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<b>Author(s)</b>	<b>Pun, KH</b>
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# REFORM OF COPYRIGHT LAW IN HONG KONG: TIME TO REDRAW THE BALANCE

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K. H. Pun\*

*This article reviews the current permitted acts under the Copyright Ordinance and their implications for Hong Kong. The discussion focuses on those permitted acts having a direct impact on two sectors the Hong Kong Government is most concerned with: education and the software industry. It shows that because of the limitations of the permitted acts, the Copyright Ordinance has failed to strike the right balance between the conflicting interests in these two sectors; rather, it favours the copyright owners. The article traces the cause of the imbalance to three main deficiencies in the Copyright Ordinance and proposes a solution to strike the right balance.*

## Introduction

Intellectual property laws are about balancing conflicting interests: the interests of intellectual property owners; the interests of their competitors; and the interests of the public. Copyright law strives to achieve the balance by offering extensive protection to copyright owners while expressly permitting certain acts to be carried out by members of the public without infringing copyright. In the Copyright Ordinance (Cap 528), such permitted acts can be found in Division III of Part II under the heading “Acts Permitted in Relation to Copyright Works”, which covers a wide spectrum of activities ranging from research and education to library use and public administration.

Since the Copyright Ordinance was enacted in 1997, there has been virtually no discussion on the permitted acts under the Ordinance; in particular, whether the Ordinance strikes the right balance between conflicting interests within the context of Hong Kong. This dearth of discussion is perhaps due to two reasons: first, the lack of judicial analysis on the subject; and second, a commonly held assumption that, because the permitted acts are modeled on the UK copyright law, they should present no problems for Hong Kong.

As a first attempt of its kind, this article examines the current permitted acts under the Copyright Ordinance and their implications for Hong Kong.

\* PhD (Computer Science), LLM (Intellectual Property); Associate Professor, Department of Computer Science and Department of Law, University of Hong Kong. The work described in this article was supported by a grant from the Research Grants Council of the Hong Kong Special Administrative Region (Project No HKU 7029/98H).

The discussion is focused on those permitted acts having a direct impact on two sectors the Hong Kong Government is most concerned with, namely, education and the software industry. The article demonstrates that because of the limitations of the existing permitted acts, both sectors have been adversely affected and as a result Hong Kong's ability to become a knowledge-based economy and a regional centre of information technology has been impaired. These problems compel a fresh look at the current permitted acts and a resetting of the right balance in the Copyright Ordinance.

### Current Permitted Acts for Education

For teachers and students, the most important act relating to copyright is the reproduction of copyright works for purposes of teaching and learning. At present, under the Copyright Ordinance, a teacher or student can reproduce copyright works without licence if the reproduction falls within the ambit of "fair dealing"<sup>1</sup> or is otherwise permitted under certain provisions relating to educational use.<sup>2</sup>

It is important to note at the outset that fair dealing and educational use are governed by separate provisions in the Copyright Ordinance. Broadly speaking, these provisions are designed to cater for three different scenarios:

- 1 where teachers or students copy a work for the purposes of research or private study, they may be exempted from liability under the fair dealing provision of section 38;
- 2 where teachers or students copy a work in the course of instruction or preparation for instruction without using a reprographic process, they may be exempted from liability under section 41; and
- 3 where teachers make reprographic copies of a work for the purposes of instruction, they may be exempted under section 45.

Sections 38, 41 and 45 do not overlap. In relative terms, the exemption afforded by section 41 is the narrowest. This is apparent from section 41 itself, which provides, among other things, the following:

- "(1) Copyright in a literary, dramatic, musical or artistic work is not infringed by its being copied, to a reasonable extent, in the course of instruction or of preparation for instruction, if the copying –
- (a) is done by a person giving or receiving instruction; and
  - (b) is not by means of a reprographic process."

<sup>1</sup> Sections 38 and 39.

<sup>2</sup> Sections 41–45.

The exemption under section 41 is confined to copying in the course of instruction or preparation for instruction. Furthermore, the copying must not be by means of a reprographic process, which is defined in section 198 as a process “for making facsimile copies” or “involving the use of an appliance for making multiple copies”. Therefore, if teachers use photocopies of copyright materials when preparing their lectures, they cannot be protected under section 41.

In a similar vein, the exemption based on fair dealing under section 38 is also narrow. Section 38 provides that:

- “(1) Fair dealing with a work of any description for the purposes of research or private study does not infringe any copyright in the work or, in the case of a published edition, in the typographical arrangement.
- (2) Copying by a person other than the researcher or student himself is not fair dealing if –
  - (a) in the case of a librarian, ... ; or
  - (b) in any other case, the person doing the copying knows or has reason to believe that it will result in copies of substantially the same material being provided to more than one person at substantially the same time and for substantially the same purpose.”

Section 38(1) marks out clearly the ambit of the exemption as regards copying by teachers and students: the permitted copying must be for the purposes of research or private study. In addition, because of section 38(2)(b), the copying must result in no more than one copy of a work and must be for the teacher’s or student’s *own* research or private study. Fair dealing under section 38 is therefore not open to teachers who make multiple copies of copyright works as course materials for their students. Indeed, in the recent UK Copyright Tribunal decision of *Universities UK v Copyright Licensing Agency*,<sup>3</sup> which considered the UK counterpart of section 38,<sup>4</sup> it was even suggested that if a teacher instructed every student in the class to make copies of the same material, that too would fall outside fair dealing; to avoid liability, the teacher should merely distribute a reading list to the students without giving any instructions to copy.<sup>5</sup>

Section 45 is the only provision in the Copyright Ordinance that allows reprographic copying of published works for educational use. The section reads:

- “(1) Reprographic copies of artistic works or of passages from published literary, dramatic or musical works may, to a reasonable extent, be

<sup>3</sup> UK Copyright Tribunal Case Nos CT 71/00, 72/00, 73/00, 74/00 and 75/01 (decided on 13 Dec 2001): [www.patent.gov.uk/copy/tribunal/tribnews4.htm](http://www.patent.gov.uk/copy/tribunal/tribnews4.htm).

