

Research on Improving the Duty of Care of Short Video Platforms Under the Background of Algorithm Recommendation: Focus on Chinese Law

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Abstract: Rapid advancements in internet and algorithmic technologies have accelerated digital work dissemination on short video platforms. However, algorithmic recommendations, appearing neutral, pose copyright infringement risks and legal challenges. This paper explores the expansion of copyright duty of care on these platforms, assessing necessity and measures. It clarifies notice and review obligations, addressing algorithmic impacts on traditional rules and "should-have-known" determinations. Adhering to proportionality, it balances interests to foster healthy development and a robust copyright framework.

1 INTRODUCTION

With the rapid development of Internet technology, especially the wide application of big data and artificial intelligence technology, human society has ushered in the era of unprecedented information explosion. The user faces the dilemma of "information overload," which makes it difficult to screen information effectively (Zhou, 2023). In order to solve this problem, the algorithm recommendation technology emerges as the times require. By analyzing users' habits and hobbies, it can accurately push personalized content for users, greatly improving user experience and information acquisition efficiency. But it also accelerates and deepens the infringement degree of the platform to the relevant works. On the one hand, the algorithm takes the actions of cutting, carrying and quick reading to others' works when pushing accurately (Zhang and Wang, 2022). In addition, within the scope of copyright law protection, the content covered by the algorithm recommendation technology is wide, involving literary works, pictures, music, video and other types of works, as well as materials that infringe the copyright of others uploaded by the user, which aggravates the scope of infringement of the algorithm push. On the other hand, the precision push of the algorithm accelerates the propagation speed of the works and expands the scope of infringement and the consequences of

damage. However, the increasing impact of the algorithm push tort is accompanied by the high profits of the platform. The recommendation technology of the algorithm improves the viscous users and the traffic of the platform through the accurate push and the customer psychology, and the platform has obtained higher economic benefits.

Under the recommendation of the algorithm, the traditional red flag principle or the safe harbor principle has been unable to achieve a good balance of interests. "The rules of safe harbor" has become the protection umbrella of short video platform. Because of its harsh exemption conditions, it is very easy to be abused by the platform, and the platform only undertakes the obligation of notification and cancellation. "Red flag principle" on obvious infringement also lack of specific provisions, let many people desperate to risk. Nowadays, short video platform is an important link and main carrier of information dissemination, and the connotation and boundary of its duty of attention have changed remarkably. Therefore, it is a necessary task to further study the responsibility of network platform.

The purpose of this paper is to explore how to improve the attention obligation of short video platform under the background of algorithm recommendation. First of all, based on the traditional legal principles and its failure under the new algorithm technology, this paper discusses the current reasons, combined with judicial cases and existing

research results, analyzes the challenges and dilemmas of traditional attention obligations in the algorithm push era. Secondly, the paper analyzes the necessity and possibility of expanding the duty of attention of short video platform. At last, we try to construct a comprehensive system of attention obligation of short video platform from three stages: Before, during and after, and discuss the expansion limit of attention obligation in each stage (Zhang, 2022).

The research of this paper has profound and extensive theoretical and practical significance. In theory, the purpose of this study is to enrich the copyright protection theory system under the rapid development of algorithm recommendation technology, and to provide a new perspective and method for defining the attention obligation of short video platform. In practice, the research results can provide reliable reference and guidance for judicial practice, help the court to more accurately define the responsibility of the platform when dealing with new copyright dispute cases, and urge the short video platform to strengthen the internal management, improve the copyright protection level, optimize the network environment and promote the prosperity and development of network ecology.

2 EFFECT OF ALGORITHM RECOMMENDATION MECHANISM ON PLATFORM ATTENTION OBLIGATION

2.1 General Provisions on Duty of Care for Traditional Platforms

Under the traditional network environment, the duty of attention of network service providers is mainly defined by the "red flag principle" and the "safe harbor principle."

