

Admissibility of e-evidence generated by Telnet technology in software copyright litigation in China

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Electronic evidence has been explicitly enumerated as direct evidence since the promulgation of the amended Civil Procedure Law of China in 2013. However the Law does not provide a practical standard for the admissibility of e-evidence, particularly regarding those forms of e-evidence generated by new technologies. This article provides an analysis of the admissibility of such e-evidence generated by Telnet technology, which is often submitted by software owners in copyright infringement cases.

Introduction

Since the promulgation of the amended Civil Procedure Law of China in 2013, the legal position of electronic evidence has been clarified as one form of direct evidence. The law stipulates that 'electronic data' may be accepted as evidence in civil proceedings.¹ This means that the Chinese courts may admit e-evidence alone as a fact, and support the claim or the defence which the fact is based on. However the law does not provide a definition of e-evidence.² Later in 2015, the Supreme Court further enumerated that such 'electronic data' includes the information generated or stored in electronic medium via e-mail, electronic data exchange, online chat transcripts, blogs, micro-blogs, text messages, electronic signatures, domain name, etc.³ However, neither the Civil Procedure Law nor the Interpretations by the Supreme Court provides a concrete practical standard of the admissibility of e-evidence, particularly regarding those forms of e-evidence generated by new technologies. Such a situation leaves a significant ambiguity in legal practice. One of the problems caused by the ambiguity is whether Chinese courts ought to accept

the e-evidence generated by Telnet technology in copyright infringement cases.

In technical terms, Telnet refers to an application layer protocol which allows users to make remote connections on the Internet or local area networks to provide a bidirectional interactive communication facility using a virtual terminal connection.⁴ By Telnet technology, a computer user can get access to a remote terminal via his local computer. Thus, in software copyright infringement cases, the copyright owners may use Telnet technology to get access to potential infringers' computers via the Internet to check whether their software is installed in those computers. If they find the infringement information, the copyright owners will save the information in their local computers, with a notary on the scene. The evidence generated by Telnet will be submitted to the court in the litigation.

According to the Chinese copyright law, the unauthorised use or reproduction of software constitutes copyright infringement.⁵ In software copyright litigation, the courts apply an 'access and substantial similarity' test to decide whether the act complained of constitutes copyright infringement. 'Access' means that the defendant has access to the original work of the plaintiff. 'Substantial similarity' means that the work in question is substantially similar with the original work.⁶ In order to prove access and the demonstration of any substantial similarity between the original and the software in question, the plaintiff has the burden to provide the evidence concerning the defendant's possession of the illegal copy of the plaintiff's software.⁷ However,

⁴ Microsoft, 'What is Telnet?' [https://technet.microsoft.com/en-us/library/cc725695\(v=ws.10\).aspx](https://technet.microsoft.com/en-us/library/cc725695(v=ws.10).aspx).

⁵ Article 24, Software Protection Regulations of China; Article 47 and 48, Copyright Law of China.

⁶ Qian Wang, *Intellectual Property Law* (4th edn, Renmin University Press, 2014), p. 41.

⁷ Jinchuan Chen, *Copyright Trial: Explanations on Principles and the Guide to Legal Practice* (Law Press, 2014), p. 106. The comparison report includes plaintiff's source code, object code, related documents and the defendant's accused source code, object code, related documents.

¹ Article 63, Civil Procedure Law of China.

² This manner of legislation causes confusion in the legal practice, since the Chinese courts may interpret the term of electronic data differently.

³ Article 116, Interpretations on the Application of Civil Procedure Law by the Supreme Court.

since the plaintiffs are usually not authorised to retain the defendants' computers, it is difficult for the plaintiffs to collect evidence in conventional ways. As a result, particularly since the promulgation of the Civil Procedure Law, some plaintiffs began to submit evidence generated by Telnet, and try to persuade the judges to admit the evidence as direct evidence.

Since 2012, there have been ten copyright infringement cases held in different Chinese courts, in all of which the plaintiffs submitted Telnet generated evidence.⁸ Some judges have admitted the evidence,⁹ some judges did not admit the evidence,¹⁰ and some judges considered the evidence irrelevant.¹¹ Even in the cases that admitted the evidence, some judges admitted the evidence as direct evidence and recognised its probative force,¹² while the other judges admitted the evidence but used it for moving the burden of proof to the defendant,¹³ which means that the defendant had the burden to prove that they did not copy the software as alleged. The inconsistent attitudes of Chinese judges towards Telnet generated evidence may cause confusion. It follows that it is necessary to clarify the criteria of admissibility of the Telnet generated evidence.

