

Research on the Copyright Law Positioning and Civil Rights Allocation of Content Generated by Generative Artificial Intelligence

Yingdong Liu

Shanghai University of International Business and Economics, Shanghai, China

Abstract: Traditional copyright law is based on the protection of natural person authors. With the widespread application of generative artificial intelligence (AIGC), this existing law has shown a lag in application and urgently needs to be adjusted and improved. In the process of addressing the lag, in the face of the triple dilemma of ambiguous legal attributes of AIGC, virtual rights subjects, and the absence of rules for benefit distribution, most previous studies have fallen into a binary debate on "copyrightability" and failed to provide practical and effective solutions. This paper advocates a shift in the research paradigm from "ownership of rights" to "allocation of interests". By introducing the legal principles of relevant systems in civil law, it seeks to construct a contribution-based analytical framework for the differentiated allocation of civil rights involved in AIGC. This paper aims to balance the incentives for technological innovation with the guarantee of fair returns and provide a theoretically self-consistent and practically feasible copyright governance system for AIGC.

Keywords: Generative AI; Copyright Law; Rights Allocation; Multiple Contributions; Civil Law System References

1. Introduction

In today's era, the application scenarios of generative artificial intelligence (AIGC) continue to expand, including text generation, image creation, code writing, and video production. As AIGC plays an increasingly important role in the field of content creation, the question that follows is – to whom does the content it generates belong? To the user who inputs the instructions, to the company that develops the model, or to the authors whose works are used for AIGC training?

The current Copyright Law centers on protecting natural person authors, meaning that its rules of rights ownership are based upon a fundamental premise that the author is a natural person. But in the content creation process of AIGC, users input instructions, models apply algorithms and data to generate content, developers provide technical support, and the works of data providers are used as training materials. The entire process is the result of "human-machine collaboration", and there is no natural person who can be clearly identified as an "author". And when the AIGC violates the premise of the Copyright Law, it is obvious that the current Copyright Law is not directly applicable. The legal attributes of the content generated by AIGC are thus ambiguous – is it a "work" protected by copyright law, or merely a "data product" or "algorithmic output"? In addition, the rights subject is also in a vacant state: even if it is recognized that AIGC-generated content should be protected, it is difficult to find a basis in current law to determine who the rights belong to.

This institutional lag is not just a theoretical dilemma. When the law fails to provide clear rules of rights ownership for the content generated by the AIGC, conflicts of interest among the parties involved in practice are inevitable. Some AI platforms unilaterally claim full intellectual property rights over user-generated content through user agreements, resulting in users' intellectual input being taken away as a whole; some artists, writers and photographers' works have been used to train models without anyone seeking their consent or giving them return. Users, developers, platforms, data providers, everyone is involved in the AIGC generation chain, but the current law does not provide a set of rules to fairly distribute the resulting rights and benefits. The existence of these issues makes the copyright issue of AIGC no longer just an academic topic to be debated,

but a real problem that urgently needs to be addressed.

There has been much discussion in the academic circle about these issues. There are affirmative, negative and intermediate views in the debate over whether AIGC-generated content can constitute works; the debate over who should own the benefits of the generated content has given rise to different approaches such as the developer-oriented approach, the user-oriented approach and the public-oriented approach. These studies provide an important basis for understanding copyright issues in AIGC. But a closer look reveals that both the "copyrightability" debate and the "to whom the rights belong" discussion fall into the same fixed way of thinking: trying to find a "single right holder" who can monopolize the rights. This is not realistic for the multi-party collaborative generation process of the AIGC.

Therefore, this paper attempts to take a different approach, shifting from "ownership of rights" to "allocation of interests". Rather than continuing to dwell on who the content generated by AIGC should belong to, it is better to design a set of rules that can fairly distribute rights and benefits based on its multi-party collaborative nature. Specifically, this paper will introduce the legal principles of civil law institutions such as partnership, mandate, and unjust enrichment in civil law, construct an analysis framework based on contribution, and make differentiated allocation of specific civil rights such as the right of attribution, the right of reproduction, the right of adaptation, and the right to remuneration, in order to seek a balance between encouraging technological innovation and ensuring fair returns.