The rules of safe harbor occupy the core position in the civil network tort, and it sets a clear responsibility limit and action framework for the network platform. When copyright infringement occurs, the right holder can immediately notify the network platform to take measures such as removing the infringement content or disconnecting the link. Upon receipt of the notification, the network platform shall promptly convey the notification to the infringer and take actions to prevent the infringement from spreading. This provides a security defense barrier for network service providers, especially those who only provide space services and do not directly participate

in content production. As long as the network service provider does not know the infringement content, or can respond quickly after receiving the notice, it can be exempted from the infringement liability.

However, as an important supplement to the rules of the safe harbor, the red flag rules put forward more stringent requirements for the network platform. It requires the network platform to take active measures against obvious infringement even if it has not received the right holder's notice when providing the work storage or search or association service. If the network platform knowingly or should knowingly have obvious tort but deliberately neglects, it will no longer enjoy the protection of safe harbor, and shall bear legal responsibility (Xie, 2022). This rule ensures that while the network platform enjoys protection, it is also required to perform supervision and management duties to prevent infringement.

In China's legal system, the red flag rules and the rules of the safe harbor are mainly embodied in the Civil Code of the People's Republic of China and the Regulations on the Protection of the Right of Information Network Communication. Article 1,195 of the Civil Code specifies the right of the obligee to notify and the measures to be taken by the network service provider, requiring the network service provider to take necessary measures based on the preliminary evidence and the type of service after receiving the notification, otherwise, it is necessary to bear joint and several liabilities with the network user for the extended damage. At the same time, if the network service provider knows or ought to know that the network user infringes the civil rights and interests of others by using its services and fails to take necessary measures, it shall also bear joint and several liabilities.

The Regulation on the Protection of the Right of Information Network Communication further details the application of the rules of safe harbor and red flag. It sets out the procedure for the obligee to submit a written notice to the network service provider, as well as the exemption conditions and joint tort liability of the network service provider under certain circumstances. These regulations not only strengthen the sense of responsibility of network service providers, but also ensure the effective protection of the legitimate rights and interests of the right holders.

2.2 The Algorithm Recommendation Mechanism Affects the Copyright Infringement

Firstly, the algorithm recommendation mechanism expands the scope of infringing works, which causes

the infringement to the copyright owner and the works themselves. Taking the case of "Yanxi Strategy" as an example, Beijing Aiqiyi Technology Co., Ltd. sued Beijing Byte Jump Technology Co., Ltd., accusing it of pushing a large number of video clips of "Yanxi Strategy" suspected of infringement through the algorithm recommendation technology of the dithering platform, which significantly expanded the audience of the infringing works and aggravated the harm degree of the infringing act. It can be seen that the short video platform relies on the algorithm technology to make a lot of money, at the same time, it lacks the necessary responsibility, and the vested interests and burdens are obviously unbalanced. Some scholars point out that although the algorithm recommendation technology improves the user experience, it may also become the "accelerator" of infringing works, and become the "accomplice" of infringing acts (Mei and Hou, 2022).

Secondly, the technical means of the algorithm recommendation mechanism itself is very easy to cause infringement. Cutting, carrying, quick-reading and other technical means involve the adaptation or re-creation of the original work, if not approved by the original author, it may constitute infringement, and more confusing. In the case of "Yanxi Solicitation," the infringing video on the dithering platform may be processed and disseminated through these technical means, which significantly increases the risk of infringing.

Thirdly, there are many kinds of infringement works under the algorithm recommendation mechanism. The occurrence of tort is not only limited to film and television works, but also includes literary works, pictures, music and video. These works are recommended under the promotion of the algorithm recommendation mechanism. Among them, there are many materials that infringe the copyright of others. The widespread dissemination of the infringing works severely hits the creative enthusiasm of the creators, greatly damages the interests of the creators, and thus destroys the healthy development of the intellectual property market.