Cause of the ambiguity

The reason that different judges treat the Telnet generated evidence contrarily is their different interpretations of the important element within the 'burden of proof' test. This element is the admissibility of the Telnet generated evidence. According to the Interpretations by the Supreme Court, the 'burden of proof' test consists of three steps to be satisfied. The first step requires that the party is responsible for providing the evidence is to prove the fact that his claim or defence is based on. The second step

requires that party bearing the above responsibility to be aware of the negative consequence if the evidence is not admissible. Thirdly, if the evidence is considered admissible, then the court will examine whether the evidence is capable of creating a high degree of probability, sufficient to eliminate any doubts relating to the fact.¹⁴ Such a three-step test plays a similar function as the 'burden of proof' test in common law, which consists of the burden of production and the burden of persuasion.¹⁵ In accordance with the Chinese three-step test, the hearing court will first examine whether the party has submitted the evidence to prove the fact. If the party has done so, then as the second step, the court will decide whether the evidence is admissible. If the judge holds that the admissibility of the evidence is compromised, the judge may exclude the evidence.¹⁶ If the evidence passes the second step, then the judge will examine whether the evidence is sufficient to eliminate the doubtfulness of the fact. If it is, the judge will support the relevant claim or defence accordingly. Otherwise, the claim will not be supported.

As mentioned above, among the ten cases where Telnet generated evidence involved copyright infringement cases, the judges treated the Telnet generated evidence in three different ways.

For the cases in which the evidence were admitted as direct evidence, it may be concluded that the courts held that all the three steps of the 'burden of proof' test were satisfied. Those judges interpreted the Civil Procedure Law in a way that the Telnet generated evidences were admissible. As a result, the fact which the claim or defence is based on can be proved sufficiently by the Telnet generated evidence.

For the cases in which the evidence were not admitted, it may be concluded that the judges held that the evidence satisfied the first step, but failed the second step. Those courts interpreted the Civil Procedure Law that the Telnet generated evidence was not legally admissible as e-evidence enumerated by the Civil Procedure Law and its Interpretations.

For the cases in which the courts admitted the evidence for the purpose of distributing the burden of proof to the defendant, it may be concluded that the judges held that the evidence satisfied the first and

⁸ Those ten cases are: (2012) Xu Min San Zhi Chu Zi Di 596, (2012) Shen Fu Fa Zhi Min Chu Zi Di 1370, (2012) Zhe Jia Zhi Chu Zi Di 121, (2013) Jia Xiu Zhi Chu Zi Di 17, (2013) Chang Zhi Min Chu Zi Di 181, (2013) Hu Zhi Min Chu Zi Di 155, (2013) Yong Yin Zhi Chu Zi Di 153, (2013) Qing Zhi Min Chu Zi Di 36, (2014) Hu Er Zhong Min Wu Zhi Chu Zi Di 61, (2014) Hu Yi Zhong Min Wu Zhi zhong Zi Di 45.

⁹ The courts that accepted the evidence are: (2012) Xu Min San Zhi Chu Zi Di 596, (2013) Chang Zhi Min Chu Zi Di 181, (2014) Hu Er Zhong Min Wu Zhi Chu Zi Di 61, (2014) Hu Yi Zhong Min Wu Zhi zhong Zi Di 45.

¹⁰ The courts that did not accept the evidence are: (2012) Zhe Jia Zhi Chu Zi Di 121, (2013) Jia Xiu Zhi Chu Zi Di 17.

¹¹ The courts that considered the evidence irrelevant are: (2012) Shen Fu Fa Zhi Min Chu Zi Di 1370, (2013) Hu Zhi Min Chu Zi Di 155, (2013) Yong Yin Zhi Chu Zi Di 153, (2013) Qing Zhi Min Chu Zi Di 36. In those cases, the issues were the ownership of the software.

¹² (2012) Xu Min San Zhi Chu Zi Di 596, (2013) Chang Zhi Min Chu Zi Di 181, (2014) Hu Er Zhong Min Wu Zhi Chu Zi Di 61.

¹³ (2014) Hu Yi Zhong Min Wu Zhi zhong Zi Di 45.

¹⁴ Article 90, Interpretations on the Application of Civil Procedure Law by the Supreme Court.

¹⁵ *Black's Law Dictionary* (5th ed, 1979), p. 178. The burden of production is also known as the burden of going forward with the evidence.

¹⁶ Article 106, Model Law on Electronic Commerce of China.

the second step, but failed the third step. However, according to the interpretation by the Supreme Court, if the doubtfulness of fact cannot be fully excluded because of the admissibility issue, the judge should make the decision to distribute the burden of proof from the plaintiff to the defendant.¹⁷ In those software copyright cases, the courts admitted the Telnet generated evidence, but found such evidence was not sufficient. However, considering the circumstance, the judges had enough reason to believe there was a high degree of probability that the infringement occurred. Thus, the courts distributed the burden of proof from the plaintiff who had submitted the Telnet generated evidence to the defendant. Hence, the defendant carried the burden to prove that the information in the Telnet generated evidence was not enough to prove the fact.

