

Application and improvement of platform "Safe Harbor Rules"—focusing on copyright infringement

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Abstract. With the widespread adoption of short videos and cloud drives, massive amounts of content have spread continuously, leading to frequent copyright disputes, with platform responsibility becoming the focal point of contention. Among them, the "Safe Harbor Rule" serves as the core rule balancing copyright protection and digital industry development. Centered on the notification-delete rules in Articles 1195 and 1196 of the *Civil Code* of the People's Republic of China, it limits platform responsibilities to reduce uncertainty in the digital industry and promote innovation. However, under the backdrop of AI algorithm recommendations and covert and large-scale infringement, traditional rules have faced problems such as high costs for rights protection, low infringement costs, malicious infringement, and repeated infringement. This paper starts from institutional logic, economic efficiency, and fair value, and integrates with China's legislative and judicial practices. It proposes a comprehensive path for platforms such as tiered obligations, optimizing rules, and reasonably allocating infringement liabilities. It advocates for more efficient and economical liability allocation, while balancing rights protection and innovation freedom, to promote the healthy development of the digital content industry.

Keywords: copyright infringement, Safe Harbor Rules, notification-delete the rule, platform responsibilities

1. Introduction

With the rapid development of internet technology and cloud storage technology, digital services such as short video cloud drives have become the core carriers for content production and dissemination. On one hand, this greatly lowers the barriers to creation and distribution, but on the other hand, it has led to rampant unauthorized copying, distribution, and reposting of infringements. Creators (as rights holders) face difficulties in evidence collection, high costs, and low compensation when defending their rights; Relevant platforms advocate for exemption based on user-generated content and technological neutrality, and judicial and legislative aspects need to balance copyright protection with encouraging innovation.

China has introduced the "Safe Haven Rule" from the Digital Millennium Copyright Act (DMCA), originating from the United States, and has established a notification-mandatory measures framework in the *Regulations on the Protection of the Right to "Dissemination of Information Networks"* and the *PRC Civil Code* imposing liability limits on network service providers [1]. This system effectively reduced the legal costs of platforms in the early days of the internet and stabilized the industry. But now, the digital industry has seen

large-scale UGC output, intelligent algorithms proactively pushing data, cloud storage transfers, and private sharing. Traditional passive rules can no longer restrict these behaviors, and the balance between efficiency and fairness is seriously imbalanced, causing problems in mechanisms that encourage innovation.

This article focuses on the costs and benefits of copyright maintenance, the institutional logic and economic implications of the "safe harbor rule," conflicts between efficiency and fairness in application, and methods for improvement. This study can provide theoretical and practical references for optimizing digital copyright governance and platform responsibility allocation.

2. Causes of intellectual property protection and cost-benefit analysis of copyright protection

2.1. Institutional causes of copyright protection

The core function of the copyright system is to address the externalities of public goods through the definition of property rights, thereby incentivizing the creation and dissemination of works. Works are non-exclusive and non-competitive, and without protection, they are easily "free-riding," leading to insufficient creative investment and market failure. In a digital context, the cost of copying and disseminating works approaches zero, and the profits from infringement are significantly higher than the costs. This further amplifies market failures and requires legal reinforcement of exclusive rights.

Infringement in short videos and cloud drives is characterized by a large volume, high covertness, and cross-platform nature: users uploading anonymously, changing file names to evade detection, and spreading via private links, making it difficult for rights holders to stop infringement and forcing them to hold platforms accountable. Therefore, platform responsibility has become a key focus of copyright protection.

2.2. Cost-benefit structure of copyright protection

From the rights holder perspective, the revenue comes from monopoly markets and licensing revenue; Costs include testing, evidence collection, notification, litigation, and time costs. In digital scenarios, the cost for rights holders to defend their rights far exceeds that for infringement compensation, resulting in a predicament where the gains outweigh the costs and reducing their willingness to defend their rights.

From the perspective of relevant platforms: the benefits of complying with legal rules include exemption from liability, stable operations, and low litigation risk; Costs include labor and technical investment for review, deletion, and customer service. Early platforms mainly used dynamic responses (i.e., feedback and handling), with proactive review costs too high, and they tended to rely more on "safe havens" for exemption [2].

From a social perspective: the benefits are to encourage creative behavior, promote industrial development, and increase cultural supply; Costs include rule enforcement, regulation, and coordination in cases of rights conflicts. Excessive protection raises the cost of communication and restricts expression and innovation; Inadequate protection can suppress creative behavior, reduce the desire to create, and harm long-term efficiency.

