Research on Rights and Interests Management in Open Access to Information
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Abstract. Open access is a new mode of academic publishing and scientific information exchange. Around the problem of open access, there are fierce disputes over the rights and interests of authors, publishers, readers and other institutions in terms of funds, copyright and usage. Based on the analysis of the conflicts of rights and interests, the author discusses how to manage the rights and interests of multiple stakeholders in open access to information.

Keywords: Open Access; Rights Management; Copyright.

1. Information Open Access

The emergence of electronic journals makes it possible to solve the crisis of academic journals. However, because publishers impose IP restrictions on users and set user passwords to protect copyright and obtain economic benefits, they do not meet the needs of academic exchanges in essence. It has been put on the agenda to construct an academic exchange system that truly serves scientific research. In December 2001, the Open Society Institute (OSI) Foundation held an Open Access Conference for Scientific and Academic Documents in Budapest, the Budapest Open Access Pioneer Program, which was officially launched in February 2002 to promote and promote free access to research papers in various school fields around the world. Open access was defined as follows: "There are many different levels and types of access methods for a document, which are broader and easier to operate. Open access to a document means that it can be freely accessed in the Internet public domain, and allows any user to read, download, copy, transfer, print, search, hyperlink the document. It also allows users to traverse and index it for input data or any other legitimate use of the software. Users are not restricted by economic laws or technology when using the document, but only need to maintain the integrity of the document when accessing it. The only restriction on its reproduction and transmission, or the sole role of copyright, should be to give the author the right to control the integrity of his work and the correct understanding and quotation of his work.

In June 2003, Bethesda Declaration on Open Access Publishing put forward that open access publishing must meet two conditions. First, the author or copyright owner authorizes all users worldwide to obtain their documents freely and unconditionally on any digital media for reasonable purposes, allowing users to publicly copy, utilize, diffuse, transmit and demonstrate these documents, and to create and disseminate new works based on these documents. Users can print a small number of copies for personal use. Secondly, the complete version of the work, all attachments and the above authorization statements should be stored in at least one network database in an appropriate standard electronic format. These databases are established and maintained by some research institutes, academic groups, government departments or other well-known organizations using appropriate technical standards, with the aim of building them into open access, unrestricted dissemination, interoperability and long-term preservation archives.

2. Debate of Rights and Interests in the Process of Open Access to Information

2.1 Copyright Debate in Open Access

The open access movement of information has greatly stimulated the copyright dispute in the field of academic exchange and access. Copyright refers to the general term that the author enjoys personality rights and interests in the work he creates, and that he controls the work and obtains property rights and interests. It presents a single mode in the traditional publishing mode. Open works...
publishing mode has created some new copyright modes. At present, there are roughly three kinds: the author holds copyright, the author shares copyright, and the author only gives the right of use to the periodical publisher. The emergence of the new model provides a lot of choices for authors to publish their own works. Copyright belongs to the exclusive right to issue and publish works. Copyright belongs to a series of rights, which is the combination of moral rights and utilizing rights. In the academic exchange system, even if copyright is transferred from the author to the publisher, moral rights are widely accepted and supported. Therefore, moral rights are not the focus of the copyright debate, and the copyright debate focuses on the use of rights. Potential problems of increasing ownership in the use and reuse of academic materials by users. In the traditional publishing mode, all rights are transferred to publishers. The reprinting or redistribution of original works by others other than publishers is restricted by the publishing license, which is the same for authors and readers. The right of use itself belongs to a series of rights, and also reflects the requirements and needs of all parties, as well as the mode of use. In academic exchanges, the purpose of using academic papers is actually very limited, mainly for the purpose of teaching and commercial reuse. Reuse right is the key to the definition of open access: validity. Open access means free access to network information for any purpose permitted by law.

2.2 Conflicts of Interests among Participants in Open Access

There are multi-stakeholders in open access to information: publishers, authors of information works, third-party academic institutions and libraries. These three parties are in a completely opposite position. Library is an important place to protect, organize, collect and provide the use of books and materials. Under the traditional environment, libraries provide readers with the use by purchasing literature entities, so they are restricted by duplicates. In the open access environment, the use of the network can find most of the information resources needed, and there is no longer the concept of book duplication. This will inevitably reduce the reader's desire to buy printed document entities, and with the continuous development and expansion of digital libraries, the variety of digital documents in the library is constantly enriched. Readers abandon the purchase of document entities and rely on them.