Finally, the cost burden of the platform attention obligation and the obtained benefits are seriously unbalanced under the algorithm recommendation mechanism. In the short-term video ecology, the nature of the publisher's identity has changed from a non-profit individual user to a profit collective organization. As an important carrier of the product of intellectual property rights, the role and responsibility of the network platform should be adjusted accordingly. Under the background of prominent economic value of short video, the

platform that does not need to undertake the obligation of active content review should take the initiative to adapt to the current situation of development and undertake a higher duty of attention so as to manage the publication of works uniformly. The platform should protect creator autonomy, stimulate creative vitality, and strengthen the monitoring and crackdown on infringement to safeguard the fairness and justice of intellectual property market. The court finally held that the byte jumping company constituted a helping tort. This view represents that the judicial circles' position on the application of traditional principles is being adjusted.

2.3 Traditional Platform Attention Obligation Rules Fail Towards the Algorithm Recommendation Mechanism

In the current copyright protection field, the copyright holders are facing a series of unprecedented complex challenges, and the fuzzy application of traditional principles to this serious situation is compounded. Taking CAI Jiming and Baidu Company's reputation dispute case as an example, this problem was profoundly revealed. CAI Jiming, as a member of the CPPCC Committee, aroused wide attention after issuing the holiday reform proposal, and then the network users set up the "CAI Jiming Bar" in the Baidu post bar for the purpose of abuse and slander, released a large number of insults and defamatory content, and disclosed its personal sensitive information. CAI Jiming repeatedly asked Baidu to delete the infringement information, but Baidu failed to take effective measures in time. During the trial of the case, the court of first instance held that Baidu had fulfilled its obligations and did not constitute infringement; The court of second instance held that Baidu Company should bear the corresponding tort liability. This case fully shows the ambiguity and uncertainty of the "know or ought to know" standard under the traditional rules, which brings great difficulty to the trial of cases. The network platform often takes this as a shield, adopts the attitude of negative coping, and neglects the active monitoring and prevention of tort.

When setting the responsibility of network platform, the traditional principle tends to put the network platform in a relatively loose responsibility framework. In particular, once a network platform is notified by the copyright owner, it can be exempted in most cases by simply removing or shielding. This method greatly blurs the tort duty of attention of the

network platform, provides a more loose living environment for tort works, thus intensifies the spreading speed and scope of tort works. And, the responsibility awareness of the network platform in the aspect of copyright protection becomes thin. Many network platforms often take this as a shield and take a negative attitude towards copyright protection, neglecting the active monitoring and prevention of infringement. This negative attitude leads to the tort in the cyber space, the copyright holder's legitimate rights and interests can not be timely and effective protection. For example, some network platforms, after receiving complaints from copyright owners, take removal or shielding measures, but often only target specific infringement links or content, without comprehensively cleaning up and punishing the infringement. The practice of "cure the standard without cure the root" makes the infringement appear repeatedly on the network platform, and the rights and interests of the copyrighter continue to be infringed.

Further, the evasion of network platform's responsibility in copyright protection is also reflected in its use of technology neutrality as a defense. In today's highly developed algorithm recommendation technology, the network platform, as the control and application of technology, is fully equipped with corresponding monitoring ability to effectively contain the occurrence of tort. However, the network platform is often based on technology neutrality, claiming that it can not know the occurrence of the infringement, thus trying to avoid the responsibility. This approach is obviously inconsistent with the actual application of the algorithm recommendation technology. In fact, the algorithm recommendation technology not only makes the infringing content spread quickly, but also provides the network platform with the possibility of accurate monitoring and management of the content. The network platform can identify and filter the content of infringement through technical means, so as to effectively prevent the spread of infringement. The existing "know or ought to know" responsibility identification standard is too general and lack of operability, so that the network platform can easily avoid the responsibility on the ground of ignorance. In practice, it is difficult for copyright holders to prove that the network platform "knows or should know" the existence of infringement, while the network platform often defends on the ground of ignorance. This kind of derogatory situation not only makes the legitimate rights and interests of copyrighters unable to be protected timely and

effectively, but also damages the authority and credibility of copyright protection system.

