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An Analysis of Electronic Data as a Type of Legal Evidence

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Abstract: With the popularity and development of the Internet, E-commerce gradually spearhead the international trade, and become the main medium of trade. The application and development of E-commerce poses a severe challenge toward the traditional legal system, and bring about lots of new legal problems, especially worrisome is the evidence of E-commerce, which constitutes the major stumbling blocks in the development of international E-commerce. Simultaneously, the evidence of electronic contract remains a new problem in China's Evidence Law. All along, views concerning the legal status of electronic contract vary greatly in theoretical circle, what's more, its application is comparatively chaotic. Therefore, the evidence of electronic contract has become a pressing problem. In view of the sophistication of classification of electronic contract evidence and its peculiarity, the author deems it necessary to think of the evidence of the electronic contract as a brand-new independent category, so as to further facilitate the development of E-commerce in international trade.

Keywords: International Trade, Electronic Contract, Electronic Evidence, New Evidence

1. INTRODUCTION

The enormous impact of the growth of technology on modern trade has far outgrown our wildest imagination. In the Middle Ages, the traditional paper-based transactions took the place of the barter trade, a revolutionary breakthrough, which brought about a dramatic structural change in trade. Nowadays, the changes triggered by the internet will be even more dramatic. The time-honored paper-based transaction is being replaced by electronic trade, evolving toward the paperless society. All trade activities related to figure transactions will eventually be conducted in a virtual marketplace.

In international trade today, the conclusion of a trading contract usually employ electronic, optical or similar means to generate, store, or transmit commercial trade information. Thus, such data messages as Electronic Data Interchange (EDI) and E-mails have already replaced paper---the once principal medium of trade--- and now provide more speedy, economical, and secure information. EDI is deemed as a milestone advance for it can effectively facilitate the commercial transaction process, greatly simplify the relationship of the contracting parties and, above all, cut down the cost of the transactions. Electronic contracts are created during online buying and selling on electronic markets.

Nevertheless, along with electronic contracts come numerous new problems: How is the manifestation of intention between the parties delivered? What about its legal validity? Can it match the validity of the paper or signature? In addition, should there be conflict between the concerned parties, as is often the case, what evidence can EDI provide? Questions like these deserve attention and research. This paper however, only attempts to analyze the electronic contract as legal evidence.

2. THE DEFINITION AND FEATURES OF THE EVIDENCE OF ELECTRONIC CONTRACT

So far, no clear definition of the electronic contract is available in academia. In China, most scholars hold that it refers to the electromagnetic recordings that provide the evidence to cases by using the computer system to generate and operate in the commercial affairs. The evidence of electronic contract is as important as traditional evidence in court, it also has the following unique characteristics:

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2.1 Vulnerability

This mainly manifests itself twofold. On the one hand, the data itself is vulnerable to the unintended operation by the operator, communication failure, internet breakdown, or technical trouble. Even in the course of collecting electronic data, the original version may be severely altered or deleted, and thus unrecoverable. On the other hand, the magnetic medium upon which the data is stored remains vulnerable because the data can be easily revised, deleted, or copied, and the action is traceless and very hard to detect. Even if detected, it is also rather difficult to verify the alteration. Therefore, in court, the authenticity of the evidence remains the top concern of the judge as well as the contracting parties.

2.2 Imperceptibility

Compared with the traditional paper message, the information code of the electronic evidence is indeed very hard to identify. It is stored on the CDs and hard discs in a series of electromagnetic or photoelectric signals. To read the codes proper instruments are required. In addition, electronic data serving as evidence are, more often than not, mingled together with the neutral data, so to single them out in a world of electronic data is, of course, a demanding job.

2.3 Complexity

Information is displayed in many forms on the computer. It resembles traditional evidence very much in its output and external attachments. However, this is exactly where its complexity lies. With the emergence of internet, and especially the multi-media, the electronic evidence is no longer confined to the simplistic word, diagram or sound; rather it is a synthesis of texts, diagram, cartoon, audio frequency, visual frequency and other multi-media messages, almost embracing all sorts of traditional evidences.

2.4 High-technology

The computer itself is a modern computing, communicating and message-processing instrument. For one thing, the collecting, evaluating, and storing of the electronic evidence demands expertise knowledge of computer. Any problems that crop up in processing the data such as detecting routes, account numbers and passwords ; recovering the damaged data; deciphering encoded documents; counter-editing instructions of destructive procedures, require a sophisticated knowledge of high-technology. However, because of its high-technology, electronic evidence, without the external interference of deliberate revision or error and free of the influence of artificially imposed factors, remain pretty persuasive as evidence in court. What's more, electronic evidence itself is produced from the development of technology, and evolves with the further development of computers and electronic communication. Electronic evidence is ever more reliant on the technology and sensitive to its continuing changes.

