

A Study on the Challenges and Optimisation Pathways of Open Access (OA) Copyright Licensing Models

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Abstract. Existing Creative Commons (CC) licenses present compatibility issues with the framework of China's Copyright Law. This paper employs a literature review approach to explore the practical challenges and optimization pathways for CC licenses in China's open access publishing sector, with a focus on analyzing the difficulties surrounding the interpretation of terms and the allocation of liability. The study finds that CC licenses suffer from issues such as ambiguous interpretations of non-commercial use and imbalanced allocation of liability. These difficulties stem primarily from the structural differences between the case-by-case balancing approach rooted in common law and China's three-step fair use test, as well as the mismatch between the default allocation of liability under CC licences and China's principles of tort liability. Therefore, localized interpretation rules should be established to clarify publishers' legal obligations and improve supporting mechanisms, thereby promoting deeper alignment with China's legal system and achieving a virtuous cycle between open access and copyright protection.

Keywords: Open Access, Copyright Licensing, Creative Commons Licenses, Liability Allocation

1. Introduction

Open Access (OA) is a vital form of global academic dissemination. With the 2021 amendment to *the Law of the People's Republic of China on Scientific and Technological Progress*, Article 95 explicitly stipulates the promotion of open science, marking the formal incorporation of Open Access into national legislation.

Data indicates that in 2024, Chinese corresponding authors published 313,500 papers in 6,276 OA journals, accounting for 30.09% of global OA publications [1]. With Chinese research contributions underpinning one-third of global OA papers, OA publishing has become an essential component of China's research activities. Copyright licensing constitutes the legal basis for Open Access, and Creative Commons (CC) licenses are the most prevalent standardized licensing frameworks. Originating from the common law tradition, CC licenses encounter regulatory obstacles when operating within China's Copyright Law framework, and these obstacles manifest as specific practical challenges.

To explore these issues, this paper primarily employs literature review and regulatory analysis as its research methods. From the findings emerge a theoretical foundation and practical guidance for

improving China's OA copyright licensing system, which helps regulate OA publishing, promote high-quality open science in China, and enhance its influence in international academic exchange.

2. The practical landscape

CC licences fall under the category of copyright licence agreements as defined in Article 24 of the Copyright Law. Currently, CC licences have been widely adopted by OA journals in China, yet their practical application presents several issues.

At the author level, the problem manifests as insufficient understanding of licensing mechanisms. A questionnaire survey revealed that while nearly 80% of authors expressed concern about copyright issues, 20% were completely unaware of CC licenses, and 56% had only a basic understanding [2]. This contradiction—where authors care about their rights but lack knowledge of relevant mechanisms—may compromise the accurate expression of their licensing intentions.

At the journal agreement level, an analysis of copyright agreements for 318 Chinese OA journals indexed by DOAJ revealed that as many as 44.34% of journals require authors to transfer copyright, with Chinese-language journals accounting for 95.65% of these [3]. Nearly half of OA journals continue to follow the traditional publishing model of 'transfer of rights', which is somewhat at odds with the OA principle of 'retention of rights'.

The legal status of all parties within the publishing industry chain has consequently shifted. Authors are able to retain copyright in their works and independently choose the type of licence, but must also assume the legal liabilities arising from defects in rights; publishers have transitioned to service providers, offering publishing services by collecting article processing charges; and users have changed from licensees to counterparties obtaining authorisation directly from rights holders, and must bear the relevant legal risks themselves.

The issue of applying Creative Commons (CC) licences in China is not merely a technical flaw, but rather points to a lack of alignment between standardised licensing tools originating from the Anglo-American legal system and the framework of China's Copyright Law. Chapter 3 will analyse the manifestations of this mismatch in detail.

3. Analysis of the dilemma

3.1. Interpretative dilemmas

The distinction between 'commercial' and 'non-commercial' use in CC licences is unclear; the problem lies not only in the terms themselves but also in the differences between the two frameworks of assessment. The fair use doctrine under US copyright law is based on a four-factor test, with its theoretical foundation rooted in the 'bundle of rights' attribute of economic copyright. The bundle-of-rights theory regards property rights as a collection of various powers and legal relationships manifested through the utilisation of an object; in theory, property rights in a single object can be divided into an infinite variety of sub-rights [4]. This approach dictates that, when interpreting the boundaries of rights, the tendency is towards a factor-based, case-by-case balancing of interests rather than the pursuit of fixed, rule-based boundaries. The three-step test adopted by China's Copyright Law requires a sequential examination of whether the act of use falls within a statutory exception, whether it affects the normal use of the work, and whether it unreasonably prejudices the rights holder's legitimate rights and interests. This tiered review structure reflects the Copyright Law's inheritance of traditional property rights thinking. The

differences between these two interpretative frameworks mean that the same act may lead to opposite conclusions in different legal contexts.

