

# Law of Electronic Commercial Transactions

Contemporary issues in  
the EU, US and China

**Faye Fangfei Wang**



Routledge Research in IT and E-Commerce Law

# Law of Electronic Commercial Transactions

The exponential growth of electronic usage in global commercial transactions has generated potential opportunities in productivity, facilitated the cross-border free movement of goods and services, and stimulated export and import trade as well as domestic sales, but at the same time it has led to new challenges to existing laws due to the unique characteristics and complexities of online technology, culture and social behaviours.

This book compares the legislative frameworks of e-commerce in the EU, US, China and International Organisations. It highlights and analyses the main legal obstacles to the establishment of trust and confidence in doing business online. It provides in-depth research into finding solutions to remove the barriers to the validity of electronic contracts and signatures, the enforceability of data privacy protection, the determination of internet jurisdiction and choice of law, as well as the promotion of online dispute resolution. It encourages modernisation and harmonisation of laws concerning electronic commercial transactions through well-balanced area-specific international instruments.

*Law of Electronic Commercial Transactions* will be of great interest to academics, legislative organisations, practitioners and lawyers in the field of international commerce.

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# Abbreviations

AAA	American Arbitration Association
ABA	American Bar Association
ADNDRC	Asian Domain Name Dispute Resolution Centre
ADR	alternative dispute resolution
APEC	Asia Pacific Economic Cooperation
B2B	business-to-business
B2C	business-to-consumer
CAs	certification authorities
CIETAC	China International Economic and Trade Arbitration Commission
CISG	United Nations Convention on Contracts for the International Sale of Goods
CLC	Contract Law of China
CMI	Committee Maritime International
CNDRP	CNNIC Domain Name Dispute Resolution Policy
CNNIC	China Internet Network Information Center
COPPA	Children’s Online Privacy Protection Act
CRL	Certification Revocation List
CSPs	certification service providers
EC	European Commission
ECPA	Electronic Communications Privacy Act
EDPS	European Data Protection Supervisor
EPIC	Electronic Privacy Information Center (US)
ESIGN Act	Electronic Signatures in Global and National Commerce Act
EU	European Union
FTC	Federal Trade Commission
GUIDEC	General Usage for International Digitally Ensured Commerce
HKIAC	Hong Kong International Arbitration Centre
ICANN	Internet Corporation for Assigned Names and Numbers
ICC	International Chamber of Commerce
IP	intellectual property
ISP	internet service provider

IT	information technology
NRAs	National Regulatory Authorities
ODR	online dispute resolution
OECD	Organization for Economic Co-operation and Development
PECL	Principles of European Contract Law
PICC	Principles of International Commercial Contracts
PIN	personal identification number
PKI	Public Key Infrastructure
PRC	People's Republic of China
RCA	recognised certification authority
SMEs	small and medium-sized enterprises
SSL	Secure Sockets Layer
T&C	terms and conditions
TTPs	Trusted Third Parties
UCC	Uniform Commercial Code
UCITA	Uniform Computer Information Transactions Act
UCP	Uniform Customs and Practice for Documentary Credits
UDRP	Uniform Domain Name Dispute Resolution Policy
UETA	Uniform Electronic Transactions Act
UNCITRAL	United Nations Commission on International Trade Law
UNIDROIT	International Institute for the Unification of Private Law
US	United States
WIPO	World Intellectual Property Organization

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高山无坦途, 沧海有惊浪 – ‘there is not always smooth path for climbing up a high mountain, so does sailing’. This is the motto – an elegant Chinese classic poem that I wrote as a piece of silk-papered calligraphy when I was 18 years old. That piece of art won me a prize in the university as the strength and features of the writing reflects the writer’s strong belief.

I must appreciate my parents’ wisdom that they spotted my potential talents and inner determination when I was very little. They gave me endless mental, intellectual and material support, taking me to extra piano lessons, swimming and English courses to fully cultivate my mind. Their professional leadership within our society also influenced me and created a great model for me.

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# Preface

The continuing innovation of information technology and ever-increasing use of the internet make international commercial transactions quicker and easier. Geographical distance no longer remains an obstacle in communications among businesses and individuals as product information can be accessed instantly via companies' websites. Taking advantage of the speed, efficiency and reduced costs of online commerce, international trade and domestic sale have been increasingly conducted over the internet for the last decade. This is beneficial for the growth of global economy but, at the same time, challenges the existing laws with newly-generated legal issues such as the validity of electronic contracts, the protection of data privacy rights and the settlement of e-disputes. In recent years international conventions and model laws, regional directives and regulations, as well as national laws have been making efforts to enhance the legal certainty of electronic commercial transactions with the primary aim of building users' confidence in online interactions and transactions.

*Law of Electronic Commercial Transactions: Contemporary Issues in the EU, US and China* takes a 'solutions to obstacles' approach and evaluates various contemporary key legal issues of electronic commercial transactions by comparing current legislative frameworks in the EU, US, China and international organisations. It provides in-depth research into finding solutions to modernising and harmonising laws in international electronic commerce. It promotes the establishment of well-balanced area-specific international instruments, which enhance particularised areas such as the effectiveness of electronic offer and acceptance; conditions of error in electronic communications; rules of electronic battle of forms; recognition of domestic and foreign certificates and electronic signatures; self-regulation of internet privacy policies; as well as measures of cross-border internet jurisdiction, choice of law and alternative dispute resolutions.

This book is a research monograph providing guidance for readers to understand the legal challenges of e-commerce; find practical solutions to create trustworthy online commercial platforms; and ensure security of online transactions. The real-life examples, such as Microsoft Outlook – recall or replace a message; eBay – e-trading platform and online dispute resolutions; Facebook with TRUSTe – data privacy program, have been given to advise business and individual e-commerce practice.



**Part I**

# **Introduction**



# 1 The business and legal landscape of electronic commercial transactions

The customer pays his money and gets a ticket. He cannot refuse it. He cannot get his money back. He may protest to the machine, even swear at it. But it will remain unmoved. He is committed beyond recall. He was committed at the very moment when he put his money into the machine.

Lord Denning, *Thornton v Shoe Lane Parking*<sup>1</sup>

With the advent of electronic means of communication and information transfer, business deals are fast becoming conducted over the internet, taking advantage of the speed, efficiency, and cost benefits of electronic technologies. Clicking the icon of ‘I agree’ to make a purchase on the web page may have the same effects as ‘money machines’. In a split second it may constitute a valid form of consent between two parties in different countries.

In China, the 23rd Statistical Survey Report on the Internet Development of January 2009 estimated that the amount of users of online shopping in China had reached 74 million, with an annual growth rate of 60%.<sup>2</sup>

In the US, the US Department of Commerce E-Stats Report was released on 28 May 2009, stating that:

manufacturers and merchant wholesalers (so called ‘B2B’) accounted for most e-commerce (93%). E-commerce accounted for \$1,856 billion of manufacturing shipments in 2007, up from \$1,567 billion in 2006, an annual increase of 18.4%. US merchant wholesalers reported total e-commerce sales of \$1,226 billion in 2007, up from a revised \$1,194 billion in 2006 – an annual increase of 2.7%. US retail e-commerce sales reached almost \$127 billion in 2007, up from a revised \$107 billion in 2006 – an annual gain of 18.4%. From 2002 to 2007, retail e-sales increased at an average annual growth rate of 23.1%.<sup>3</sup>

For instance, eBay, the world’s online marketplace, creates thousands of electronic contracts a day. It made a profit of \$256 million in the first three months of 2005, up 28% on the same period in 2004, on sales of more than \$1 billion.<sup>4</sup>

## 4 *Introduction*

In the EU the number of internet users increased by 218.1% from 2000 to 2008, representing 61.4% of the total EU population and 18.8% of world usage.<sup>5</sup> The percentage of individuals who had ordered goods or services over the internet for private use rose significantly, from 22% to 34%, between 2004 and 2008. In the UK, Denmark, Germany and the Netherlands 57% of individuals had ordered goods or services over the internet for private use in 2008.<sup>6</sup>

The worldwide usage of the internet has changed the traditional ways of communications among individuals and businesses, which encourages the growth of the new economy.

