Establishment of an international legal framework for cross-border electronic commerce rules: Dilemmas and solutions

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Abstract

Cross-border electronic commerce is of great strategic significance to global economic integration.[1] However, different rates of development in electronic commerce, and significant differences in interest rates among nations and regions, make it hard to unify cross-border electronic commerce rules at an international level. This is especially reflected in the opposite propositions of the US and the European Union (EU) on the application of rules for products that include digitally delivered content within the World Trade Organization (WTO).

This paper examines the dilemma of cross-border electronic commerce in international law within the framework of the WTO, United Nations Commission on International Trade Law (UNCITRAL) and the Organisation for Economic Co-operation and Development (OECD). After examining the relevant legal systems in the US and the EU, and analysing conflicts of interest in the business rules related to cross-border electronic commerce between the US and the EU, this paper concludes that, in order to promote the development of cross-border electronic commerce, domestic private laws relating to electronic commerce must be improved, and based on an international legal framework designed to increase the predictability and certainty in business activities, which would be achieved by greater international cooperation.

1. Introduction

The volume of electronic commerce sales around the world will soon reach USD 963 billion. In the US, Goldman Sachs predicts a 12.4 per cent increase in online retail sales over the next three years, and the value will reach USD 235.3 billion.[2] While developed economies currently dominate the market, emerging economies are expected to catch up. These trends are also reflected in the field of cross-border electronic commerce which, in recent years, has become an increasingly important aspect of international trade. Effectively using electronic commerce will further improve the competitiveness of enterprises in the global market. However, there is a disparity in the rates of development of electronic commerce, and there is a significant gap between developed countries and developing countries. While some countries with rapid developments in electronic commerce are calling for the establishment of a basic international legal framework, it is hard to reach a consensus on some significant issues due to the overall imbalance in the rate of electronic commerce development across nations and their respective interests. Therefore, the World Trade Organization (WTO) has temporarily slowed its progress on international legislation for electronic commerce. Not since the Uruguay Round has this issue been referred to in WTO multilateral

negotiations, but following the final act of the Uruguay Round, subsequent agreements include numerous rules regulating and facilitating electronic commerce, which greatly facilitate the future development of electronic commerce rules.

Despite the progress of cross-border electronic commerce at the international level, nations and regions still have different systems and standards, such as discrepancies relating to the identification and authentication of electronic exchange records. For example, the definitions of 'electronic signature' provided by the legislation of China and the UK are quite different. Article 2 of China's *Electronic Signature Law* is narrower than section 7(2) of the UK *Electronic Communications Act*. China does not use the expression 'logically associated with' in its legislation, which could lead a court to exclude a signature used separately from a data message, but logically associated with it. Therefore, it is hard to carry out judicial assistance. The disparity of domestic cross-border electronic commerce rules leads to difficulties in enacting coherent and unified international electronic commerce legislation. To promote the development of cross-border electronic commerce, it is therefore essential to improve domestic private laws relating to electronic commerce based on an international legal framework designed to increase the predictability of trade. This should be achieved through greater international cooperation.

2. The dilemma for cross-border electronic commerce in international law and policy analysis

The main purpose of international trade regulation is to avoid or reduce trade barriers caused by national laws. Trade barriers are generally caused by customs, tariffs and corresponding costs, but non-tariff trade barriers also play an important role. With the decline in tariff rates, the importance of these obstructions increases. The WTO is the most important organisation when it comes to trade regulation. Therefore, during the last 20 years, the implementation of regulations promoting electronic trade has mainly been undertaken in the context of the legal framework of the WTO. In addition, other international organisations, such as United Nations Commission on International Trade Law (UNCITRAL) and the Organisation for Economic Co-operation and Development (OECD), have also released guidelines and policy suggestions aimed at promoting cross-border electronic trade.

However, there are severe differences between nations/regions on some significant issues, such as rules on the application of electronic commerce, so WTO, UNCITRAL and OECD still have a long way to go to achieve international harmonisation.

2.1 Disputes governed by the cross-border electronic commerce rules of the WTO

The WTO's Work Progamme on Electronic Commerce determined that electronic commerce means, 'the production, distribution, marketing, sale or delivery of goods and services by electronic means' (WTO, 1998). All member states use this definition.

Cross-border electronic commerce provides a new mode of business transactions and exerts a fundamental influence on the way in which commercial trade is conducted. In practice, commodities traded in electronic commerce tend to be divided into digital commodities and non-digital commodities using electronic transmission as the medium. With the development of information technology, such commodities as books, software, music and films previously transacted in physical forms of paper, audiotape and disk, may now be delivered by electronic means over the Internet. Such products transmitted and delivered through a network are called digital commodities, which are 'invisible' and may be downloaded online. Digital commodities are grouped into four categories in WTO negotiations: (1) TV and film; (2) music; (3) software; (4) audio recordings and video, computers, and entertainment

programs.[3] Generally speaking, the General Agreement on Tariffs and Trade (GATT) still applies to commodities transported in physical form, while the General Agreement on Trade in Services (GATS) is applicable to electronic transmissions under rules applying to electronic commerce.