2. The Copyright Law Positioning of Generative AI-generated Content

When exploring the rules for allocating rights in generative AI, one must bring the research focus back to its legal positioning within the existing intellectual property system. Traditionally, judicial practice and scholarly debates have been accustomed to focusing on the determination of "originality" at the level of object, attempting to draw conclusions about whether AIGC has copyrightability by comparing the similarities and differences in external manifestations between AIGC and human intellectual achievements. This cognitive approach is revealing its inherent limitations in the face of

changes in the underlying logic of the AIGC.

2.1 Limitations of the Binary Debate on Copyright

The debate over whether AIGC-generated content constitutes a work lies at the heart of current academic discourse. In this domain, generative AI is profoundly reshaping production methods, and the massive, instantaneous content it generates leaves traditional copyright systems overwhelmed¹. The affirmative view is often based on the objective form of expression, believing that as long as the content of AIGC has the same expression as human creation, it should be accepted as a work for the purpose of the Copyright Law.

This tendency of the "work-as-object-only" theory poses a doctrinal challenge. From an objective perspective, the ability of artificial intelligence to "create" works is merely a judgment at the factual level, but the copyright constructed by the binary system of "personality and property" determines that the essential requirements for "creation" in copyright law are by no means merely an external ordering of signs². Overemphasizing the role of the object element while ignoring the creative intention will blur the line between the natural mechanism and the legal mechanism of creation. The generation mechanism represented by large language models is based on deep learning and parameter weight computation, and the machine itself does not have a genuine creative intention. The mainstream view holds that the focus of future discussions on the copyrightability of AI-generated content and subsequent rights ownership should shift to resolving the interest disputes among multiple parties arising from it³.

2.2 Civil Law Facts and Norms of Creative Acts

To break the logical deadlock of copyrightability, it is necessary to shift the research perspective from "object attributes" to "the essence of the act". In the context of AIGC copyrightability, the rights delimitation paradigm should be extended from the narrow copyright framework to the broader civil law framework, reaffirming that the act of creation is the fundamental basis for the acquisition of copyright rights⁴.

Although intellectual property law enhances cognitive efficiency by classifying the objects of rights, the act of creation is essentially a "factual act" under civil law. The normative attributes of

creative acts should include dimensions such as creative intent, creative ideation, and expressive acts. When the generation process of AIGC is examined within this behavioral framework, it is found that the user's prompt input, parameter fine-tuning and result selection essentially constitute the "creative conception" in the sense of civil law. Even if the machine takes on the heavy computational work, the initial impetus of the information collapse still stems from human intellectual choices. In applications such as academic writing, as long as the user's intellectual input and logical arrangement run through the entire human-computer interaction, this behavior itself has a legitimate basis for obtaining legal protection⁵.

2.3 Reinventing Legal Attributes and Creating Neighboring Rights

It is particularly necessary to explore new paths for defining legal attributes when theory relying solely on the concept of "work" is difficult to fit perfectly into the generation mechanism of AIGC. The anthropocentrism that is adhered to under the rights-granting model conflicts with the human-machine symbiosis features shown by AIGC, and the independent generation ability of artificial intelligence challenges the traditional doctrine of human originality. Therefore, the introduction of the "behavioral regulation model" has institutional advantages⁶.

At the same time, the academic community has begun to explore the feasibility of creating new types of neighboring rights. The content created by virtual digital humans is similar to AIGC in terms of generation process and delivery medium, and the degree of commonality serves as a reference for the copyright protection path⁷. Clarifying its legal attributes is only the starting point of the research. The more arduous task lies in how to convert these values into specific civil rights in the face of the multiple subjects intertwined, and how to make a fair distribution to prevent technological monopolies.

3. The Real Dilemma of AIGC Rights Allocation

The current Copyright Law was established during the transition period between the agricultural and industrial eras, and its institutional design is deeply rooted in the protection of the creative acts of independent natural persons. In the face of a digital civilization built on massive data and complex

algorithms, the current law has inevitably encountered difficulties in its application.

3.1 The Application Failure of Author-Centeredness of Natural Persons

The fundamental legal principle that "authors must be natural persons" has been structurally deconstructed in the face of AIGC. The generation mechanism of AIGC directly cuts off the strong causal connection between the creative act and the natural person subject in traditional Copyright Law.