### **1.1 Concepts and features**

#### ***1.1.1 Internet***

The internet, a base of connection for international electronic commerce, is a form of connected networks via electronic devices, i.e. computers. It can be accessed worldwide, and uses the standardised Internet Protocol Suite (TCP/IP) to transport data and messages anywhere in the world and permit communication between parties across a large distance.

Internet technology began in the 1960s. The first trans-Atlantic computer networks were linked up in the early 1970s.<sup>7</sup> During the 1960s and early 1990s, the internet was developed mainly for military, governmental and academic use. Only in the late 1990s, when Microsoft released Windows 98 with a full scale entry of an internet browser and server, did the internet start to be popular for commercial use. In the 2000s the internet experienced enormous growth, businesses set up websites displaying product information and providing trade platforms for goods and services, whilst individuals used email and instant messaging as well as shopping online. In the last 10 years business has been increasingly conducted over the internet, including international trade and domestic sales. In recent years the internet has been employed in various new ways, for example, social networking and dispute resolutions.

#### ***1.1.2 Electronic commerce***

The phrase electronic commerce can be interpreted as ‘commerce conducted in a digital form or on an electronic platform’, or ‘selling or buying goods and services on the Internet’.<sup>8</sup> The Organization for Economic Co-operation and Development (OECD) defines electronic commerce from an economic and social point of view as:

all forms of commercial transactions involving both organisations and individuals, which are based upon the electronic processing and transmission of data, including text, sound and visual images. It also refers to the effects that the electronic exchange of commercial information may

have on the institutions and process that support and govern commercial activities.<sup>9</sup>

In the EU the European Initiative in Electronic Commerce further describes electronic commerce as:

any form of business transaction in which the parties interact electronically rather than by physical exchanges. It covers mainly two types of activity: one is the electronic ordering of tangible goods, delivered physically using traditional channels such as postal services or commercial couriers; and the other is direct electronic commerce including the online ordering, payment and delivery of intangible goods and services such as computer software, entertainment content, or information services on a global scale.<sup>10</sup>

The key words in the definition above are: commercial transactions, organisations, individuals and electronic exchange. It reveals the scope of electronic commerce from a jurisdictional and functional perspective. Electronic commerce, in a private sense, is international and domestic commerce;<sup>11</sup> trade<sup>12</sup> and business<sup>13</sup> for both non-personal and personal usage.

Electronic commercial transactions are one of the main components of electronic commerce which refer to deals made between either private individuals or commercial entities. Electronic commercial transactions presuppose the existence of a business transaction and create a more efficient business environment through the usage of electronic means.

There are two main types of electronic commercial transactions: business-to-business (B2B) and business-to-consumer (B2C). B2B describes trade between different businesses or entities. It can be completed by performance against payment or performance against performance.<sup>14</sup> B2C involves the sale of goods or services to individual customers for their own use. It is notable that in a B2C transaction one of the parties acts as a consumer. A synonymous term of B2C electronic commerce is electronic retailing.

In general, B2B provide goods or services to other businesses while B2C sells goods or services to consumers. Both forms contribute to the growth of the new economy, although B2B currently generates a larger portion of a country's GDP (gross domestic product).

## **1.2 Benefits: economic and social impacts**

The invention of electronic commerce has been beneficial to the global economy and society. It is an innovation in conducting business that changes the habits of business entities and individuals gradually and largely. Instead of travelling a long distance to visit a shop or a factory, buyers can use a laptop with wireless internet access to enter a digital platform of buying and selling online. Buyers can surf the websites, choose products and make web



## 6 Introduction

payments. As a result of successful electronic transactions individual goods will be delivered to the buyer's door or large trading containers will be shipped to the port of named destination. The profound impact of electronic commerce in the global economy and society results from the decrease in the seller's and buyer's distance and the simplification of the process of shopping or trading. Such an e-trading system will undoubtedly improve economic efficiency, competitiveness and profitability.

The second edition of the International Chamber of Commerce (ICC) Global Action Plan for Electronic Commerce in 1999 highlighted the benefits to countries within such an e-commerce environment:

- 1 increase internal organisational and management efficiency;
- 2 increase transaction efficiency and reduce transaction costs for both suppliers and buyers;
- 3 extend market reach of suppliers and increase choice for both suppliers and consumers;
- 4 provide accurate information to improve service delivery such as in health provision or the provision of information to consumers.<sup>15</sup>

Most of the expected benefits above have been approved during the last 10 years. In the Ministerial Meeting of the Organization for Economic Co-operation and Development (OECD), a Statistic Profile was published in June 2008 forecasting the future of the internet economy. The statistics show that the internet would change the traditional behaviour of businesses and consumers and open new market opportunities, although concerns about security, trust and privacy are still preventing a large number of internet users from buying online, for example:

- a there are about 542 million hosts connected to the internet worldwide in 2008, 13 times more than in 1999;
- b in 2007 an average of 95% of medium and large businesses in OECD countries were using the internet;
- c between 1995 and 2006, growth in gross value added (GVA) was higher in the ICT sector (76%) than in the whole business sector (66%);
- d in the EU over 30% of internet users do not buy online because of security concerns.<sup>16</sup>

The statistics above also prove that electronic commerce has developed quickly and is gradually becoming a dominant form of business performance. It provides companies, in particular small and medium-sized enterprises (SMEs), with lower market entry costs and the ability or possibility to extend geographic reach to a much larger market. It moves traditional commercial society from an industrial economy, where machines dominated productivity, to an information based economy where intellectual content is the dominant source of value added without geographic boundaries.

Electronic commerce will continue to play its important role in modern society improving commercial connections between enterprises and individuals at national, regional and global levels, it will stimulate internationalisation and globalisation of economy and production by creating opportunities for the free movement of goods, services, money, people, technology, information and communication, and generate new challenges for potential market growth in the future.

International harmonisation of regulations or laws for a global electronic commercial market will be crucial to the free flow of information as well as the safety of electronic commercial transactions and other data-related online activities. In addition, a consistent global standard of law in relation to electronic commerce will be one of the fundamental elements of building users' trust and confidence in conducting business, socialising or sharing information online.

### **1.3 The legislative approaches**

#### *1.3.1 Global regimes*

Subject matters in the field of electronic commerce are very broad, covering security, privacy, data protection, etc. Confronting the variety of issues international organisations are making efforts to harmonise them through the heart and base of electronic commerce – which is electronic contracting and electronic signatures.

