

## **SPECIAL MEETING ON ELECTRONIC COMMERCE: LEGAL ISSUES AND IMPACT ON DEVELOPING COUNTRIES**

### **(i) Introduction**

It may be recalled that at the 38<sup>th</sup> Session of the AALCC held at Accra, Ghana (1999) the Secretariat had in its "Report on Legislative Activities of United Nations and other International Organizations Concerned with International Trade Law" proposed a preliminary checklist of issues that could be considered by the Committee within a time bound framework. The issues thus identified included: the developmental dimensions of investments regimes; legal and structural reforms in domestic arena to meet the emerging trends in services sector and property rights; and increased understanding on global electronic commerce. The deliberations at the session acknowledged the growing importance of global electronic commerce in contemporary international trade. In a resolution adopted thereat the Committee requested the Secretary General of AALCC, "to explore the possibilities of convening a seminar or workshop in 1999, with the co-operation of UNCITRAL and UNCTAD, and such other relevant organizations, with a view to promoting the understanding of specific legal issues in global electronic commerce among AALCC Member States.

In May 1999, the Deputy Secretary General of the AALCC, Dr. Ahmed J. Al-Ga'atri in his statement to the Thirty-second Session of the United Nations Commission on International Trade Law (UNCITRAL) informed the Commission of the above-said resolution of the AALCC. The Commission welcomed all efforts aimed at strengthening cooperation with the AALCC.

Subsequently in September 1999, Amb. Dr. W.Z. Kamil, the Deputy Secretary General of AALCC visited the World Intellectual Property Organization's Headquarters at Geneva to have consultations with officials on the prospects of signing a formal cooperation agreement between AALCC and WIPO. During the course of his stay in Geneva, he participated in the WIPO-sponsored International Conference on Electronic Commerce and Intellectual Property.

The momentum generated by the above events culminated in the item being placed on the agenda of the Meeting of the Legal Advisers of the AALCC Member States held at New York on 26 October 1999. It was proposed that the item could be taken up for in-depth consideration at a one day special meeting to be convened parallel to the AALCC's 39<sup>th</sup> session scheduled to be held at Cairo in February 2000. The Liaison Officers of the AALCC at their 265<sup>th</sup> meeting held on 9 December 1999 considered this proposal and as such the item has been placed on the Provisional agenda of the AALCC's thirty-ninth session.

### **Thirty-ninth Session: Discussion**

#### **Report of the Rapporteur Dr. Lincoln C.W. Wee, on The Special Meeting on Electronic Commerce and Intellectual Property: Impact on Developing Countries held at Cairo, on 21<sup>st</sup> February 2000**

Mr. President, Excellencies, Distinguished Delegates and Observers, Ladies and Gentlemen,

Let me begin by expressing my sincere thanks to all delegations for the honour you have bestowed on me by appointing me Rapporteur of this important meeting.

The one-day Special Meeting on 'Electronic Commerce' and Intellectual Property: Impact on Developing Countries was held with the financial and technical assistance of the World Intellectual Property Organization (WIPO) on 21<sup>st</sup> February 2000. I wish to place on record deep appreciation to the Government of the Arab Republic of Egypt for hosting this meeting. Our thanks also to H.E.Dr. Kamil Idris, the Director General of WIPO - for sponsoring and deputing senior officials from the organization to guide us in our deliberations, and to the three distinguished speakers from Member countries.

The proceedings of the meeting began with the President's opening statement which focussed on the significance of harnessing the potential of electronic commerce in the development of the economies of the Asian and African States. Mr. Blomqvist, on behalf of the Director-General of

WIPO, welcomed the participants and traced the evolution of the legal regime protecting intellectual property rights since the adoption of the Berne Convention. The rapid developments in technology coupled with the increasing awareness of the practical utility of IPR systems in protecting computer programmes, bio-technology and plant varieties, were identified as factors that have shaped the current perception towards this topic.

Datuk Dr. Othman Yeop Abdullah in his lucid presentation on "The Internet as the Medium for Electronic Commerce: Fundamental Concepts and Issues for Developing Countries", introduced the gathering to fundamental concepts of the Internet and explained how the Internet served as a medium for e-commerce. The interaction between 'technology push' and 'business pull' were identified as basic forces shaping the role of e-Commerce. Elaborating on the implications of e-commerce for developing countries he said that it enables developing countries to leapfrog stages of development, propel trade, reduce final cost of output, and prevent the marginalization of small and medium scale enterprises. The following factors were identified as the major concern of developing countries: cost of infrastructure development, human resource development, higher rates of the cost of a personal computer to disposable income; impact of e-commerce on the national tax regime and the development indigenous industry.

Speaking on national experiences, he spelt out certain strategies that were successfully engaged by Malaysia. Malaysia, he said, had built upon its regional ties to aggregate a bigger mass of consumers from countries which share similar cultural and religious identities. Besides, the government's policies were turned to support infrastructure development and encouraging investments to transform the industrial economy into one of information-based economy.

The second presentation was by Mr. Raafat Radwan on "E-Commerce: the Egyptian Initiative". He identified the basic components that collectively constituted the e-commerce environment in a country to include: legal aspects, financial aspects, security and energy related matters, privacy and consumer protection aspects, issues relating to infrastructure, human resources, and the protection of IPRs and the standards of regulation. Speaking on the Egyptian experience, he said that the central focus of his country's vision on e-commerce was accelerated socio-economic development using information technology. The challenges in this regard were to increase awareness and use of the Internet, developing telecommunications and e-commerce infrastructure and achieving the critical mass for the realization of a cashless society. To address these problems he outlined a set of basic principles, namely, transparency, partnership between government and private sector and the government playing the lead role as the model user of e-commerce. Mr. Raafat also informed about the ongoing efforts to introduce cyber laws to protect the confidentiality of transactions through the electronic medium.