The WTO formulated a series of documents related to electronic commerce, such as the telecommunication annex of the fourth protocol of GATS (WTO, 1997), the *Information Technology Agreement* (ITA) and *Declaration on Global Electronic Commerce* (WTO, 1998). By conducting research on electronic commerce, the WTO has found that this new commercial medium (i.e. cross-border electronic commerce), faces many challenges, such as transaction security and privacy and jurisdiction disputes, and wishes to integrate existing trade rules and harmonise electronic commerce trade worldwide. In addition, the WTO also pays special attention to the methods that developing countries use to increase their participation in international commodity and service trade and narrow the gap between developed countries and developing countries through electronic commerce.[4] Since electronic trade was not common before the Uruguay Round and hardly had any relevance, it did not play an important role in the negotiations. But the WTO came to realise the importance of electronic commerce afterwards. In May 1998, WTO members made a declaration on electronic commerce in a ministerial meeting in Geneva. On 25 September 1998, the General Council officially approved an *Electronic Commerce Work Programme.* At first, the negotiation seemed to have made some progress. However, the impetus was lost as WTO negotiations on general issues were locked in a stalemate. When preparing for the Seattle ministerial meeting, the WTO Secretariat submitted numerous working documents, but the General Council was unable to reach a consensus on the rules concerning the application of the WTO rules when formulating the proposal. The key issue centres on the determination of rules that apply to cross-border electronic commerce. Neither the harmonisation system under the GATT nor the category list of service sector under the GATS provides an appropriate solution to electronic transactions.

In 2003, the Dispute Settlement Body of the WTO ruled that the GATS was applicable to cross-border electronic commerce when dealing with an Internet gambling case that involved cross-border gambling services provided through the Internet by an Antiguan online-gambling operator for US consumers. A WTO panel and the appellate body recommended that GATS rules and specific commitments made by the US in its schedule of commitments be applied to electronic delivery service, which means service providers of other WTO members have rights to provide services from their home countries to the US territory by delivery means such as email, phone and the Internet. It would be of great practical significance if such a decision could be generalised so that GATS rules and existing or modified specific commitments under the GATS were fully applicable to cross-border digital services. That is, with the emergence of new trade patterns, the scope for applying existing commitments under the GATS could be further extended to include cross-border service provided through the Internet.[5] This, in large measure, could help to eliminate the uncertainty about the relevance of WTO rules to cross-border electronic commerce. Some scholars, like Sacha Wunsch-Vincent, assert that technological progress will expand the scope originally defined by the GATS, thus making WTO members undertake unexpected obligations. From the legal perspective, it means that the wording of original commitments is open and inclusive, which is sufficient for adapting to the changes brought about by technological progress.[6] Nevertheless, in my opinion, this openness and inclusiveness is a double-edged sword based on international law theory. As the application of existing GATS commitments to cross-border digital services will inevitably impact the international trade of some WTO members, it is problematic to extend applicative trade control methods without multilateral consultation and consensus building among members on international rules of electronic commerce. For the sake of self-interest, the US and the EU, for example, have expressed their different demands for electronic commerce in other forms, such as free trade agreements (FTAs) and national legislation, in an attempt to establish rules for facilitating international electronic commerce.

In addition, if new GATS commitments are to be made, WTO members must prudently consider the fact that the commitments will be extended to digital service of cross-border electronic commerce. Moreover, new management challenges may arise due to technological progress.

As previously mentioned, the GATS is applicable to digital services for digital commodities, such as online booking services, database retrieval and legal consulting. On the other hand, there are also divergent opinions on digitally delivered content products in digital commodities and non-digital commodities. So far, more and more countries have shown their support for this system of classification: the GATT still applies to commodities transported in physical form, whereas the GATS applies to electronic transmission. Such classification is appropriate to non-digital commodities because commodities for which contracts are concluded on the Internet, but delivery is made in physical form, are still subject to the GATT.

Following a discussion about the rules applicable to non-digital commodities, digitally delivered content products included in digital commodities warrant some clarification: is information content that was previously transacted in physical form, but can now simply downloaded from the Internet, subject to the GATT or GATS? Since the objective is to liberalise electronic trade, adopting the GATT seems a perfect choice. The GATT is based on a 'negative list', which (1) urges WTO members to exclude certain commodities from most-favoured-nation and national treatment obligations; and (2) automatically includes new commodities developed in daily life. However, it is inappropriate to adopt the GATT. During WTO discussions, the member states classified digitally delivered content products as services because: (1) the GATS is technology-neutral; (2) what is transmitted and exchanged is information instead of manufactured products; (3) what is electronically transmitted is personalised rather than standardised products; and (4) digital information does not rely on a physical or tangible form. Different from the GATT, the GATS does not guarantee free market admission. An important feature of the GATS is that each WTO member has declared its acceptable scope of specific obligations in its 'permissive import list'. The right of service and the service provider to enter the market depends on the scope of commitments made by each WTO member in its plan. In their plans, the members must write clearly about areas of their services that align with liberalisation and the modes of supply. This means that the market access standards for foreign services and service providers, and their rights and entitlements, must be well defined. This pattern can be called the 'bottom-up' approach to liberalisation. WTO members also can negotiate in many economic domains and adjust the rights and obligations. The GATS, by which digitally delivered content products are governed, is more favourable to developing countries, including China, because it offers a mechanism for developing countries to request commitments in certain domains as the condition for accepting service liberalisation, and to be able to seek better market access conditions for their own interest.