3.2. The dilemma of liability allocation

This interpretative dilemma renders the meaning of core provisions such as 'non-commercial use' ambiguous, and the allocation of liability lacks a unified normative foundation. This issue manifests itself in different ways in the practices of the three principal parties: users, publishers, and authors.

At the user level, utilising works under a Creative Commons (CC) licence does not exempt users from potential liability for infringement. Although users enjoy the convenience of free access to works, they must also face the legal risks arising from defects in rights; the legal consequences of their use are difficult to predict with certainty prior to the act being carried out. To mitigate such risks, users must independently verify the rights status of the work or choose to reduce or even forgo its use — a situation that deviates from the original intent of Open Access (OA) to promote the dissemination of knowledge.

At the publisher level, there remain certain regulatory gaps regarding the determination of their legal status. Publishers generate revenue by charging article processing charges (APCs), while also organising peer review, formatting and digital processing. Wu Lihong and Liu Shaokun have suggested that the legal positioning of publishers could align more closely with that of online service providers [5]. However, Article 22 of the *Regulations on the Protection of the Right to Disseminate Information via Computer Networks* primarily applies to providers of purely technical support services. Publishers who charge Article Processing Charges (APCs) and are deeply involved in peer review have intervened in the formation and value enhancement of the work's content, representing a clear distinction from purely technical service providers.

At the author level, Creative Commons (CC) licences contain disclaimers of warranty. Pursuant to Article 497 of the Civil Code, standard terms are void if the provider unreasonably exempts itself from liability. Authors are typically in a disadvantaged position during contract formation; permitting them to use standard terms to completely exempt themselves from liability in cases of wilful misconduct or gross negligence is inconsistent with the regulatory objectives of the Civil Code.

The issues at the three levels of users, publishers and authors outlined above indicate that there is a certain degree of mismatch between the current rules on the allocation of liability and the actual roles played by the various parties in the dissemination of works. This model fails to take full account of the sources of interest and the nature of the conduct of different parties within the chain of work utilisation and, therefore, falls short of the principles of liability determination established in China's Civil Code and Copyright Law.

4. Exploring possible pathways

4.1. Formulating rules for the interpretation of localised provisions

The resolution of interpretative dilemmas should be grounded in the domestic legal framework, rather than simply adopting foreign rules. At the same time, one should avoid equating new technical concepts with new legal issues and, even more so, avoid the creation of new rules without first exhausting the literal meaning of existing provisions [6]. Following this line of reasoning, the resolution of interpretative dilemmas should be based on the relevant provisions of Articles 466 and 498 of the Civil Code.

The National Copyright Administration or the China Copyright Association could take the lead in organising relevant experts to formulate guidelines on the application of key provisions of Creative Commons (CC) licences. The purpose of these guidelines would be to clarify ambiguous concepts such as 'non-commercial use' (NC) within the framework for determining fair use set out in Article 24 of China's Copyright Law. Specifically, when determining whether a particular act of use constitutes 'non-commercial use', the key factors for assessment should be whether it is carried out for profit and whether it generates a market substitution effect. The determination of profit-making intent may be based on the direct economic benefits derived from the act of use, whilst the market substitution effect requires an examination of whether such use is likely to replace the normal market value of the original work. This method of determination is consistent with the customary application of the 'three-step test' in China's judicial practice and provides a relatively clear operational standard for the interpretation of the NC clause.

The guidelines should also clarify the rules for interpreting standard terms. Where a provision of a CC licence is open to two or more reasonable interpretations, it shall be interpreted to the detriment of the licensor in accordance with Article 498 of the Civil Code. As standard terms are drafted unilaterally by the licensor, the latter shall bear the adverse consequences arising from any ambiguity in the terms, thereby balancing the rights and obligations of the parties.

4.2. Clarifying the legal status of publishers and standards of duty of care

The practical difficulties faced by users, publishers, and authors reflect a discrepancy between the current rules on liability allocation and the actual roles played by these parties in the dissemination of works. Publishers occupy a pivotal position in these relationships; they serve as intermediaries connecting authors and users, and are key actors within the liability allocation model established by CC licences. Clarifying the legal status of publishers and the standards of their duty of care will help rationalise the rights and obligations between them, users and authors, and provide a normative foundation for liability allocation.