In addition, the benefits obtained by the network platform due to the algorithm recommendation technology are seriously mismatched with its duty of care. The network platform can accurately push the content that users are interested in through the algorithm recommendation technology, thus obtaining the huge commercial benefits. However, the duty of care in copyright protection of network platform has not been improved correspondingly. This imbalance of interests and obligations not only damages the legitimate rights and interests of copyrighters, but also undermines the fairness and validity of copyright protection system. While enjoying the dividend brought by the algorithm recommendation technology, the network platform should also bear the corresponding copyright protection responsibility. However, the existing laws, regulations and institutional design have not made clear and concrete stipulations on the responsibility of the network platform, which makes the network platform have obvious lack of responsibility on the copyright protection.

3 SUGGESTIONS ON ATTENTION OBLIGATION OF RECONFIGURATION PLATFORM IN ALGORITHM RECOMMENDATION ERA

3.1 Judgment Standard of Detailed and Expanded Duty of Care

Under the background of increasing popularity of algorithm recommendation technology, it is very important to refine and appropriately expand the judgment standard of attention obligation of network service providers. Firstly, the application of red flag rules needs to be further refined. As mentioned above, the Red Flag Rule requires that the Internet Service Provider, when it knows or should know that the infringement exists, immediately take the necessary measures to prevent the continuation of the infringement to minimize the negative impact. In the era of algorithm recommendation, the application of this rule should pay more attention to the evaluation of network platform management information capability, including whether it has sufficient technical means to identify infringement content, and whether it has sufficient understanding of the obvious

degree of infringement information. At the same time, the popularity of the works is also an important basis for judging whether the platform should know the fact of infringement. In addition, whether the platform actively selects, edits and recommends the content should also be taken into consideration, so as to comprehensively assess whether the platform should assume a higher duty of care.

Secondly, the operation process of havens rules should be clearer. The rules of safe harbor provide certain space for the network service platform to be exempted from liability, but the premise is that the platform needs to take timely and effective measures after receiving the infringement notice. Therefore, the content requirements of the infringement notice should be specified, including the processing time, sending method, included information elements, etc. of the notice to ensure that the platform can accurately understand and handle the infringement notice. At the same time, the transfer obligation of the platform after receiving the notice should also be defined, including the object of transfer, time limit, etc. (Li and Guo, 2022). In addition, legal liability for wrongful or negligent notification should be provided to balance the interests of the right holder, the network service provider and the public.

3.2 Duty of Care Times Distinguish Between Network Service Providers

Different types of network service providers should bear different attention obligations due to different business models and technical characteristics. For platforms that provide content storage and publishing services, such as short video platforms, due to their algorithm recommendation technology to precisely match users and advertisements and obtain economic benefits, they should assume a higher duty of care. This kind of platform should establish a perfect content review and filtering mechanism, and use technical means to timely discover and prevent the dissemination of infringing content. At the same time, the platform should also strengthen the audit and management of the content uploaded by users to ensure the legality and compliance of the content (Zhou and Hao, 2022).

In contrast, network service providers that provide basic communication and technical services are not directly involved in uploading or disseminating content, and the user information contacted is extensive and partially private. Thus, such service providers should not be subject to excessive duty of care. Its primary responsibility should focus on the protection of user privacy and freedom of

communication to ensure the security and confidentiality of user information.

Web service providers providing search or link services should not be compelled to adopt filtering techniques or establish filtering mechanisms because they are not the producers or principals of third-party website content and face both technical and commercial cost challenges. However, such service providers should, within their capabilities, take the necessary measures to prevent the dissemination of infringing content. For example, through the establishment of infringement content reporting mechanism, timely response and handling users' reports and complaints to achieve the purpose of blocking infringement.