<sup>4</sup> Section 29 of the UK Copyright, Designs and Patents Act 1988.

<sup>5</sup> See [www.patent.gov.uk/copy/tribunal/tribnews4.htm](http://www.patent.gov.uk/copy/tribunal/tribnews4.htm), para 35.

made by or on behalf of an educational establishment for the purposes of instruction without infringing any copyright in the work, or in the typographical arrangement.

- (2) Copying is not authorized by this section if, or to the extent that, licences under licensing schemes are available authorizing the copying in question and the person making the copies knew or ought to have been aware of that fact.”

Section 45(1) lays down a condition for the permitted reprographic copying: it must be done “by or on behalf of an educational establishment”. Pursuant to section 195(3), such will be the case if the “copying is done by any person for the purposes of the establishment”. Accordingly, teachers are empowered by section 45 to provide photocopies of published materials to their students. But this exemption is subject to three important restrictions:

- 1 for published literary, dramatic and musical works, reprographic copies can only be made of “passages” therefrom;
- 2 the reprographic copying can only be “to a reasonable extent”; and
- 3 there must be no licensing schemes covering the copying in question.

Other provisions in the Copyright Ordinance relating to permitted acts for education include section 39 (fair dealing for the purposes of criticism, review and news reporting), section 42 (anthologies for educational use), section 43 (performance, playing or showing work in the course of activities of educational establishments), and section 44 (recording by educational establishments of broadcasts and cable programmes).

Section 39, another provision on fair dealing, is similar in scope to section 38 discussed above. Section 42 is of limited use in practice as the permitted anthologies must consist “mainly of material in which no copyright subsists”.<sup>6</sup> Section 43 is not concerned with copying, but performance, playing or showing of copyright works at educational establishments. Section 44 permits the recording of broadcasts and cable programmes for educational purposes, but the permission only applies where there are no licensing schemes covering the recording in question. This restriction is similar to that for section 45 discussed above.

#### *Problems with Current Permitted Acts for Education*

To anyone involved with education in Hong Kong, the problems with the current permitted acts for education under the Copyright Ordinance are well known. The more obvious of these problems are the following.

<sup>6</sup> Section 42(1)(b).

First, the scope of the fair dealing exemption under sections 38 and 39 is very limited. To qualify for exemption, the dealing must be for one of five statutory purposes, namely, research, private study, criticism, review and news reporting. The exemption does not extend to other purposes, including teaching.

Second, apart from suggesting some factors for deciding if a dealing is "fair" in the context of fair dealing,<sup>7</sup> the Copyright Ordinance contains no specific guidelines that could assist users in ascertaining whether their dealings in question are "fair". This creates difficulties for teachers and students in determining the extent of permissible copying, even where the copying is made for the statutory purposes.

Third, although section 45 allows reprographic copying for the purposes of instruction, for published literary, dramatic and musical works, copies can only be made of "passages" contained therein. In addition, the copying is limited "to a reasonable extent". However, neither the term "passage" nor the expression "to a reasonable extent" is defined in the Copyright Ordinance. Moreover, unlike the case of fair dealing, the Ordinance is silent on the factors for determining whether a copied portion of a work amounts to a "passage" or whether the reprographic copying in question is "to a reasonable extent".

Fourth, section 45 allows reprographic copying for the purposes of instruction only on condition that there are no licensing schemes available. The same restriction is found in section 44, which authorises recording of broadcasts or cable programmes for educational purposes. Therefore, the mere existence of a licensing scheme covering the copying or recording in question will immediately preclude the statutory permission.

Fifth, having separate provisions for fair dealing and educational use makes the law in this regard unnecessarily complex and confusing. It is not at all easy for teachers and students (indeed anyone, including lawyers) to understand and comply with the law.

These problems have placed teachers and students in a precarious position and severely hindered their ability to use copyright works for teaching and learning. With no clear guidelines on "fair dealing", teachers and students can never be sure whether or not they are protected when they make copies of copyright materials for their own research or private study. Unless they choose not to make such copies, they will constantly be in danger of incurring liability for copyright infringement. Similarly, absent guidelines on what is "a passage" and what is "a reasonable extent" as regards reprographic copying, teachers who take the trouble of making and distributing copies of course materials containing copyright works to their students risk infringing copyright. Such infringing distribution would incur not only civil, but also

<sup>7</sup> Section 38(3).

criminal liabilities if the amended criminal provisions of the Copyright Ordinance<sup>8</sup> were to resume operation after 31 July 2002.<sup>9</sup>

Because of these considerations, teachers concerned about their potential liabilities can only feel safe by refraining from including copyright works in their teaching materials. This clearly affects the students by circumscribing their exposure to valuable articles and useful materials not found in textbooks. Alternatively, the teacher may choose to supply only a reading list to the students. However, following the *Universities UK* decision mentioned earlier, which suggests that fair dealing is not open to teachers who instructed students to make copies of the same material,<sup>10</sup> teachers who want to escape liability would have to avoid giving any instructions to copy when distributing reading lists to their students. This would seem artificial and unrealistic, particularly for large classes, as it is not practical for the teacher to simply ask the students themselves to find, but not to copy, any materials where there are only limited copies available in the school library.

