative AI models in legal practice and education cannot be understated. Currently, AI can generate legal documents, analyze judicial practice, and provide legal advice. However, the reliability of these AI-generated results and the role of human lawyers in verifying and effectively utilizing them require careful consideration. Training future legal professionals to interact effectively with AI while maintaining core skills of legal research and argumentation is pivotal. Recognizing prompts as deliberate actions and understanding the intended outcomes are essential to prevent misinterpretation by AI.

The complexities of legal texts, typically lengthy, intricate, and structured for formality rather than readability, pose challenges to employing popular interaction methods like "chat with a document". Nonetheless, AI shows promise in situations where rules are not clearly defined, such as in preliminary assessments of parties' compliance with the legal principles.

To ensure the accuracy and relevance of AI-generated outcomes, a suggestion is made to train AI models to interpret prompts as premises of a legal syllogism or to include indications of the legal logic method to be applied (such as the IRAC model). This positions the prompt as a means to introduce the human element into the digital legal consultation process.

One of the primary challenges with incorporating generative AI in the legal field is the risk of "hallucinations" – providing incorrect yet plausible results. To mitigate this risk, standardizing prompts that consider the nuances of the legal system is crucial in delivering rapid and precise generation outcomes. Addressing this concern necessitates collaboration among the academic legal community, legal practitioners, and AI experts.

The exploration of legal prompts for educational, practical and research commercialization purposes presents a promising avenue for further investigation. The development of legal prompts emerges as a fertile area of activity for academic research groups comprising faculty and students.

We believe that further research in this domain should adopt an interdisciplinary and global approach, fostering collaboration among researchers and practitioners from diverse countries. Only through such collaborative efforts, can a balance of interests among developers, users, and society be achieved in the era of artificial intelligence.

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