For example, the United Nations Commission on International Trade Law (UNCITRAL), the International Chamber of Commerce (ICC) and the Organization for Economic Co-operation and Development (OECD) are all participating in an emerging global debate concerning the changes that should be made to the form or substance of international commercial law to accommodate innovation in the technology of international commerce, in particular towards a global agreement on electronic contracting. Listed below is an international legislative umbrella of electronic commerce:

#### **UNCITRAL**

- Promoting confidence in electronic commerce: legal issues on international use of electronic authentication and signature methods 2007 (hereafter E-confidence Promotion Report).

The E-confidence Promotion Report was reviewed by the Secretariat in 2007 but published in 2009 by UNCITRAL.<sup>17</sup> UNCITRAL has been urged to update legal issues on the international use of electronic authentication and signature methods because the existing instruments which were promulgated a long time ago need to be better equipped to deal with the current development of the information society. The UNCITRAL Model Law on Electronic Commerce was adopted almost 10 years ago and the Model Law on Electronic Signatures has also been adopted for

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over 10 years. The E-confidence Promotion Report serves as an explanatory note or complementary to the two Model Laws as well as the more recent instrument – United Nations Convention on the Use of Electronic Communications in International Contracts. Its aim is to remove the legal and technical obstacles to the recognition of cross-border use of electronic signature and authentication methods by introducing the criteria on a technically neutral level.

- UN Convention on the Use of Electronic Communication in International Contracts 2005 (hereafter the UN Convention)
- UNCITRAL Working Group IV (Electronic Commerce) began its deliberations on electronic contracting at its 39th session (New York, 11–15 March 2002). The UN Convention,<sup>18</sup> a technologically neutral approach, was adopted by the General Assembly on 23 November 2005 ‘to facilitate international trade by removing possible legal obstacles or uncertainty concerning the use of electronic communications in connection with the formation or performance of contracts concluded between parties located in different countries’.<sup>19</sup> With the aim of ‘enhancing legal certainty and commercial predictability’ in cross-border electronic commercial contracts it addresses issues such as the validity of electronic communication, the location of parties, the time and place of dispatch and receipt of electronic communication, the use of automated message systems for contract formation and the availability of contract terms and errors in electronic communications.<sup>20</sup> The provisions suggest the international standard of online contracting, which stimulate the progress of the harmonisation of national laws.
- UNCITRAL Model Law on Electronic Signature 2001  
The Model Law on Electronic Signatures,<sup>21</sup> a technology-neutral approach, was adopted by UNCITRAL on 5 July 2001. It avoids favouring the use of any specific technical product.<sup>22</sup> This approach achieves legal neutrality by granting minimum recognition to most authentication technologies, while at the same time incorporating provisions for an authentication technology of choice.<sup>23</sup> As stated in Article 12(2) and 12(3) of the Model Law on Electronic Signatures, a certificate or electronic signature issued outside the domestic jurisdiction will be legally effective if it offers a ‘substantial equivalent level of reliability’. It generates a developed legal framework for certificate service provision within an international operative public key infrastructure (PKI) and promotes the progressive harmonisation and unification of measures and policies on e-signature issues.
- UNCITRAL Model Law on Electronic Commerce 1996  
The Model Law on Electronic Commerce,<sup>24</sup> a minimalist approach, was adopted by UNCITRAL on 12 June 1996. The primary motivation of the UNCITRAL Model Law on Electronic Commerce was to remove existing legal obstacles to the recognition and enforceability of electronic signatures and records. It is designed to facilitate the harmonisation of

national legislation in electronic commerce. It complements traditional international conventions and other instruments in commercial law, serving as references or interpretation in order to avoid impediments to electronic commerce. It deals with issues such as the use of modern means of electronic communications and storage of information,<sup>25</sup> the formation and validity of electronic contracts,<sup>26</sup> the legal recognition of data messages<sup>27</sup> and the carriage of goods.<sup>28</sup>

## ICC

- **ICC eTerms 2004**  
Founded in 1919 ICC is one of the world's largest business organisations promoting trade and investment for goods and services.<sup>29</sup> Since the late 1990s ICC has contributed to the facilitation of e-business self-regulation for companies. The most recent guideline in general electronic contracting is the ICC eTerms 2004. It provides rather short but accessible terms with only two articles. One is the definition of an 'e-commerce agreement' and the other is the determination of the 'dispatch and receipt of an electronic message'.<sup>30</sup> The two eTerms are designed to be widely used for any contract of sale or other arrangement of goods, or services and to facilitate the procedures and use of electronic means in concluding a contract without interfering with the subject matter of the contract and any other agreed terms between the parties.
- **ICC Guide for eContracting 2004**  
ICC Guide for eContracting (hereafter the Guide) accompanies the ICC eTerms 2004 providing an explanatory note on questions such as: how to apply ICC eTerms 2004; what is the legal validity of ICC eTerms 2004; what are the limits of ICC eTerms 2004; who contracts on your behalf; with whom are you contracting; how to construct an electronic contract; what are technical specifications; how to protect confidentiality; and how to cope with technical breakdown and risk management.<sup>31</sup>
- **ICC Global Action Plan for Electronic Business 2002 (3 July 2002)**  
The third edition of the ICC Global Action Plan for Electronic Business, adopted in July 2002, aims to build the user's trust and confidence in online business.<sup>32</sup> The ICC Global Action Plan is very comprehensive and ambitious, addressing a wide scope of advanced issues in relation to electronic business and includes, but is not limited to, the legal formalities of electronic communications, online dispute resolution, jurisdiction and applicable law and digital IP rights, data protection and privacy, etc. Such a clear, big picture is of great value in providing the legal framework of electronic commerce. The subject matters raised in the ICC Global Action Plan have been further discussed and developed by different international organisations with more specific focus in recent years.

## OECD

- OECD Guidelines for Consumer Protection in the Context of Electronic Commerce (1999)

The OECD Guidelines for Consumer Protection in the Context of Electronic Commerce, approved on 9 December 1999 by the OECD Council, are designed to help ensure consumers' rights when shopping online.<sup>33</sup> Its principles are set to assist governments and private sectors in developing and implementing online consumer protection mechanisms without erecting barriers to trade, which includes transparent and effective protection; fair business, advertising and marketing practices; clear information about the business, the goods or services and transaction; confirmation of transactions; secure payment mechanisms; alternative dispute resolution and redress; privacy protection; and consumer and business education.<sup>34</sup>

The above conventions, model laws, guidelines or framework by themselves, do not have any legal effect until adopted and implemented by national legislation, but they can serve as a guide as to what might be incorporated into national or regional laws. Model laws can be adopted in full or part provisions by national and regional laws, while conventions can only be adopted in full except for the relevant clauses concerning reservation, declaration or exemption of particular parts or provisions.

### *1.3.2 Other regimes: EU, US and China*

Meanwhile, other regimes such as the EU, US and China also have their regional or national umbrella legislation regulating the conduct of the electronic commercial market in order to promote regional or domestic economy.