#### Licensing schemes

Sections 44 and 45 of the Copyright Ordinance discussed above reflect the thinking of the legislature, namely that licensing schemes are the key to balancing conflicting interests. The idea of licensing schemes is a simple one: instead of individual copyright owners administering their rights, collecting societies will be established to act on behalf of copyright owners.<sup>11</sup> These collecting societies will then negotiate and issue licences to prospective licensees, enforce the rights of the copyright owners and distribute the royalties back to the copyright owners after deducting the necessary costs of administration.

Pursuant to sections 44 and 45, where there are such licensing schemes available, schools will not be allowed to make any recording of broadcasts or cable programmes, or any reprographic copy of published works without first obtaining a licence. This is seen by the legislature as striking an appropriate balance between the conflicting interests of copyright owners, on the one hand, and schools, on the other. Whether or not it is the legislative intent, the practical effect of sections 44 and 45 is to compel schools to purchase licences from the licensing bodies, irrespective of the extent of copying and irrespective of whether the licensing terms are reasonable.

Sections 44 and 45 thus place schools in an extremely weak position *vis-à-vis* the licensing bodies. Because of the grave consequences of copyright

<sup>8</sup> Sections 118 and 120.

<sup>9</sup> See Copyright (Suspension of Amendments) Ordinance 2001, s 3(1).

<sup>10</sup> See [www.patent.gov.uk/copy/tribunal/tribnews4.htm](http://www.patent.gov.uk/copy/tribunal/tribnews4.htm), para 35.

<sup>11</sup> See Part II, Division VIII of the Copyright Ordinance.

infringement, particularly the potential criminal liabilities, schools are left with virtually no choice but to accept the terms laid down by the licensing bodies. Although the Copyright Ordinance does allow licensees to apply to the Copyright Tribunal to vary the terms of a licensing scheme,<sup>12</sup> few schools, most of which are government funded and non-profit-making, can in practice afford the time and costs to make such applications.

Furthermore, in giving a blessing to licensing schemes, sections 44 and 45 have ignored two inherent deficiencies of such schemes.

First, not all copyright owners wish to be represented by licensing bodies. Also, many unpublished works such as correspondence, speeches and lectures are not covered by licensing schemes. Although licensing bodies are required to provide information on the scope of their representation, it is, in practice, very difficult for licensees to know the precise coverage of the licences that they are buying. Thus licensees still run the risk of infringing the copyrights of owners not represented by the licensing bodies.

Second, because of practical considerations and business efficacy, licensing schemes invariably take the form of a “blanket licence”, ie users pay a lump sum licence fee for a right to copy any of the works covered by the scheme. The licence fee is calculated based on the number of copies that an average user is expected to make during the licence period. However, there is no accurate and inexpensive mechanism to differentiate between copying that requires licensing and copying that does not (such as copying which is insubstantial or which falls within the ambit of fair dealing), so the determination of the licence fee is a perennial source of dispute between licensing bodies and users.

The pressure to buy licences and the heavy financial burden such licences could inflict upon schools was best revealed in the *Universities UK* case mentioned earlier.<sup>13</sup> In its “Amended Statement of Case” filed against the UK Copyright Licensing Agency (“CLA”), the Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom (“CVCP”) expressly stated that it was “never happy” with CLA’s licensing scheme because the tariff was “unreasonable both as to the amount payable (royalty rate) and as to the basis of calculation of that amount” and did not have any regard to cuts in government funding. Despite this, CVCP felt it “had no choice but to reach some agreement”.<sup>14</sup> Negotiating for a new licence, CVCP strongly objected to CLA’s new licence fee of £13.36 per full-time student per annum excluding course packs. Fortunately for CVCP, the Copyright Tribunal ruled that a reasonable licence fee should only be £4 per full-time student per annum,

<sup>12</sup> Copyright Ordinance, ss 155 and 156.

<sup>13</sup> See [www.patent.gov.uk/copy/tribunal/tribnews4.htm](http://www.patent.gov.uk/copy/tribunal/tribnews4.htm).

<sup>14</sup> *Ibid.*, Paras 4 and 12.



including course packs, which is only 30 per cent of what CLA was asking for.<sup>15</sup> Had CVCP lacked the resources to fund and file the complaint, it would have had no choice but to accept the licence fee imposed by CLA.

Although the dispute occurred in the United Kingdom, it clearly illustrates the sort of difficulties that schools in Hong Kong are likely to face. Regardless of how they may feel about the licensing terms, schools are obliged to purchase licences from the licensing bodies, the charge for which will inevitably be passed on to the students. Unless the charge is nominal, schools must constantly fight for a low licence fee to ensure that it does not become a financial burden for the students. Alternatively, schools will have to ask their teachers to refrain from using copyright materials in the classroom, which only means that it is again the students who have to suffer.

