Digital Piracy Case of Learning Materials in China: A Tough Challenge to Chinese Copyright Law

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Abstract
Digital piracy of learning materials is arguably considered as unlawful behavior of students under Copyright Law of the People's Republic of China (hereinafter referred to as "Chinese Copyright Law"), which has caused great harm to the copyright owners and licensed users. This study aims to examine the reasons for digital piracy of learning materials and the defense against copyright infringement, i.e. fair use regarding private study and research, classroom teaching and scientific research according to Article 24 (1) and Article 24 (6) of Chinese Copyright Law. This study focuses on three questions: whether university students have the awareness of digital piracy of learning materials and the copyright infringement arising from digital piracy, what is the attitude of university students toward digital piracy of learning materials, and how to protect the copyright of digital learning materials under Chinese Copyright Law. There are two instruments in collecting data, questionnaire and semi-structured individual interviews with different university students currently studying in Beijing. Findings suggest that most students had the experience of piracy of learning materials without the awareness of copyright infringement, and they supported digital piracy of learning materials due to the habit, ease, common practice and no charge of digital learning materials. The copyright of digital learning materials could be effectively protected by not charging fees for digital learning materials, collaborating with relevant academic associations to allow students to download at a lower price, and utilizing technical barriers to prevent illegal downloading.

Keywords: Digital Piracy, Learning Materials, Copyright, Fair Use

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1. INTRODUCTION

1.1 Rational

The development of high Internet has facilitated the access to digital information. It also brings opportunity for students to acquire a great number of digital leaning materials. As students take advantage of the convenience brought by online file downloading and sharing, some students have been involved in digital piracy and copyright infringement, which might be exempted from legal liabilities with the defense of fair use under Chinese Copyright Law.

Digital piracy is defined as the illegal act of uploading, downloading, copying, sharing, trading digital materials, such as digital documents, audios, videos, software, and other copyrighted materials without permission from, and without payment of remuneration to the copyright owner (Gopal et al., 2004; Higgins et al., 2006). For students, examples of digital piracy include copying digital learning materials published by for-profit educational institutions, downloading digital learning materials from illegal websites, and using certain avoiding or destroying technical measures to obtain digital learning materials, which may cause copyright infringement liability, administrative responsibility, and even criminal responsibility to them.

It seems clear that a student who has committed digital piracy shall be liable for the copyright infringement. However, there is a defense against copyright infringement called "fair use", which allows a work to be exploited "without the permission from, and without payment of remuneration, to the copyright owner" in an exhaustive list of cases. From the perspective of education and scientific research, it is a common practice for Chinese students to rely on the Article 24(1) or 24(6) to negate the copyright infringement. The Article 24(1) and 24(6) of Chinese Copyright Law will be elaborated by the researcher in the following sections.

1.2 Research Objectives

The purpose of this study is to identify whether students have the awareness of copyright infringement against digital piracy of learning materials, what attitude they have toward digital piracy of learning materials, and how to protect the copyright of digital learning materials under Chinese Copyright Law. This study will be beneficial to students to assess their current practices and gain insights into copyright infringement. It shall also be significant to legislators and policy makers to improve copyright protection subject to the defense of fair use under Chinese Copyright Law. Finally, it may help the whole society create a good academic atmosphere to realize one of the Sustainable Development Goals, which is to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all."

1.3 Research Questions

RQ 1: Are university students aware that some illegal acts constitute digital piracy? Are they aware of the copyright infringement arising from digital piracy of learning materials?

RQ 2: What attitude do university students have toward digital piracy of learning materials? Why do they support or object to the digital piracy of learning materials?

RQ 3: How to protect the copyright of digital learning materials under Chinese Copyright Law? How do university students evaluate the effectiveness of those solutions?

2. LITERATURE REVIEW

2.1 Digital Learning Materials

Digital learning materials are typically used by teachers and students for the purpose of online education. According to Mendes (2000), the resources for online education include handouts, PowerPoint slides, papers, tutorial and assignment problems, teaching audio-visual works, and examination questions prepared by the teachers and professors to facilitate the delivery of online courses. Among them, the most pervasive forms of learning materials in China are handouts, PowerPoint slides, papers and audio-visual works.