#### The European Union (EU)

- The EC Directive on Electronic Commerce 2000  
The EC Directive on Electronic Commerce<sup>35</sup> plays an important role in regulating electronic transactions in the internal market between Member States. It provides a clear and general framework to enhance the legal certainty of electronic commerce, stimulate the efficiency of e-commerce transactions and ensure the free movement of information society services in the internal market between Member States. The main provisions of the EC Directive on Electronic Commerce are transparency obligations on operators in commercial communications; the validity of electronic messages; and limitations of liability of intermediary service providers.
- The EC Directive on Electronic Signatures 1999  
The EC Directive on Electronic Signatures<sup>36</sup> establishes a legal framework for the recognition of electronic signatures and the conditions of certification service within the Member States, while at the same time it

ensures the proper functioning of the internal market.<sup>37</sup> It promotes cross-border electronic commercial transactions between Member States by recognising the equivalent function of electronic signatures to hard-written signatures. Safety of doing business online is also protected by introducing secured technology measures. No substantial rules are given with regard to ‘legal obligations where there are requirements as regards form prescribed by national or Community Law’, as the EC Directive on Electronic Signatures is not meant to ‘affect rules and limits, contained in national or Community law, governing the use of documents’.<sup>38</sup>

#### The United States (US)

- **The Uniform Electronic Transactions Act (UETA) 1999**  
The UETA, promulgated in July 1999, is a model code which has been widely adopted by 48 states and the District of Columbia.<sup>39</sup> It addresses electronic transactions generally with a set of uniform rules governing electronic commerce transactions without changing any applicable substantive laws.<sup>40</sup> Parties are allowed to opt out of part of the UETA if pre-agreed – this will not affect the legal effect of electronic transactions in the same way as paper transactions.
- **The Uniform Computer Information Transactions Act (UCITA) 1999**  
UCITA, initially originated from a proposal for a new UCC Article 2, was approved as a legislative model by the National Conference of Commissioners on Uniform State Laws (NCCUSL) on 29 July 1999. It is not widely adopted and has only been signed and enacted by two states: Maryland and Virginia.<sup>41</sup> The UCITA is a lengthy ‘uniform commercial code’ for software licences and other computer information transactions. It provides a number of substantial and comprehensive rules such as digital signatures, electronic records, electronic agents, licensing computer information and storage devices, etc.<sup>42</sup> The UCITA does not govern contracts, even though they may be licensing contracts, for the traditional distribution of movies, books, periodicals, newspapers, or the like.<sup>43</sup>
- **The Electronic Signatures in Global and National Commerce Act (ESIGN Act) 2000**  
The ESIGN Act, a technology-neutral approach, was signed by President Clinton on 30 June 2000. The ESIGN Act was enacted, in part, to promote consistency and certainty regarding the use of electronic signatures in the US and also to facilitate cross-border electronic commercial transactions. It includes several key provisions concerning the validity requirements for electronic signatures, electronic contracts and electronic records or retention requirements for electronic contracts and goods.

#### China

- **The Law of the People’s Republic of China on Electronic Signatures (China Electronic Signatures Law) 2005**

The Law of the People's Republic of China on Electronic Signatures was passed by the Standing Committee of the 10th National People's Congress on 28 August 2004.<sup>44</sup> It entered into effect on 1 April 2005. This is the first single piece of legislation in China directly regulating the field of electronic commerce. The context of the China Electronic Signatures law has been influenced by the UNCITRAL Model Law on Electronic Commerce and the UNCITRAL Model Law on Electronic Signatures, although it is more Chinese-market-oriented. It provides a legal framework and the necessary infrastructure for the use of digital signatures. Its implementation dramatically promotes the development of the e-business market in China as it boosts users' confidence in online trading and shopping online. The structure and provisions of the China Electronic Signatures Law are similar to the UNCITRAL Model Laws. It regulates the validity and legal effect of electronic signatures and maintains the lawful rights and interests of the relevant parties concerned.<sup>45</sup> It applies a functional equivalent approach to electronic signatures. Parties are also free to opt out of certain provisions of the China Electronic Signatures Law. It explicitly excludes the validity of electronic communications on certain types of agreements, such as those relating to personal relations, the transfer of real estate rights and interests and public utility services.<sup>46</sup>

## 2 Technical and legal barriers to online commerce

### 2.1 Contracts of sale of goods

Businesses can form contracts without ever touching a pen or shaking hands, which may cause obstacles in adopting traditional contract laws and creating trust between sellers and buyers. How to ensure that an electronic contract is valid and enforceable is one of the most important and fundamental problems of electronic commercial transactions. Because national boundaries are so easily crossed, international electronic contracting faces a patchwork of legal regimes. How to avoid, for instance, terms and conditions of an electronic contract containing exemption clauses which enable the escape of any responsibility for losses or damages arising out of electronic trading has become a core concern of the digital commercial market. Although electronic contracting offers new possibilities for efficient transactions, greater flexibility and evolutionary capabilities, it also generates new vulnerabilities to abuse and confronts the legal validity of transactions.<sup>1</sup>

The law of electronic commercial transactions cuts across many legal fields and categories including, but not limited to, international trade law, international business law, international commercial law, private international law, domestic or regional contract law, commercial law, tort law and consumer law. International IT lawyers must be familiar with many specialised fields of law and have expert technological knowledge.

In a broad sense the law of electronic commercial transactions is commercial law and the function of commercial law can be found in a leading English case, *Kum v Wah Tat Bank Ltd.*<sup>2</sup> Lord Devlin in *Kum v Wah Tat Bank Ltd* stated that: ‘The function of commercial law is to allow, so far as it can, commercial men to do business in the way they want to do it and not to require them to stick to forms that they may think to be outmoded. The common law is not bureaucratic’. International commercial law is used to ‘describe the totality of principles and rules, whether customary, conventional, contractual or derived from any other source that is common to a number of legal systems’.<sup>3</sup>

In a narrow sense, the two most common forms of electronic commercial contracts: B2B (business to business) or B2C (business to consumer) are



regulated by different substantial laws or the same laws in different respects. B2B contracts concern the international sale of goods (so called 'international trade') or domestic sale of goods (so called 'domestic trade') that are not for personal use, whilst B2C contracts refer to international and domestic retail to consumers for personal consumption. Thus, cross-border B2B contracts of sale are usually governed by international trade law and international commercial law, whereas B2C contracts of sale are usually subject to domestic commercial and consumer law.

The legal relationship amongst the various laws in the field of electronic commerce can be understood from a scope that is large to narrow: commercial law  $\geq$  international commercial law + domestic commercial law; international commercial law or international business law  $>$  international trade law; domestic commercial law  $>$  consumer law. To implement the above laws well a knowledge of basic contract law shall be applied.

In the law of electronic commercial transactions the determination of the validity of electronic contacts will be the same in both B2B and B2C transactions. Their differences lie in the different obligations or duties of the seller and buyer, remedies for breach of contract by the seller or buyer, and determination of passing property and risk, which may be subject to different substantial laws.

### **2.1.1 B2B Transactions: international trade**

The traditional way of conducting international trade starts when the buyer visits a trade fair, or a seller's company or factory. Then the buyer will select a product, ask for a price quotation and consult about packaging, date and methods of delivery of goods, as well as payment. If the quotation includes the price of the goods and all the fees until the transfer of goods for shipment, this kind of international sale of goods contract is known as a FOB (Free on Board) contract.

Sometimes the quotation will not only include the FOB price but also fees for freight and insurance. The seller is also required to prepare transport and insurance documents which shall be transferred to the buyer. This kind of contract is usually known as a CIF (Cost, Insurance and Freight) contract. It is argued that a CIF contract is deemed to be 'a sale of goods that is performed by the delivery of the documents' by the Court of Appeal in *Arnhold Karberg*.<sup>4</sup>

With the adoption of information technology, buyers nowadays may select their products from the e-catalogue on the seller's company website, negotiate the price and other conditions via electronic communications, and conclude a FOB or CIF contract over the internet.