3.3 Introduction of Advanced Testing Means and Linkage Review Mechanism

With the progress and development of science and technology, advanced detection methods such as blockchain can be introduced to combat piracy of short video. Among them, blockchain technology has the characteristics of decentralization and tampering, which can ensure the authenticity and integrity of data. The platform should actively use the blockchain technology to establish a copyright protection mechanism to realize the quick identification and attack of infringement (Dong and Zheng, 2014). At the same time, the blockchain technology can also reduce the operation cost of the platform and improve the accuracy and efficiency of the infringement detection.

In addition to introducing advanced detection methods, the linkage review mechanism of account and content shall also be established. This mechanism can prevent repeated infringement by establishing a comparison database of infringement content. When it is detected that the recommended content is likely to be infringed, the platform shall suspend the recommendation of the algorithm and transfer to the post-audit section. At the same time, the removed infringing content is put into the database for machine learning, and the copyright comparison library is perfected to reduce the risk of repeated infringement. The implementation of this mechanism will help improve the copyright protection capability and efficiency of the platform.

3.4 Recognition Standard of Lifting Platform Attention Obligation

In view of the booming development of the short-

term video industry and the fact that the benefits and responsibilities of the platform do not match, the recognition standard of the duty of attention of the platform should be properly improved. This not only covers the post-measures such as quick response and link deletion after infringement, but also involves the pre-responsibilities such as original verification before short video uploading and illegal supervision in operation. By improving the recognition standard, the platform can be promoted to perform strict duty of attention in all links of the short video industry chain, forming a clear and complete chain of responsibility (Yi, 2021). For example, before uploading short videos, the platform should strengthen the review and management of the content uploaded by users to ensure the originality and legitimacy of the content; In the operation process, the platform shall establish a perfect copyright protection mechanism and infringement complaint handling mechanism, and timely respond to and handle users' complaints and reports. The implementation of these measures will help to promote the healthy development of the industry and achieve the purpose of protecting the legitimate rights and interests of users (Honor, 2005).

4 CONCLUSION

With the rapid change of algorithm recommendation technology, the role of network platform in information transmission becomes more and more critical, and the connotation and boundary of its duty of attention change deeply. This paper focuses on the copyright infringement of short video platform under the background of recommendation algorithm. It is pointed out that, although the algorithm recommendation technology greatly promotes the user experience and information acquisition efficiency, its "pseudo-neutrality" feature is often used as a tool to avoid liability, resulting in the spread of infringement and the aggravation of harm. Obviously, the traditional copyright duty of care system has been unable to adapt to this new algorithm era, the system of perfection and reconstruction is imperative.

In order to meet this challenge, this paper puts forward the criterion of detailing and expanding the attention obligation of network service providers. Specifically, it is necessary to clarify the specific application situation of red flag rules and safe harbor principles in the algorithm recommendation era, so as to strengthen the responsibility determination of the platform and effectively contain the tort. At the same

time, for different types of network service providers, the differentiated duty of care should be implemented to ensure that the responsibility matches the income and avoid the one-size-fits-all phenomenon of responsibility setting. In addition, by introducing advanced detection means and linkage review mechanism, the copyright protection ability of the platform is constantly improved to provide strong support for combating piracy of short videos and other infringements. The joint review mechanism of account and content can effectively prevent repeated infringement and further reduce user's infringement risk.

However, the practice of perfecting the duty of attention of the platform is not an open road, and the implementation and supervision still face many challenges. How to encourage the innovation and development of the platform while effectively curbing the occurrence of infringement in order to maintain the good environment of the copyright market has become an urgent problem to be solved. Therefore, the legal theory circle, the judicial practice circle and the network platform practitioners should work hand in hand to explore and balance the interests of all parties, strengthen the duty of attention of the network platform, and jointly contribute wisdom and strength to build a fair, just and healthy network ecological environment and the prosperity and development of the intellectual property market. This process is full of challenges, but only in this way can we ensure the copyright ecological stability of the network platform and realize the real sustainable development.

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