The effect of licensing schemes as now provided under the Copyright Ordinance has tilted the balance very much in favour of copyright owners. Licensing schemes have been elevated to a position where they do not merely supplement, but also pre-empt, fair dealing and other legitimate uses of copyright works. Indeed, it is difficult to see why licensing bodies are accorded such a supreme status under the Copyright Ordinance, to whom every school must pay for using copyright materials covered by their licensing schemes, even when the amount of materials used is insubstantial and the use is purely for non-commercial purposes of instruction. This position cannot represent the right balance between the interests of copyright owners and the interests of schools in Hong Kong.

### **Current Permitted Acts Relating to Software**

The Copyright Ordinance contains only a few exemptions specifically related to software, the most notable of which are sections 60 and 61. Section 60 allows a lawful user of a computer programme to make a backup copy of the programme "if it is necessary for him to have the backup copy for the purposes of his lawful use", but the section only operates where there is no agreement to the contrary. Similarly, section 61 permits a lawful user of a computer programme to copy or adapt the programme "if the copying or adapting is necessary for his lawful use", and in particular, "for the purpose of correcting errors in it".

Both provisions are of limited practical value to the lawful user. Generally, the right to make a backup copy of a programme will have been provided for in the user licence acquired by the lawful user. The same licence will also have allowed the lawful user to copy or adapt the programme necessary for its lawful

<sup>15</sup> See [www.patent.gov.uk/copy/tribunal/tribnews4.htm](http://www.patent.gov.uk/copy/tribunal/tribnews4.htm), para 178.

use. The only right conferred by section 61, which is not commonly found in a user licence, is the right to copy or adapt a programme for the purpose of correcting errors therein. However, this right will only be of use where the programme is available in human-readable form (ie in the form of source code)<sup>16</sup> so that human modification is possible. Such programmes are invariably non-proprietary<sup>17</sup> and do not include programmes produced by commercial software publishers. For these non-proprietary programmes, the right to modify their codes will normally have been included in the licences under which the programmes are distributed to the public.<sup>18</sup>

Neither section 60 nor 61 has addressed the real concern of the software industry: the freedom to study and analyse an existing programme in order to develop a new programme that can communicate with the existing programme or with another programme. (In computer terminology, this ability of the new programme to communicate with other programmes is commonly referred to as “the interoperability of the new programme with other programmes”.) To the software industry, such freedom is critical, and indeed, essential for it to thrive. This is so for two reasons. First, owing to the complexity (and thus, high cost) of developing a programme and fierce competition in the software field, software developers cannot afford to write every programme from scratch, but have to build on existing works. Second, as programmes become more sophisticated and specialised, no single programme can serve all the needs of the user but has to work with other programmes to provide a full range of functions to the user.

Accordingly, to have a strong software industry, software developers must be allowed to study and analyse an existing programme for achieving interoperability of a new programme with other programmes. This does not mean giving software developers freedom to copy, but permission to study and analyse an existing programme in order to discover ideas, principles or information necessary for developing a new programme that is interoperable with the existing programme or with another programme. Such permission should be granted whether or not the new programme is to enhance or to compete with the existing programme.

For software developers, the study and analysis of an existing programme is often done by a process known as “reverse engineering” which is typically done in two stages. In the first stage, the programme is converted from machine-readable object code to human-readable source code by a process known

<sup>16</sup> The code written by the human programmer using a programming language. Source code must be converted into machine-readable object code so that it can be executed by a computer.

<sup>17</sup> The best example of such programmes is the open source software developed by the Free Software Foundation for the “GNU Project”: see [www.fsf.org](http://www.fsf.org).

<sup>18</sup> For a good example of such licences, see the “GNU General Public Licence” of the Free Software Foundation: [www.fsf.org/copyleft/gpl.html](http://www.fsf.org/copyleft/gpl.html).

as “decompilation” (or “disassembly”).<sup>19</sup> During the second stage, the resultant source code is studied and analysed. Thus to see if the Copyright Ordinance has struck a balance that is beneficial to Hong Kong’s software industry, one must ask whether it allows software developers to perform decompilation in order to achieve interoperability in Hong Kong.

#### *Decompilation Under the Copyright Ordinance*

Because decompilation involves copying an entire object code into the computer memory and translating it into source code, it is *prima facie* copyright infringement under the Copyright Ordinance. Specifically, it infringes two exclusive rights of the owner of the object code, namely, the right to copy<sup>20</sup> and the right to make an adaptation.<sup>21</sup> Neither section 60 nor 61 mentioned above can assist the decompiler in this regard.

Apart from sections 60 and 61, the only other exemption under the Copyright Ordinance relating to software is, again, that of fair dealing. At first glance, it appears that section 38, which provides an exemption for fair dealing for the purposes of research or private study, may offer some assistance to the decompiler. As the word “research” is unqualified in the provision, it includes both private and commercial research.<sup>22</sup> This seems to cover decompilation for achieving interoperability, whether or not it is for developing a commercial programme.

On closer examination, the issue is not as simple as this. To begin with, one must distinguish between two kinds of decompilation for achieving interoperability: (a) where the decompilation is used to develop a programme that does not compete with the one decompiled (“non-competitive decompilation”);<sup>23</sup> and (b) where the decompilation is used to develop a programme that does (“competitive decompilation”).<sup>24</sup> To rely on the fair dealing exemption under section 38, the decompiler must establish two separate

<sup>19</sup> There is in fact a technical distinction between “decompilation” and “disassembly”. Decompilation generates code in a high level language (such as Basic, C or C++), whereas disassembly generates code in an assembly language – an intermediate form between object code and high level language code. While disassembly is always possible in practice, decompilation is virtually impossible. But despite the distinction, the two terms have been used almost interchangeably by non-computer scientists, including lawyers.