To form a FOB or CIF contract, either online or offline, the parties shall insert a choice of law clause stating that the contract will be governed by the law of his own country or others. For example, if the parties express a term 'the contract shall be governed by English law' for the international sale of

goods, the Sale of Goods Act 1979 will apply. Or, the seller may choose the ICC standard trade terms, Incoterms 2000,<sup>5</sup> to govern the contract. Or, if the seller and buyer are contracting parties to the the United Nations Convention on Contracts for the International Sale of Goods (CISG) provided by the United Nations Commission on International Trade Law (UNCITRAL), they might choose CISG as the applicable law. Currently, two thirds of the countries in the world that are involved in international trade are contracting parties to the CISG 1980. Both China and the US ratified the CISG, thus, in absence of an effective applicable law clause, its 'default rules' on contract formation and performance will govern contracts for international sale of goods. However, it is notable that the UK is not a contracting party to the CISG.

As the CISG was adopted in 1980, before the boom in electronic commerce, its applicability and suitability in resolving electronic export contracts has been debated. The UN Convention, adopted in 2005, is deemed to be an international instrument that complements the CISG in the era of information society.

Firstly, the CISG and UN Convention have similarities and differences in their scope. The similarity is that both the CISG and UN Convention only apply to international B2B contracts but not contracts concluded for personal, family or household purposes.<sup>6</sup> The difference is that the CISG only applies to contracts of international sale of goods whose places of business are in different states, but not service between parties,<sup>7</sup> whereas the UN Convention applies to 'electronic communications in connection with the formation or performance of a contract between parties whose places of business are in different states' including sale of goods and service.<sup>8</sup>

Secondly, with regard to the issue of the validity of electronic communications, the UN Convention performs a supplementary role to the CISG in legal recognition of electronic communications as to forms, because the UN Convention explicitly recognises the legal equivalence of electronic contracts and signatures to written forms.<sup>9</sup> In contrast, the provisions of the validity of contract formality under the CISG must be analysed through statutory interpretation and advisory opinions in order to legitimise electronic means in contracting and signatures: Article 11 of the CISG provides that 'a contract of sale need not be concluded in or evidenced by writing and is not subject to any other requirement as to form. It may be proved by any means, including witnesses'.

In 2003 the first opinion of the CISG Advisory Council addressed the issue of the interpretation of electronic communications under Article 11 of the CISG,<sup>10</sup> and suggested that a contract may be concluded or evidenced by electronic communications because Article 11 of the CISG doesn't prescribe any form which enables the parties to conclude contracts electronically. However, such electronic communications should be 'retrievable in perceivable form' according to Article 13 of the CISG. This advisory opinion sets the recognition of electronic communications on the conditions and restrictions

of the possibility to save (retrieve) the message and to understand (perceive) it,<sup>11</sup> whilst the UN Convention adopts a functionally equivalent open approach in terms of electronic messages and electronic signatures. This should be deemed to be an improvement upon the CISG Advisory Council on the legal certainty of electronic communications.

Thirdly, the UN Convention specialises in the rules of ascertaining the location of the parties acting over the internet,<sup>12</sup> while Article 10 of the CISG provides limited rules for determining a party place of business without considering particularised features of the internet as follows: '(a) if a party has more than one place of business, the place of business is that which has the closest relationship to the contract and its performance, having regard to the circumstances known to or contemplated by the parties at any time before or at the conclusion of the contract; (b) if a party does not have a place of business, reference is to be made to his habitual residence'.

Fourthly, the Convention established a standard language in determining the time of dispatch and receipt of electronic communications,<sup>13</sup> whereas Articles 15 and 18(2) of the CISG use a term 'reach' to describe the dispatch and receipt of a message that '(1) an offer becomes effective when it reaches the offeree; (2) an offer, even if it is irrevocable, may be withdrawn if the withdrawal reaches the offeree before or at the same time as the offer'<sup>14</sup> as well as 'an acceptance of an offer becomes effective at the moment the indication of assent reaches the offeror'.<sup>15</sup> The Advisory Council of the CISG explains the term 'reach' as it corresponds to the point in time when an electronic communication has entered the offeree's server for an offer, and has entered the offeror's service for an acceptance.<sup>16</sup> However, it is not as precise as the wording of the time of dispatch and receipt of electronic communications under the UN Convention although the UN Convention fails to provide a substantial rule on the effectiveness of offer and acceptance (which will be discussed in detail in Part 2).

Lastly, but not least importantly, Article 14 of the UN Convention specially regulates input errors in electronic communications, which complements the general rule of error in communication under the CISG. According to Article 27 of the CISG, if any notice, request or other communication is given or made by a party in accordance with this Part and by means appropriate in the circumstances, a delay or error in the transmission of the communication or its failure to arrive does not deprive that party of the right to rely on the communication. The Advisory Council of the CISG recognises the form of electronic means in a notice, request or other communication whenever the addressee has consented to receiving electronic messages of this type expressly or impliedly, in that format, and to that address.<sup>17</sup> However, the Advisory Council does not explain its application on correction or withdrawal of errors in electronic communications, which have been fortunately compensated by the UN Convention to some extent.

### **2.1.2 B2C Transactions: consumer contracts**

As mentioned earlier, B2C contracts are identical to B2B contracts in terms of the determination of the validity of electronic contracts, the time and place of dispatch and receipt of electronic communications and the location of the parties. However, the differences arise between the two types of contracts because consumers are the weaker parties in commercial transactions and they need particularised rules to protect their rights. Special rules equipped to the protection of consumer rights shall include consumer information, liability of inconformity of supplied goods or service, time and burden of proof and remedies. Other substantial special areas such as unfair contract terms, security and privacy shall also be specified to protect consumer rights.

Consumer rights are usually protected by national or regional consumer laws only, while B2B contracts may be governed by either international commercial law or domestic law. For example, the Sale of Goods Act 1979 applies to international sale of goods when parties choose English law as the applicable law in the contract of the sale of goods. Meanwhile, the Sale of Goods Act 1979 also protects UK consumers' rights according to the general provisions and additional rights of the buyer in consumer cases. According to Article 48B and 48C of the Sale of Goods Act 1979, where there is any breach of implied terms as to description, satisfactory quality or fitness for purpose, the buyer as a consumer may have the right to require the seller to repair or replace the goods, or reduce the purchase price of the goods, or rescind the contract.

On 8 October 2008 the European Commission adopted the proposal for a Directive on Consumer Rights.<sup>18</sup> It aims to update and modernise existing consumer rights, bringing them in line with technological change and strengthening provisions in the key problem areas.<sup>19</sup> At the same time, it also remains compatible with other new regional instruments; for example, the provisions of this new Directive should be without prejudice to Regulation (EC) No 593/2008 of the European Parliament and of the Council applicable to contractual obligations (Rome I).<sup>20</sup>

The proposal of the EC Directive on Consumer Rights simplifies and merges four existing EU consumer directives into one set of rules. They are: EC Directive on Sale of consumer goods and guarantees (99/44/EC); EC Directive on Unfair contract terms (93/13/EC); EC Directive on Distance selling (97/7/EC); EC Directive on Doorstep selling (85/577/EC). The new Directive should ensure a high level of consumer protection, establish the real retail internal market and make it easier and less costly for traders to sell cross-border and provide consumers with a larger choice and competitive prices. For example, Chapter I of the proposal of the EC Directive on Consumer Rights contains common definitions such as 'consumer' and 'trader' and lays down the principle of full harmonisation. Chapter II governs the rules of consumer information, information to be provided by

traders prior to the conclusion of all consumer contracts as well as information obligations on intermediaries concluding contracts on behalf of consumers. Other chapters deal with consumer information and withdrawal rights for distance and off-premises contracts, other consumer rights specific to sales contracts and general provisions concerning enforcement and penalties.