2.2 Digital Piracy

Digital piracy is considered a civil infringement and an administrative violation in China. In more serious cases, it even constitutes criminal offense under Chinese Criminal Law. Taylor et al. (2009) indicated a lower digital piracy rate could lead to economic growth, lower unemployment rate and innovation. Existing literature found that digital piracy was linked to low self-control (Higgins, 2005). It was also affected by the sense of thrill, excitement, and risk (Higgins et al., 2006). Some infringers committed digital piracy because they did not view digital piracy as an illegal or unethical act (Hinduja, 2007; Ingram & Hinduja, 2008; Morris & Higgins, 2009; Peace et al., 2003). Absence of penalties, absence of a code of ethics, low risk of being caught and the ease of piracy were other factors that facilitated digital piracy (Cheng et al., 1997; Limayem et al., 2004; Triandis, 1980). Other studies found that deterrence and guilt are the important factors to reduce instances of digital piracy (Higgins et al., 2006; Paternoster, 1987; Yu & Liska, 1993). However, Bhattacharjee et al. (2006) found that both the threat of litigation and the consumer education against digital piracy failed to affect the prevention of digital piracy. Sulaiman and Kamel (2020) found that both religion and awareness treatment were significant to reduce the intention toward digital piracy, while the law system was not essential to reduce digital piracy. Belleflamme and Peitz (2012) divided digital piracy into two types, namely commercial piracy where for-profit companies reproduce and distribute copyrighted products to generate high profit margins, and end-user piracy where consumers themselves illegally reproduce copyrighted works. For students, they are more likely to commit end-user digital piracy, which is much more complex than commercial piracy as to the nature of private study or research.

2.3 Fair Use

"Fair use" is a defense to negate the copyright infringement that allows a work to be exploited "without the permission from, and without payment of remuneration, to the copyright owner" in a exhaustive list of cases. In China, fair use is stipulated in the Article 24 of Chinese Copyright Law. For students being caught for digital piracy, it is a common practice to rely on the Article 24(1) or 24(6) to negate copyright infringements, which allows them to reproduce "for the purposes of the user's own private study, research", or reproduce "in a small quality of copies... in classroom teaching or scientific research". However, in a situation where students illegally share digital learning materials online, it is not an absolute defense under Article 24(1) because sharing could not be construed as purely for private study or research. In a situation where students illegally reproduce digital learning materials, Article 24(6) is not sufficient because it is arguably beyond the limits of "classroom teaching or scientific research" and "in a small quality of copies."

3. METHODOLOGY

3.1 Research Methods

This research will use mixed methods to study the research questions. Quantitative method will be used to determine whether university students have the awareness of digital piracy of learning materials and the copyright infringement arising from digital piracy (RQ1), and how to protect the copyright of digital learning materials under Chinese Copyright Law (RQ3). Qualitative method will be used to indicate what attitude university students have toward the digital piracy of learning materials (RQ2).

3.2 Population and Locale of the Study

The researcher used 136 university students currently studying in Beijing as the respondents to determine RQ1 and RQ3, as they were the ones who often used digital learning materials and were vulnerable to digital piracy issues. Among them, 10 students were used as the key informants to indicate RQ2. The researcher attempted to diversify the majors of the key informants as much as possible to attain variation (Juliet & Anselm, 2008).

ID	Gender	Major	ID	Gender	Major
S1	F	Economics	S2	F	Literature
S3	F	Law	S4	M	Civil Engineering
S5	M	Computer Science	S6	F	Accounting
S7	M	Medical Science	S8	M	Mechanical Automation
S9	F	Human Resources	S10	M	Mathematics

Table 1: Summary of the Basic Information of Interviewed University Students

3.3 Instrumentation

The researcher used questionnaire and semi-structured interview to gather data. The questionnaire included the basic information, personal experience regarding digital piracy of learning materials, awareness of the digital piracy of learning materials, awareness of copyright infringement (RQ1), and how to evaluate the solutions to protect the copyright of digital learning materials (RQ2). The interview guide to answer RQ2 was based on the experience of key informants. Interviews were hosted by the researcher specializing in copyright law and education, in order to identify potential misinterpretation and ensure a common standard of the research questions for different key informants.

