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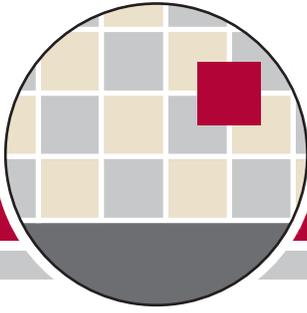
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## Why Copyright Falls Behind the Requirement for Protecting Graphic User Interfaces: Case Studies on Limitations of Copyright Protection for GUIs in China

Ling Jin\* & Yihong Ying†

### I. Background and Introduction

In the 1970s, the first Graphic User Interface (GUI) was developed by the Xerox Palo Alto Research Center (PARC), and it began a new era for the interface of computer operating systems, with a number of brilliant systems contributing to the development of GUIs in the 1980s, such as the Windows, OS/2, Macintosh, Linux, and Symbian OS operating systems.<sup>1</sup> Since, countless software systems have adopted GUIs as an effective intermediate between the operating system and its users. With the technology continually evolving, a well-designed GUI can attract users by providing convenient control methods and unforgettable user experiences.

However, like many other types of intellectual creations, the designs of GUIs may become vulnerable to piracy or imitation. After spending significant time designing a specific GUI, one may then find that GUI pirated or imitated shortly after the launch of a

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1. *A Number of Operating System GUI Interface Design Evolutionary History*, SKYCN.COM (Mar. 16, 2009), <http://news.skycn.com/article/20387.html>.

product utilizing the GUI. If that happens, under the current legal regimes in China, one of the main possible forms of legal recourse may be Chinese Copyright Law.

In this paper, the author specifically addresses the copyright protection afforded GUIs in China and discusses why copyright protection alone fails to fully protect GUIs, supported by case law.

## II. Whether GUIs May Be Protectable Under Chinese Copyright Law

### 1. *The TP-Link Case*

Chinese Copyright Law categorizes works according to their nature. Theoretically, GUIs may be regarded as “works of fine art” or “compilation works,” depending on their constitution.<sup>2</sup>

Works of fine art refer to two- or three-dimensional works, such as paintings, works of calligraphy, or sculptures,<sup>3</sup> created using lines, colors, or other media, which, when viewed, impart aesthetic effects. Compilation works refer to works that are compiled of certain works, fragments of works, data, or other materials not constituting works, and the choice or layout of the contents that embody the original creation.<sup>4</sup>

To date, there is not yet a publicized final court decision upholding protection for a GUI as a work of fine art or a compilation work. However, in a well-known case, Shenzhen Jixiang Tengda Tech. Co.Ltd v. Shenzhen Pulian (TP-LINK) Tech. Co. Ltd (the TP-LINK case), it may be inferred that GUIs could qualify as compilation works, provided that they satisfy the test of original creation for copyright.<sup>5</sup> The first instance Court (Shenzhen Intermediate Court) held that the GUI of the plaintiff’s product (a wireless router) was copyrightable as a compilation work, and thus, the copying of the plaintiff’s GUI by the defendant constituted copyright infringement.<sup>6</sup> However, the second instance Court (Guangdong High Court) overturned the decision of the first instance Court and ruled that the GUI at issue could not meet the creativeness

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2. *See* Copyright of the People’s Republic of China (中华人民共和国著作权法) [Chinese Copyright Law] (promulgated by the 15th Meeting of the Standing Committee of the Seventh National People’s Congress, effective Sept. 7, 1990; amended by 24th Meeting of the Standing Committee of the Ninth National People’s Congress, effective Oct. 27, 2001), art. 14. *See also* Regulations for Implementation of the Copyright Law of the People’s Republic of China (著作权法实施条例) [Regulations for Implementation of Chinese Copyright Law] (promulgated by Decree No. 359 of the State Council of the People’s Republic of China, Aug. 2, 2002, effective Sept. 15, 2002), art. 4.8.

3. Regulations for Implementation of Chinese Copyright Law, *supra* note 2 at art. 4.

4. Chinese Copyright Law, *supra* note 2 at art. 14.

5. Regulations for Implementation of Chinese Copyright Law, *supra* note 2 at art. 2. *See also* WANG QIAN, INTELLECTUAL PROPERTY LAW TUTORIAL 31 (Renmin University Press, 3rd ed. 2011) (“‘creation’ means a certain level of intellectual creativity . . . The result of (intellectual) labor shall possess a certain level of ‘intellectual creativity’, which may embody the author’s unique intellectual judgment and choice, shows the author’s character, and reach a certain level of height of creation”).