2.2 UNCITRAL's attempt to build a single window system for cross-border electronic commerce

In 1996, the *Model Law on Electronic Commerce*, drafted by UNCITRAL, was officially approved. This model law is applicable to commercial transactions conducted in the form of data messages. It systematically lays down the general principles of electronic commerce and the rules for data message exchanges. Further, it has standardised important issues, such as the effectiveness, delivery (such as the time and place for sending and receiving data messages), attribution and legal recognition of data messages. The Model Law, recommended by UNCITRAL to each nation/region, is intended to harmonise the legislation in each nation/region by clarifying basic principles and key issues on legislation for cross-border electronic commerce. Although the Model Law itself is not legally binding, it serves as a useful reference for the electronic commerce legislation and practice of each nation/region. Certain clauses of the Model Law have been formally passed in many nations/regions.

To clarify specific standards on the effectiveness of electronic signatures and data messages in electronic commerce, UNCITRAL also issued the *Model Law on Electronic Signatures* and the *Convention on the Use of Electronic Communications in International Contracts* in 2001 and 2005 respectively.[7] Based on common basic principles embodied in all the electronic commerce rules of UNCITRAL, the *Model Law on Electronic Signatures* provides the basic legal framework of electronic signatures, that is, the principles of non-discrimination, technology neutrality and functional equality, thereby clarifying the legal status of electronic signatures and promoting the use of electronic signatures worldwide. The *Convention on the Use of Electronic Communications in International Contracts* is aimed at 'accelerating the use of E-communication in international trade through guaranteeing that the contract established by communication through electron exchange has the same effect and enforceability with those of traditional paper contract'.[8] This Convention enables each nation/region to amend and update the clauses in the Model Law according to the current international practices, so as to strengthen the unification of rules for international electronic commerce. At present, those affected by this Convention are not limited to the signatory countries. The Association of Southeast Asian Nations (ASEAN) has also chosen to use this Convention as a tool to harmonise the electronic commerce laws of its 10 member states. The Convention is expected to gradually replace the *United Nations Convention on Contracts for* the *International Sale of Goods* and become the uniform law in the field of electronic contracting.

The aforementioned legislation has made contributions to the harmonisation of cross-border electronic commerce rules worldwide, and formed a legal basis for building single window initiatives in international trade. In recent years, UNCITRAL has cooperated closely with the World Customs Organization (WCO) and the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), and participated in studying legal issues involving the implementation of cross-border single window facilities, so as to formulate international legal reference documents on establishing and managing a single window. The WCO and UNCITRAL have established the Joint Legal Task Force on Coordinated Border Management Incorporating the International Single Window ('Joint Legal Task Force').[9] The first meeting of the Joint Legal Task Force was held at WCO headquarters in Brussels in November 2008 and attended by many governments, regional economic integration organisations and industry representatives. It clarified the method that UNCITRAL and international customs use to organise their work, and emphasised that the principles contained in electronic commerce legislation by UNCITRAL will be upheld in the drafting of any law in the future. It also proposed that all countries should be included in the policy consultation process, regardless of the development of a country's economy and science and technology, thereby allowing their needs and viewpoints to be fully expressed. The main objective of the meeting was to build a harmonised legal framework for single window that is applicable to transactions between enterprises. Many relevant legal issues facilitating trade were brought up for preliminary discussions.

The improvement of the cross-border single window facility is also the objective of regional government organisations, such as the Asia-Pacific Economic Cooperation (APEC) and ASEAN. In addition, the UNCITRAL Secretariat was invited to participate in the high-level forum on capacity building for regional paperless trade, which was held by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and the United Nations Economic Commission for Europe (UNECE) in Bangkok in March 2009. The main achievements of this forum included the establishment of the United Nations Network of Experts for Paperless Trade in Asia and the Pacific, and the formulation of rules for building a single window system. The Joint Legal Task Force also addressed issues closely related to the building of a single window system, such as electronic dispute resolution, the electronic customs process, collection of customs duties and logistics control of importing and exporting commodities. These same issues also appear in the documents of many international organisations, such as UNESCAP, UNECE and ASEAN.

Unlike most laws governing electronic commerce, the single window project needs to harmonise wide-ranging substantive rules among nations/regions, including certificates of origin, unloading, discharging, third-party claims and other customs compliance matters. Therefore, for these rules to take effect, uniform and harmonised rules must be formed at the international level in addition to formulating explicit rules for electronic information transfer. Moreover, different from many existing legal rules regulating electronic commerce, the single window project is a field 'whose work results may be obtained only when there is standard unifying data transmission technology to ensure compatibility'. However, it is exactly the field that most electronic commerce laws deliberately avoid. Given the primary stage of this project, along with the above-mentioned challenges for international harmonisation, UNCITRAL still has a long way to go. It will continue to harmonise the work process of the WCO and evaluate general issues for electronic commerce involving single window building for international trade, including legal standards on transferable rights, a bill of lading, a letter of credit, insurance and other common standards for the process of transporting commodities. All these efforts are expected to lead gradually to the harmonisation of international rules for cross-border electronic commerce.

2.3 OECD's promotion of cooperation among stakeholders in cross-border electronic commerce

The growth of electronic commerce—and its potential—has drawn the attention of many member states of the OECD. In view of extensive economic and social influences of electronic commerce, the OECD has declared that new transaction rules must be formulated and policies related to traditional business practices be re-evaluated. The inherent global properties of electronic commerce challenge each government's ability to solve these problems by themselves. Since a non-harmonised and inconsistent national policy for electronic commerce is worse than complete inaction, the OECD believes that international collaboration is a must. It has held a series of meetings to solve policy issues in the field of electronic commerce. The meetings were intended to achieve the following objectives: (1) to identify main policy problems, potential plans for problem solving and organisations that can develop and implement these plans; (2) ensure the consistency and effective harmonisation of inter-governmental actions; and (3) try to reach an agreement between enterprises and the government in terms of guiding principles that would constitute an electronic commerce policy framework.