3.4 Data Analysis

The researcher used multiple choice questions to collect data on RQ1. Thematic analysis was used to indicate the common responses of the key informants about RQ2. A thematic coding process was used to identify, analyze, and interpret patterns of meaning within large bodies of text (Williams & Moser, 2019). The respondents also rated the effectiveness of different solutions to protect copyright of learning materials, from 1-"not effective at all" to 5-"completely effective", and average scores for each protection measure were calculated for RQ3.

4. FINDINGS & DISCUSSION

In this section, the researcher will report the findings with discussions on digital piracy of learning materials. The major themes emerging from this study can be categorized into: 1) awareness of digital piracy and copyright infringement; 2) attitude toward digital piracy of learning materials; 3) legal protection against digital piracy of learning materials. These are the results gathered from the respondents.

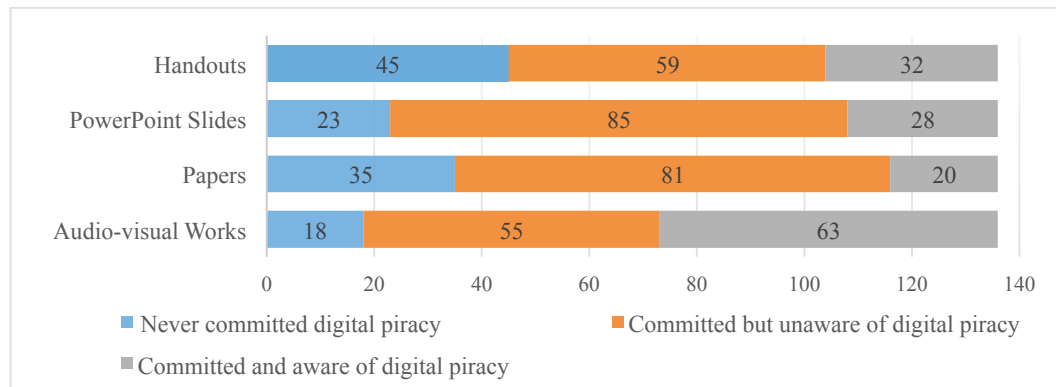### 4.1 Awareness of Digital Piracy and Copyright Infringement

Figure 1: Students' Awareness of Digital Piracy of Different Types of Learning Materials

According to the result in Figure 1, most university students had the experience of digital piracy of learning materials, no matter what types of the learning materials were. For those students with the experience of digital piracy of handout, PowerPoint slides and papers, most of them were unaware that their illegal acts constituted digital piracy. For those who had committed digital piracy of audio-visual works, the number of university students aware of digital piracy is slightly larger than those who were unaware of the digital piracy.
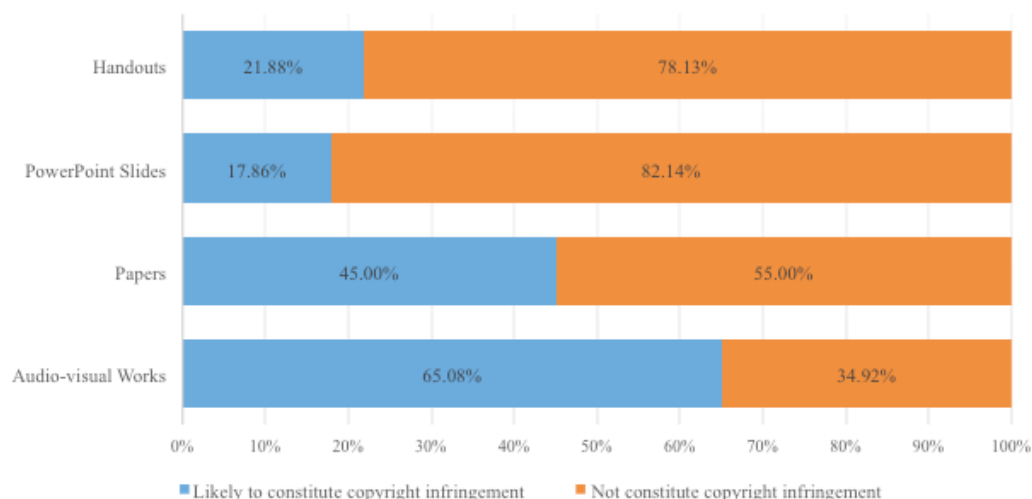