2.5 Dispersal and continuity

By these we mean that electronic evidence used in court may be deposited in many servers on different websites from the same or different countries. Simultaneously, due to the similarity of the crimes on the internet and the transmission of the data on the net, the dispersal of electronic evidences has the quality of continuity in time and space, allowing mutual corroboration, thus finally presenting the direct evidence in court.

3. THE LEGAL STATUS OF ELECTRONIC EVIDENCE

The legal status of the electronic evidence refers to how it is classified as evidence. The classification of the evidence constitutes an important part of the evidence system in China. Article 63 of the Civil Procedure Law stipulates: "Evidence falls into the following categories: (1) written evidence; (2) material evidence; (3) audio-visual materials; (4) witness testimony; (5) the statements of the litigants; (6) appraisal report; (7) record of investigation and examination of the scene of a crime". Similar stipulations have also been made in the Criminal Procedure Law and the Administrative Procedure Law. Consequently, the following representative

views on the classification of electronic evidence are put forward by scholars of law.

3.1 The audio-visual evidence school

The viewpoint of this school is, to a certain extent, accepted by both the legislature and the judiciary in China. This is seen in laws, regulations, and judicial interpretation, which consider electronic evidence as audio-visual materials^[1]. For instance, Clause one, Article Three of the Opinions on Some Issues of the Prosecutorial Office in Carrying Out the Criminal Law issued on Dec.31,1996 by the Supreme People's Procuratorate stipulates: " Audio-visual material refers to the evidence that can be used to verify facts in court in the means of diagram and sound. It also includes the tape-recordings, video-tape recordings, photos, fiches, sound cards, video-discs, and computer memories, so on and so forth materials that are related to the facts of the case, to the suspect, and its anti-detection behavior ”.

Another illustration is that Clause Seven of Article Three in The Regulations Concerning the Evidences of Handling an Assortment of Cases by the Beijing People's Higher Court stipulates that: " Audio-visual materials include tape-recordings, video-tape recordings, electronic data interchange, e-mail, electronic data and the like that are stored in the computer”.

Generally speaking, scholars of this sort hold that: (1). Audio-visual data refers to those tape-recordings and video-recordings that can be seen or heard, electronic evidence can display in the form of "machine-readable" form, thus also "visible". (2).There are some similarities between the existing form of electronic evidence and the audio-visual data. That is, they are stored on the paperless medium in the electro-magnetic or other forms other than word signals. (3).Stored audio-visual data and electronic evidence can be directly experienced by people only when they are transformed into other forms by means of certain tools or instrument. There is no distinction between the original text and the duplicate. (4).The classification of electronic evidence into the audio-visual can best display the synthetic nature of evidence value.

3.2 The written evidence school

The assertion of this school of scholars is that (1) written evidence records a certain text on paper in the form of words while electronic evidence records the same text in a paperless medium in a different way such as electro-magnetic and light, etc^[2]. The manner of recording and its medium are different, but the content or text is the same and further it functions the same i.e. to record the same text. Electronic evidence can be used to illustrate a certain problem in court by the content that it contains. In addition, it needs to be printed on paper, only by then can it be seen or utilized, therefore, it has the features of written evidence.(3) Article Eleventh of the Contract Law of the People's Republic of China stipulates, "The written form refers to one by which contract, letters, and Data Electronic Texts(telegraph, telex, fax, Electronic Data Interchange and e-mail) etc. can be carried tangibly". Therefore, it can be inferred that electronic contract evidence can be regarded as a kind of written evidence. (4).The functional equivalence law that is being tried by all countries can very well fill in the gap between the traditional written form and electronic evidence. As an example of this, in the very first case of its kind in China, a controversial labor dispute case occurred in Shanghai Pudong New Zone. In that case, the Administrative Control Division of Public Information Internet Safety, produced a written evidence on e-mail to act as an evidence.

3.3 The evolution school of traditional evidence

The authoritative research team members of the school of law in China People's University think that electronic evidence is by no means unique^[3]. It can be added to the existing seven legal evidences according to the attribute or feature of electronic evidence when serving as evidence. For instance, the "traces" left by using the computer for illegal activity can be thought of as an electronic material evidence. The information recorded in the form of electronic text and used to prove the fact of a case then is exactly the electronic written evidence. The audio and visual data in electronic form is absolutely the electronic audio-visual materials. The electronic

recording of chats is perfectly the witness evidence^[4].

4. THE ANALYSIS OF THE NATURE OF ELECTRONIC CONTRACT EVIDENCE

As reasonable as the above arguments are, they have their own respective weak points in the author's opinion. What follows is an analysis of the nature of evidence in the electronic contract of the international trade based on the stipulations of the Modeling Law of E-commerce of the United Nations, the Contract Law of China and the Electronic Signature Law in China.