To sum up, the fundamental reason for courts to treat the Telnet generated evidence contrarily is the different criteria of the admissibility of Telnet generated evidence. A further analysis is necessary to clarify the issue.

Legitimacy, relevance and authenticity of the evidence

According to the Civil Procedural Law of China, the admissibility of evidence consists of three elements, which are legitimacy, authenticity and relevance.¹⁸ In order to clarify the criteria of the admissibility of Telnet generated evidence, it is necessary to analyse the three elements respectively.

First, regarding the legitimacy, it is necessary that the evidence must exist in a legitimate form, and the collection, investigation and preservation of such evidence must be in compliance with the law.¹⁹ The interpretation by the Supreme Court further provides a practical two-step test for the standard of legitimacy: any evidence shall be legitimate unless it is obtained against the prohibitions of law or prejudices the legitimate rights of others. Otherwise, it must be excluded from the litigation.²⁰ Concerning the first step of 'not against the prohibitions of law' test, illegal

measures such as secret recording and illegal detention are not allowed. Particularly, regarding to new technological approach, if the evidence is obtained via an uncertified computer program or via illegal software, from which the computer device is proved to be in an abnormal condition, it will also be excluded by the court.²¹ Concerning the second step of 'prejudice other's legitimate rights' test, in legal practice, the judgement of whether there is prejudice is made upon a case-by-case basis.²²

Under this two-step test, the Telnet generated evidence fully satisfies the requirements. Regarding the first step, when collecting the Telnet generated evidence, the collector just searches on the Internet using legitimate software with a legitimate computer. It is not the method of a hacker, because the Telnet does not break into the target computer. Thus, there is no prohibition of law to restrict such behaviour. Concerning the second step, the collection of evidence by Telnet technology does not prejudice anyone's legitimate rights. Therefore, it may be concluded that the evidence collected by Telnet is legitimate.

The second element is the relevance. With regard to this element, the court will consider whether the evidence is substantially relevant to the dispute in question.²³ Due to the nature of the element of relevance, it is for the court to decide whether the evidence is relevant, and this is made on a case-by-case basis.

With regard to the Telnet generated evidence, the evidence usually shows the information that the plaintiff's software has been installed in the defendant's computer. The Telnet generated evidence creates a concrete connection between the copyright owner and the infringer. It may be concluded, therefore, that the proper collected Telnet generated evidence is relevant to the fact to be proven.

Since the above two elements of legitimacy and relevance may be clearly satisfied, the third element

¹⁷ Article 73, Evidence Stipulation in Civil Litigation by the Supreme Court of China.

¹⁸ Yi Chang and Jian Wang, 'The Independent Legal Position of Electronic Evidence', *Faxuluntan (Jurisprudence Forum)*, 2004 (1), p 67.

¹⁹ Yi Chang and Jian Wang, 'The Independent Legal Position of Electronic Evidence', *Faxuluntan (Jurisprudence Forum)*, 2004 (1), p 67.

²⁰ Article 68, Evidence Stipulation in Civil Litigation by the Supreme Court of China.

²¹ The term 'uncertified computer programs' refer to the programs that are not verified by the Chinese authority to conduct transactions in the relevant business. According to Section 2 of the 'Measures for the Administration of Software Products' (Ministry of Industry and Information Technology), copyright owners of computer programs are encouraged to register their programs at the authorised copyright agency. If the program satisfies the registration, a five-year valid certificate will be issued to prove that the program is certified.

²² Research Team of IP Court of Beijing High Court, 'Several Questions of Electronic Evidence in IP Cases', *Falvyukeji (Science Technology and Law)*, 2008 (1), p 33.

²³ Article 105, Model Law on Electronic Commerce of China.

of authenticity is a significant element: to decide whether the Telnet generated evidence is admissible.

According to the Civil Procedural Law, since Telnet generated evidence is collected and stored in an electronic medium, it is classified as e-evidence.²⁴ Compared with conventional forms of evidence, and due to its digital nature, e-evidence is much easier to modify. Therefore, although the Civil Procedure Law explicitly stipulates that e-evidence may be admitted as direct evidence, there is no statutory standard for the authenticity of the evidence.²⁵ When analysing similar e-evidence, some courts may apply for a more cautious standard, while others may apply for a less cautious standard. Although this situation causes confusion, the inconsistent attitudes of Chinese courts towards Telnet generated evidence are still reasonable. On the one hand, e-evidence is much easier to be manipulated due to its characteristics. On the other hand, Chinese courts 'encourage the right owners to obtain evidence by themselves.'²⁶ As a result, in legal practice, different judges will decide whether the e-evidence is authentic on a case-by-case basis – because it will depend on the facts of each case. When analysing similar evidence, some courts may apply a more cautious standard, while others may apply a less cautious standard.

