

Improvement of Duty of Care in Copyright Infringement of Short Video Platforms under Algorithm Recommendation

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Abstract: Short video platforms actively recommend copyright infringing videos to users using algorithmic recommendation technology, therefore short video platforms should fulfill certain duty of care. Under the circumstances that the algorithm recommendation technology is "pseudo-neutral", the standard of duty of care of short video platform is not clear, and the exemption system of duty of care of short video platform is lacking, the short video platform should be required to integrate the value concept of preventing copyright infringement into the algorithm design, and formulate a reasonable standard of duty of care, and improve the exemption system of duty of care.

Keywords: Algorithmic recommendation; Short video platform; Duty of care; Copyright infringement

1. Introduction

With the development of algorithmic recommendation technology, short video platform has become an important channel for information transmission, as well as a leader in information storage and network services [1]. Short video platform uses a variety of factors, such as user preferences and video popularity, to achieve automated short video content recommendation, greatly improving the efficiency of information dissemination [2]. However, this kind of personalized recommendation has caused some infringement problems, especially in the field of film and television editing and handling, and the short video platform has become the hardest hit area of infringement [3]. Therefore, in the case of widely used recommendation algorithm, the problem of copyright infringement has become the focus of attention.

2. Copyright Dilemma of Duty of Care of Short Video Platform under Algorithm Recommendation

2.1 "Pseudo-neutrality" of Algorithmic Recommendation Techniques

"Technological neutrality" is the continuation of the "common commodity principle" in the United States. In 1984, the Supreme Court of the United States ruled on the case of "Universal Film and Television v. Sony", which marked the emergence of the "Sony Principle", and its emergence marked the formal implementation of copyright [4]. According to copyright law, technology service providers should abide by this principle, even if they know that their technology is suspected of infringement, but if they do not take substantive action to infringe the work, they should not be considered as intentionally helping others to commit infringement, and they should not be liable for the possible infringement of their users.

With the progress of science and technology, more and more people begin to use cloud disk storage to access music and files, which brings new copyright problems, which also means that the "technology neutrality" regulation can no longer meet the current needs. The "Napster" and "Grokster" cases in the United States show that even if technology service providers consciously protect their own interests, they cannot effectively prevent the occurrence of infringement, so their actions may be regarded as indirect infringement [5]. "Technology neutrality" is seen as an important law that emphasizes that network platforms should make every effort to protect the rights and interests of copyright owners. In this case, algorithm recommendation driven short video platforms cannot rely on the principle of "technology neutrality" to evade infringement liability.

Although algorithm recommendation technology [6] is an objective and unconscious programming method, its design and application are all manipulated by the platform. Despite the algorithm's

self-learning ability, short video platforms, as designers, should anticipate the output results of the algorithm and take reasonable actions in subsequent applications. However, the value orientation of programming and its subsequent deployment and application make the algorithm recommendation technology "pseudo-neutrality".

2.2 Ambiguous Duty of Care Standards for Short Video Platforms

The duty of care of short video platforms can be divided into two types: passive and active. In terms of active duty of care, short video platforms need to take measures to stop infringement, such as the "Red Flag Rules" [7]. In terms of passive duty of care, the Regulations on the Protection of the Right to Information Network Communication clearly stipulate that any network service provider who discovers "knowingly" or "should have known" the existence of infringement has the responsibility to take necessary action. However, in terms of fault liability, the specific fault form of short video platform has not yet formed a consensus. Although both "knowing" and "should know" of the passive duty of care refer to intentional infringement, identifying the fault of short video platforms solely as intentional behavior will narrow the scope of infringement liability regulations and cannot protect the legitimate rights and interests of the rights holders. Considering the governance dilemma of short video platforms, if the restriction on "should know" only covers intentional behavior, it will ignore the large number of pirated works, film and television editing, and video moving infringement behaviors in the field, and thus fail to effectively protect the rights and interests of copyright owners. In addition, due to the low threshold for short video creation and simple publishing rules, creators' awareness of copyright is relatively weak. In pursuit of traffic, the platform deliberately guides users to create relevant infringing videos and push them, which also makes it necessary to have a reasonable interpretation of "should know".

2.3 Lack of exemption system for short video platform's duty of care

In judicial practice, the elevated duty of care imposed on short video platforms has resulted in few opportunities to apply Article 4 of the "Provisions on Several Issues Concerning the Application of Law in the Trial of Civil Disputes Involving Infringement of the Right to Information Network Communication". The article clearly stipulates that network service providers can avoid joint infringement liability by proving that they only provide services such as automatic access, transmission, information storage space, search, linking, and file sharing. However, due to the higher standards required of short video platforms, such as stricter content review procedures and increased monitoring of user behavior, it is challenging for them to successfully utilize this exemption clause.