4.1 The confirming principle of the nature of electronic contract evidence

As for the attributes and ascription of the electronic contract evidence in international trade, there is no clear definition available in the Modeling Law of the United Nations. Clause two of article three of the Modeling Law of E-commerce of the United Nations stipulates: "For the events that come under the law but there is no solution to the undefined items, it should be tackled on the general principle of this law". Then what is, after all, the general principle? It refers to the first clause of article three, i.e. the principles of "overall application" and "honesty and credibility".

According to the principle of "overall application"^[5], it is obvious that electronic contract evidence is endowed with independent status in terms of its weight. Article five of Modeling Law of E-commerce of the United Nations requests that all countries must not deny the force, effectiveness, and enforceability of the data texts. Article nine clearly defines the acceptable weight of evidence of the data text.

As to the legislative acceptability of electronic contract evidence, generally, it is beyond dispute in China's academic circles^[6]. Of course, there are some controversies concerning the weight, nature of ascription, understanding or methods of research for the electronic contract evidence, but the point here is that it must be classified into other forms of evidence in order for it to be legally effective, in other words, it is not possessive of independent weight. Yet what is certain is that this is not the original meaning of the Modeling Law of E-commerce of the United Nations. Clause two of article nine stipulates that: "Due weight must be accorded to the information in the form of data text, when a data text is assessed, consideration must be given to its reliability of generation, storage and transmission, of the way of keeping the information integral, the means of differentiating the originator, and other relevant elements". Here, what is obvious is that all that can prove its generation, way of storage and transmission, reliable data text (it goes without saying that it should be proved by the means that China authorized)--- must carry independent legal weight, directly applying to "any lawsuit" without relying on any other form of evidence.

According to the principle of "honesty and credibility", all practices and data texts possess independent legal weight if they fulfill the functions that are stipulated and developed respectively in article ten "the storage of the data text"; article twelve, "the acknowledgement of data text of all litigants" ; article thirteen, "the ascription of data text"; article fourteen, "the confirmation of receipt." In recent years, the incessant probing and perfecting of the authenticating institutions, authenticating techniques, authenticating procedures and measures in all countries are based on honesty and credibility^[7]. In view of the advancement of science and technology as well as the research and development of electronic authentication and its actual proceedings, we have no strong reason to still cling to the belief that electronic contract evidence should be denied of its independent legal force due to its vulnerability. Therefore, a clear and dialectic recognition of electronic contract evidence is very urgent. Admittedly, it is likely that electronic contract evidence can be revised, intercepted, deleted and edited, yet it is not the principal tendency today. Laws of all countries, China included, should and must be founded on credibility, only by this means can we guarantee the healthy development of international trade of e-commerce.

4.2 Electronic contract as direct evidence in both the Modeling Law of E-commerce of the United Nations and the Law of Electronic Signature in China

Article five, “the legal acknowledgement of data text” of the Modeling Law of E-commerce of the United Nations clearly defines the legal force, effectiveness, enforceability of electronic contract evidence,. Article six endows equal legal force between electronic contract evidence and the traditional written form. Article eight gives the legal force of traditional and original form to the electronic contract evidence. So, it possesses direct legal weight of traditional evidence.

Academic circles in China hold that electronic contract evidence must be categorized into the audio-visual materials as a kind of indirect evidence, so it must go together with other material evidence, written evidence, and also get mutual corroboration. Only after this process does it become legally effective. This is not inconsistent with the spirit of Modeling Law of E-commerce of the United Nations. Besides, if we make laws on this basis, we will surely run into numerous troubles different from other countries in the judicial practice.

There is no detailed specifications concerning the qualifications of what evidence can be legally recognized in the Contract Law ratified in March,1999 although it admitted that data text (telegraph ,telex, fax, Electronic Data Interchange, and e-mail) and the like can express the content stored tangibly^[8]. This form of expression can be regarded as the form that law recognizes. So in principle, it acknowledges the weight of evidence of the electronic contract.

The Law of Electronic Signature effective as of April, 2005, remains the most specific law in China in the respect to collecting and storing electronic evidence and its confirmation. Article four stipulates: “that data text which can tangibly display the content it carries, and which can be checked randomly is deemed as the form that conforms to law and the regulations”. Article five stipulates that data text that meets the following requirements are regarded as the original form satisfying the law and regulations: (1) those that can effectively display its content and can be randomly certified and checked for availability;(2)those that can guarantee the intact integrity of the content when it is finalized initially. But when the data text is added to endorsement or data interchange, the changes in the form of storing and displaying do not affect the integrity of data text. Based on this, the electronic contract evidence of international trade can be confirmed as the direct evidence.