The presentation by Mr. V.K. Gupta on "Initiatives in Electronic Commerce: The Experience in India", focussed on the initiatives launched by the Government of India in promoting e-commerce. At the policy level, an Information Technology Task Force has been constituted under the guidance of the Prime Minister. The recommendations of the Task Force, submitted in late 1999, deals with crucial issues related to encouraging Internet Service Providers, puts into place secure Electronic Funds Transfer (EFT) systems and encourages payment of public dues by citizens through the electronic medium. Mr. Gupta also explained the salient features of the Information Technology Bill, 1999, currently under consideration by the Parliament and most likely to be adopted later this year. The Information Technology Act will provide legal recognition to electronic records and digital signatures. In addition, an office of a Controller Certifying Authority will be established to give recognition to foreign certifying authorities. As regards the outstanding challenges he identified the following issues:

- providing reliable, efficient and economic telecom infrastructure;
- enhancing business to customer e-commerce;
- establishing Electronic Payment Gateway;
- tackling concerns relating to cyber frauds and cyber laundering of money; and
- addressing the barriers to export of technologies.

The presentation by Mr. Arif Hyder Ali on "The Impact of Electronic Commerce on Intellectual Property - Dispute Resolution Issues", examined the potential and nature of disputes that may arise due to the increased use of e-commerce. He said that disputes relating to intellectual property on the Internet were bound to multiply as, the Internet was a global medium with a lack of clear prescriptive legal rules, there are difficulties with legal enforcement, and it is easy to copy and distribute data anonymously. To effectively address these problems, he informed the role of WIPO in formulating and administering on-line dispute resolution facilities. He said, the modes of dispute resolution under the WIPO Arbitration and Mediation Centre included:

- Mediation
- Arbitration
- Emergency Relief Procedures; and
- Domain Name Administrative Procedure.

The WIPO online facilities are intended to be affordable, accessible rapid, trustworthy and flexible.

The presentation by Mr. Jorgen Blomqvist on "Intellectual Property in the Digital Environment: the WIPO copyright Treaties", traced the evolution of the protection regime on copyrights from the 1886 Berne Convention to the Copyright Treaty and the Treaty relating to Performance and Phonograms (popularly known as the Internet Treaties) of 1996. The Internet Treaties, he said, provided for protection of computer programmes and databases, distribution and rental rights; enforcement provisions; and economic and moral rights for performers. Speaking on WIPO's Digital Agenda, Mr. Jorgen dealt at length on the legal issues relating to the right of reproduction or copying, right of distribution; limitation and exceptions and right management information. He informed that WIPO was undertaking ongoing work in issues dealing with the protection of audiovisual performances, databases, rights of broadcasting organizations, network-based rights management and the liability of on-line service providers.

The presentation by Mr. Arif Ali on "WIPO Internet Domain Name Process", addressed technical and complex issues on registration of domain names and disputes associated therewith. Domain names, he said, have developed into business identifiers as corporate entities incorporated their popular trademarks in their domain names to attract business. However, as domain names are registered on a 'first come first served basis and no verification procedures exist to counter-check the claims prior to registration, the registration system has led to 'cybersquatting' i.e. abusive registration of domain names, and disputes where two parties lay claim to the same domain name. Mr. Ali highlighted the work of the ICANN (Internet Corporation for Assigned Names and Numbers) and WIPO. Pursuant to a Report submitted by WIPO to ICANN, a uniform Domain Name Dispute Resolution Policy was formulated in August 1999. Elaborating the procedures related to the uniform policy, he said it had the advantage of being simple, fast and cost-effective. However, the process can only be invoked in disputes involving cybersquatting, and the available remedies are limited to the cancellation or transfer of domain names.

The Representative of the World Trade Organization (WTO) in his brief statement said that the work of the WTO on e-commerce was restricted to trade-related matters. He also drew attention to the WTO Work Programme on Electronic Commerce dawn up by the General Council in 1998.

The floor was opened for interventions by delegations after the presentations. Delegates from Palestine, Republic of Korea, Thailand, Syria, Iraq, Egypt, Iran, Sudan and Kuwait made presentations as well as posed queries to the panelists. In conclusion, Ambassador Dr. W.Z. Kamil, the Deputy Secretary General and Hon'ble Abdul M. Khasru, the Vice-President of AALCC thanked the WIPO and the resource persons for the lively and informative exchange of views on this important subject.

Mr. President, the presentations of the panelists and delegates reveal the following trends:

1. At the international level, several technical and specialized bodies are engaged in the process of developing a cohesive policy framework for e-commerce to address issues

relating to rules of contracts, intellectual property rights, trade aspects, matters of infrastructure and human resources development.

2. The lack of internationally accepted standards on e-commerce practices and the resulting heterogeneity could prove to be a handicap for countries wishing to enact national laws on this subject. Nevertheless, the above presentations indicate that the lead taken by businesses in carrying out transactions through the Internet and the usage resulting therefrom have encouraged governments to make tentative in-roads. This trend is evidenced by the statements of the delegates who reported that they are at different stages of enacting laws to regulate and protect electronic transactions.
3. A common set of challenges encountered by countries from the Asian African region relates to poor infrastructural facilities, high cost of computers, general mistrust among the public towards electronic transactions. In this context, it is encouraging to note that the governments in many countries have taken the initiative to play the leading role as a model-user of e-commerce.
4. At the national level, a key element in promoting e-commerce, is the need for a clear government policy on its role and responsibility in the initiation, implementation and development of e-commerce. This policy can then be supported by relevant laws, consistent with international standards, and private sector efforts.

Mr. President, this brings me to the end of my presentation. Thank you for your kind attention and for giving me the floor.