Economic logic shows that the optimal protection method is to internalize the externalities of infringement, matching responsibility with the ability to prevent, thereby minimizing total social costs and maximizing total benefits.

3. The institutional logic and economic implications of the platform's "Safe Harbor Rule"

3.1. Basic content of the "Safe Harbor Rule"

The "Safe Harbor Rule" originated from Section 512 of the U.S. *Digital Millennium Copyright Act* (DMCA) of 1998. Its core is notification—removal: if a platform is unaware of a user's infringement and does not directly profit from infringement, and takes necessary measures such as deletion or blocking after receiving a qualified notice, it can limit or exempt liability for compensation.

China's legislation is gradually being improved: the "Regulations on the Protection of the Right to Disseminate Information Networks" preliminarily establishes rules [3]; Articles 1195 and 1197 of the *PRC Civil Code* expand "notification—deletion" to "notification—necessary measures," and clarify: if one knows or should have known of infringement and fails to take measures, responsibility shall be borne, integrating the red flag standard to form a passive exemption + active fault attribution system¹. The rules apply to information storage spaces, search links, cloud drives, short video platforms, etc., and serve as the fundamental basis for online copyright adjudication in China.

3.2. Economic reasons for platform exemption and mitigation of liability

3.2.1. Reduce platform operating costs

Early platforms had limited technology. Faced with massive user uploads, conducting comprehensive pre-review is not economically feasible. The "Safe Harbor Rule" assigns the main responsibility for monitoring and detecting infringement to rights holders, while platforms only bear post-incident handling obligations, significantly reducing review and compliance costs, preventing small and micro platforms from exiting the market due to excessive responsibility, and maintaining market competitiveness.

3.2.2. Reducing uncertainty in the content industry

The digital industry is characterized by high investment, high risk, and rapid iteration. Vague or excessive platform responsibilities stifle investment and innovation. Clear exemption conditions provide platforms with stable expectations, allowing them to focus on technological and service innovation while reducing issues such as excessive content censorship and insufficient innovation investment caused by liability risks, thereby stabilizing the industry ecosystem.

3.2.3. Promote the overall development of the digital economy

The rules achieve a balance of interests among rights holders, relevant platforms, and the public, ensuring that right holders obtain rapid, low-cost remedies; relevant platforms secure room for development; and the public have access to abundant information and freedom of speech. This balance drives content creation, dissemination, and consumption, supports the expansion of the digital economy, and has become an important institutional foundation in the development of the internet industry.

¹ Civil Code of the People's Republic of China, arts. 1195-1197 (2020).

4. The imbalance between efficiency and fairness in the application of safe haven rules

4.1 Notification—removing the rule of reality

4.1.1. *Malicious platforms allow "repeatedly listing" infringing content*

Some platforms exploit the passivity of the "safe harbor rule," receiving notifications to delete only a single piece of content without removing all related content, nor do they block or restrict account profile filtering or other measures. Infringing content changes its title or cover and then re-uploads, creating a vicious cycle of "delete—shelf—delete again," leaving rights holders exhausted and becoming a mere compliance tool without its intended function [4]. Short video platforms use intelligent algorithmic recommendations to amplify the dissemination effect of infringing content. Platforms can gain traffic and advertising revenue from this without bearing the corresponding responsibilities and costs.

4.1.2. *Low cost of infringement, high cost of rights protection*

Individual infringers are scattered and anonymous, with limited profits from individual infringements but significant scale effects; Rights holders need to verify evidence to issue qualified notices, track and handle infringements, and respond to counter-notices from infringers, which is costly in time and economic cost [5]. Compensation through judicial means is usually lower than actual losses, making it difficult to protect the legitimate rights of rights holders and effectively deter infringement, resulting in the dilemma of "tort benefiting but rights protection suffering," undermining fairness and efficiency.

4.2. Externalities not internalized and moral hazard

The negative externalities of infringement during rule operation are fully internalized. Relevant platforms and infringing users gain traffic and money, while costs of rights protection and losses in creative incentives reduce creative desire and damage to the digital industry order, resulting in costs and benefits borne by rights holders and society, resulting in a cost-benefit mismatch [6].