Figure 2: Students' Awareness of Copyright Infringement of Digital Piracy

Among those students who had awareness of committing digital piracy of learning materials, the researcher further studied whether they considered digital piracy of learning material as copyright infringement. Figure 2 illustrates that 21.88%, 17.86% and 45.00% of the

university students were aware that digital piracy of handouts, slides and papers might constitute copyright infringement, while 65.08% of those who ever committed digital piracy of audio-visual learning materials were aware that digital piracy of audio-visual works might constitute copyright infringement.

4.2 Attitude toward Digital Piracy of Learning Materials

Digital piracy lies in different types of learning materials, ranging from handouts, PowerPoint slides, papers to audio-visual works. For the key informants who had experienced digital piracy of learning materials, their attitude varied from person to person.

ID	Major	Attitude	ID	Major	Attitude
S1	Economics	Support	S2	Literature	Object
S3	Law	Not clear	S4	Civil Engineering	Support
S5	Computer Science	Support	S6	Accounting	Support
S7	Medical Science	Support	S8	Mechanical Automation	Not clear
S9	Human Resources	Object	S10	Mathematics	Support

Table 2: Attitude toward Digital Piracy of Learning Materials

Table 2 shows that 6 out of 10 key informants supported digital piracy of learning materials, even though some had the awareness of digital piracy and/or copyright infringement. It is surprising to observe that for some university students majoring in law, computer science, medical science that require a higher level of copyright protection, their attitude toward digital piracy of learning materials is not much different from that of students in other majors.

As to the key informants who supported digital piracy of learning materials, as mentioned by S1, S4 and S10, digital piracy was committed out of habit, and it is easy and common to download digital learning materials from illegal websites and share digital learning materials without obtaining permission and paying to the copyright owners. It can be explained by the neutralization theory (Sykes & Matza, 1957) which asserts that individuals are inclined to neutralize their illegal acts by justifying as "normal" (Hinduja, 2007). S6 indicated that university students were too poor to purchase accounts on paid educational platforms or purchase the copyrighted digital learning materials from paid websites. S1, S7 and S10 justified by noting that reproducing, purchasing, and sharing digital learning materials would not cause damage to anybody. S7 added that it would contribute to the improvement of the academic level for the whole society. These findings support previous research that the most prevalent reason for digital piracy is the unwillingness to pay for the digital content (Sadiku et al., 2021).

For those who objected to digital piracy of learning materials, S2 indicated that the digital learning materials should be protected by copyright law, so as to create a safe academic environment for teachers, students and researchers to produce their academic work. As mentioned by S9, the illegal act of digital piracy might constitute copyright infringement, and even criminal offence, which deterred some students from committing digital piracy. In previous study by Paternoster (1987), legal deterrence was also found as a major factor for the resistance of digital piracy.

In terms of the key informants with unclear attitude, S3 relied on "fair use" doctrine to explain why students were free to commit digital piracy. However, S3 was uncertain about

whether digital piracy of learning materials could fall into the scope of fair use under Chinese Copyright Law. S8 viewed digital piracy of learning materials as an unethical but legal act, which should be judged and punished by the ethics rather than the laws concerning copyright infringement.