6. *See* Shenzhen Jixiang Tengda Tech. Co. Ltd. v. Shenzhen Pulian (TP-LINK) Tech. Co. Ltd., SZFMSCZ No. 549 (Shenzhen Interm. Ct. 2004) (深圳市中级人民法院 (2004) 深中法民三初字第549号民事判决书).

requirement for such compilation works because the selections, arrangements, and layouts were fairly simple, and they were not creative enough to distinguish it from other GUIs for wireless routers.<sup>7</sup> Therefore, although the second instance decision indicates that GUIs may be protected if they can meet the creativity requirement, in this particular case, copyright law was insufficient to protect the GUI from infringement because the Guangdong High Court relied on the rather broad exception to protection when a design's creativity is deemed insufficient.<sup>8</sup>

## 2. The Independent Creation Requirement – A Major Hurdle for GUIs

To qualify for copyright protections, works must be an independent creation.<sup>9</sup> However, due to Chinese Copyright Law's lack of clear criteria, great uncertainty exists in judicial practice as to the assessment criteria for independent creation. There are a number of reasons for this uncertainty.

First, the requirement of independent creation appears to be fairly subjective. In general, most Chinese courts deem that, for a work to be subject to copyright protection, it should present a certain height of creation.<sup>10</sup> However, it is uncertain as to what height is required. For instance, in the Ikea case,<sup>11</sup> though the children's stool in question might have possessed design creativity with its round stool legs, Shanghai No. 2 Intermediate Court found that the artistic aspect in a work must meet a minimum requirement for it to be protected by Chinese Copyright Law.<sup>12</sup> The Court found that the stools failed to reach a minimum level of artistic sense and denied copyright protection.<sup>13</sup> However, the minimum height requirement was not clarified. Additionally, in the Lego cases,<sup>14</sup> the Court tried to cast some light by stating that a work must possess a certain height of artistic creation, which shall make the general public view it as a piece of art, for it to satisfy the creativity requirement.<sup>15</sup> However, the general public's view test is subjective, is difficult to apply, and allows uncertainty to remain.

Second, because China is a civil law country, rather than a case law country, a court is not obliged to follow established precedents. In an earlier GUI case decided in Shanghai in 2005, the first instance Court found that the GUI at issue did not constitute a compilation

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7. See *Shenzhen Jixiang Tengda Tech. Co. Ltd. v. Shenzhen Pulian (TP-LINK) Tech. Co. Ltd.*, YGFMSZZ No. 92 (Guangdong High Ct. 2005) (广东省高级人民法院(2005)粤高法民三终字第92号民事判决书).

8. *Id.* The Guangdong High Court opined that the design is not sufficiently creative and thus denied copyright protection to the design of the GUIs for wireless routers at issue.

9. Regulations for Implementation of Chinese Copyright Law, *supra* note 2 at art. 2 (explaining that “[t]he term ‘works’ used in the Copyright Law refers to original intellectual creations in the literary, artistic and scientific domain, in so far as they are capable of being reproduced in a certain tangible form”).

10. WANG QIAN, *supra* note 5 at 77.

11. *Inter Ikea Sys. B.V. v. Taizhong Zhong Tian Plastic Co. Ltd.*, HEZMW(Z)CZ No. 187 (Shanghai No.2 Inter. Ct. 2008) ((2008)沪二中民五(知)初字第187号).

12. *Id.*

13. *Id.*

14. See *INTERLEGO. AG v. Kegao (Tianjin) Toys Co. Ltd. & Beijing Fuxing Trade City*, GMZZ No. 279 (Beijing High Ct. 2002) ((2002)高民终字第279号).