Since electronic commerce is still at an early developmental stage, the OECD has urged its member states not to strangle technological innovations and market development by introducing excessively stringent management. The OECD has noticed that if third world countries use the electronic commerce infrastructure but lack the corresponding technology, they may become less competitive. Moreover, many OECD member states have regulations that limit market access, which complicates this problem. The OECD worries that these management structures may inhibit the expansion of infrastructure by less developed nations/regions. The development of electronic commerce largely lies in full-scale competition in the trading market. Therefore, a country presently limited by market access may never catch up with other countries in technology or economy, which will further widen the disparities between nations or regions.

The OECD paid much attention to the taxation of electronic commerce, and held many related international conferences to discuss the tax collection and management of electronic commerce. The OECD ministerial meeting held in Turku, Finland, in 1997 discussed electronic commerce tax collection and administration, and formed a consensus on some issues, for example, adhering to the principle of tax equity and tax neutrality; continuing to use the current tax system; and actively developing international cooperation. The consensus reached in the Turku ministerial meeting was consistent with that reached at the Paris conference in 1998 and the Ottawa conference in 1999 on the taxation principle of electronic commerce, such as adhering to the principle of tax equity and tax neutrality and the need to regard digital

commodities as services rather than a sale of goods. Although the meeting adopted only a framework agreement on the taxation issues of electronic commerce and lacked a certain operability, it did lay a foundation for future electronic commerce taxation policy and relevant laws.

One of the most important conclusions reached at the Ottawa meeting was the recognition that it is imperative to promote cooperation between governments, consumers, enterprises and public institutions. One of its suggestions was that dialogue on policy settings should be encouraged so as to promote the development of global electronic commerce in all nations/regions, and that all systems should be compatible with international rules as much as possible. In addition, the OECD suggested that governments should improve the competitive environment and remove unnecessary trade barriers, and that policies formulated by governments to develop electronic commerce should be appropriate, transparent, consistent, predictable and technology-neutral.[10] Therefore, coherent and harmonised international rules of cross-border electronic commerce are necessary for guiding foreign trade.

3. Structural systems of cross-border electronic commerce rules: the US and EU

3.1 The US system of rules

The US is one of the countries that first launched electronic commerce and has undergone the fastest development by promoting the unity of laws for domestic electronic commerce based on a series of legal norms.

The US issued *A Framework for Global Electronic Commerce* in July 1997, which was the first document on electronic commerce officially issued worldwide. The main principles embodied by this framework include: (1) the government should be committed to supporting and maintaining a predictable, low-interference, sustainable and simple legal environment for business when engaging in policy setting; and (2) the government should take a positive attitude toward the growing trend of the Internet and promote electronic commerce legislation based on internationalisation according to its characteristics, so as to bolster consumers' confidence in conducting online trading. As per the principles specified by this framework, the US signed the *Joint Declaration on Electronic Commerce* with Korea, Japan and Australia. *A Framework for Global Electronic Commerce* is becoming the standard reference for every country in formulating its electronic commerce policies.

With the development of the Internet, the National Conference of Commissioners on Uniform State Laws formulated two standard acts in 1999: the *Uniform Computer Information Transaction Act*[11] and the *Uniform Electronic Transaction Act*.[12] Both of these are model laws. The *Uniform Computer Information Transaction Act* specifies issues such as the establishment, validity, interpretation, performance and legal liability of electronic contracts; introduces a key concept of electronic agent; and clearly defines the obligations of the computer information provider to guarantee protection of the computer information it provides. But this act pays too much attention to the interests of business organisations and lacks effective protection for consumer rights and interests. Only two states have officially approved the *Uniform Computer Information Transaction Act*, probably because the uniform act has been amended twice (2000 and 2002).

The *Uniform Electronic Transaction Act* is a law that extensively covers all types of electronic transactions. As a model law, this act is in alignment with the legislative principles and core viewpoints of the UNCITRAL *Model Law on Electronic Commerce*. It admits the legal status of electronic records and electronic signatures, complies with technology-neutrality and functional-equivalence principles, and further clarifies specific contents, such as the sending and receiving times and places for data messages as well as the efficacy of the electronic agent's behaviours.

In 2000, Congress approved the *Electronic Signatures in Global and National Commerce Act*. Unlike the model law, this act is a formal federal law taking effect within the US. By adopting the cardinal principles of the *Uniform Electronic Transaction Act*, it specifies the effectiveness and probative force of data messages, consumer protection and the operator's information disclosure obligations. These laws stipulate that the legal force of electronic contracts or electronic signatures using data messages as the medium must not be denied due to their electronic form. This act also states that all requirements for the saving of written documents are applicable to the saving of electronic records or contracts. In legislating for electronic commerce, the US has considered the international ramifications and has made flexible provisions in international jurisdiction and international assistance with electronic commerce, thus making them compatible with the globalisation of electronic commerce.