(ii) **Resolution on the "Special Meeting on Electronic Commerce: Legal Issues and Impact on Developing Countries"**

**(Adopted on 23.2.2000)**

**The Asian-African Legal Consultative Committee at its thirty-ninth session,**

**Appreciating** the efforts of the Secretary General to convene the Special Meeting on "Electronic Commerce: Legal Issues and its Impact on Developing Countries".

**Having considered** Document No. AALCC/XXXIX/ CAIRO/2000/SP.1 prepared by the Secretariat:

1. **Express** its gratitude to the Government of the Arab Republic of Egypt for hosting the Special Meeting;
2. **Expresses** its deep gratitude to the World Intellectual Property Organization (WIPO) and its Director-General for the financial and technical assistance in organizing the Special Meeting;
3. **Also Expresses** its appreciation to the Experts and all other participants for their useful contribution;
4. **Urges** Member States to adopt suitable legal and regulation frameworks for the promotion of electronic commerce; and
5. **Adopts** the Report of the Special Meeting.

**(iii) Secretariat Study: Electronic Commerce-Legal Issues and Impact on Developing Countries**

There is no universally agreed definition of electronic commerce. One of the earliest works on this subject, the UNCITRAL Model Law on Electronic Commerce (1996) does not define the term 'electronic commerce'. The Model Law employs the term 'electronic commerce' as a generic term that would include the following modes of transmission based on the use of electronic techniques:1[1]

- (i) communication by means of electronic data interchange (EDI), i.e. computer-to-computer transmission of data in a standardized format;
- (ii) transmission of electronic messages involving the use of either publicly available standards or proprietary standards;
- (iii) transmission of free-formatted text by electronic means, for example, through the INTERNET

A typical business-consumer commercial transaction can be divided into three main stages: the advertising and searching stage, the ordering and payment stage and the delivery. Any or all of these may be carried out electronically and may therefore be covered by the concept of 'electronic commerce'. Thus in the WTO's Programme on Electronic Commerce, the term 'electronic commerce' is understood to mean the production, distribution, marketing, sale or delivery of goods and services by electronic means.2[2]

The advent of Internet technologies has contributed to the widespread adoption of electronic means of commercial transactions. Internet use worldwide is growing fast. Over the last five years the Internet has evolved from a network of some 3 million (predominantly United States-based) users into a commercial mass medium of over 100 million users worldwide. From the late 1960s to the early 1990s, Internet was a communication and research tool used almost exclusively for academic and military purposes. This changed radically with the introduction of the World Wide Web (also called the WWW or W3) in 1989. WWW is a set of programmes, standards and protocols governing the way in which multimedia files (documents that may contain text,) photographs, graphics, video and audio) are created and displayed on the Internet. The popularity of the Internet in the 1990s is mostly due to the graphics intensive nature of World Wide Web.

Individuals, companies and institutions use the Internet in many ways. Business houses use Internet to provide access to complex databases, such as financial databases. Companies can carry out commerce online, including advertising, selling, buying, distributing products and providing after-sales services. Media and entertainment companies use the Internet to broadcast audio and video, including live radio and television programmes; to offer online chat and online news and weather programmes. Scientists and scholars use the Internet to communicate with colleagues and to perform research. Individuals use the Internet for communication, entertainment, finding information, and to buy and sell goods and services.

Current populist notion of e-commerce tends to identify it with 'consume shopping using the Internet' i.e. business to consumer transactions. In a business-to-consumer transaction, a potential customer can study the information on the Internet relating to the nature, utility and price of the products that he may wish to buy. Payment for the chosen product can be made through electronic fund transfer and in some cases the delivery of the product can be effected on-line. Thus it is now possible to buy candy or auction antiques on the Internet. Music, books, films, etc. can be delivered online to the customers.

Despite its portrayal as a popular communications medium (e-mail, games, chat, etc.), there are many more business-to-business transactions. The Internet's biggest impact will come from

---

1[1] WTO Committee on Trade and Development, Paper on "Development Implications of Electronic Commerce", WT/COMTD/W/51, 23 November 1998.

2[2] UNCITRAL Model Law on Electronic Commerce with Guide to Enactment, 1996 (United Nations, New York, 1997), p.17.

efficiency improvement it introduces within firms that use the Internet to streamline product and market research, improve production and marketing efforts around the world, from the develop business alliances and better integrate the online value chain, from suppliers to end customers. These business benefits suggest that the impact on trade will continue to grow - and outstrip benefits to individuals.

### **Electronic Commerce: Implications for Developing Countries**

The rapid growth of electronic commerce would have far-reaching implications for both developed and developing countries in the way that trade is carried out. More so for the developing countries, the exposure to electronic means of commercial transactions could open up new opportunities in the area of trade which was hitherto either not available or was underutilized. Obviously the transition to electronic commerce is not without challenges. To put in place an operational system of e-commerce in developing countries would require far-reaching modifications in the prevailing legal and business structures. Against this backdrop, this part of the study proposes to examine the implications of e-commerce for developing countries.

At a general level, e-commerce offers a unique opportunity for developing nations to leap frog stages of development and also improve competitiveness, reduce transaction cost and improve customer service. The dividends of e-commerce are expected to be especially high for the smaller companies and economies, which have traditionally been hampered by limited information, high market entry costs and distance from markets. Its use by small and medium size enterprises (SMEs) in developing countries could result in the elimination of traditional barriers to trade such as the distance from markets and the difference in size between enterprises. It offers an inexpensive means of soliciting bids, receiving orders, and purchasing goods and tracking sales -- thus enabling SMEs to reduced administration costs and broaden their operations.