With regard to Telnet generated evidence, such a case-by-case approach was also applied in the software copyright cases. As mentioned in the introduction, Telnet generated evidence is collected and preserved by technical methods.²⁷ During the collection, there still remains the possibility that the information may not be authentic.²⁸ Also during the preservation, it is possible that the information within the Telnet generated evidence may be manipulated by technical methods.²⁹ Therefore, it may be concluded that there remains possibility that the Telnet generated evidence may not be authentic.

To sum up, the fundamental variable of the admissibility of Telnet generated evidence is the authenticity of the evidence. Due to the inconsistent attitudes towards Telnet generated evidence, Chinese judges decide whether the Telnet generated evidence admissible on a case-by-case basis.

Suggestion to strengthen authenticity

Since authenticity, which is the main element of the *admissibility* of Telnet generated evidence, is carefully examined by the courts, it is suggested that the party who submits the evidence should collect and preserve such evidence in a more appropriate approach. The following two methods may be considered to strengthen the authenticity of such evidence.

First, the party may apply for efficient technological measures to protect the Telnet generated evidence. Technological measures means effective technology, device, or components for preventing unauthorised access to the electronic data.³⁰ If the evidence is secured by proper technological measures, then the evidence will not be able to be manipulated. In addition, for the integrity of the evidence, it is advised that the defendant provides supportive evidence to prove that the computer device for collecting the evidence is in a normal and proper running condition during the collecting process.³¹ Thus, the court will consider the evidence to be more authentic.

Secondly, the party may appoint an expert or suitably qualified witnesses to give a professional opinion on the Telnet generated evidence. According to the Civil Procedural Law, parties are entitled to appoint witness and experts to give testimony and professional opinion concerning the evidence.³² Since the collection and preservation of Telnet generated evidence is data in digital form, any professional opinion and testimony with the relevant expert knowledge will help the court to understand the method of seizure and the evidence more comprehensively. This approach has been widely accepted as an effective way of dealing with the authenticity issue.³³ Therefore, if the evidence has

²⁴ Article 116, Interpretations on the Application of Civil Procedure Law by the Supreme Court.

²⁵ Article 63, Civil Procedure Law of China.

²⁶ Research Team of IP Court of Beijing High Court, 'Several Questions of Electronic Evidence in IP Cases', *Falvyukeji (Science Technology and Law)*, 2008 (1), p 33.

²⁷ The typical Telnet generated evidence is produced in three steps: first, the collector tracks the suspicious remote computer by Telnet technology via the Internet; then he saves the information from the suspicious computer by his local computer; finally, he submits the information from his computer to the court as evidence.

²⁸ For example, the owner of the tracked computer A may use a false IP address to mislead the collector to a computer B from a third party. So the Telnet generated evidence may show the address of computer A, but the content is actually from computer B.

²⁹ Due to the digital characteristic, the information stored in the collector's computer may be created, edited and deleted.

³⁰ Article 26, Regulations on the Protection of the Right of Communication through Information Networks.

³¹ Aibing Wu, 'The Authenticity of Electronic Data', Official portal of Chinese courts

<http://www.chinacourt.org/article/detail/2014/07/id/1329854.shtml>

³² Article 74 and Article 76, Civil Procedure Law of China.

³³ For example, Article 6 of the proposed Convention on Electronic Evidence (v3) suggests that digital evidence practitioner, who is qualified and capable of investigating and examining evidence in digital form, are required to make judgements about the

been approved by a competent witness, or demonstrated to be unmodified by a competent expert, the court will consider the evidence to be more authentic.³⁴

Conclusion

Although the Civil Procedure Law of China clarifies e-evidence as a form of direct evidence, there are no practical criteria for courts to determine the admissibility of e-evidence, particularly for Telnet generated evidence. It may be concluded that the authenticity of the evidence seized is the most important element to determine when considering the admissibility of Telnet generated evidence. In current legal practice, Chinese judges examine the authenticity of evidence on a case-by-case basis. However, some methods may be applied by the party seizing the evidence to strengthen the authenticity. It is suggested that this would be an important step in the right direction.

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appropriateness of the tools and techniques they use to interrogate devices and seize evidence in electronic form. The proposed Convention on Electronic Evidence is available at <http://conventiononelectronicvidence.org/>.

³⁴ Article 107, Model Law on Electronic Commerce of China.