3.2 The EU system of rules

In an attempt to shape the law for global electronic commerce and remove obstacles to the European internal market through a uniform legal and management framework, the EU formulated a series of rules and regulations concerning electronic commerce. The legal system of the EU's electronic commerce is constituted by uniform legislation, legislation of member states, comprehensive legislation and special legislation.

In 1997 the EU formulated the *European Initiative in E-commerce*. Unlike the US legislative principles based on economic rationality, the EU law attaches importance to consumer protection and internal coordination of the market. Specifically, the EU hopes to achieve the following objectives through legislation: (1) to ensure, by improving legislation, the free operation of electronic commerce in the internal market for member states; and (2) to protect public interest and build up the confidence of consumers and enterprises in electronic commerce.

In 2000, the EU issued the *Directive on Electronic Commerce*, and made uniform provisions applicable to all its member states regarding the conclusion of electronic contracts, business communications, responsibilities of intermediary service providers and cooperation among member states. In particular, the directive emphasises efforts to cooperate in transnational civil judicature. Through cooperation in policy communication, as well as investigation and evidence collection, the acknowledgement and execution of the verdicts in civil and commercial cases would be facilitated, with a view to ensuring the uniformity of rules for its member states with regard to legal conflicts and rights of jurisdiction.[13] Both the *European Initiative in E-commerce* and the *Directive on Electronic Commerce* are important guiding policies.

In order to coordinate EU member states' efforts to protect consumer rights in the conclusion of distance contracts among member states, the *Directive on the Protection of Consumers in Respect of Distance Contracts* was issued in 1997. Distance contracts specified by this directive made stipulations on sales or service contracts concluded between enterprises and consumers through distance sales networks or by means of telecommunications (e.g. phone, broadcasting, videotext, email, product catalogues, printed promotional products and newspaper advertisements featuring ordering coupons). These stipulations included consumers' rights to information, right of revocation and corporate legal liability.

In 1998, the EU issued the *Transparency Directive on Information Society Services* and established the principle of policy transparency, which required its member states to submit their network service legislation to the EU and other member states for review before receiving official approval. It also stipulated a freezing period for listening to suggestions of the EU and member states, so as to strengthen the uniformity of the norms for the market of electronic commerce.

In order to normalise the legal authentication of electronic signatures, the *Directive on a Community Framework for Electronic Signatures* was passed in 1999. The core of this directive, which stipulated

legal authentication services, was the legal acknowledgement of the validity of electronic signatures, which resulted in a uniform legal environment for the wide use of electronic signatures.

In terms of protecting the right to privacy for electronic commerce consumers, the EU issued the *Directive on the Processing of Personal Data and the Protection of Privacy in the Electronic Communications Sector* in 2002. The directive includes a series of special norms specially for the processing of personal information and the protection of consumers' right to privacy in the Internet environment.

With regard to the judicial system of electronic commerce, the EU stipulated *Regulation on Jurisdiction and Enforcement of Judgments in Civil and Commercial Matters* (2001) including consumer contracts. In addition, the EU adopted the *Regulation on Cooperation between National Authorities Responsible for the Enforcement of Consumer Protection Laws* in 2004, hoping to facilitate cooperation between public authorities responsible for enforcement of the laws that protect consumers' interests in dealing with intra-community infringements, and to contribute to the smooth functioning of the internal market, the quality and consistency of enforcement of the laws that protect consumers' interests, and the monitoring of the protection of consumers' economic interests.

On the whole, the basic principles underlying electronic commerce legislation of the EU and the US are similar in that they both create legal certainty through confirming electronic contracts. Due to the global characteristics of electronic commerce, the EU legislation takes account of internal legislation, international treaties and norms for industry self-regulation norms. In addition to formulating and improving uniform legislation, the EU also takes action to supplement legal norms by encouraging enterprises, industry associations and consumer organisations to jointly formulate self-disciplinary rules while participating actively in the formulation of rules for electronic commerce at the international level. Accordingly, the EU has participated for years in the legislative work within a series of international frameworks, especially the formulation of electronic commerce rules under the leadership of the WTO and OECD. Like the US, the EU has also built a normative system applicable to the global electronic market by working closely with other countries in legislation and safeguarding trade liberalisation for electronic commerce. Nonetheless, driven by self-interest, the EU and the US are not in agreement over the electronic commerce rules within the WTO framework. One area where the most serious conflict occurs is the applicability of rules for digitally delivered content products.

4. Conflicts of interest over rules for cross-border electronic commerce—standpoint analysis of the US and the EU

4.1 The US policy: maximising trade liberalisation

The US is the leader of global electronic commerce, with approximately one third of the world's electronic commerce market. Internet users in North America account for the largest proportion of its total population. The competitive advantages of the US in respect of the knowledge economy and information technology are the driving forces that have enabled the country to improve its legislation and maintain its economic hegemony. To maximise its economic and trade benefits, and retain its dominant role in the market, the US remains committed to the liberalisation of electronic commerce and the establishment of international rules favourable to the development of its electronic commerce. As international legislation for electronic commerce is not only related to profit sharing between developed and developing countries, but also impacts the competitive advantages of the US over other developed countries. Therefore, international legislation for cross-border electronic commerce is making slow headway in a competitive game that profoundly affects every stakeholder's interest. What follows is an analysis of conflicts of interest implicated in international legislation, as illustrated in the viewpoints of the US on applying rules to cross-border electronic commerce within the WTO framework.