<sup>20</sup> Section 23. Note that copying of a work includes “the making of copies which are transient or are incidental to some other use of the work”, which applies to the intermediate copying of the object code into the computer memory.

<sup>21</sup> Section 29. Note that for computer programmes, one form of adaptation is a “translation”, which includes “a version of the programme in which it is converted into or out of a computer language or code or into a different computer language or code”.

<sup>22</sup> Otherwise the expression should have been “private research or study” instead of “research or private study”.

<sup>23</sup> This will be the case if the new programme is interoperable with the one decompiled and is not intended to replace the latter in the market.

<sup>24</sup> This will be the case if the new programme is interoperable with a programme other than the one decompiled and seeks to replace or compete with the decompiled programme.

elements, namely, that its decompilation is “fair dealing”, and that it is for the statutory purpose of “research or private study”. While decompilation for achieving interoperability may be regarded as “research” – an expression held by the Federal Court of Australia in *De Garis v Neville Jeffress Pidler*<sup>25</sup> to mean “diligent and systematic enquiry or investigation into a subject in order to discover facts or principles” – it is unclear if decompilation qualifies for “fair dealing”, particularly in the case of competitive decompilation.

The term “fair dealing” is not defined in the Copyright Ordinance, but section 38(3) provides that the following three factors are to be considered in determining whether any dealing with a work is fair dealing:

- “(a) the purpose and nature of the dealing;
- (b) the nature of the work; and
- (c) the amount and substantiality of the portion dealt with in relation to the work as a whole.”

Section 38(3) does not have a counterpart in the UK Copyright, Designs and Patents Act 1988. Clearly, the term “purpose” in factor (a) above therein does not refer to the statutory purpose of research or private study, as the provision is exclusively concerned with whether a dealing is fair dealing, which is a separate issue from whether the dealing is for a statutory purpose. It is submitted that the term refers to the intention and motive of the decompiler. This interpretation is consistent with the recent decision of *Pro Sieben AG v Carlton UK Television*<sup>26</sup> in which the UK Court of Appeal held that the user’s subjective intention is relevant to determining whether its dealing is fair dealing, but irrelevant to whether the dealing is for a statutory purpose.

The three factors in section 38(3) are not all in favour of the decompiler. Indeed, owing to the nature of decompilation – that the existing object code is copied to the computer memory and translated into source code in its *entirety* – factor (c) above in section 38(3) (“amount and substantiality of the portion dealt with”) *always* works against the decompiler. Thus even if factor (b) above in section 38(3) (“nature of the existing work”) could operate in the decompiler’s favour, it remains doubtful whether decompilation would be treated as fair dealing in Hong Kong. This is particularly so in the case of competitive decompilation, which is performed for a rival purpose that adversely affects the copyright owner of the decompiled programme. For such decompilation, factor (a) above in section 38(3) (“purpose and nature of the dealing”) may lean against fair dealing on the ground that although the decompilation may be regarded as “research”, the decompiler’s predominant

<sup>25</sup> (1990) 18 IPR 292.

<sup>26</sup> [1999] FSR 610.

purpose is to develop a programme to compete with the one decompiled. If so, the overall balance of the three factors in section 38(3) would be tipped against fair dealing.

This observation is supported by section 37(3) of the Copyright Ordinance, which provides that in determining whether an act is permitted, the primary consideration is that “the act does not conflict with a normal exploitation of the work by the copyright owner and does not unreasonably prejudice the legitimate interests of the copyright owner”.<sup>27</sup> Since competitive decompilation converts an existing object code into source code without permission and is intended to prejudice the economic interests of the copyright owner, it is likely to offend this primary consideration and fall foul of fair dealing.

To a lesser extent, it is also uncertain whether non-competing decompilation would qualify for fair dealing under the Copyright Ordinance. In the absence of authority on this matter, the answer appears to depend on the weight that Hong Kong courts would attach to factor (c) above in section 38(3) (“amount and substantiality of the portion dealt with”). If this factor is deemed important, it would seem that non-competing decompilation would also fall outside the scope of fair dealing in Hong Kong.

The suggestion that decompilation for achieving interoperability is unlikely to be considered fair dealing under the Copyright Ordinance carries even greater force as one looks at the legislative development in the United Kingdom. In response to the Council Directive on the Legal Protection of Computer Programs (“Software Directive”)<sup>28</sup> issued in May 1991 by the European Community (EC),<sup>29</sup> the United Kingdom has added a special provision, section 50B, to its Copyright, Designs and Patents Act 1988 explicitly providing for a right to decompilation for achieving interoperability.<sup>30</sup> This important amendment reflects the UK’s view of its copyright law: namely, that the fair dealing exemption under the 1988 Act does not include decompilation for achieving interoperability and that it is necessary to have a provision that specifically exempts it from copyright infringement. Given that the fair dealing provisions in the Copyright Ordinance are modeled on, and indeed similar to, those in the 1988 Act,<sup>31</sup> the argument that the fair dealing exemption in Hong Kong does not embrace decompilation for achieving interoperability is compelling.

<sup>27</sup> This primary consideration is essentially the same as that in Art 10 of the World Intellectual Property Organization (WIPO) Copyright Treaty, adopted by the WIPO Diplomatic Conference held in Dec 1996.

<sup>28</sup> Directive 91/250/EEC.

<sup>29</sup> The European Community was succeeded by the European Union formed under the Maastricht Treaty signed on 7 Feb 1992.