15. *Id.*

work subject to copyright protection.<sup>16</sup> However, in TP-LINK case, the first instance Court found that the GUI at issue could qualify as a compilation work and could thus be protected under Chinese Copyright Law.<sup>17</sup> The freedom of courts in different Chinese jurisdictions to interpret the laws in different ways adds additional uncertainty to the application of the exception for independent creation.<sup>18</sup>

### III. Other Limitations for Enjoying Copyright Protection

While the requirement of independent creation may remain a major hurdle, there are also other possible limitations to the copyright protection afforded GUIs.

#### 1. *Functionality / Separability Test*

Depending on their designed purpose, GUIs could be functional in certain cases, as they quickly point users to their associated functions. Therefore, they may be regarded as useful articles.

Chinese Copyright Law does not necessarily exclude protection to useful articles. In a Reply addressed to a query from the Switzerland Embassy with respect to the implementation of Article 25.2 of the TRIPS Agreement in China, the National Copyright Bureau once stated:

[T]he “work of fine arts” provided under the Copyright Law and the Implementation Regulations, are two- or three-dimensional works created in lines, colors or other medium which, when being viewed, impart esthetic effects, such as paintings, works of calligraphy, sculptures, etc. Therefore, any industrial designs, including textile design, are protected by the Copyright Law, provided the designs fit the conditions for “work of fine arts.”<sup>19</sup>

Although it was mainly addressed to textile products, this Reply is often cited as an indication or guidance that Chinese copyright protection should be rendered to a useful article.<sup>20</sup> However,

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16. *See* Beijing Jiuqi Software Co. v. Shanghai Tianchen Computer Software Co. Ltd., HEZMW(Z) CZ No. 100 (Shanghai No.2 Interm. Ct. 2004) ((2004)沪二中民五(知)初字第100号) (importing, to an extent, principles from *Lotus Dev. Corp. v. Borland Int'l, Inc.*, 516 U.S. 233 (1996)).

17. *See* Shenzhen Jixiang Tengda Tech. Co. Ltd. v. Shenzhen Pulian (TP-LINK) Tech. Co. Ltd., *supra* note 6.

18. The court in the first instance of Shenzhen Jixiang Tengda Tech. Co. Ltd. v. Shenzhen Pulian (TP-LINK) Tech. Co. Ltd. holds a different view from that of the court in the first instance of Beijing Jiuqi Software Co. v. Shanghai Tianchen Computer Software Co. Ltd. A major reason for the difference is that China is a common law country, and the courts are not required to follow precedents.

19. *See* QS (2004) No. 23 (权司[2004]23号).

20. *Berne Convention for the Protection of Literary and Artistic Works*, Sept. 9, 1886, as revised at Paris on July 24, 1971 and amended in 1979, S. Treaty Doc. No. 99-27 (1986), art. 2(7) (“[s]ubject to the provisions of Article 7(4) of this Convention, it shall be a matter for legislation in the countries of the Union to determine the extent of the application of their laws to works of applied art and industrial designs and models, as well as the conditions under which such works, designs and models shall be protected. Works protected in the country of origin solely as designs and models shall be entitled in another country of the Union only to such special protection as is granted in that country to designs and models; however, if no such special protection is granted in that country, such works shall be protected as artistic works.”). To note, “works of applied art” is also known as a “useful article”.

since it does not specifically address the extent to which copyright protection should be rendered to useful articles, the copyright protection afforded still needs to be reviewed and decided on a case-by-case basis.<sup>21</sup> Although not explicitly set out under Chinese Copyright Law, the principle of “Functionality - Separability” has been adopted by certain courts in China, particularly for construing whether a useful article is the subject of an “original intellectual [creation]” and whether it may be afforded copyright protection.<sup>22</sup>

For instance, in another Lego case, *INTERLEGO AG v. Guangdong Xiaobailong Toys Industry Co.*, the Court held:

“[I]f a work of fine arts is adopted on [a] useful article, and the original and creative expression of the work of fine arts is a result [of] technical functions, and if the expressions for implementing the technical functions are limited, then other’s use does not constitute infringement to the copyright of the works of fine art. . . . [B]ecause, if the use is found [to be] infring[ing], then it means the copyright protection afforded to the expression will objectively protect the technical functions entailed by the expression.”<sup>23</sup>

The Court’s opinion has adopted the principle of “Functionality – Separability,” and so have the cases of *Jean Paul GAULITER v. Shantou Jiarou Fine Chemicals Co. & Zhao Li Ting*<sup>24</sup> and *Ouke Baobei (OK BABY) Co. v. Cixi Jiabao Children Appliances Co. & Beijing Leyou Dakang Tech. Co.*<sup>25</sup>