2.3 Debate over the Rights and Interests of Long-term Preservation of Open Access Resources

In the long-term preservation of digital resources, law is a very complex issue, mainly involving copyright law, contract law, delivery system and so on. In every stage of the life cycle of digital resources, intellectual property rights and related legal issues need to be taken into account. Facing the double-edged sword of intellectual property protection system, how to balance the rights and interests of the obligee and the public should be considered by the peers. Open access refers to many links in resource sharing, such as online processing of academic information, software development, information retrieval, downloading and preservation, which involve the limitation of copyright and the rational use of copyright. As far as users are concerned, open access means the right of free access and reasonable use of academic information resources on the Internet, and the increasing right of citizens to know information. For authors, the current copyright law gives authors the right to restrict the dissemination of works and the right of authors to disseminate works freely.

3. Rights and Interests Management in Open Access to Information

3.1 Economic Rights and Interests Management in Open Access

In the traditional publishing mode, the cost of publishing is generally directly or indirectly responsible by the reader. The open access mode is essentially the transfer of publishing costs, that is, the transfer of publishing costs from readers to authors or other institutions, which makes the economic interest system composed of readers, authors and publishers change structurally. If a series of problems are not properly solved, the open access model will be difficult to expect greater development. The most realistic problem is the source of publishing funds and how to coordinate the conflict of interests with publishers.
3.1.1 Undertaking of Publishing Funds

Compared with the traditional publishing mode, the publishing cost of open access mode has been greatly reduced, but it still needs a considerable amount of funds to maintain its operation. Some scholars have done comparative analysis. The cost of open access journals is about 30% lower than that of traditional journals. This reduction is not as optimistic as some people imagine. Because of the lack of peer review links, the cost of open access journals is maintained. It may be smaller, but the necessary equipment, personnel and other costs are still necessary. In the traditional publishing mode, most of the publishing costs come from the subscription of users. There is no subscription fee in the open access mode, which means that publishers have cut their revenue by more than half. In the absence of other sources of funding, the blanks arising from the cancellation of subscription fees are naturally passed on to the author. It is necessary to charge a higher review fee for each published paper. For example, PloS charges $1,500 for each published paper. Some open access journals charge higher review fees, such as Blackwell, a social science publishing giant, which charges $2,500 for open access journals, and Spring, which charges $3,000 for publishing. For such a high cost of publishing, it is entirely up to the author to bear, will inevitably reduce the motivation of scientific research workers to create, which is what we all do not want to see. We naturally think that the institutions should bear the publishing expenses. According to the survey, 98.12% of the researchers believe that the publishing expenses should be borne wholly or partly by the institutions. "Most of the research projects in our country are supported by the funds of the government or state-owned scientific research institutions. It seems that it is not difficult to use the research funds to pay for the open access publishing expenses. However, because the scientific research institutions can not directly reap the same amount of profits." In the absence of proper institutional arrangements, I am afraid that no institution will be willing to pay the fee. Therefore, the state should formulate relevant laws and regulations on open access, allocate special funds from scientific research funds to support the publishing cost of open access, and guarantee the support of scientific research institutions for the publishing cost of open access from the system.