During multilateral negotiations within the WTO, the US has insisted that the GATT should apply to digitally delivered content products in electronic commerce to facilitate the liberalisation of electronic commerce and prevent new trade barriers. It is the very topic on which the US disagrees with the EU and the WTO. Therefore, it is extremely difficult to reach agreement on a legal framework for cross-border electronic commerce at an international level. On the other hand, this technical issue of law application is also related to many WTO members' reluctance to accept the liberalisation of audiovisual services as represented in the largely political concept of cultural exception. The reasons for the US's support of the regulation of digital information products with the GATT are as follows:

(1) Digitally delivered content products are significantly different from services. The provision and the consumption of services run concurrently. In contrast, information products are already produced prior to the realisation of the consumption function. From the US's perspective, many content products can keep having their information-carrying media changed prior to consumption. For example, an application program may be first made into a CD by its developer, then the program is published to consumers via the Internet, and then consumers save the program to their computer hard drives. This example illustrates the durability of digitally delivered content products and their inseparability from physical media.[14]

(2) Under the GATT, content products are seldom subject to the restriction of tariffs and import quotas, and regulations are introduced for national treatment, anti-dumping rules, and emergency measures. The trade of digital content products will, therefore, be more liberalised. Due to the GATS commitment to market access for every member state, it is likely that the same content products cannot even enter the domestic market according to the GATS, and thus cannot enjoy preferential trade treatment.

(3) If content products are subject to different rules during transactions due to different media, the technology-neutrality rule in the WTO agreement is violated. The US posits that, for a music CD or a software disc, whether it is purchased from a store or downloaded from the Internet, both should be viewed as similar products, hence the applicability of the GATT. It is evident that the US classification of digitally delivered content products in the WTO conveys a clear message of creating and maintaining an environment of free global electronic commerce. The US has made special efforts to prevent this new trade from encountering the same barriers for traditional content delivery technologies such as radio and movies.

4.2 The EU policy: industrial support and protection of cultural diversity

As previously mentioned, the US supports the application of the GATT to the trade in information products, while the EU claims that the delivery of content products belongs to services within the GATS's jurisdiction (Table 1). Just as the US favours the GATT, the EU supports the application of the GATS for the following reasons:

(1) The physical form of content products sets them apart from traditional goods, because the physical form of products is generally the criterion for differentiating goods and services. Even though media carrying digital information may change several times, they cannot be deemed analogous to physical products.

(2) Tariff concession under the GATT does not cover any digital content delivered online across the border. Further, the GATT does not involve other important regulating factors relating to market access for certain service sectors. On the other hand, the GATS will make further progress over time in transparency, domestic rules and subsidies. Therefore, the GATT is not necessarily better able to facilitate trade liberalisation than the GATS.

This standpoint held by the EU is based on the supportive policy for the digital products sector in its member states, which has both economic and cultural objectives: to improve the competitiveness of digital products copyrighted by the EU; and to preserve the linguistic and cultural diversity of each member state. In light of the GATS, the EU has further classified digitally delivered content products as cultural and audiovisual services. As no differential treatment has been given during WTO trade negotiations to the departments in audiovisual services, no specific commitments need to be made to the departments and therefore, the latter are exempted. This will help to protect diversity in the best way possible.

Inspired by the EU's standpoint, some other WTO member states, such as Australia and Canada, have also implemented a supportive policy for the content products sector. They have also classified digitally delivered content products as audiovisual services, which do not make specific commitments under the GATS on the grounds of cultural diversity.

Table 1: Standpoint contrast between the US and the EU on categories of digitally delivered content products

	Rule application of GATT or GATS	**Rule application within GATS**
EU	Delivery of digital information products should be viewed as services within the GATS.	All digitally delivered content products fall into the category of audiovisual services except commercial software.
US	Digitally delivered content products should be regulated by the GATT.	Digitally delivered content products should also be categorised into value-added telecommunications instead of mere audiovisual services. Any sort of digitally delivered software should be regarded as computer services.

5. Conclusion

As there are deep differences in the principal problem of electronic commerce, multilateral trade negotiation within the WTO framework may come to a deadlock and the US may start to develop bilateral and regional free trade negotiation outside the WTO framework. It may also strive to develop international rules for electronic commerce, in a manner of speaking, concluding that the free trade agreement has become the tool for the US to use for preference to further increase its overseas interest.

By 2012, the US had reached FTAs with 19 countries (including Korea, Australia and Chile), which include bilateral trade agreements as well as regional trade agreements. These FTAs were obtained through the WTO framework, but the content of the agreements are more comprehensive than the WTO rules. It is thus clear that the quantity of the US's regional and bilateral free trade agreements is continually increasing, gradually forming a network constituted by FTAs. The US has introduced a chapter focusing on 'electronic commerce' that relates to FTAs, and adopted the method of a restrictive list, which aims to provide liberalisation for trade in digitally delivered content products. The main contents of the agreements are: definition of content products; applicability of the GATS to electronic transmission service; customs valuation; national treatment; most-favoured-nation-treatment; inconsistent measures; and mutual cooperation. The agreements also define the provisions of electronic authentication, the principle of transparency, and the protection of online consumers.[15] Different from goods and services, the US sets up the chapter of 'electronic commerce' dedicated for digitally delivered content products,

but seems to deliberately avoid clearly defining the property of content products, leading to more uncertainties compared with the WTO. Moreover, even if such trade agreements acknowledge the commitment of free market access, it still has not defined whether the management measures and trade treatment within the WTO framework apply to content products.