Moreover, in the above-mentioned TP-LINK case, the second instance Court addressed the functionality issue, stating that the menus and buttons in the GUI indicated corresponding functions, which were part of operational methods and were purely functional.<sup>26</sup> Therefore, since Chinese Copyright Law protects creative expressions, but not ideas or operational methods, these operational methods were not protected under Chinese Copyright Law.<sup>27</sup>

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21. WANG QIAN, *supra* note 5 at 74.

22. *See* *INTERLEGO AG v. Guangdong Xiaobailong Toys Industry Co. & Beijing Huayuan Xidan Shopping Center Co. Ltd.*, Yi Zhong Min Chu Zi No. 05642 (Beijing No.1 Interm. People’s Ct. 2009) ((2009)一中民初字第05642号); *Jean Paul GAULITER v. Shantou Jiarou Fine Chemicals Co. & Zhao Li Ting* (Beijing No. 2 Intermediate Ct. 2006) EZMCZ No. 7070, ((2006)二中民初字第7070号); *Ouke Baobei (OK Baby) Company v. Cixi Jiabao Children Appliances Co. & Beijing Leyou Dakang Tech. Co.*, EZMCZ No. 12293 (Beijing No. 2 Interm. Ct. 2008) ((2008)二中民初字第12293号).

23. *See* *INTERLEGO AG v. Guangdong Xiaobailong Toys Industry Co. & Beijing Huayuan Xidan Shopping Center Co. Ltd.*, *supra* note 22.

24. *See* *Jean Paul GAULITER v. Shantou Jiarou Fine Chemicals Co. & Zhao Li Ting*, *supra* note 22.

25. *See* *Ouke Baobei (OK Baby) Co. v. Cixi Jiabao Children Appliances Co. & Beijing Leyou Dakang Tech. Co.*, EZMCZ No. 12293 (Beijing No. 2 Interm. Ct. 2008) ((2008)二中民初字第12293号).

26. *See* *Shenzhen Jixiang Tengda Tech. Co. Ltd. v. Shenzhen Pulian (TP-LINK) Tech. Co. Ltd.*, *supra* note 7.

27. *Id.*

## 2. *The Merger Doctrine & Scènes À Faire*

Under the Merger Doctrine, if an idea may only be expressed in a very limited number of ways due to the nature of the subject matter, then one “independent” expression of such an idea may not be afforded copyright protection. Similarly, under the Scènes À Faire doctrine, if the creative elements in a work are regarded as common practice or in the public domain, the work may also fail the independent creation test and thus be unprotected.

In the second instance court of the TP-LINK case, the Court held that, although there are a number of identical places or similarities between the GUIs for two WLAN Router products at issue, the GUIs are designed in accordance with the users’ requirements; and the GUIs under the present case must have referred to the common elements of existing GUIs, due to similar functions to be rendered and similar user requirements.<sup>28</sup> This seems to suggest that the Court has also adopted the Merger Doctrine or the principle of Scènes À Faire, which, as shown in this case, does not favor the GUI creator. Therefore, because the expressions could be limited due to their designed purpose, the presentation of GUIs could be deemed limited expression of ideas and thus considered as not protectable ideas under Chinese Copyright Law.<sup>29</sup>

## 3. *Public Interests Considerations Coming to Enforcement*

Public interests always come into play in the enforcement of copyright.<sup>30</sup> Public interests are viewed as a practical hurdle barring administrative enforcement for copyright owners. Assuming GUIs are afforded with copyright protection and become subject to enforcement actions, whether and how public interests are assessed at this point would be uncertain. Arguably, rendering no protection to copyrighted works would impair society on a macro level; however, the level at which the public interests concern is assessed is not yet clear.

In the TP-LINK case, the second instance Court found that certain elements of GUIs fall into the scope of expressions in public domain, and, if Shenzhen Pulian (TP-Link) was allowed to prohibit others from using these expressions, it would be against the legislative purpose of encouraging the creation and spread of works and ultimately impair the public interests.<sup>31</sup> Arguably, this may suggest that copyright afforded to GUIs may be more likely to face the threshold of public interests. That is to say, if a GUI is designed to satisfy a user’s frequent demands, it may be inevitable to have designs familiar to the user, which might entail design limitations, and, in that case, public interests may more likely outweigh the GUI designers’ individual rights.