In the closed loop of the AIGC ecosystem, developers of large models write the underlying code but do not conceive the specific product; the user provides the creative intent, but the final rendering is done by the machine itself; the original copyright owner who provided the vast amount of training material had their work fused into new expressive weights. This subject vacancy directly leads to the institutional void of rights ownership. In line with anthropocentrism, the subject qualification of generative artificial intelligence faces the negation of civil basic theory. Therefore, there is an urgent need to clarify the rights subject of the generated content and establish a copyright ownership path based on the principle that agreement shall prevail⁸.

3.2 Data Traceability Barriers and Hindrances to Infringement Determination

Another fatal flaw of AIGC is the problem of infringement traceability caused by its algorithmic black box. Generative AI's use of massive amounts of work data during model training faces a dilemma in determining infringement of the right of reproduction under the Copyright Law. The current law's definition of "reproduction" fails to distinguish between technical reproduction and dissemination reproduction, resulting in a high degree of uncertainty regarding the legality of data processing⁹.

When an AIGC work is suspected of infringement, the traditional "access + substantial similarity" adjudication rule is challenged. In the context of the replacement of the roles of AIGC service providers and web users, there is a technical failure in the determination of substantial similarity of infringing content. AIGC service providers, who have the dual identities of infringement risk makers and content providers, should not abuse the "safe harbor rule" as a neutral technology

intermediary¹⁰. The interweaving of multiple subjects and the high degree of autonomy of technology make it difficult for the existing accountability system to precisely divide the proportion of responsibility among all parties.

3.3 Technology Monopolies and Deprivation of Creators' Rights

The leap in capabilities of generative large models is based on the free capture and deep devouring of vast amounts of copyrighted works. The multiplicity of training data and the complexity of legal attributes expose models to risks such as illegal data crawling and copyright vacancy during training, profoundly affecting the creativity and compliance of generated content¹¹.

If not strongly regulated by law, platforms will monopolize through technical and computing power barriers, and data providers and ordinary users at both ends of the chain will face double deprivation. To balance the interests of AI developers, original copyright holders and the general public, it is necessary to explore incorporating such use into the statutory licensing mechanism and establish clear remuneration standards to ensure the balance of interests in the industrial chain¹².

4. A Civil Law shift Towards "Multi-Interest Allocation"

In the face of the above-mentioned predicament, it is no longer effective to stick to the traditional path of "seeking a single absolute right holder". We should shift the research paradigm from the closed "ownership of rights" to the open "allocation of interests", and view AIGC as a "complex of interests" involving the collaboration of multiple subjects. Breaking down the barriers between branches of law and drawing institutional wisdom from the Civil Code is the only way to reconstruct the rights and interests of AIGC. The analytical framework for multi-party collaborative generation and civil rights allocation proposed in this paper is illustrated in Figure 1.

4.1 Reconstructing the Relationship Network of Human-Machine Collaborative Generation

The entire lifecycle of AIGC generation is essentially a deep coupling between the user's concrete intent and the platform's advanced computing power. Under the influence of the interaction of multiple subjects' behaviors, risk

frequently arise in AIGC content creation and require a re-examination from the perspective of infringing subject identification and liability allocation¹³.

We can try to compare the generation process of AIGC to a contract for work. AIGC service users act as "clients," giving specific creative instructions to the platform; AIGC service providers act as "contractors," invoking algorithmic models to generate specific content. Since the final product embodies the input of both parties, the logic of rights allocation should respect autonomy of will. The introduction of the civil law mechanism the contract for work can not only provide doctrinal support for the internal transfer of rights, but also provide a benchmark for the division of external tort liability.

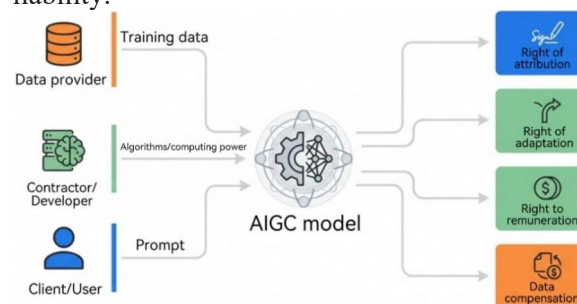


Figure 1. Framework for Generative AI Multi-Party Collaborative Generation and Civil Rights Allocation

4.2 Regulate the System of Unjust Enrichment for the Use of Training Data

At the front end of the industrial chain, the works of training data providers (original copyright holders) are captured by technology enterprises for free. The unjust enrichment system in the Civil Code fills this gap in legal relief.