The proposal of the EC Directive on Consumer Rights is specially geared to the needs of the information society. Article 11 of the Proposal of the EC Directive on Consumer Rights designates the formal requirements for distance contracts. Article 14 further details that ‘for distance contracts concluded on the Internet, the trader may, in addition to the possibilities referred to in paragraph 1, give the option to the consumer to electronically fill in and submit the standard withdrawal form on the trader’s website. In that case the trader shall communicate to the consumer an acknowledgement of receipt of such a withdrawal by email without delay’.

The Proposal of the EC Directive on Consumer Rights controls unfair contract terms both offline and online with explicitly detailed rules. It adopts a wide cooling-off period of 14 calendar days when consumers can change their mind and withdraw the contract using a standard withdrawal form. It maintains the principle that the trader is liable to the consumer for a period of two years if the goods are not in conformity with the contract and entitles consumers to ask for repairmen, replacement and guarantees of goods and services.

In general, the proposal of the EC Directive on Consumer Rights seems to have reasonable and considerable provisions to balance a high level of consumer protection and the competitiveness of enterprises, enhance consumer confidence in the internal market and reduce business reluctance to trade cross-border.

## **2.2 Contracts of carriage of goods**

An essential difference between contracts of sale of goods and contracts of carriage of goods lies in terms of liability and documentation.

Compared with B2B international contracts of carriage of goods, in B2C contracts, when delivery of goods is required, the material possession of the goods shall be transferred to the consumer or to a third party, rather than a carrier. Rules of delivery in B2C contracts are usually governed by domestic commercial law or consumer law, which is the same law that governs contracts of sale of goods for personal, family, and household purposes.

In B2B contracts, shipment or transportation of goods by sea is deemed to be one of the methods of delivery of goods. A bill of lading is a document issued to a shipper of goods (usually the seller but possibly the buyer) by a shipowner, performing as a contract of carriage of goods with terms and conditions as well as the description of goods that have been loaded on board. The definition reflects the three functions of a bill of lading: firstly, it is evidence of the contract of carriage, because the terms and conditions set out

on the reverse of the bill of lading are governed between the shipper and carrier.<sup>21</sup> Secondly, it acts as a receipt for the goods that have been loaded on board, because the bill of lading contains a description of the goods. When the shipowner confirms that the goods received are in 'apparent good order and condition', he or she will issue a 'clean' bill. When this statement is qualified, the bill is 'claused'.<sup>22</sup> Thirdly, it is a document of title, because possession of a bill of lading is in many respects equivalent to possession of goods, although it is symbolic.<sup>23</sup>

Often a more informal document, rather than a bill of lading, is given to the shipper when the goods are loaded on board. This is known as a mate's receipt. The details on the mate's receipt are then inserted into a bill of lading which is given to the shipper before the ship leaves the port of loading.

One of the principal purposes of the bill of lading is to enable the owner of the goods to resell them rapidly although the goods are not in his hands but are in the custody of a carrier. For example, when goods are on the high seas in transit from London to Hong Kong, the bill of lading will be passed to the buyer in Hong Kong and the buyer will thus become the owner of the goods. The bill of lading representing the goods enables the buyer to promise the goods with his bank in Hong Kong or to resell them elsewhere in the world.

A traditional bill of lading is a piece of paper which would be physically delivered or faxed. International trade is now making extensive and increasing use of information technology to facilitate cross-border trade. Nowadays, in the shipping industry, traditional paper-based shipping documents, in particular bills of lading, are gradually being replaced by paperless bills to improve the speed and efficiency in international transactions. However, there are a number of obstacles to the use of electronic bills of lading, both in terms of technological and legal issues.

One of the most prominent shortcomings of a traditional bill of lading is that it is a piece of paper which may be copied or written incorrectly by negligence, or easily forged. Very often the delivery of a paper-based bill of lading may cause delay. It is usually ready for the shipper to pick up from the carrier the day after the vessel sails, but the average delay before the paper document is ready is three days.<sup>24</sup> Moreover, a paper-based bill of lading may not be easily kept and protected. However, in an electronic environment, although the speed and efficiency of bills of lading is improved, the challenge is to preserve and secure electronic records that replicate paper data, and to ensure their authentic, unique, and confidential nature so as not to diminish confidence in the information system. In addition it is challenging to implement electronic bills of lading because of the divergent documentary practices of carriers, bankers and shippers.

There are a number of international instruments that make efforts in paving the way for the recognition and implementation of electronic transport documents. They are mainly:

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- The Committee Maritime International (CMI) Rules for Electronic Bills of Lading in 1990;
- UNCITRAL Model Law on Electronic Commerce in 1996;
- United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea – the ‘Rotterdam Rules’ in 2008.

### *CMI Rules for Electronic Bills of Lading 1990*

The Committee Maritime International (CMI) adopted Rules for Electronic Bills of Lading in 1990. The CMI Rules are voluntary so they will apply only if the parties to a contract of carriage agree so; the Rules then operate by incorporation into the contract. The CMI Rules provide for a private registry system for electronic messages as bills of lading, as stated in Article 4 of the CMI rules:

- a. The carrier, upon receiving the goods from the shipper, shall give notice of the receipt of the goods to the shipper by a message at the electronic address specified by the shipper.
- b. This receipt message shall include:
  - (i) the name of the shipper;
  - (ii) the description of the goods, with any representations and reservations, in the same tenor as would be required if a paper bill of lading were issued;
  - (iii) the date and place of the receipt of the goods;
  - (iv) a reference to the carrier’s terms and conditions of carriage; and
  - (v) the Private Key to be used in subsequent Transmissions.

The shipper must confirm this receipt message to the carrier, upon which Confirmation the shipper shall be the Holder.

- c. Upon demand of the Holder, the receipt message shall be updated with the date and place of shipment as soon as the goods have been loaded on board.
- d. The information contained in (ii), (iii) and (iv) of paragraph (b) above including the date and place of shipment if updated in accordance with paragraph (c) of this Rule, shall have the same force and effect as if the receipt message were contained in a paper bill of lading.