Emerging trends reveal that some traditionally natural resources and agricultural-based economies have over the years developed a well-educated labour force. With a low-cost and highly skilled work force they have started to move towards 'service-based' economies. The advent of e-commerce and this shift to services is a beneficial coincidence for promoting trade in the developing countries. A recent study prepared by UNCTAD shows that developing countries in different geographical regions are presently delivering on-line blueprints, designs, engineering data, drawings and maps, professional and business services, travel and ticketing services, entertainment, computer-related services and financial services.

For governments the development of e-commerce generates substantial investment opportunities in the public and private sector in the areas of technology, training and infrastructure development.

With more and more major trading companies using electronic means of communication, traders from developing countries are under pressure to adopt the new trading patterns. A study prepared by the UNCTAD Secretariat quotes the following observations of a World Bank Report:

"Already some organizations will only accept new supplies if they can demonstrate an EDI capability. There are cases of companies, particularly traditional, small, older firms who have gone out of business because of inability or unwillingness to comply or disbelief in the need to comply".

In such a scenario, it is mandatory for developing countries to rapidly adopt the emerging patterns of electronic communication, failing which they run the risk of being excluded from participation in international trade in the future.

In the light of the above observation, the following factors can be identified as constraints for growth of e-commerce in developing countries:

- (a) **Infrastructure-related difficulties:** A frequently cited constraint is related to infrastructure. The International Telecommunications Union (ITU) notes that developed countries have 312 Internet Service Providers (ISP) for 10,000 people, while there are 6 Internet Service

Providers for 10,000 in developing countries; there are 2.5 telephone lines per 100 people in developing countries as against 54 lines for 100 people in the developed world. Thus without a critical mass of computers and supporting infrastructure it would be difficult for developing country firms to meet the challenges of the emerging electronic trade.

- (b) **Access to computer:** Access to computers represents a problem in the developing countries, let alone access to the Internet. In developing countries, which have a low per capita income, the high cost of computer renders it a luxury item. Besides this the monthly cost of Internet access must be added to the cost of equipment and connection. ITU reports that the average cost of a connection to dial up an Internet connection in Africa is US\$ 75 per month, while only US\$ 15 in the United Kingdom and US\$ 10 in the United States. In addition to the fixed costs of Internet access, the telecommunications operators levy additional charges on use of the telephone lines, on a per minute basis. This reduces the time that users spend online, thus hampering meaningful e-commerce activity.
- (c) **Lack of adequate legal frameworks:** An important concern of many countries, more particularly the developing countries is the inadequacy of existing laws to regulate electronic commerce. Many of the developing countries have laws in force, which contemplated nothing beyond paper-based commercial transactions. Thus even where the business community is willing to adopt electronic technologies for transacting business, the lack of suitable legal mechanisms for protecting and promoting this practice could act as an inhibiting factor.
- (d) **Security concerns:** The issue of business being conducted over the Internet raises important security issues. Companies doing business over the Internet must have sophisticated security measures in place so that information such as relating to credit card, bank account, and social security numbers cannot be accessed by unauthorized users. A small percentage of the populations in the developing countries use credit cards with many regarding even traditional banking institutions with distrust or suspicion. That apart, even business institution in developing countries appears to be using Internet technologies for purposes of marketing and internal communications rather than commercial transactions. Thus the lack of an Internet culture and the traditional mind-set of populations which view with mistrust all electronic communications are serious constraints in some developing countries. The development of efficient security systems to preserve the integrity and confidentiality of information on the Internet and sensitizing national institutions on these issues would go a long way in overcoming the problem.

## Legal and Policy Issues

Efforts to implement e-commerce on a global scale require consensus and agreements on many issues. Several international and regional bodies are currently involved in the structuring of suitable frameworks for facilitating the global adoption of e-commerce. Following are the broad outlines of the issues involved in the smooth and efficient functioning of electronic commerce.

1. **General**
  - (a) Role of the State
  - (b) Role of International Organizations
2. **Economic and Social Issues**
  - (a) Taxation
  - (b) Electronic Cash
  - (c) Banking regulations
  - (d) Market access
  - (e) Impact on Workforce
  - (f) Customs duties



- (g) Risks of Monopolization
- (h) Cultural issues - content and censorship.

### **3. Legal Issues**

- (a) Jurisdiction
- (b) Electronic contracts
- (c) Privacy and data protection
- (d) Consumer and seller protection
- (e) Digital signatures, encryption
- (f) Intellectual property rights
- (g) Fraud, Money Laundering
- (h) Liabilities of Internet Service Providers
- (i) Dispute settlement

### **4. Technology Issues**

- (a) Telecommunications infrastructure
- (b) Security
- (c) Encryption
- (d) Electronic payment systems
- (e) Authentication and data integrity
- (f) Internet governance - Standards and Domain Names, etc.

### **5. Human Resource Development: Information Technology Training**

The above said enumeration reflects the wide range of issues that needs to be addressed in the formulation of a functional regime for e-commerce. Efforts to address these issues are at different levels of progress in various international and regional fora. The present study is not aimed at examining the ongoing work on all these issues, but is realistically limited to providing an overview of the current international efforts towards facilitation of electronic commerce.

Many countries have expressed concerns that the existing legal frameworks may not adequately accommodate electronic commerce, and perhaps existing law supportive of paper-based systems may prove to be a barrier to increased global electronic trade. In addition to the concern that lack of harmonization in the rules generally applicable to e-commerce work on this area had been the one initiated by the United Nations Commission on International Trade Law (UNCITRAL).

#### **A. United Nations Commission on International Trade Law (UNCITRAL)**

As early as 1985, UNCITRAL called upon all Governments to review legal requirements of a handwritten signature or other paper-based methods of authentication on trade related documents with a view to permitting... the use of electronic means of authentication". This recommendation was endorsed by the UN General Assembly by resolution 40/71. On the basis of data obtained by its monitoring activities, the UNCITRAL in 1992 embarked upon the preparation of legal rules on the subject, which culminated in the adoption of the Model Law on Electronic Commerce in June 1996. The UN General Assembly also adopted the Model Law in December 1996.