The unjust enrichment system is designed to balance the flow of social wealth. A developer who, without permission, incorporates data resources with others' copyrighted data resources into commercial training and freely acquires knowledge resources that should have been acquired through market transactions constitutes a form of "unjust enrichment by infringement" in the modern context. The introduction of this regime means that even if certain front-end training practices of large models are exceptionally exempted from direct tort liability based on technological development, developers still have a legal obligation to provide economic compensation to the original rights holders. This

is not only a defense of the labor value theory, but also a blocking mechanism against technological monopolies.

4.3 Governance Reconstruction under the Dynamic System Theory

The introduction of civil law doctrines aims to construct a dynamic governance system that is highly resilient and adaptable. Data mining is the initial stage of AI creation, and obtaining training data without permission is at risk of infringement; to resolve the conflict between protection and development, exploring new types of "fair use" for non-commercial learning purposes in the field of scientific research has a certain theoretical basis¹⁴.

The traditional single rule of rights cannot keep up with the pace of technological evolution. The benefit allocation framework based on multi-party collaboration and proportional contribution can achieve a dynamic balance between the protection of rights holder protection and industrial development by fine-tuning the weight of relevant factors in individual cases. This requires us to establish an objective mechanism for quantifying "contribution" as a measure for subsequent benefit distribution.

5. A Framework for Measurement and Recognition Based on Contribution

After discarding the obsession with absolute ownership, this paper advocates establishing the allocation principle of "proportional contribution and division of rights". The framework requires that the review must penetrate the entire process of AIGC content generation, conduct a weighting analysis of elements such as algorithm design, data supply, and instruction control, and

make targeted allocations among platforms, users, and data providers.

5.1 Judicial Review of User Intellectual Input

To establish a scientific contribution measurement index, the primary task is to set standards for judicial review. China's judicial practice in the "first AIGC infringement case" provided illustrative judicial reasoning: the presiding judge thoroughly examined all traces of the plaintiff's intellectual input when operating the model.

In this case, the plaintiff, based on a clear aesthetic pursuit, constructed a logically rigorous system of prompts, precisely defined the art type and spatial environment, and performed parameter fine-tuning and selection of the preliminary results. The court held that the pictures in question were directly produced based on the plaintiff's continuous and deep intellectual input, embodied individualized expression and thus were original. This judgment logic established a benchmark for contribution review centered on "human control and depth of intervention".

5.2 Construction of the Contribution Measurement Index System

Based on cutting-edge judicial practice and human-machine co-creation mechanism theory, an assessment index system for "multi-dimensional human intellectual contribution" can be systematically constructed. Judicial decisions should abandon black-and-white reasoning and develop refined methods of contribution analysis. The multi-dimensional intellectual contribution evaluation index system constructed in this paper is shown in Table 1.

Table 1. Evaluation Index System for Multidimensional Intellectual Contribution of Generative Artificial Intelligence

Evaluation Dimensions	Core Considerations and Review Priorities	Contribution Level	The Substantial Impact on Legal Characterization
Creative intent dominates	The initial specificity of the prompt words and the clear directionality of the creative goals	Very high	Determine whether the product has an initial subjective intention
Prompt Engineering Quality	Corpus innovativeness, detail granularity (environment, light and shadow), style limitation	High	Determine the intensity of personalized expression and the ability to defend against infringement
Subsequent substantive editing	The proportion of manual modification of the generated results and multiple rounds of creative intervention	Medium	Determine the physical control of human intelligence over the final generated form
Underlying technology dependency	The degree of autonomous random completion of visual expressions by the model and the uncontrollability of parameters	Low	Reverse deduction metrics measure the proportion of forced intervention in machine

			probabilistic operations
External application scenarios	Whether the product fits the requirements of the particular context and the market economic value it contains	Very low	Auxiliary discretion standards, indirectly confirming the density of labor input and commercial legitimacy

The core logic of the system is that the more specific the user's prompt behavior and the stronger the system's control, the greater the share of rights and the greater the exclusive effect of the final AIGC product should be; Otherwise, the contribution will be judged as very low to prevent the unjustified privatization of public knowledge resources.