Therefore, in order to ensure public safety, it is necessary to carefully review and improve the registration system of short video platforms, in order to provide more comprehensive legal protection for China's current short video industry.

3. Theoretical Logic of Short Video Platforms Undertaking Higher Duty of Attention under Algorithm Recommendation

Starting from three perspectives: platform role positioning, technological development practices, and cost sharing for preventing infringement, this section demonstrates the legitimacy of algorithm recommendation service providers assuming higher duty of care through platform private power theory, danger control theory, and minimum prevention cost theory.

3.1 Platform Private Power Theory

Max Weber [8] believes that power is a kind of social relationship, which can enable individuals to realize their own will under any circumstances, no matter on what basis. Through the black box feature of the algorithm, the platform has gained strong control capabilities, replaced the role of past market leaders and established a new and influential private right. The theory of platform private power indicates that private subjects have a strong influence in maintaining public order. Balancing the interests of all parties is the core objective of the intellectual property system. Therefore, according to the view of platform private power, we can infer that regulating infringement in cyberspace is not only to protect individual rights, but also to maintain public order in cyberspace.

With the rise of platform private power, the rights of copyright owners are weakened, their status is

challenged, and copyright owners are at a disadvantage. Therefore, the platform should take more measures to safeguard the rights and interests of copyright owners, and actively participate in the protection of intellectual property rights. With the advent of web 2.0, the private rights and technological advantages of the platform have become more powerful, and the previous provisions that allow the platform to detect infringement information on its own have ceased to exist, it is necessary to establish a clear legal responsibility allocation mechanism to ensure that platforms do not abuse the exemption reason of "the platform does not have specific knowledge of infringing content" when using algorithms, and effectively prevent and punish infringing behavior.

3.2 Danger control theory

The danger control theory points out that the danger control ability of the infringer usually far exceeds the control ability of the victim^[9]. This theory is also adopted by China's copyright law norms and is commonly expressed as "information management ability".

As a common subject of tort liability, the control capability of the platform reflects two aspects: firstly, it represents a special connection between the two parties, which can have a significant impact on the other party; Secondly, such damaging behavior must be controlled and influenced by other parties. By using algorithms for recommendations, the platform can to some extent control users' personal information, major platforms are striving to improve their management level and taking a series of measures to improve the quality of content, such as establishing original content platforms, carefully selecting and categorizing. However, due to fierce competition, various platforms often encounter issues such as moving content, updating links, and changing advertisements. In this situation, these platforms should take on more responsibilities, and these responsibilities should be reasonable.

In the algorithm recommendation mode, the control power of the algorithm recommendation mode lies in: on the one hand, it requires the platform to strictly control the algorithm technology; On the other hand, it requires the platform to effectively regulate infringing content. Through algorithm recommendation, the platform will classify, label extract, and risk audit the content uploaded by users to ensure its accuracy and reliability. During the push process, abnormal content will be re audited to ensure the security and effectiveness of the push. Therefore, the platform has the ability to manage and control infringing content in multiple stages of algorithm recommendation, and it is feasible to require it to bear high duty of care.

3.3 Minimum prevention cost theory

According to the minimum prevention cost theory, platforms can take measures to prevent infringement, but only when the cost of preventing infringement is lower than the expected loss caused by infringement can the platform bear higher responsibility. The "Hand Formula" is a study based on Judge Hand, aiming to clarify the rationality of platforms bearing the cost of preventing infringement through " $B < PL$ "^[10]. It provides an analytical reference for platforms to bear reasonable duty of care.

The cost P of preventing infringement can be summarized into two aspects: the first aspect is the cost of handling infringement, which can be achieved through manual review and deletion, or through the use of copyright filtering mechanisms or purchasing related technical reviews. The second part involves error correction costs, aiming to address potential issues in the "accidental injury" copyright filtering system, in order to ensure that users can obtain a fair expression space and receive effective punishment.

In the end, if effective preventive measures are not taken in a timely manner for the losses caused by infringement, the losses of the copyright owner will further expand. The reason is that, on the one hand, based on the principle of algorithm recommendation, those who are interested in infringing content (such as popular TV dramas) can be recommended, thereby promoting and disseminating infringing content in a wider range of regions; On the other hand, with the massive amount of infringement information, copyright owners may face huge economic losses. Therefore, effective preventive measures should be taken in a timely manner to reduce copyright owners' losses.