4.3 Legal Protection against Digital Piracy of Learning Materials

According to Sadiku et al. (2021), legislators and policy makers could protect the copyright of digital learning materials by removing the incentives, raising awareness of copyright infringement, enhancing collaboration with communities, adding watermark on copyrighted works, and utilizing technical barriers to prevent digital piracy. In light of these findings, the researcher summarized the solutions to protect copyright of learning materials against digital piracy as not charging fees for digital learning materials, increasing education about digital piracy and copyright infringement, collaborating with relevant academic associations so as to allow students to download learning materials at a lower price, adding watermark on the learning materials to highlight the statement of copyright, and utilizing technical barriers to prevent illegal downloading.

Solution	Average Score	Level
1. Not charging fees for digital learning materials	4.15	High
2. Increasing education about digital piracy and copyright infringement	2.03	Low
3. Collaborating with academic associations to download at a lower price	3.71	Medium
4. Adding watermark to highlight the statement of copyright	2.78	Low
5. Utilizing technical barriers to prevent illegal downloading	3.20	Medium

Table 3: Effectiveness of Solutions to Protect Copyright of Learning Materials

Table 3 illustrates that the most effective solution to protect the learning materials against digital piracy is not charging fees for digital learning materials with the average score of 4.15, which is consistent with the result of RQ2 that suggests the most prevalent reason for digital piracy was the unwillingness to pay for the digital learning materials. Accordingly, allowing university students to download and share digital learning materials without any charges could significantly reduce the instances of digital piracy. The protection solution of collaborating with relevant academic associations to allow downloading learning materials at a lower price is moderately effective with the average score of 3.71, followed by utilizing technical barriers to prevent illegal downloading with the average score of 3.20. It is worth nothing that during the semi-structured interview, S5 indicated that the technical barriers might not as effective as ordinary students considered because it is easy for some students to use circumvention techniques or disruptive techniques to overcome technical barriers.

Adding watermark to highlight the statement of copyright and increasing education about digital piracy and copyright infringement are less effective, with the average scores of 2.78 and 2.03 respectively. As illustrated in Figure 1 and Figure 2, most of the respondents were unaware of the digital piracy and copyright infringement issues. However, Table 3 illustrates that raising the awareness of digital piracy and copyright infringement by increasing legal education and adding watermarks was not sufficiently effective to reduce digital piracy of learning materials, provided that university students have already gained adequate awareness of copyright infringement as the nature of illegal act. It is worth noting that, as indicated by S9, although the education regarding legal consequences for copyright infringement would

not directly reduce digital piracy, it might have significant deterrence effect on potential infringers.

5. CONCLUSION

In this paper, the researcher has studied whether university students have the awareness of digital piracy of learning materials and awareness of copyright infringement arising from digital piracy, what attitude university students have toward the digital piracy of learning materials, and how to protect the copyright of digital learning materials. This research involves a survey covering 136 university students in Beijing and semi-structured interviews with 10 university students from different majors. The findings suggest that most university students have the experience of digital piracy of learning materials without the awareness of copyright infringement. They support digital piracy due to the habit, ease, common practice and no charge of downloading and sharing digital learning materials. The researcher further suggests that the copyright of digital learning materials could be effectively protected by not charging fees for digital learning materials, collaborating with academic associations to allow students to download learning materials at a lower price, and utilizing technical barriers to prevent illegal downloading.

Based on the findings of this study, it is recommended to improve the pricing system of digital learning materials, develop a collaborative relationship with relevant academic associations to provide digital learning materials at a lower price, and utilize technical barriers to prevent illegal downloading, so as to balance the interests of students and teachers, create a better academic atmosphere and achieve one of the Sustainable Development Goals, which is to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all."

6. LIMITATIONS

Since this study focused on university students currently studying in Beijing, the result may not be necessarily generated to other populations or geographical regions. Further research should focus on the students at other educational levels from other cities, in order to have a better understanding of the digital piracy of learning materials. Another limitation in this study involved the small size of the key informants because only 10 out of 136 students were willing to be further interviewed. Future qualitative studies could focus on larger size of the key informants.

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