From the essence of the CMI Rules it is notable that digital signatures are adopted in encrypting and authenticating electronic bills of lading. Traditionally a paper-based bill of lading passes from trader to trader, retaining its identity as a single document, and not returning to the carrier until the goods are discharged, whereas an electronic bill of lading returns to the carrier every time it is negotiated, and each successive trader is effectively issued a new document transmitted from the ship. The function of paper-based bills of

lading is incorporated in electronically generated documents. However, there are some disadvantages of the CMI rules in that there is no provision for the transfer of contractual rights and liabilities along with the documentation; there are also no remedies for non-payment against electronic bills of lading; and there is no provision for determining the passing of property in the goods.<sup>25</sup>

*UNCITRAL Model Law on Electronic Commerce 1996*

The UNCITRAL Model Law on Electronic Commerce, adopted in 1996, not only provides general provisions to the recognition of electronic communications, but also special provisions to actions related to carriage of goods and transport documents in electronic commerce. Both Articles 16 and 17 of the Model Law on Electronic Commerce contain provisions that apply to the transfer of rights in goods by electronic means. Article 16 establishes functional equivalents of written information about actions related to the carriage of goods, whereas Article 17 creates functional equivalents of the performance of such actions through the use of paper documents.<sup>26</sup>

The special provisions of the Model Law on Electronic Commerce confirm the legal effect in electronic transport documents but give the broad scope of application without providing any substantial rules. Specialised international and national laws concerning carriage of goods still need to be employed to deal with substantial issues. For example, at the international level, there is the United Nations Convention on the Carriage of Goods by Sea 1978 – the ‘Hamburg Rules’ (implemented in 1992) – however, the UK did not ratify the Hamburg Rules. Thus, in the UK, the Carriage of Goods by Sea Act 1971, implementing the ‘Hague-Visby Rules’, will govern the contract of carriage of goods by sea.

*UN Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea – the ‘Rotterdam Rules’ in 2008*

The current legal regime governing the international carriage of goods by sea lacks uniformity and fails to adequately take into account modern transport practices, in particular, electronic transport documents. Since 2002, UNCITRAL has tried to create a modern and uniform law concerning the international carriage of goods by sea.

The UN Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea (the Rotterdam Rules), adopted by the General Assembly on 11 December 2008,<sup>27</sup> provides a uniform and modern regime for the international carriage of goods by sea. It builds upon, and provides a modern alternative to, three earlier main conventions on the international carriage of goods by sea. They are: the International Convention for the Unification of Certain Rules of Law relating to Bills of Lading (Brussels, 25 August 1924) (the Hague Rules), and its Protocols (the Hague-Visby



Rules), and the United Nations Convention on the Carriage of Goods by Sea (Hamburg, 31 March 1978) (the Hamburg Rules).

One of the main achievements of the Rotterdam Rules is that they facilitate electronic transport documents in contracts for the international carriage of goods by sea. Article 1 of the Rotterdam Rules gives clear definitions of ‘electronic communication’, ‘electronic transport record’, ‘negotiable electronic transport record’ and ‘non-negotiable electronic transport record’. The definition of ‘electronic transport record’ is the essence of the Rotterdam Rules. Article 1(18) provides clearly and precisely that:

Electronic transport record means information in one or more messages issued by electronic communication under a contract of carriage by a carrier, including information logically associated with the electronic transport record by attachments or otherwise linked to the electronic transport record contemporaneously with or subsequent to its issue by the carrier, so as to become part of the electronic transport record, that: (a) evidences the carrier’s or a performing party’s receipt of goods under a contract of carriage; and (b) evidences or contains a contract of carriage.

The above definition reveals the two main functions of ‘electronic transport record’: one is evidence of receipt of goods and the other is evidence of contract of carriage. Article 3 further confirms the effectiveness of electronic communications and that electronic communication shall be adopted with the consent of the person by which it is communicated and of the person to which it is communicated.

Moreover, Chapter 3 (including Articles 8–10) of the Rotterdam Rules is in charge of the recognition and procedures for the use of ‘electronic transport records’, which has a similar condition described in Article 3 that the validity of ‘electronic transport records’ is subject to the consent of carrier and shipper. Chapter 8 (Articles 35–42) of the Rotterdam Rules governs the effectiveness of contract particulars in ‘transport documents and electronic transport records’. The form requirements of electronic signatures and authentication are set in Article 9 impliedly and in Article 38 explicitly.

The Rotterdam Rules are different from the other international conventions as they incorporate the term ‘electronic transport records’ in general provisions parallel to the term of ‘transport documents’ (which means paper transport documents) throughout the whole convention, whereas most of the other conventions with non-specific electronic commerce subject matters will normally recognise the validity of electronic communications with the functional equivalent rule in one single provision, but leave the other provision with the traditional wording of paper-based documents or transactions. The Rotterdam Rules 2008 should be deemed to be one of the most updated uniform and modern conventions that supports the efficient usage of electronic means in the shipping industry.

### 2.3 Electronic payments

Electronic payments can be understood as paying for goods or services via electronic means rather than by cash. It includes a large variety of forms. In B2C electronic commercial transactions it is most common that consumers pay the product fees online using their credit cards or debit cards. In B2B electronic trading transactions electronic letters of credit (known as ‘documentary credit’) are the most popular method to pay for goods against bills of lading.

B2C electronic payments, also known as internet payments, are fast and convenient, but sometimes the security of using online payments is challenged. Often when consumers proceed with a payment on the internet online merchants will only request the credit card or debit card numbers and billing addresses. Credit card numbers are at risk of being stolen or kept by online merchants for unauthorised use, as are the billing addresses. Although consumers’ billing addresses may change, new billing addresses can ordinarily be obtained from a public telephone book or internet database. Thus, security and privacy protection is one of the major concerns of shopping online. It is estimated that over 30% of internet users do not buy online because of security concerns in the EU.<sup>28</sup> To build up consumers’ confidence and facilitate online retailing, national, regional and international organisations have made efforts to promulgate rules in data privacy protection in recent years. This issue will be discussed in detail in Part III.

In B2B trading contracts the exporter and the overseas buyer usually agree in the contract of sale that payment will be made under a letter of credit. Next, the overseas buyer (applicant) instructs a bank at his place of business (issuing bank) to open a letter of credit for the exporter (beneficiary) on the terms specified by the buyer in his instructions to the issuing bank. Then, the issuing bank arranges with a bank at the locality of the exporter (advising/confirming bank) to negotiate, accept, or pay the exporter’s draft upon delivery of the transport documents – bills of lading by the seller. Finally, the advising/confirming bank informs the exporter that it will negotiate, accept or pay his draft upon delivery of the transport documents.

There are two fundamental principles of using letters of credit: one is the autonomy of the credit; and the other is the doctrine of strict compliance. With regard to the principle of autonomy of the credit, the letter of credit is separate from and independent of the underlying contract of sale or other transaction. In other words the letter of credit is for the exchange of the documents but not for the goods.<sup>29</sup> This can be evidenced by a land-marking case *Power Curber International Ltd v National Bank of Kuwait*.<sup>30</sup> In this case distributors in Kuwait (buyer) bought machinery from Power Curber (seller), an American company carrying on business in North Carolina. The National Bank of Kuwait issued an irrevocable letter of credit, instructing the Bank of America in Miami to advise the credit to the sellers through a bank in Charlotte, North Carolina. The machinery was duly delivered but the

Kuwaiti buyers raised a large counterclaim against the sellers in the courts of Kuwait and the bank, which was willing to honour the irrevocable credit. The judge held: 'it is vital that every bank which issues a letter of credit should honour its obligations. The bank is in no way concerned with any dispute that the buyer may have with the seller'.

The second principle – the doctrine of strict compliance – means that the bank is entitled to reject documents which do not strictly conform with the terms of the credit. For example in the case of *Soproma SpA v Marine & Animal By-Products Corporation*,<sup>31</sup> the buyers, an Italian company, bought a quantity of Chilean Fish Full Meal from a New York company. The documents to be presented by the sellers to the bank had to include bills of lading issued to order and marked 'freight prepaid' and an analysis certificate stating that the goods had a content of minimum 70% protein. The sellers tendered to the advising bank in New York bills of lading which did not bear the remark 'freight prepaid' but, on the contrary, bore the remark 'collect freight'; the analysis certificate showed only a protein content of 67% minimum; and the goods, although described in the invoice as 'Fish Full Meal', were described in the bills of lading only as 'Fishmeal'. The court decided that the buyers had rightly rejected the documents.