For the certification of $B < PL$, the Handed formula can provide an effective method to determine their responsibility between the platform and the copyright owner. However, due to the inability to accurately estimate costs, probabilities, and losses in many cases, value evaluation is necessary. Through algorithm recommendation, the platform can obtain huge economic benefits, but this also increases the difficulty of copyright holders in safeguarding their rights, leading to an imbalance of interests between the platform and copyright holders. Therefore, transferring the cost of preventing infringement to the platform can

effectively regulate this interest relationship and protect the rights and interests of both parties.

4. Improvement of Duty of Care on Short Video Platforms under Algorithm Recommendation

4.1 Algorithm design should integrate the value concept of preventing copyright infringement

The algorithm design not only reflects a scientific way of thinking, but also integrates commercial resources, containing rich business values. The provision of 'rationality' is necessary for short video platforms. Therefore, they must ensure that their algorithm design can effectively prevent intellectual property infringement, or at least there is no possibility of infringement.

Therefore, short video platforms should incorporate effective technical specifications into the algorithm design for content recognition and recommendation to ensure that copyright infringement does not occur and improve the transparency of the algorithm. On short video platforms, there are significant differences in the recommendation values of algorithms, which leads to different content and forms of push, and therefore, different duty of care they need to bear. If the traffic-oriented recommendation strategy is adopted, once the first recommendation is concerned, it will rapidly increase the exposure rate, while ignoring the copyright involved, which will lead to serious risk of copyright infringement. However, if a short video platform can integrate the concept of copyright protection into the algorithm design architecture, add measures to prevent infringement in every step of content recommendation, and through multi-level screening, even if it cannot completely prevent infringement content, it can also effectively reduce the economic losses caused by infringement works to the obliging view of this situation, it should be recognized that the algorithm of short video platform is feasible, has fulfilled the reasonable duty of care, and does not need to assume additional duty of care.

4.2 Formulate a reasonable standard of duty of care

In order to safeguard the common interests of short video platforms and copyright owners, we should strengthen the responsibility for them, and more precisely define the scope and standards of responsibility. According to the Civil Code, the determination of infringement liability on media platforms adopts the principle of fault liability. At the same time, by listing the situations of "knowing" and "should know", it emphasizes that the infringement liability of media platforms should be based on the principle of fault liability, and requires the court to comprehensively consider individual case determination to achieve the logic of legislation, closely combining the duty of care with the platform's foresight ability. This means that the standard of duty of care in the construction of copyright judicial practice in China has already been broken through, and even to a certain extent, the "Red Flag Standard" has been abandoned. Under the legislative model of "Concrete Examples+Factorism", the connotation of "should know" has been expanded, and the localization of system transplantation has been completed. In view of the completion of the revision of the Copyright Law, in order to better implement the Copyright Law, the duty of care should be divided into three levels: general duty of care, higher duty of care, and duty of review by issuing judicial interpretation, administrative regulations, and other reasonable ways. According to the European Union's Copyright Directive on the Digital Single Market, short video platforms should divide their scope of responsibility based on their operating years and amounts, and require short video platforms with filtering technology to fulfill their obligation to review and filter.

4.3 Improve the exemption system of duty of care

The duty of care for short video platforms under algorithm recommendation can be divided according to actual situations, including active and passive. Short video platforms have a responsibility to comply with the provisions of the Civil Code and take necessary actions immediately upon receiving infringement notices, which is known as the passive duty of care. The passive duty of care includes the subsequent active duty of short video platforms, and the platform has the responsibility to take proactive actions to prevent infringement, such as timely adoption of technical measures such as blocking, warning, alarm, etc., to ensure that they have not been damaged in any form. Therefore, when determining whether a short video platform has engaged in joint infringement, the platform should provide evidence to ensure that its responsibilities are effectively enforced. If short video platforms can provide sufficient evidence to support their exemption obligations, then forgiveness can be obtained.

5. Conclusion

In the era of technological innovation and platform economic development, the copyright infringement issues brought about by the application of algorithm recommendation as a new business model is a microcosm of the balance between technological innovation and intellectual property protection. Compared to other online platforms that do not use algorithm recommendation, short video platforms have a higher duty of care. Specific measures for short video platforms to fulfill their duty of care should start with the design of algorithms, incorporating concepts of preventing copyright infringement into algorithm design, and formulating reasonable standards for duty of care to enhance the exemption system for short video platform liabilities. By reasonably defining the duty of care for providers of algorithm recommendation services, judicial disputes can be resolved properly, and the balance between technological innovation and intellectual property protection can be achieved. This will guide the application of algorithm recommendation towards ethical advancements, promote the regulation of the market application of new technologies, and improve the responsible behavior of service providers.

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