One of the critical problems that needs to be addressed is the duty or tariff collection and customs valuation. The fictitious transaction environment of electronic commerce presents challenges to the jurisdiction of traditional tariff, while tariff concession has always been the central topic for discussion among WTO members. The US has maintained policies allowing electronic commerce trade to be tax free, and has stipulated rules regarding exemption from obligations of import–export tariff and relevant fees for content products of the opposite party in FTAs with countries of Australia (Article 16.3), Korea (Article 15.3.1) and Singapore (Article 14.3.1). The tariff collection article also points out that, in order to determine the specific application of a tariff, each party should separately determine the dutiable value for import of content product carrier according to the cost or value of the content product carrier, and should not consider the cost or price of content products stored on the carrier. Compared with content product itself, the value of the content product carrier can be almost negligible. In the import and export of content product, what actually has trade value is the content product itself rather than its carrier. However, due to the uniqueness of electronic commerce, in FTAs each party agrees that in terms of their treatment of aspects of electronic commerce trade, they can cite exceptional provisions in investment, service trade, financial service and other aspects, for example, government purchases and the exception of government subsidies, which are provisions appropriately deviating from non-discriminatory treatment.

Through bilateral and regional FTAs, the US formulates trade rules relating to electronic commerce with contracting states, such as transaction safety, electronic signature, data privacy and intellectual property. The contents of the agreements embody the basic policy of electronic commerce reflected in the US legislation, *A Framework for Global Electronic Commerce*, and further deepen international cooperation. This behaviour undoubtedly expands the influence of the US electronic commerce policy to other countries and also facilitates the expansion and support of US opinions and standpoints in a larger scope. Under the condition of negotiation without achievements within the WTO framework, the US practice of expanding its domestic policy to overseas through self-trade agreements has become the impetus for further discussion and coordination of cross-border electronic commerce rules through future WTO multilateral negotiation, and the US pattern undoubtedly inspires other nations to some extent. As for the specific commitment on cultural and audiovisual aspects submitted after adoption and amendment of the restrictive list for market access of cross-border services, each member state might compromise, given the broader and deeper interests, and gradually reach a consensus on this international trade rule.

In terms of electronic commerce tariff legislation, each nation should follow the following principles:

(1) electronic commerce tariffs will not distort or hinder the liberalisation of international trade, and should follow the basic rules formulated by the WTO

(2) collection of electronic commerce tariffs should be transparent and reduce the transaction costs of both sides

(3) collection of tariffs should be consistent with the basic principles of the current international and domestic tax systems, and should avoid conflict with the current policy of tax jurisdiction and double taxation.

However, since taxation is the symbol of national economic sovereignty, the implementation of a global unified electronic commerce tariff policy means that each nation must transfer part of its national sovereignty. This requirement is difficult to achieve due to differences in economic strength, historical origins and national interests of various countries. Therefore, under the guidance of a unified tariff policy

on electronic commerce, each nation needs to implement a differentiated tariff policy according to its own conditions.

In general, domestic legislation is not enough to apply to cross-border electronic transactions, and the convergence of electronic commerce law is imperative. The main trends are as follows: the formation of international law sources promotes the unification of domestic laws and international laws. In the global convergence of electronic commerce law, the legislation of electronic commerce in developing countries should actively absorb and transplant the legal system of electronic commerce power as an economic and technological leader. At the same time, in the construction of global governance of an electronic commerce system, we should guard against strong countries reflecting their own trade interests in the formation of international treaties, and then transform such rules through treaties to domestic law. Each nation should also proceed from its own trade interests and embody its own views in the construction of the international legal system of electronic commerce. It is worthwhile mentioning that interest is the basic consideration in the construction of an international legal system of electronic commerce. In the design of the rules, the positions of various countries are often sharply opposed, and the international mechanism of electronic commerce will eventually be established in the form of a basic framework and principles.

At present, academia's ideas on the establishment of international electronic commerce framework rules can be classified into two categories: one is the establishment of an independent Trade Related Electronic Commerce Agreement; another is the conclusion of an Electronic Commerce Agreement through negotiations on electronic commerce under GATS to jointly regulate electronic commerce. Meanwhile, an Electronic Commerce Agreement should be a framework agreement, which regulates the relationship between domestic legislation and existing commitments in electronic commerce, aimed at ensuring that no legislation can prohibit the expansion and development of electronic commerce because of conflicts with existing commitments. These rules are, in essence, universal, so that members can still enact domestic legislation to address their special concerns.

Each nation should start from its current situation, strengthen participation in international negotiations of electronic commerce, reflect the interest and appeal of domestic electronic commerce enterprises, and create a good legal environment for domestic electronic commerce trade. Under the background of development of electronic commerce worldwide, each nation should further participate in the Joint Legal Task Force ('single window') of UNCITRAL and WCO, positively cooperate with each party, harmonise the large number of substantial rules (such as certificate of origin, customs valuation and tariff collection, and transfer of electronic information), and feasible technical standards. Therefore, it is necessary to define international rules and standards for the transfer of electronic transferable rights (including electronic bills of lading and warehouse receipts, and electronic equivalents of promissory notes), so as to realise the vision of establishing international rules regarding transferable recordings, which are broader and more comprehensive, and transcend those of traditional paper bills. In order to realise integration of cross-border electronic commerce rules, cross-border recognition of electronic signatures and resolution mechanisms of online disputes will also become the direction to strive for at the international level, and so corresponding technical standards and legal rules should be formulated accordingly.