6. Differentiated Allocation of Specific Civil Rights in AIGC

After clarifying the actual contribution based on the quantitative framework, the rights under traditional copyright can be disassembled and restructured. In the face of highly complex commercial application scenarios, the deconstruction and redistribution of rights will become the norm in the digital economy era.

6.1 Dynamic Distribution of Specific Civil Rights

The allocation of rights in AIGC should follow refined rules based on the behavioral characteristics and forms of capital input of different subjects.

The right of attribution has both protection of personality and fact-tracing attributes. The core right of attribution should be granted to a specific user for a work in which the user plays a

dominant role that reflects a high level of intellectual input. In order to defend the public's right to know, strict explicit obligations of "algorithmic generation" must be established through mandatory norms, and composite identification should be adopted to confirm the objective role of human instructions and algorithmic technology.

In terms of the division of property rights, users in deep co-creation scenarios may enjoy exclusive rights to network dissemination and commercial monetization. For AIGC platforms, their commercial monetization has been achieved through technical service fees, and they have no right to claim direct copyright revenue from terminal products. At the same time, the law must reserve a revenue compensation channel for training data providers and compensate to the original rights holders of the sampled data through mechanisms such as the legally mandated collective compensation fund. For the secondary creation of derivative works, necessary restrictive protection should be imposed and a lenient space for reasonable use should be given. Based on the above allocation logic, the differentiated allocation of specific civil rights among different subjects is presented in Table 2.

Table 2. Differentiated Allocation Matrix of Specific Civil Rights in AIGC Based on Multiple Subjects

Category of Rights	User Subject (Role of the Inputter of Instructions)	Service Provider (Role of Algorithmic Platform)	Data Provider (Original rights holder)	Boundaries of Public Interest Considerations
Right of attribution	When the contribution level meets the required standard, the right of attribution of the creator is granted, highlighting the intellectual achievements	Enjoy rights to technical support identification and undertake the obligation to disclose AI-generated facts	Have the right to request collective names on the whitelist of the dataset officially published by the large model	To curb the prevalence of disinformation and avoid public confusion
Right to disseminate	Enjoy exclusive online dissemination rights when the intervention meets the required standard	Service providers do not automatically acquire distribution rights unless agreed by contract	There is no right to interfere with the dissemination of a specific generation, unless the evidence provided constitutes substantial similarity	Break down monopoly barriers and promote the flow of new cultural products in cyberspace
Right to remuneration	Enjoy the core benefits of directly participating in the commercialization of the results generated	The profit model is limited to technical service fees, and it is strictly prohibited to	Obtain industry compensation through statutory compensation funds or commission	Guard against the use of computing power hegemony to achieve

		engage in back-end copyright sharing	mechanisms	winner-takes-all and maintain industrial balance
Rights of adaptation	Derivative rights are enjoyed, but the boundaries of exclusivity are strictly limited compared to pure human works	It does not have the right to interfere with the user's subsequent modifications and secondary interpretations	If the "adaptation" is a mechanical reproduction of the original work, the data provider has the right to resort to tort regulations	Create a relaxed digital cultural atmosphere and encourage secondary creation and collective wisdom

6.2 Allocation of Tort Liability and Application of the Safe Harbor Rule

The refinement of rights allocation requires the liability system to align with it. Breaking down the creative process of generative AI into two key stages of data training and content output, and systematically dissecting the criteria for determining infringement and the mechanism for allocating liability, is the key to resolving the legal system dilemma¹⁵.

In the model training phase on the input side, massive data consumption poses a direct threat to the original rights holders. Unless the service provider can prove that its actions conform to extremely strict fair use standards, it must bear primary tort liability. The traditional "safe harbor principle" is declared invalid in the determination of infringement at the output generation stage. The platform not only controls the algorithmic framework, but its algorithmic rules are substantially involved in the generation of content and are no longer a neutral technical service provider.

In normal scenarios, service providers should be held accountable for algorithmic vulnerabilities or contamination of training data. If it is confirmed that the user deliberately forced the model to generate infringing content through adversarial prompts, the user shall bear the primary liability as the direct infringer. Introducing "future-oriented proactive review obligations" and taking measures to eliminate potential risks within the limits permitted by technology is an essential requirement for maintaining a dynamic balance between technological evolution and the protection of prior rights.