##### **(i) UNCITRAL Model Law on Electronic Commerce (Model Law)**

In most countries existing national laws do not contemplate the use of modern means of communication. On the contrary, there are national and international laws imposing restrictions on use of electronic communication techniques by requiring "written", "signed" or "original" documents. The Model Law is accompanied by a "Guide to Enactment" and is aimed towards facilitating

electronic trade by providing a set of international acceptable rules which can be used by States in enacting legislation to overcome the above mentioned legal obstacles. To be more precise, the Model Law provides uniform solutions, which could be applied internationally to various issues on the law of contracts like - rules on time, place of dispatch, receipt of electronic communications and the use of electronic acknowledgements. As the transition from a paper-based to an electronic environment would involve issues of form and evidence of legal acts, the Model Law seeks to formulate equivalent concepts applicable to contracts to transactions carried out by electronic means of communication.

Delineating the scope of the Model Law, Article 1 provides that this Law applies to any kind of information in the form of a data message used in the context of 'commercial activities'. Secondly, as stated in the introductory part of this study the Model Law does not define the term 'electronic commerce' but is used as a generic techniques including - electronic data interchange (EDI), e-mail, Internet as well as less sophisticated techniques of telecopy and fax.

The Model Law is based on the following three fundamental principles:

- (a) **Functional Equivalence:** Functional equivalence involves reference to legal situations familiar in the world of paper documents like communication in writing, the expression of intention by means of signed documents and the distinction between original and copy and the determination of how these situations can be initiated or reproduced in the environment electronic communications. For example Article 7 of the Model Law identifies the two basic functions of a signature, i.e. - to identify the signer and to indicate the Signer's approval of the content of a message - and thus accordingly establishes the equivalent requirements which would have to be met by any electronic signature technique to satisfy the legal requirements of a 'signature'. However, it is important to note that the Model Law does not attempt to define a computer-based equivalent to any kind of paper-document. Instead, it singles out basic functions of paper-based form requirements, with a view to providing criteria, which, once they are met by data messages, enable such data, messages; to enjoy the same level of legal recognition. The functional-equivalent approach has been employed in Articles 6 to 8 of the Model Law with respect to the concepts of 'writing', 'signature' and 'original' but not with respect to other legal concepts dealt with in the Model Law.
- (b) **Media or Technology Neutrality:** The rules of the Model Law are 'neutral rules' in the sense that they do not distinguish between types of technology and thus could be applied to communication and storage of all types of information. One of the consequences of the media-neutrality approach is that it is easier to conceptualize the form of legal acts based on electronic transactions - thus dissociating from the traditional concepts involved in paper-based transactions. Article 5 of the Model Law embodying the notion of media neutrality reads as follows: "Information shall not be denied legal effect, validity or enforceability solely on the grounds that it is in the form of a data message."
- (c) **Party Autonomy:** The Model Law recognizes the importance of contract and party autonomy. The non-mandatory provisions of the Model Law for example those provisions that related to formation and validity of contracts, recognition by parties of data messages, attribution of data messages, acknowledgement of receipt, time and place of dispatch and receipt of data messages - leave the parties free to organize the use of electronic commerce among themselves. Article 4 of the Model Law embodies the principle of party autonomy with respect to the provisions contained in Chapter III of Part One.

The Model Law is divided into two parts, one dealing with electronic commerce in general and the other one dealing with electronic commerce in specific areas. Part two of the Model Law which deals with electronic commerce in specific areas contains only one chapter dealing with e-commerce as it applies to the carriage of goods. Other aspects of the e-commerce might need to be

dealt with in the future, and hence the Model Law can be regarded as an open-ended instrument, to be complemented by future work.

Chapter I set out the scope, definition and other interpretative clauses. Chapter II of the Model Law provides for the application of legal requirements to data messages. Under Chapter II, Article 6,7 and 8 lay down requirements which a data message should meet in order to be treated as "writing", signature" and "original". These provisions are essential for removing some of the main obstacles to the development of electronic trading as a result of legal requirement for the use of traditional paper-based documentation. Provisions dealing with the admissibility of data messages as evidence in legal proceedings and provisions regarding the storage of data messages are set out in Article 9 and 10. As the Guide to Enactment of the UNCITRAL Model Law states, the provisions contained Chapter II should be regarded as stating the minimum acceptable form requirement and are, for that reason, of a mandatory nature.<sup>3[3]</sup>

Chapter III entitled "Communication of Data Messages" contains provisions of the nature usually found in trading partner agreements. Aspects covered by this Chapter include: formation and validity of contracts, recognition and validity of data messages as between the parties, attribution of data message, acknowledgement of receipt, and time and place of dispatch and receipt of data messages. These provisions are to apply in cases where trading parties have omitted to address such issues in their communication agreement or alternatively for the preparation of such agreements. Therefore, the provisions of Chapter III are non-mandatory in character, meaning thereby, parties are free to modify the provisions of this chapter between themselves, provided that they do not affect rights and obligations of third parties.

Thus the Model Law is not intended to cover every aspect of the use of electronic commerce. At the risk of repetition, it is worthwhile to restate that the Model Law is aimed at facilitating the use of modern communication techniques and to provide certainty with the use of such techniques where obstacles or uncertainty resulting from statutory provisions could not be avoided by contractual stipulations. The Model Law is a "framework" law requiring additional procedural rules and regulations necessary for implementing such communication techniques in enacting States.

---

<sup>3[3]</sup> See Guide to Enactment of the UNCITRAL Model Law on Electronic Commerce (1996), paragraph 21.