<sup>30</sup> The provision was inserted by the Copyright (Computer Programs) Regulations 1992, reg 8. For a more detailed discussion of the provision, see below.

<sup>31</sup> Sections 29 and 30.

*Problems with Current Position on Decompilation*

To the extent that it does not allow decompilation for achieving interoperability, the Copyright Ordinance is hindering the local software industry by preventing local software developers from creating value-added programmes that run on top of existing software. This is overprotecting the copyright owners of existing programmes, most of which are foreign software firms. Indeed, given that the global software market is dominated by foreign software firms (most notably those of the United States), what is needed most by the local software industry is precisely the freedom to develop programmes that are interoperable with existing software. By not providing a right to decompilation for achieving interoperability, the Copyright Ordinance is depriving local software developers of such freedom.

There is, in addition, one further injustice in this, which will become apparent as one compares Hong Kong's position with those of its two major trading partners: the United States and the European Union (EU). In the United States, by virtue of two important decisions, *Atari Games v Nintendo*<sup>32</sup> and *Sega Enterprises v Accolade*,<sup>33</sup> it was firmly established that decompilation is "fair use" under section 107 of the US Copyright Act of 1976<sup>34</sup> if it is the only way to gain access to the ideas and functional elements embodied in the programme decompiled, and there is a legitimate reason for seeking such access. Achieving interoperability was held to be one such reason. More recently, in *Sony Computer Entertainment v Connectix*,<sup>35</sup> it was further established that where the defendant's work is "transformative" (ie involving the defendant's own creative effort) and does not merely supplant the plaintiff's work, fair use can apply even though the defendant's work competes with the plaintiff's, as such competition is legitimate competition consistent with the purpose of copyright law of promoting creative expression. Collectively, these three decisions have defined the status of decompilation in the United States: that if decompilation is necessary for achieving interoperability and the resultant programme is transformative, decompilation is fair use whether or not the resultant programme competes with the programme decompiled.

This common law position is now codified by the US Digital Millennium Copyright Act of 1998,<sup>36</sup> which adds a new chapter 12 to the US Copyright Act of 1976. Section 1201(f)(1) of chapter 12 provides that:

"a person who has lawfully obtained the right to use a copy of a computer program may circumvent a technological measure that effectively

<sup>32</sup> 975 F 2d 832 (Fed Cir 1992).

<sup>33</sup> 977 F 2d 1510 (9th Cir 1992).

<sup>34</sup> Title 17, United States Code.

<sup>35</sup> 203 F 3d 596 (9th Cir 2000).

<sup>36</sup> 112 Stat 2860, Public Law 105-304, 105th Congress.

controls access to a particular portion of that program for the sole purpose of identifying and analyzing those elements of the program that are necessary to achieve interoperability of an independently created computer program with other programs, and that have not previously been readily available to the person engaging in the circumvention”.

The expression “to circumvent a technological measure that effectively controls access to a work” is defined in the same chapter as to include, among other things, descrambling a scrambled work so as to gain access to the work without the authority of the copyright owner.<sup>37</sup> This encompasses decompilation, which converts object code into source code and thereby enables access to the latter without authority.

By virtue of section 1201(f)(1), decompilation is now statutorily permitted in the United States, whether or not it is for a competitive purpose. But this is subject to three conditions: (a) the decompilation is performed by a lawful user of the decompiled programme; (b) the decompilation is for the sole purpose of achieving interoperability; and (c) the information necessary to achieve interoperability has not previously been readily available to the decompiler.

In a similar vein, the EU, as it is now known, also allows decompilation for achieving interoperability. Article 6.1 of the Software Directive, mentioned earlier, provides that the authorisation of the rightholder is not required where reproduction of a programme’s code and translation of its form are “indispensable to obtain the information necessary to achieve the interoperability of an independently created computer program with other programs”, provided that three conditions are met: (a) the acts are performed by the licensee or by another person having a right to use a copy of a programme; (b) the information necessary to achieve interoperability has not previously been readily available to the person performing those acts; and (c) the acts are confined to the parts of the decompiled programme which are necessary to achieve interoperability.

Article 6.1 makes it clear that decompilation is allowed if it is necessary to achieve interoperability, regardless of whether it is for a competitive or non-competitive purpose. This latter point was explicitly set out in the Communication of the then EC Council’s Common Position to the European Parliament before the Directive was passed: “Decompilation is permitted by Article 6 to the extent necessary to ensure the interoperability of an independent created computer program. Such a program may connect to the program subject to decompilation. *Alternatively, it may compete with the decompiled program and in such circumstances will not necessarily connect to it.*”<sup>38</sup>

<sup>37</sup> Cf. s1201(a)(3).

<sup>38</sup> SEC 87 Final – SYN 183, 18 Jan 1991, para 4.7 (emphasis added).

Thus compared to those of the United States and the EU, Hong Kong's current stance of not providing for a decompilation right is the most restrictive. The injustice of this to our local software industry is obvious: that while software firms in the United States and the EU have a right to decompile programmes originating from Hong Kong, our local software firms are denied of a reciprocal privilege. Such injustice cannot be justified, especially as it is caused by our own creation, the Copyright Ordinance.

### Redrawing the Right Balance

The problems generated by the Copyright Ordinance as discussed above have adversely affected the education sector and the software industry of Hong Kong. They are the symptoms of an imbalance created by the Copyright Ordinance that is overprotective of the copyright owners. The cause of the imbalance can be traced to three main deficiencies in the Copyright Ordinance: 1 the restrictiveness of the fair dealing exemption; 2 the overriding status accorded to licensing schemes; and 3 the absence of a statutory decompilation right.