7. Conclusion

Generative AI is reshaping the paradigm of knowledge production and dissemination in all directions. In the face of the legal shock caused by the technological revolution, stubbornly seeking a single author that perfectly fits the ideas of the industrial age is doomed to be in

vain. AIGC has evolved into a complex product of the deep integration of massive data, algorithmic power and human instructions.

The research paradigm shift advocated in this paper, which shifts the focus from the static "ownership of rights" to the dynamic "allocation of interests", is a pragmatic legal response to the essence of technology. By introducing legal principles such as contracts for work and unjust enrichment in the civil law system, an evaluation index system based on "multi-dimensional contribution" and a rights differentiation allocation matrix are constructed, providing practical guidance for the precise demarcation of rights and power at the micro-adjudication level; At the macro industrial level, this framework alleviates the imbalance of interests caused by platform monopolies through the prescribed data compensation mechanism and the dynamically evolving tort liability system. The ultimate goal of legal regulation of AIGC is to build a sound legal ecosystem that continuously incentivizes innovation, guarantees fair returns for multiple subjects, and maintains the value of human subjects.

References

- [1] Li Yaqi. Research on Copyright Issues of Generative Artificial Intelligence [J]. High Technology and Commercialization, 2020,31(12):123-125.
- [2] Feng Xiaoqing, Pan Baihua. Research on the Recognition of AI 'Creation' and the Protection of Its Property Rights and Interests - Also Commenting on "The First Case of Copyright Infringement of AI-Generated Content" [J]. Journal of Northwest University (Philosophy and Social Sciences Edition), 2020,50(02):39-52.
- [3] Liu Congyi. Research on Copyright Ownership of Generative Artificial Intelligence Works [J]. Hebei Qiye, 2025, (02):153-156.
- [4] Tu Teng. On the Act of Creation under Copyright Law: An Entry Point on the Copyright Dispute of AI-Generated Content

- [J]. Tsinghua University Law Journal, 2026, 20(03): 58-76.
- [5] Jiang Xiaoqi, Zhang Lei, Wang Yunze. Research on Copyright Ownership of Generative AI-Generated Content in Dissertations [J]. China Brand and Anti-counterfeiting, 2025, (08): 80-82.
- [6] Huang Li. Behavioral Regulatory Models for Copyright Protection of AI-Generated Content: A Case Study of Sora Text-Generated Video [J]. Press Circles, 2024, (06): 59-73.
- [7] Zhong Jiahao. Copyright Protection of Content Created by Virtual Digital Humans in the Metaverse: A Perspective Based on Comparison with AI-Generated Content [J]. Journal of Shaoyang University (Social Science Edition), 24, 23(01): 45-54.
- [8] Feng Xiaoqing, Shen Yun. Research on Copyright Issues of Generative Artificial Intelligence [J]. China Copyright, 2023, (02): 15-22.
- [9] Wang Ruoyu, Hu Shensong. Data Traceability Dilemma and Collaborative Governance Path Based on Copyright Recognition of Generative AI Content [J]. Journal of Kunming University of Science and Technology (Social Sciences), 25, 25(06): 32-40.
- [10] Liu Yunkai. Copyright Infringement Risk and Tort Liability Allocation of AI-Generated Content [J]. Journal of Xi'an Jiaotong University (Social Sciences Edition), 24, 44(06): 166-177.
- [11] Wei Taotao. Infringement Risks and Regulatory Pathways of Generative AI Training Data [J]. Journal of Qinghai Nationalities Institute (Social Sciences), 25, 51(04): 179-189.
- [12] He Qiongqiong, Yue Chunxiao. Copyright risks in generative AI creation and their Resolution [J]. Journal of Zhejiang Shuren University, 2020, 25(01): 70-81.
- [13] Chen Wenxing. Copyright Risks and Recognition Paths for Generative Artificial Intelligence Content Creation [J]. Legality Vision, 2025, (32): 25-27.
- [14] Zhou Zezhong, Li Xin. Copyright Infringement Risks and Solutions in Data Mining: From the perspective of Generative AI Creation [J]. Journal of Foshan University (Social Science Edition), 24, 42(06): 32-38.
- [15] Guo Peng, Li Ruihan. Copyright Infringement Risks and Institutional Responses of Generative AI "creations" - Also Comment on "The World's First AIGC Infringement Case" [J]. Journal of Guangxi University of Finance and Economics, 25, 38(03): 56-67.