## (ii) **UNCITRAL - Current Work on Digital Signatures and Certification Authorities**

On the completion of its work on the Model Law, UNCITRAL in 1997 entrusted the Working Group on Electronic Commerce with the preparation of uniform rules on the legal issues of 'digital signatures' and 'certification authorities'. For business and governments to function in the new environment of the Internet, it is widely recognized that a mechanism to reliably authenticate electronic communication is critical.

In simplified form, a digital signature is an encrypted code attached to a message, which indicates from where the message originates. Thus each person has secret private 'key' (something like a password) and a public key. A digital certification authority will hold the encryption keys.

Though work on the preparation of uniform rules began in 1998, given the speed at which technology is developing the Working Group has experienced difficulties in coming to an understanding of the new legal issues arising and how these issues could be addressed in an internationally acceptable legal framework.

Besides digital signatures and certification authorities, there are a host of other issues that UNCITRAL may address in the future. These issues include electronic transfer of rights in tangible goods; electronic contracting; jurisdiction and applicable law; and dispute resolution.<sup>4[4]</sup>

## **B. World Intellectual Property Organization (WIPO)**

The emerging practice of electronic or on-line delivery of publications, music, films and software cries out for legislative attention on many areas of intellectual property rights, so as to effectively check possible misuses of technology. The sustained and continued growth of these on-line delivery systems are inextricably tied up with the levels of security that can be extended to artists and companies against the illegal transmission and distribution of creative works. The task of WIPO in formulating standards of intellectual property rights (IPRs) for e-commerce largely relates to policy issues. While the practice on e-commerce is still evolving the process of addressing IPRs would involve discussions with legal experts, technical and software related personnel, professional and standard setting organizations etc. to highlight the complexities involved in this task, the on-going work as regards the protection of databases and on-line is briefly stated below.

- (a) **Protection of databases** : In computer technology database is defined as a "systematic organization of files for exploitation by one or more data processing system". Compared to this definition, one of the WIPO Committees define database in a broader way thus stating: "database" means a collection of independent works data or other materials arranged in a systematic or methodical way and capable of being individually accessed by electronic or other means". Many experts<sup>5[5]</sup> on this subject have noted that the definition of databases for purposes of protecting intellectual property should fulfill two criteria: (i) the definition must capture and reflect the technological developments in the field of databases; (ii) at the same time, the definition should be structured in a restrictive manner so as to grant protection only to those database components which involve a legal interest. The most general form of protection is provided by copyrights, but on occasion it may also be provided by performers rights, trademark law, law of secrecy and ordinary contract law. The selection of the legal criteria and form of protection to databases is an area that is currently being debated and may require a number of policy decisions to formulate it in legal terms.

---

<sup>4[4]</sup> For an elaborate treatment of UNCITRAL's work, see Gerold Herrmann, "Establishing a Legal Framework for Electronic Commerce: The Work of the UNCITRAL", Paper presented at the WIPO International Conference on Electronic Commerce and Intellectual Property in Geneva, September 1999.

<sup>5[5]</sup> See presentation by Antonio Mille on "Protection of Databases" at the International Conference on Electronic Commerce and Intellectual Property, Geneva, September 1999.

- (b) **Museums on-line:** Just a few years ago museums viewed web sites nothing more than 'electronic brochures'. Today museums are mounting "virtually exhibitions", using the most advanced technology to create 3-D environments and multimedia experiences for global audience. The decision of museums to engage in electronic commerce gives rise to a whole new set of issues like:- will museums limit the risk of unauthorized reproduction, alteration and distribution of their digital assets in cyberspace. Commercial aspects of museums on-line involves issues concerning direct marketing and pricing of museum merchandise; museum branding; trademark and goodwill in cyber space; and licensing museum branding; trademark and goodwill in cyber space; and licensing museum digital content. Legal frameworks for any evolving technology has to be based on the lessons gained from their actual application for societal needs. Similarly, the appropriate rules for protection of data relating to museums on-line, which is currently still evolving can be consolidated by examining the practical problems that arise in the practice of commercial transactions of museums through the medium of internet.

**WIPO Internet Treaties:** The World Intellectual Property Organization (WIPO) is paying particular attention to the implementation of trademark, copyright and patent protection safeguards in electronic commerce. WIPO's work in this area include the formulation of the following two treaties:

- (a) WIPO Copyright Treaty (also known as WCT);
- (b) WIPO Performances and Phonograms Treaty (WPPT)

Both treaties collectively termed as "Internet Treaties" were adopted in December 1996, both treaties require instruments of ratification or accession by 30 countries to enter into force. The treaties respond directly to the 'digital agenda' in their provisions dealing with: (i) the application of the reproduction right to the storage of works in digital systems; (ii) the limitations and exceptions applicable in the digital environment, (iii) technological measures of protection; and (iv) rights management information. Other features of the treaties are the grant of distribution rights and rental rights.<sup>6[6]</sup>

At a substantive level, the treaties accomplish a number of extremely important economic objectives:<sup>7[7]</sup>

1. The treaties make it clear that copyright holders are able to control the electronic delivery of their works to individual Members of the public.
2. The treaties confirm that existing national copyright laws and the international copyright system, apply in a generalized manner to all technologies and media, and not in a technology-specific manner. This has particular relevance with respect to the right of reproduction and its limitations in digital media.
3. The treaties require countries to effectively prevent the circumvention of technical measures and interference with rights management information used by copyright holders to protect or identify their works.