It also triggers moral hazard and free-riding. Platforms relax review to expand content supply and user base, passing copyright infringement risks onto rights holders; Some users arbitrarily commit infringements, relying on the platform's exemption and protection; Rights holders, faced with the high cost of defending their rights, choose to abandon them, leading to normalized infringement and undermining the digital market order and creative ecosystem.

5. The path to improving china's safe haven rules

5.1. Protection obligations are set in tiers according to platform type

To better manage, it is necessary to abandon the one-size-fits-all responsibility model and implement differentiated allocation of obligations based on different service types, technical capabilities, infringement risks, and control capabilities [2].

For basic storage and transmission platforms (such as pure cloud drives and Content Delivery Networks), the traditional "safe harbor rule" should be maintained, centered on notification-processing, without imposing universal pre-approval obligations [3].

For content distribution and recommendation categories (such as Xiaohongshu, Toutiao, etc.), the duty of care should be strengthened. For popular films, well-known music, and key warning works, mechanisms

should be established for copyright filtering, feature identification, and interception of repeated infringement, giving platforms greater initiative to respond to their own prevention obligations [1].

For mega-platforms (such as TikTok, YouTube, etc.), it is necessary to more precisely assume obligations such as infringement prevention, governance effectiveness evaluation, and data reporting based on their market position and technical capabilities, achieving a balance between rights protection and industry development.

Setting protection obligations by platform type in hierarchy aligns with the principle of cost minimization, allowing entities better able to prevent infringement at low cost to bear more responsibility, thereby improving overall governance efficiency in the digital industry.

5.2. Optimized the "notification—deletion—counter-notification" procedural rule

First, it should be clearly required to provide rights holder information, proof of ownership, location of infringement, and preliminary evidence, to prevent malicious and erroneous notifications, and reduce the platform's cost of handling invalidity [4].

Second, if users need to issue counter-notifications, they must provide their true identity and guarantee non-infringement. Malicious counter-notifications should bear punitive damages to prevent infringers from using procedures to delay or obstruct rights protection.

Third, for users who repeatedly infringe on others and high-frequency infringing works, relevant platforms should automatically block and restrict uploads, ban accounts, and upgrade single deletions to long-term, continuous prevention to more effectively curb repeated infringement chaos.

Finally, copyright holders submit a list of key protected works, and platforms should prioritize monitoring and rapid processing to reduce post-incident response costs and improve the precision of infringement governance.

5.3. Compensation mechanism and liability sharing

Responsibility allocation based on the principle of minimizing prevention costs: If a platform can prevent infringement at lower technical and management costs but fails to take reasonable measures, resulting in infringement, it is found to be at fault and bears joint liability for the expanded damage². Introduce punitive damages to address intentional, repeated, large-scale infringements, and situations where relevant platforms knowingly allow infringement to occur, increasing the cost of violations and creating effective deterrence; Establish reasonable cost sharing, with necessary expenses for rights holders jointly and reasonably shared by the infringer and the platform to alleviate the cost pressure for rights holders.

6. Conclusion

The "safe harbor rule" is an efficiency-oriented institutional arrangement that, in the early stages of internet development, can effectively balance copyright protection, platform innovation, and public interest, driving rapid growth of the digital economy. However, the internet has entered a new stage of short video and cloud storage popularization. Driven by intelligent algorithms, scaling up copyright infringements, and covert transmission channels, traditional "safe harbor rules" face dual challenges in handling efficiency and fairness.

² Supreme People's Court. (2012). Provisions on several issues concerning the application of law in the trial of civil disputes infringing on the right to disseminate information networks.

Internalization of externalities in works still exists, while moral hazard and reverse incentives become prominent, making the "safe harbor rule" face new challenges and problems with a lack of strength.

To better respond to future trends in the digital industry, the safe harbor rules must adhere to the original intention of balancing interests, focusing on more economical and reasonable responsibility allocation, optimizing procedural rules through platform tiered obligations, reasonably sharing infringement compensation liabilities, and achieving copyright protection for rights holders, digital industry innovation, and coordinated progress in freedom of expression. Not only should excessive allocation of responsibility dampen innovation be avoided, but also infringement exploiting loopholes should be prevented, forming a digital copyright governance system that can encourage creation, regulate dissemination, and provide a solid institutional guarantee for the high-quality development of the digital industry. This paper has not yet delved into more specific methods for improving the "safe harbor rule." Future research can focus on improving methods that make it easier to manage and protect the legitimate rights and interests of rights holders.

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