The key to resolving these problems lies in redrawing the right balance. This can be accomplished by taking three steps in respect of the Copyright Ordinance: 1 expanding the scope of fair dealing; 2 using licensing schemes to supplement, rather than to pre-empt, fair dealing; and 3 introducing a statutory decompilation right. Each of these steps is discussed below.

#### *Expanding the Scope of Fair Dealing*

The restrictiveness of fair dealing as found in the Copyright Ordinance is common to all copyright laws derived from the United Kingdom, including those of Australia, Canada, New Zealand and Singapore. In contrast to the restrictive UK model, the US system of "fair use" is an open-ended model, enshrined in section 107 of the US Copyright Act 1976:

"Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright."

From the US provision, one immediately observes two features of the US fair use that distinguish it from Hong Kong's fair dealing: first, the US fair use is open-ended and not confined to specific purposes; and second, the US fair use expressly extends to copying for the purposes of teaching, including multiple copying for classroom use. In view of these two features, the US fair use



is much simpler and more flexible than Hong Kong's fair dealing, and allows the American public much greater freedom in using copyright works than their Hong Kong counterparts. Since its enactment in 1976, the fair use provision has contributed significantly to resolving conflicting interests in the United States, and has played a vital role in the US success in becoming the largest producer of intellectual property worldwide, especially in the fields of science and technology.

It is submitted that the fair dealing exemption in the Copyright Ordinance should be expanded along the same line as the US model. This can be implemented by expanding the current exclusive list of purposes for fair dealing under the Copyright Ordinance (i.e., research, private study, criticism, review and news reporting) to a *non-exclusive* list that encompasses teaching and other educational purposes. Such expansion will provide greater flexibility to the law by allowing courts to embrace additional purposes regarded as falling within fair dealing, and will enable jurisprudential evolution without requiring repeated pleas for legislative elaboration.

This in fact is also the view of the Australian Copyright Law Review Committee (CLRC), as expressed in its report published in September 1998 and entitled "Simplification of the Copyright Act 1968".<sup>39</sup> Based on the Australian experience, CLRC unequivocally recommended the Australian government to expand its existing UK-derived system of fair dealing to a system akin to that of the US fair use:

"The Committee recommends the expansion of fair dealing to an open-ended model that specifically refers to the current exclusive set of purposes – such as research or study (sections 40 and 103C), criticism or review (sections 41 and 103A), reporting news (sections 42 and 103B) and professional advice (section 43(2)) – but is not confined to those purposes."<sup>40</sup>

"The recommended model is not limited to an exclusive set of purposes such as are regarded as currently falling within fair dealing. In the Committee's view the removal of such a limitation will provide greater flexibility by allowing courts to determine the existence of additional purposes that are regarded as falling within fair dealing. The Committee considers that this approach will enable fair dealing to be adapted by the courts to changing technology and will move the application of fair dealing into the digital environment. The recommended approach would therefore answer the criticism that the current fair dealing provisions are inflexibly linked to specific purposes and are difficult to apply to new technologies."<sup>41</sup>

<sup>39</sup> See [law.gov.au/clrc/gen\\_info/clrc/rep\\_index.html](http://law.gov.au/clrc/gen_info/clrc/rep_index.html).

<sup>40</sup> *Ibid.*, para 6.35.

<sup>41</sup> *Ibid.*, para 6.33.

The Australian experience of fair dealing is not new to Hong Kong. The origins of both jurisdictions' copyright laws are the same, and thus both jurisdictions share similar experiences regarding the inadequacies of a restrictive model of fair dealing. It is therefore not surprising that one finds CLRC's analysis of fair dealing familiar and its recommendation of expanding fair dealing to an open-ended system equally applicable to Hong Kong.

#### *Using Licensing Schemes as a Supplement*

To fortify the protection afforded to the public under the new open-ended fair dealing system, licensing schemes should not be allowed to assume a supreme status that overrides fair dealing, as is currently the case under sections 44 and 45 in respect of recording of broadcasts and cable programmes and reprographic copying. To ensure that licensing schemes only serve to supplement, rather than to pre-empt, fair dealing, the new fair dealing provisions should explicitly state that fair dealing includes the recording of broadcasts and cable programmes for educational purposes, and that such recording is permitted whether or not licensing schemes are available. Similarly, the new provisions should explicitly state that subject to certain guidelines, fair dealing includes reprographic copying for classroom use, which is permitted whether or not there are licensing schemes available. These steps would, to a large extent, subsume sections 44 and 45 within the new fair dealing provisions and thereby also simplify the law.

To give certainty to the law, there should be clear guidelines as mentioned above on what would constitute "fair dealing". The guidelines should provide not only qualitative, but also *quantitative* criteria for assessing fair dealing, which are in a form readily understood by members of the public. Such guidelines can be implemented by means of an agreement between copyright owners and users, or a concession of the copyright owners, or by means of legislation. A good example for such guidelines is the "Agreement on Guidelines for Classroom Copying in Not-For-Profit Educational Institutions With Respect to Books and Periodicals" reached between publishers and users in the United States in 1976.<sup>42</sup> The Agreement states the minimum standards for educational fair use in the United States and has been endorsed by the US Congress as part of the legislative history of the US Copyright Act of 1976.