**WIPO's Work in Domain Names:** One of WIPO's main tasks in the area of e-commerce is to resolve the issue of domain name disputes - a critically important area given the contentious relationship between domain names and trademarks. The domain name system facilitates Internet

---

<sup>6[6]</sup> A more detailed enumeration on the treaties can be found in Jean Chin, "International Protection of Copyright and Related Rights: Treaties Administered by WIPO", Paper presented at the AALCC's Seminar on Issues relating to the Implementation of Intellectual Property Rights", New Delhi, 15-16 November, 1999.

<sup>7[7]</sup> See H.B. Rosen, "From Physical Product to on-line Delivery: Electronic Delivery of Publications. Music, Films and Software", Paper presented at the WIPO International Conference on Electronic Commerce and Intellectual Property, Geneva, September 1999.

addresses (e.g. web pages and e-mail accounts) to be found by easy-to-remember and user friendly names, instead of numbers. Thanks to the domain name system, users can find the server at 140.147.248.209 simply by typing [www.congress.gov](http://www.congress.gov) into their browsers.

WIPO has launched an international process to develop recommendations concerning the intellectual property issues associated with Internet domain names, including dispute resolution. The recommendations resulting from the WIPO Internet Domain Name process will be made available to the Internet Corporation for Assigned Names and Numbers (ICANN), a new organization that has been formed to manage the Internet Domain Name System.

**WIPO E-business environment:** WIPO has taken the lead in successfully employing e-commerce for its institutional activities, thus enabling the transformation of key WIPO business processes through the use of WIPO net and related Internet technologies. It is interesting to note that the WIPO Arbitration and Mediation Centre has developed an Internet-based, on-line dispute resolution system that can provide neutral, speedy and cheap means of resolving disputes arising out of electronic commerce (more generally disputes relating to domain names, trademarks and intellectual property) without the physical movement of persons or things.

**WIPO's Digital Agenda:** Given the growing importance of e-commerce, WIPO has developed a programme to focus on maintaining a stable and positive environment for the continuing development of electronic commerce. In pursuance of this objective, the Director General of WIPO, H.E.Dr. Kamil Idris presented a nine point 'Digital Agenda' at the close of the WIPO Conference on Electronic Commerce and Intellectual Property held at Geneva in September 1999. WIPO's Digital Agenda is a set of guidelines and goals that reflects the Organization's determination to seek solutions to problems raised by the impact of e-commerce on intellectual property rights.<sup>8[8]</sup> The highlights of the WIPO's nine point digital agenda are:

- (a) Broaden the participation of developing countries through the use of WIPO net and other means;
- (b) Entry into force of WIPO Copyright Treaty and WIPO Programmes Treaty before December 2001;
- (c) Promote adjustment of the international legislative framework to facilitate e-commerce; and
- (d) Establish appropriate principles at the international level for determining the circumstances of intellectual property Liability of Online Services Providers (OSPs), etc.

### **C. World Trade Organization (WTO)**

The range of WTO disciplines that could affect electronic commerce is broad, involving services, intellectual property, goods, government procurement, TRIPS and technical barriers to trade. WTO has only recently begun to consider Internet trade as a global trade issue.

The Second WTO Ministerial Conference in May 1998 adopted a Declaration on Global Electronic Commerce.<sup>9[9]</sup> The Declaration mandated the WTO's General Council to establish a comprehensive work programme to examine all trade-related issues relating to global electronic commerce and to submit a report on the progress of the work programme to the Third WTO Ministerial Conference. The Declaration noted the importance of the economic, financial and development needs of developing countries, and reaffirmed the current-practice of not imposing customs duties on electronic transmissions. WTO's position is that just as member countries do not impose customs duties on telephone calls, fax messages and e-mail when they pass national boundaries, they should not impose customs duties on electronic transmissions over the Internet.

---

<sup>8[8]</sup> For full details of WIPO's Digital Agenda, See <<[http://commerce.wipo.int/press/pr\\_99-185.html](http://commerce.wipo.int/press/pr_99-185.html)>

<sup>9[9]</sup> WT/MIN(98)/DEC/2.

The General Council had in accordance with the mandate of the second WTO Ministerial Conference adopted a Work Programme on Electronic Commerce in September 1998. The Work Programme directs various subsidiary bodies to examine issues affecting the various WTO legal framework, while the General Council itself will consider any crosscutting issues and the issue of imposition of customs duties on electronic transmissions.

The General Council is to report on the progress of the work programme and other recommendations to the Third WTO Ministerial Conference to be held at Seattle in November-December 1999. In the preparatory process to the Seattle meeting a number of proposals have been advanced by WTO Members as to the future work programme on e-commerce. Following are the broad areas, that can be gathered from the examination of these proposals, which may engage the attention of the WTO in the next few years:

- (i) Extension of current practice of enabling cyberspace to remain duty-free;
- (ii) The advent of digitized products blurred the boundary between goods and services. Members need to discuss how to classify the contents of such an electronic transmission - whether as goods or services;
- (iii) Most market access commitments for electronic commerce activities falls under the Members' service commitments under General Agreement on Trade Services (GATS). As specific market access and national treatment commitments in services depends on WTO Members' explicit schedules to GATS, and since electronic commerce may give importance to a broad range of services, it may be necessary for Members to review the extent to which the range of their GATS commitments encompass electronic commerce-related services.
- (iv) Examine the emerging solutions to protect intellectual property rights of content holders in the electronic distribution media and identify means of integrating such solutions into existing international disciplines.
- (v) Specific issues in relation to Internet Access Service Providers (IASP) may need to be considered. E-commerce requires access to the Internet. IASP in turn require access to telecommunications network, usually by way of leased circuits. Thus the access to and use of the telecommunications network may have to be examined under the WTO's Basic Telecommunications Agreement.
- (vi) As the benefits of e-commerce are directly related to the level of a country's infrastructure development and technology capacity, the WTO in co-ordination with UNCTAD, WIPO and other international agencies could consider providing technical assistance programmes in building infrastructure capabilities and also ensuring access to the requisite technology particularly for developing countries.