3.1.2 Coordination of the Interests of Commercial Publishing

It is self-evident that the open access publishing model has brought a direct and huge impact on traditional publishing institutions. With the increase of open access resources, the circulation of periodicals in traditional publishing institutions decreases at a rate of 3%-5% annually, and the publishing price has to be reduced appropriately. We can't predict whether the open access publishing model will eventually replace the traditional publishing model, but for a long time now and in the future, we still have to follow the traditional order-based publishing model. Since we can't give up the old model, we should give it a reasonable living space. This requires dealing with the interests between the old and new models, and finding a reasonable balance between them. In order to cope with the impact of open access publishing, foreign publishing circles have begun some beneficial attempts. There are two successful modes of operation: partial open access journals and delayed open access journals. The practice of "partial open access journals" is to provide authors with two choices: one is to publish in the traditional mode, and readers pay to access the full text of the paper; the other is to pay the publishing fee for the author, whose readers can access the paper free of charge. "Partial Open Access Periodicals" and "Delayed Open Access Periodicals" are unilateral actions taken by publishers. If publishers cooperate with scientific research institutions and libraries as the main users, a more reasonable model may be found. In order to coordinate the interests of all parties in our country, we have the following advantageous conditions: firstly, most academic journals in our country belong to scientific research organizations affiliated to colleges and universities and academies of Science in terms of administrative relations, which is conducive to policy formulation and implementation; secondly, most academic journals can obtain a considerable amount of business funds from the competent units, and most of the users of academic journals. It is the group users such as university libraries and scientific research institutes, or most of the publishing and subscription funds are the same, which makes the coordination of interests have a realistic material basis. Some scholars suggest that universities, libraries, research institutes and laboratories should take part of the traditional
subscription fees to support the open access publishing of academic associations. In return, academic associations publish their journals in an open access mode, which is worth trying in China. In fact, some journals have opened their back issues to readers free of charge. There are 45 kinds of Chinese scientific and technological papers online. I believe more journals will join in the future.

3.2 Copyright Management in Open Access

Open access is a rebellion against the traditional copyright rules. Its birth marks the establishment of a new legal relationship different from the publishing mode under copyright control. In order to ensure the healthy development of open access, we must balance the rights and interests of authors, publishers and readers.

3.2.1 Open Access based on Recognition of Copyright

According to the definition of Open Access in Budapest Pilot Program, open access to a document means that it can be freely accessed in the Internet public domain, allowing any user to read, download, copy, transfer, print, search, hyperlink the document, and allowing users to traverse and index it for input data of the software or any other legitimate use. Users are not restricted by economic law or technology when using this document. However, Open Access does not deny copyright completely, but is based on the recognition of the copyright of Open Access. In open access, the author still retains the basic rights to the work, such as the right to protect the integrity of the work and the right to sign, and some authors also prohibit the use of the work for commercial purposes. In this way, open access has formed a new mode of knowledge information dissemination, which not only recognizes copyright law and takes the protection of copyright rules as the premise, but also breaks the monopoly of copyright under the protection of copyright law.

3.2.2 Copyright Implementation Model of Open Access

In the traditional publishing mode, all rights are transferred to publishers. The reprinting or redistribution of original works by others other than publishers is restricted by the publishing license, which is the same for authors and readers. Open access journal publishing mode has created some new copyright modes. At present, there are roughly three kinds: the author holds copyright, the author shares copyright, and the author only gives the right to use to the Journal publisher. The emergence of the new model provides a lot of choices for authors to publish their own works.

3.2.2.1 Model of Reservation Rights

Early open access to information was mainly manifested in open journals, in which authors were allowed to retain their rights and restrict the repeated use of educational purposes. The purpose was to create a scientific peer review system, which had a good reputation. Its copyright policy is simple: authors retain copyright; copyright bulletins declare that classroom use is free, but other uses are subject to the author's own consent; as the original publisher, publications need to be licensed to publish papers; when authors reprint papers on other platforms, authors are obliged to use open journals as sources of reference. These early open journals were often published by academic institutions themselves, not by publishers or publishers.

3.2.2.2 Creative Common Model

Creative Common Organizations was established in 2001. Inspired by the public resource software movement at that time, Creative Common Organizations changed the copyright slogan "Protect all rights" into "Protect part of rights", and created various agreements to protect the creator's works. The rules of the Creative Commons Agreement were used by the American Public Library of Science and the British Medical Publishing Centre, the pioneers of open Journal publishers. Permission guarantees the author's moral rights, that is, the right to be quoted in a proper way. However, licenses are granted for the use and reuse of the article in a wide range of areas, including commercial uses. This licensing method can maximize the influence of scientific research works. The Journal of the European Geosciences Association is the model of "shared copyright". They can limit the reuse of open publications by using the "Creative Commons" average allocation license.
3.2.2.3 Partial Copyright Transfer Model

In recent journals, which are about to change from traditional publishing mode to open access mode, there has been a mode of partial transfer of copyright. The publisher's license allows the author to retain the copyright, but the author transfers all commercial use rights to the publisher. This means that the publisher leaves copyright to the author, only requires the exclusive license to guarantee the right to start the paper, and advocates all commercial use rights. The author reserves the other rights of the paper in open access. In addition, if the Open Access Publishing House reprints or reissues the author's papers commercially, a certain proportion of royalties will be paid to the author. The advantage of this model is that, as long as they do not involve commercial rights, they can do whatever they want for their works without the permission of Open Access Publishing House.