Determining the legal status of publishers requires an analysis grounded in existing regulations. Article 22 of the Regulations on the Protection of the Right to Disseminate Information via Computer Networks defines 'mere providers of network services' as providers of purely technical services such as automatic caching and information storage space; the legislative intent is to exempt such entities from the duty of review. In contrast, publishers who charge article processing fees and organise peer review must not only assess the academic quality of manuscripts through peer review but also undertake formatting and digital processing; these activities involve the selection and presentation of the content of the work. Consequently, such publishers differ substantially from mere technical service providers and should no longer be granted the exemption under the safe harbour rule. Instead, they should be classified as content providers and bear a duty of care commensurate with their commercial gains.

Having clarified the legal status of publishers as content providers, it is necessary to further define the specific scope of their duty of care. Publishers should conduct a formal review of submitted works to identify any obvious infringing content. Such reviews primarily target situations that can be identified without the need for professional judgement, such as large sections of text that are identical to another's published work without attribution, or the direct reproduction of another's charts or diagrams without authorisation. A formal review does not require the publisher to conduct a comprehensive substantive verification of the work's originality, but rather seeks a relatively balanced middle ground between complete exemption from liability and substantive review. Complementing the formal review is the establishment of a rights holder notification and handling

mechanism. Upon receiving a notice of infringement that meets the statutory formal requirements, the publisher shall promptly take action and provide feedback to the notifier, thereby mitigating the infringement in a timely manner. Where the facts of the infringement are clear or have been confirmed following notification by the rights holder, the publisher shall take appropriate measures in accordance with Article 1195 of the Civil Code, including removal, blocking, or disabling links. Where internet users commit infringements through the use of online services, rights holders are entitled to notify the online service provider to take necessary measures such as removal, blocking, or disabling links; upon receiving such notification, the online service provider shall promptly take the necessary measures; if it fails to do so in a timely manner, it shall bear joint and several liability with the internet user for the portion of the damage that is thereby exacerbated. Publishers who fail to exercise due diligence shall bear liability for tort based on negligence in accordance with Article 1165 of the Civil Code.

4.3. Supporting mechanisms

In addition to the targeted adjustments outlined above, it is necessary to establish supporting mechanisms in areas such as risk sharing and academic training to form a systematic institutional safeguard.

Explore the establishment of an academic publishing risk mutual aid fund to serve as a supplementary mechanism to the principle of fault-based liability. In cases where the author is not at fault and the user has exercised due diligence but still suffers a loss, the fund would provide appropriate compensation. Funding could be jointly contributed by publishers, research institutions and academic bodies, thereby embodying the principle of shared benefits.

Strengthening training on academic standards can be advanced at the level of the training system. Knowledge of OA copyright should be incorporated into the training curriculum for researchers. Through the compilation of copyright manuals, the provision of online courses, and the organisation of specialised training seminars, helping authors understand the implications of different CC licence terms, the rights involved and potential risks, whilst also helping users understand the boundaries of compliant use.

5. Conclusion

China's OA publishing sector is now among the world's largest, and as Creative Commons licences serve as the mainstream licensing tool, their effective application is crucial to the industry's standardised development. However, as these licences originated in the common law system, they present compatibility challenges with China's Copyright Law framework: interpretative difficulties stem from paradigm differences between the factor-based approach and the three-step test, leading to divergent applications of non-commercial use clauses; liability dilemmas arise from the mismatch between the default model of author exemption and publisher neutrality and China's liability attribution principles, resulting in an imbalance of rights and obligations among the three parties.

In response to these challenges, this paper proposes the following solutions. Firstly, drawing upon the Civil Code, guidelines for the application of licence terms should be formulated to clarify the criteria for determining non-commercial use and the rules for interpreting standard terms. Secondly, the legal status of publishers as content providers should be clarified, specifying their duties of care regarding formal review, notification procedures and infringement prevention. Thirdly, these measures should be supplemented by supporting mechanisms such as mutual risk-sharing funds and copyright training.

In the future, efforts should continue to promote the in-depth alignment of Creative Commons licences with China's legal system, balancing the interests of all parties to achieve a virtuous cycle between open access and copyright protection, thereby contributing to the high-quality development of open science in China.

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