#### *Introducing a Statutory Decompilation Right*

As regards the introduction of a statutory decompilation right in Hong Kong, it is instructive to look at the UK's response to the Software Directive as mentioned earlier. Section 50B of the UK Copyright, Designs and Patents Act 1988 is the provision specifically enacted to create a decompilation right

<sup>42</sup> See [www.publishers.org/abouta/highered/guide.htm](http://www.publishers.org/abouta/highered/guide.htm).

in the United Kingdom in compliance with the Software Directive.<sup>43</sup> This important provision reads:

- “(1) It is not an infringement of copyright for a lawful user of a copy of a computer program expressed in a low level language –
  - (a) to convert it into a version expressed in a higher level language, or
  - (b) incidentally in the course of so converting the program, to copy it, (that is, to ‘decompile’ it), provided that the conditions in subsection (2) are met.
- (2) The conditions are that –
  - (a) it is necessary to decompile the program to obtain the information necessary to create an independent program which can be operated with the program decompiled or with another program (‘the permitted objective’); and
  - (b) the information so obtained is not used for any purpose other than the permitted objective.
- (3) In particular, the conditions in subsection (2) are not met if the lawful user –
  - (a) has readily available to him the information necessary to achieve the permitted objective;
  - (b) does not confine the decompiling to such acts as are necessary to achieve the permitted objective;
  - (c) supplies the information obtained by the decompiling to any person to whom it is not necessary to supply it in order to achieve the permitted objective; or
  - (d) uses the information to create a program which is substantially similar in its expression to the program decompiled or to do any act restricted by copyright.
- (4) Where an act is permitted under this section, it is irrelevant whether or not there exists any term or condition in an agreement which purports to prohibit or restrict the act (such terms being, by virtue of section 296A, void).”

Sections 50B(1) and (2) make it clear that decompilation by the lawful user of a computer programme for the sole purpose of achieving the interoperability of a new programme with other programmes is allowed, whether or not the new programme competes with the decompiled programme. Section 50B(3) ensures that this decompilation right is only available where the information necessary in order to achieve interoperability is not readily

<sup>43</sup> The provision came into force on 1 Jan 1993.

available to the decompiler, and that the right is not used as a pretext for copying or other acts of infringement. To pre-empt attempts by software owners to exclude the decompilation right in their user licences or in any other contracts, section 50B(4) explicitly states that all such exclusions are null and void.

It is submitted that section 50B strikes an excellent balance between copyright owners and users of computer programmes, and should be adopted in Hong Kong. By granting the user a right to decompilation for achieving interoperability that cannot be contracted out of, this provision will assure our own software industry of its right to produce new software that runs on top of existing programmes, whether or not the new software competes with the decompiled programme. At the same time, the conditions imposed by the provision on the decompiler will protect the interests of the copyright owner against possible abuses of the decompilation right and other acts of unfair competition. Furthermore, by adopting the provision, our own software developers will be placed on the same level ground as their American and European counterparts in developing new programmes based on existing software.

### Conclusion

This article has reviewed the current permitted acts under the Copyright Ordinance in relation to two sectors with which the Government is most concerned, namely education and the software industry. From the discussions above, it is clear that because of the limitations of these permitted acts, the Copyright Ordinance has failed to strike the right balance between the conflicting interests in these two sectors. On the contrary, it has drawn a line much in favour of the copyright owners and, as a result, has adversely affected both sectors.

The key to resolving these problems lies in striking the right balance. The cause of the present imbalance can be traced to three main deficiencies in the Copyright Ordinance: 1 the restrictiveness of the fair dealing exemption; 2 the overriding status of licensing schemes; and 3 the lack of a statutory decompilation right. Accordingly, this article proposes a solution of taking three steps in respect of the Copyright Ordinance: 1 expanding the scope of fair dealing; 2 using licensing schemes to supplement, rather than to pre-empt, fair dealing; and 3 introducing a statutory decompilation right. Such a solution is aimed at curing the three deficiencies that have given rise to the imbalance.

Because copyright law involves the delicate balance of diverse interests, any imbalance it creates will have far-reaching consequences on many sectors of the community. While every effort has to be made to protect the rights and interests of copyright owners, such protection should not be excessive and stifle legitimate competition or restrict educational uses of copyright

works against the interests of the community. If the contrary is true, the copyright law will not be seen as a just law for the well being of the community and will be resented by the public. The general outcry over the amendment to the Copyright Ordinance in April 2001 that sought to expand the scope of criminal liability for copyright infringement is one good example.<sup>44</sup> If such public resentment against the Copyright Ordinance were to continue, it would only be a matter of time before the law would fall into disrepute and fail to perform its basic function of protecting and encouraging intellectual creations within the community.

At the time of writing, the Government is conducting a review of the Copyright Ordinance to address the concerns expressed by the public since the amendment mentioned above. This is a sensible move on the part of the Government. It also serves as a golden opportunity for the Government to redraw the right balance within the copyright system and to restore public confidence in the copyright law. No doubt this is a formidable task, but if it is accomplished, it will be of enormous benefit to Hong Kong in the long run.

<sup>44</sup> The amendment was made pursuant to the Intellectual Property (Miscellaneous Amendments) Ordinance 2000. Because of strong public objection, the Legislative Council, shortly after the amendment, passed the Copyright (Suspension of Amendments) Ordinance 2001 in June 2001 to suspend the new law except as it applies to computer programmes, movies, television dramas and musical recordings. The suspension will end on 31 July 2002.