The Uniform Customs and Practice for Documentary Credits (UCP) is a successful international instrument standardising banking practice relating to letters of credit, issued by the International Chamber of Commerce (ICC). The first version for the UCP rule was published in 1933, and the most recent version known as UCP 600, the seventh version of the rules, was published on 1 July 2007. Bankers, traders, lawyers, transporters, academics and all who deal with letters of credit will refer to UCP 600. To facilitate the use of electronic means of issuing and responding to letters of credit, the eUCP (Version 1.1) was launched by the ICC as a supplement to the UCP in order to accommodate presentation of electronic records alone or in combination with paper documents.<sup>32</sup> According to Article 8 of the eUCP, any requirement of the UCP or an eUCP credit for presentation of one or more originals or copies of an electronic record is satisfied by the presentation of one electronic record.

## **2.4 Dispute resolutions**

A good international long-term business relationship is crucial for the maintenance and further development of the business of enterprises. Forming and keeping an ongoing healthy international business relationship requires businessmen's interpersonal communication and negotiation skills and more importantly, demands businessmen's professionalism and maturity in dealing with business disputes. Going to the courts straight away whenever international trade disputes arise is not a very wise decision as cross-border litigation takes a long time, involves high litigation fees and consumes a large amount of time. A sophisticated contract of international sales will usually

have a dispute resolution clause. In such a clause alternative out-of-court methods of dispute settlement, known as alternative dispute resolution (ADR) including arbitration, mediation and negotiation are more frequently employed. Arbitration is the most common way of dealing with large claims in international trade.

In the information society contracts, transport documents and payments of international trade are communicated, generated and issued by electronic means. In other words most of the evidence is in digital form. Resolving disputes online seems to be logical due to the access to digital evidence and the avoidance of cross-border travel. Such methods are introduced as online dispute resolution (ODR). ODR is the equivalent to electronic alternative dispute resolution and cybercourt, but moving traditional offline dispute resolution and litigation online. It has been a new, challenging and much researched issue since the mid 1990s. Its occurrence will boost confidence in doing business online and will certainly be more efficient than offline methods in cases that have an 'international' or 'cross-border' factor. However, there are barriers in promoting ODR globally because of the lack of an international harmonised standard for ODR service practices and the incompatibility of the level of ODR legal and technological experts as well as facilities in different countries. The most updated practical and legal issues of ODR will be discussed and evaluated in Part IV.

## **Summary**

The exponential growth of electronic usage in global commercial transactions has created new challenges to existing laws. Some of the legal solutions still lag behind because of the unique complexities attached to electronic commerce. In order to encourage electronic commerce, efforts to reform or establish international commercial laws may be needed to make them suitable to different cultures, economies and policies, comprehensive and practical to enable safe cross-border trading, sufficiently open to the upgrading technology innovations, and manageable in order to build up e-trust and e-confidence.

In analysing and evaluating these matters this book focuses on the common legal issues in B2B and B2C electronic commercial transactions, surveys the comparative electronic commerce statistics, and compares the legislative frameworks in the EU, US, China and international organisations in general. It then provides an in-depth research into firstly, validity and formation of electronic contracting; secondly, electronic signatures and authentication; thirdly, data privacy protection; fourthly, jurisdiction and choice of law issues in electronic contracting; fifthly, online dispute resolutions, and finally, proposes recommended solutions to overcoming the obstacles to electronic commercial transactions. It aims to create a harmonised international practical legal approach for electronic commercial transactions and dispute resolutions.

The structure of the whole book adopts an ‘obstacles and solutions’ approach. This book first asks what the barriers to electronic commercial transactions are, and answers those questions by finding the solutions. There are eight main obstacles to electronic commercial transactions:

- 1 What constitutes a valid electronic contract?
- 2 How can electronic battle of forms, automated message systems and errors in electronic communications be dealt with?
- 3 How can the recognition of electronic signature and authentication be ensured?
- 4 What can be considered as sufficient protocols to protect personal data privacy rights?
- 5 How can jurisdiction be determined in electronic contracts?
- 6 What law is applicable to electronic contracts?
- 7 How can disputes referring to electronic contracting be resolved and how can the decisions of online dispute resolution be enforced?
- 8 How can one build an infrastructure for trusted e-commerce, and thereby build trust among e-commerce customers?

According to the above issues, the book starts the discussion with electronic contracting. It is one of the most challenging and important subjects in electronic commerce, because legal certainty is the basis of building trust in doing business online. It will be based on the most current international legislation, the UN Convention on the Use of Electronic Communications in International Contracts, and it will be compared with the EU, US and Chinese relevant legislations. It will examine whether it is sufficient to merely guide the conduct of international electronic commercial contracts without resorting to mandatory, binding rules, by analysing factors such as the validity of an electronic contract, the time and place of dispatch and receipt of an electronic communication, errors in an electronic communication, and the location of parties. This also contributes to the two most debatable issues in electronic contracting: one is offer and acceptance, and the other is the battle of forms. Those two issues, unfortunately, were not included in the UN Convention and other national legislations.

After finding under what conditions an electronic contract is valid, the next focal point will be: electronic signatures and authentication as well as data privacy protection. E-signature with authentication is a security tool to ensure the safety of electronic transactions. It identifies contracting parties and their affixed documents utilising encryption. It is essential that the conduct of Certification Authorities is regulated, because the quality and trust in electronic authentication services will affect the operation of the electronic market. In most national laws both non-recognised and recognised certification authorities can provide electronic authentication services and may even have the same effects on certificates. Part III of Internet Security in the book will tackle issues such as: what constitutes sufficient signature and

authentication to secure electronic commercial transactions, what will be the liabilities of Certification Authorities, and how can the recognition of foreign certificates be ensured? How can international or regional protocols redress the balance between the free flows of data information for stimulating economic globalisation and the protection of basic human privacy rights to expedite the process of increasing trust and confidence in doing business online?

Having analysed the existence of electronic contracts alongside internet security, the next issue will move onto the application of private international law on the internet. In other words, when disputes arise, which court will have jurisdiction and whose law will be chosen? Jurisdiction, one of the oldest and most complicated issues in traditional laws, is even more complex in the online environment. When digitised goods are delivered electronically, the place of delivery is no longer physical; thus it is much more difficult to ascertain the place of delivery online than offline. So will it affect the traditional principle of determining jurisdiction? Part IV will examine general, special and exclusive jurisdiction issues by EU Brussels I Regulation, US cases and Chinese laws, and attempt to find solutions to remove obstacles to the determination of internet jurisdiction. It will also analyse the Rome I Regulation and the US and Chinese legislations through discussing two main points: one is the applicable law in cases of choice and the other is the applicable law in the absence of choice. It will comment on the improvement of the Rome I Regulation compared with the Rome Convention and criticise some unresolved issues in the Rome I Regulation which need to be further developed. The last issue in the book, but not the least, deals with online dispute resolution (ODR), which has been argued as one of the most plausible and efficient channels to enhance trust and confidence in doing business online.