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28. *See id.*

29. *See id.*

30. Chinese Copyright Law, *supra* note 2 at art. 48; *see also* Regulations for Implementation of Chinese Copyright Law, *supra* note 2 at arts. 36-37.

31. *See* Shenzhen Jixiang Tengda Tech. Co. Ltd. v. Shenzhen Pulian (TP-LINK) Tech. Co. Ltd., *supra* note 7.

Concerned with public interests, Chinese Copyright Law also provides fair use exemptions<sup>32</sup> and certain statutory licenses<sup>33</sup> as restrictions on enforcing copyrights.

#### **IV. Possible Implications to GUIs of the Draft of Third Revision of Chinese Copyright Law**

It is worth noting that the Draft of the third revision of Chinese Copyright Law (Draft) was recently released for public comments on March 31, 2012.<sup>34</sup> The proposed revisions outlined below may have positive implications on possible GUI protection under Chinese Copyright Law.

##### *1. Works of Applied Art - Article 3(9) in the Draft.*

The Draft includes the useful article in the category of works of applied art under Chinese Copyright Law.<sup>35</sup> The specific inclusion of such works in the law may help reduce some of the uncertainties that have existed as to “works of fine art.” However, it still fails to clarify what creativity or height of artistic sense is required for the useful article to be subject to copyright protection, even as works of applied art.

##### *2. Damages – Article 72 in the Draft.*

This Article introduces detailed provisions clarifying the damages available for copyright infringement. As opposed to the currently available amount of statutory damages of up to RMB 500,000,<sup>36</sup> the newly proposed amount increases the amount to RMB 1 million (approx. US\$158,000) where compensation is difficult to be determined.<sup>37</sup> However, in order to obtain these damages, there is an additional requirement to record the copyright or relevant agreement, which will, in effect, make copyright recording a compulsory procedure.<sup>38</sup> Furthermore, for repeated copyright infringers, punitive damages one to three times higher than the above damages have been introduced into Chinese Copyright Law.<sup>39</sup>

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32. Chinese Copyright Law, *supra* note 2 at art. 22.

33. Chinese Copyright Law, *supra* note 2 at arts. 23, 33, 39, 43.

34. *See* Chinese Copyright Law Draft, Public Comment, NCAC (Mar. 31, 2012), *available at* <http://www.ncac.gov.cn/cms/html/309/3502/201203/740608.html>. A draft of 3<sup>rd</sup> revision of Chinese Copyright Law is also available at the same address.

35. *See id.* at art. 3(9).

36. Chinese Copyright Law, *supra* note 2 at art. 48.

37. *See* Chinese Copyright Law Draft, Public Comment, *supra* note 34 at art. 72.

38. *See id.* at art. 72. In the draft article 72, it requires that “[i]f the actual loss of the copyright holder, the illegal gains of the infringer and the royalty in normal trade of copyright are all difficult to determine, according to the registration of the copyright or related rights, registration of the exclusive licensing contract, or registration of the assignment contract, the court shall award the compensation amounting to no more than RMB one million according to the circumstances of infringement”, which may be construed that, the proposed statutory damages of RMB 1 million will only be substantiated on the condition of copyright recording.

39. *See id.* at art 72.

### 3. Administrative Enforcement – Articles 73 and 75 in the Draft.

The enforcement power of administrative authorities has been increased. They are entitled to seize or confiscate infringing products and to examine or reproduce the sales, invoices, contracts, and other material relevant to the infringing activities.<sup>40</sup> Previously, the precondition to an administrative authority taking action was that the infringement should be “detrimental to the public interest.”<sup>41</sup> Now, it is that the infringement is such as to “impair the order of socialist market economy” – a precondition that should be more easily satisfied.<sup>42</sup> ■

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40. *See id.* at art 75.

41. Chinese Copyright Law, *supra* note 2 at art. 47.

42. *See* Chinese Copyright Law Draft, Public Comment, *supra* note 34 at art. 73.