3.3 Open Access Copyright Management Mechanism

3.3.1 Strengthen the Legal Protection of Open Access Protocol

It is very difficult to realize the ideal of open access by relying solely on the format contract of licensing agreement without legal support. First, licensing agreements are not legal rules, and not all copyright owners can voluntarily waive their rights according to the terms. Secondly, without legal norms, the concept of open access will inevitably degenerate and change in the real society, and the whole process of freedom will not be guaranteed. Thirdly, the licensing agreement is a special interpretation based on the law of a particular country, so a licensing agreement that is valid in one country is likely to lose its legal effect in other countries. Fourthly, the denial of guarantees in open access may also conflict with local laws. This makes the authorizer of open access very vulnerable, always bearing potential risks, which is rooted in the imperfection of the law. The most important issue in the development of open access is to make licensing agreements recognized by law, have legal status and be protected by law.

3.3.2 Establishment of National Licensing System

National License originated from the Nordic countries at the end of the 20th century and evolved from group license. The so-called national license refers to the signing of a national license between a publisher and a third-party non-profit information service organization, authorized by the government, which allows the latter to use the former's information resources nationwide and is responsible for providing, accessing, searching, browsing, downloading, printing or copying channels to all the public free of charge. The national licensing system has many advantages. Firstly, compared with the legal licensing system in the general sense, the national licensing system has increased the procedure of examination and approval by the state administrative department, which makes the subjects who enjoy the national licensing rights strictly restricted and prevents the over-weakening of the rights and interests of authors and publishers. Secondly, the national licensing system reduces the requirement for users to negotiate with publishers in advance, reduces the cost of authorization, improves the efficiency of authorization and takes into account the public interest. Thirdly, the national license implements the principle of unilateral liability of the third party's non-profit information service organizations, eliminating the legal risks of users. Fourthly, the national licensing system does not separate the economic links between publishers and users. The state will make reasonable compensation for the loss of authors and publishers due to the opening up of their resources by means of transfer payments. Practice has proved that the implementation of national license system in open access can better balance the interests of authors, publishers and the public. It can not only solve the funds needed for open access to a certain extent, but also greatly improve the utilization of information resources.

3.3.3 Constructing Network Resource Authentication System

Most authors publish their papers in order to make their achievements known to others and gain recognition, respect and honor from the academic circles by enjoying the right of initiation. Therefore, it is necessary to prove the time schedule for the publication of the papers. The pre-print service system in China also strictly records the time when the authors submit their papers and revise their
papers, so that the authors can publish their innovative achievements at the first time. However, whether such a determination can be accepted as evidence is still unknown, and the issue of confirmation of rights has not been really solved. Now, some scholars put forward the idea of establishing the network document authentication system in China based on the knowledge warehouse of CNKI basic education. In this scheme, the National Document Accreditation Center does not identify the documents registered and certified. Like the traditional printed periodicals, the audit and appraisal work is still undertaken by the editorial department of the periodicals. The main role of the certification work is to determine the publication time of the documents so as to ensure the author's right of initiation and invention. However, it is not enough for the National Document Accreditation Center to prove the publication time of the documents. The key is to identify the author's subjective qualification. First, the National Document Accreditation Center should be given the necessary legal authority to confirm the legal status of the certificates issued by it. Secondly, it is necessary to ensure the safety of documents in technology so that copyright management information cannot be tampered with. The existing laws should also be adjusted appropriately, such as stipulating that online publications are a form of publishing works, and that anonymous works are not protected. At the same time, the legal content of submissions when applying for online document authentication should be clarified.

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