4.3 The electronic contract not written evidence in both the Modeling Law of E-commerce of the United Nations and the Relevant Laws of China

Those who hold that electronic contract evidence should be classified into the written evidence, think that it conforms more to the computer evidence and also to the international norm of categorizing computer evidence as written evidence. However, the four arguments they presents are not so convincing. First, written evidence refers to the evidence that is based on the words, signals, diagram etc. to prove the fact of a case with its essential feature being the contents. Diverse as its external forms, electronic contract evidence, with no exception, proves the fact of a case by means of its content. Thus it is similar to written evidence. The author concludes that (1) while considering the kind of evidence, we should not only focus on the criteria of “ using the content to prove the fact of a case” for all evidences, be they written, material ,or audio-visual, serves as “using the content to prove the fact of a case.” (2) Suppose that the words, signals, diagrams that are used to prove the fact of a case are written evidences, then the sixth , “conclusion appraisal,” and the seventh, “record of investigation and examination (of the scene of a crime)” of the seven kinds of evidences in Article 55 of the Civil Procedure Law are naturally categorized into the written evidence as they are also in the form of words, signals, diagrams that are used to prove the fact of a case^[5]. Therefore, this view does not hold water at all. Second, the contract law of China has already extended the traditional form of written contract into data electronic form, whatever the carrier it adopts. Therefore, as long as it can display the content, it can be seen as conforming to the written requirements of law. Here, the author thinks that it is a fact that in China data text is

classified into traditional written form. In reference to the written contract form, data text displays its content in intangible forms instead of tangible forms. This is also true. Otherwise, there could be the awkward situation that electronic contract faces now resulting from the simplistic ascription because it can not break the bonds of traditional forms. In conclusion, if electronic contract evidence is, like the electronic contract, considered a kind of written evidence, then the confirmation of electronic contract evidence will plunge into a complicated and confusing state.

As early as 1982, the view that “computer recordings are tantamount to written evidence” was put forward by some individuals and some countries in Europe. Undoubtedly, this conforms to the functional-equivalency idea suggested by The Commission of Trading Law. The author shares this point of view. At the same time, in the author’s opinion, functional equivalence is by no means equivalency of form. The meaning of the former is that the function of electronic evidence itself is legally equal to written document. This does not mean that first you assume equality in form between electronic contract evidence and written evidence, and then give it legal weight according to traditional written evidence. If we classify electronic contract evidence as written evidence, then such a situation will arise that any data text will not require confirmation standards or clearance whatsoever. For instance, The Temporary Regulations on the Implementation of Electronic Data Interchange in Foreign Trade in Guangdong Province allows that an electronic message produced by The Service Center of Electronic Data, like written evidence, can act as the direct evidence to be judged by the judiciary^[9].

In this matter, the author maintains that, first of all, we need to understand the spirits of the original meaning of Modeling Law of E-commerce of the United Nations. Functional equivalence is what the legislators intended to guarantee that data text is legally effective in international arena. In so doing, we need to adopt the requirements and practices of some countries so that electronic data evidence is easier to accept. The first intention is not to require that all countries must classify the data text into written form so as to make it hold legal weight. In essence, if formless and paperless electronic data evidence can be classified as written evidence which has both form and paper, then the traditional concept of written form loses its qualitative distinction. In other words, even if the written form is no longer “written” and the “electronic” is not displayed as data, the confusion of the two is not only the transplant of the written evidence but also constitutes an unfair treatment of the value and acceptability of electronic contract evidence.

4.4 Electronic contract evidence should as a new evidence

With rapidly increasing scientific and technological innovation and the consequent development and updating of international trading, electronic contract will become more and more important, and it will play an even more important role in the judicial activities. Yet any traditional notion of evidence is unable to embrace electronic contract evidence, so neither written evidence nor audio-visual material can define electronic evidence. The conceptual and applicable contradictions with traditional evidence can potentially plunge the judiciary into a state of chaos, only to make things unceasingly more difficult.

The author thinks that, in view of the complexity and uniqueness of classification, electronic evidence should be seen as a new kind evidence. Law itself should be forward-looking, and consider electronic evidence as an independent type. Of course, we need the legislative justification; that is, electronic evidence should be added as a new type of evidence when revising the Civil Procedure Law because the emergence of electronics accounts fundamentally for the electronic contract evidence. The legal system evolves with the development of productivity. So if the present categories of evidence can not meet the demands of development, then the legal system needs to be revised, as was the case for audio-visual materials which at the very beginning were excluded from the three major legally-regulated evidences. In terms of the evidence of the Civil Procedure Law, electronic evidence surely boasts the unique features that distinguish itself from other types of evidence: its external forms are varied and multi-media, encompassing all traditional evidences. So it is awkward and absurd

to fit it into any of them. All electronic evidence is based on the trading medium of data information, so it is very logical to treat it as a special and independent evidence, to establish the principles of collecting and evaluating electronic data for itself, and further to provide an integral and legal platform for the lawful adjustment of e-commerce in international trade.

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