With regard to domestic legislation of cross-border electronic commerce, compatible legislation should be stipulated by reference to international rules, and thus the ultimate goal of full integration of global markets would be attained. When implementing domestic legislation on electronic commerce, each nation should introduce the basic law of electronic commerce first, and then draw up specific rules on specific issues, which should also be widely adopted globally. The basic law of electronic commerce should include the legislative purpose, guiding ideology, legislative principles, definition of electronic commerce and adjustment object, scope of application, electronic commerce market access system, management institutions and authority, as well as dispute settlement mechanisms. In the specific section,

concrete provisions should be made in specialised areas of electronic commerce and guided by the general provisions of electronic commerce. The legislation should give priority to the following legal systems: electronic contract, tax collection and management, intellectual property, electronic payment and settlement, consumer protection and electronic evidence.

When implementing cross-border electronic commerce domestic legislation, each nation should make clear the following three basic principles:

(1) **Development**. The legislation should remove obstacles for the development of electronic commerce while traditional legal systems and norms are set up for non-digital form and the non-virtual environment. Therefore, the provisions which are unable to adapt to the requirements of electronic commerce development should be modified and supplemented to encourage the popularisation and application of new technology and means of electronic commerce in various industries, and encourage electronic commerce enterprises to develop new business forms and create new business models. At the same time, all countries should exercise moderate supervision of electronic commerce activities to ensure their stability and vitality.

(2) **Coordination**. Electronic commerce is characterised by globalisation, so the legislation of electronic commerce should first consider the coordination of existing international rules formulated by organisations such as WTO, UNCITRAL, OECD, and other countries, for example, the principle of technical neutrality and the principle of functional equivalence. Of course, at the same time of complying with the international legislations, each nation should formulate new standards and stipulations with domestic features in terms of security protection and consumer rights, according to its own tradition and electronic commerce development.

(3) **Security protection**. Electronic commerce is running in a virtual environment, online transactions not only bring efficiency to people, but also lead to insecurity. The security principle is the basis of mandatory legislation in electronic commerce. Each nation should require electronic commerce participants to set up information security rules and adopt corresponding technical measures to ensure the safe operation of the whole transaction system. For example, the market access of certification bodies, supervision of the format terms in online transactions and other mandatory obligations are all aimed at protecting the security and fairness of transactions.

Indeed, it can be seen from the difficulties associated with the negotiation of the classification of digitally delivered content products in electronic commerce within the WTO framework, it will be extremely difficult to reach a resolution on a legal framework which is uniform and stable. Essentially, while electronic commerce development influences the individual interests of each country, it will present the status of a zero-sum game, however, it is possible to stipulate acceptable international rules with minimum standards. Nations/regions involved in cross-border electronic commerce should attempt to coordinate related domestic provisions of private law and establish a legal framework based on international cooperation, which will increase predictability and certainty for business activities.

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Notes

1 After the global financial crisis, electronic commerce has become a new trend of future international trade. Since 2008, the overall turnover of electronic commerce has maintained the growth rate above 20 per cent in a number of countries including China. Electronic commerce has greatly promoted the formation of new logistics systems and patterns of payment, which is of significance to global economic integration. See Libin & Yongwen, 2014, p. 28.

2 Goldman Sachs in JP Morgan's annual *Nothing But Net: 2011*, Internet Investment Guide on digital commerce.

3 Digital commodity applied in the context is content product transmitted and delivered through network. See Wunsch-Vincent, 2006 p. 2.

4 Committee on Trade and Development, WT/COMTD/W/38 (Mar. 3, 1998), at http://www.wto.org

5 See WTO Agreement and Electronic Commerce, WTO Doc.WT/GC/W /90, 14 July 1998.

6 See Wunsch-Vincent, 2006, p. 324.

7 The Parliament of Australia approved the Electronic Transactions Act in 2011. This act was drafted clearly in compliance with the Convention on the Use of Electronic Communications in International Contracts. In addition, Australia and more than 40 other nations are updating domestic laws in a larger electronic commerce field by referring to a series of legal documents drafted by the UNCITRAL including the Model Law on Electronic Commerce.

8 The Model Law on Electronic Commerce Adopted by the United Nations Commission on International Trade Law, art 5, GA Res 51/162, UN Doc A/RES/51/162 (Jan 30, 1997).

9 Official Records of the General Assembly, Sixty-third Session, Supplement No. 17 (A/63/17), para. 338.

10 OECD Ministerial Conference, A Borderless World: Realizing the Potential of Global Electronic Commerce, SG/EC(98)14 final at 4.

11 See Uniform Computer Information Transaction Act (2002).

12 See Uniform Electronic Transaction Act (1999).

13 See Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on Certain Legal Aspects of Information Society Services, in Particular Electronic Commerce, in the Internal Market, *Official Journal*, L.178, 2000, pp. 1–16.

14 COMTD, Communication from the US, Work Program on Electronic Commerce, WT/COMTD/17 (12 February 1999).

15 See US and Five Central American Countries Free Trade Agreement, US–Australia Free Trade Agreement, US–Korea Free Trade Agreement.

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