#### **D. United Nations Conference on Trade and Development (UNCTAD)**

The work of UNCTAD on the subject of e-commerce has primarily been addressed by one of its subsidiary bodies - the Commission on Enterprise, Business Facilitation and Development. The focus of the Commission's work on this subject has so far been directed towards:

- (a) capacity-building;
- (b) the identification of obstacles of developing countries participation in electronic commerce; and
- (c) the exchange of information and experiences in the area of electronic commerce

A significant part of UNCTAD's work is being developed in the context of the preparation of regional workshops on e-commerce and joint studies with other relevant organization in areas of particular interest to developing countries (e.g. links between electronic commerce and trade

facilitation). In addition a series of background papers have been produced by UNCTAD Secretariat which offer worthy insights as to the implication of e-commerce for developing countries.<sup>10</sup>[10]

## **E. Work in other fora**

### **(i) Organization for Economic Cooperation and Development (OECD)**

OECD has focussed primarily on the economic and social impact of electronic commerce. In October 1998, OECD in conjunction with the Government of Canada held a Ministerial Conference ("the Ottawa Conference") on "A Borderless World: Realizing the Potential of Global Electronic Commerce". The outcome of the Ottawa Conference were:

- (i) OECD Action Plan for Electronic Commerce;
- (ii) The Report on International Bodies: Activities and Initiatives in Electronic Commerce; and
- (iii) Global Action Plan for Electronic Commerce prepared by Business with Recommendations for Governments

In addition Ministerial Declarations were adopted on OECD's further work on privacy, consumer protection, and authentication.

The OECD Action Plan for Electronic Commerce is based on four thematic aspects: (i) building trust for users and consumers; (ii) establishing ground rules for the digital market place; (iii) enhancing the information infrastructure for electronic commerce; and (iv) maximizing the benefits of electronic commerce. As regards legal frameworks, the Conference concluded that legal frameworks should be established only where necessary, should promote a competitive environment, and be clear, consistent and predictable.

### **(ii) The Commission of the European Communities**

The European Commission has been very active on this subject and under its Trade Electronic Data Interchange System (TEDIS) programme it has published reports on the legal status of electronic commerce in its Member States, prepared a European Model EDI Agreement, and conducted studies on the recognition within Member States of digital and electronic commerce. In November 1997 the Commission set out its approach to e-commerce in the document titled "A European Initiative in Electronic Commerce". In May 1998, the Commission issued a Proposed Directive on a Common Framework for Electronic Signatures. In November 1998, the Commission issued a proposal for a "European and Council Directive on certain legal aspects of electronic commerce in the internal market". In essence the proposal seeks to establish a coherent legal framework for single market concepts of free movement of services and freedom of establishment.

### **(iii) Asia-Pacific Economic Cooperation Forum (APEC)**

The APEC is devoted to promoting open trade and economic development among the 21 Pacific Rim Countries. In November 1997, the APEC Ministerial Meeting directed the formulation of a Work Programme on Electronic Commerce. An Ad-hoc Task Force on Electronic Commerce was established to manage this work programme in February 1998. The work programme as formulated includes:

---

<sup>10</sup>[10]See the following document related to e-commerce, available at website: <http://www.unctad.org>.

"Telecommunications, business facilitation and trade efficiency: Some major implications of the Global information Infrastructure (GII) for trade and development" (TD/B/COM.3/EM.3/2) "Policy issues relating to access to participation in electronic commerce" (TD/B/COM.3/16); "Implications for trade and development of recent proposals to set up a global framework for electronic commerce" (TD/B/COM.3/17); "Training in the area of electronic commerce: needs and possibilities" (TD/B/COM.3/EM.6/2); and "Electronic Commerce: Legal Considerations" (UNCTAD/SDTE/BFB/1).



- identifying impediments to SME utilization of e-commerce;
- identifying the economic costs that inhibit increased uptake of e-commerce, including those imposed by regulatory and market environments;
- establishment of a virtual multimedia resource center; and
- work on paperless trading

Besides, other bodies like the UN Economic Commission for Europe (ECE), International Chamber of Commerce and a number of other intergovernmental and private, non-profit, promotional bodies are also engaged in examining various aspects of electronic commerce.

## **V. Conclusion**

The examination of this study reveals that the efforts at fashioning appropriate international legal and policy frameworks on electronic commerce are still evolving. Measures to address the promotion and regulation of e-commerce cut across various domains that include legal, trade, intellectual property rights, technology, infrastructure, human resource development, cultural and other regulatory issues. With many bodies working on different aspects of e-commerce the picture is not clear what direction the future course of developments would take place.

Meanwhile technological developments in e-commerce are occurring at a rapid and the international community cannot afford to wait for all aspects of the subject to be examined and finally articulated in appropriate legal and regulatory frameworks. Given the significant opportunities that e-commerce offers for developing countries, States need to start with enacting appropriate legislation and other policy frameworks to enable a culture of electronic transactions to take root at the national level. Refinements and perfecting existing frameworks is a continuous process and experience with e-commerce transactions could provide the inputs for any further amendments in their endeavours towards facilitating effective e-commerce.

Though a number of issues have been outlined above, it is not necessary that all are of the same nature or importance in facilitating electronic commerce at the national level. While some issues involve more of policy rather than law, on certain other legal issues there is no consensus as to how best proceed with further. In such a scenario, it is necessary to identify the criteria by which countries could legislate on relevant aspects of e-commerce.

In this regard, the UNCTAD Secretariat in one of its study proposes that developing countries could identify:

- (i) those areas in which an international consensus has emerged on how to treat electronic commerce issues;
- (ii) those areas where domestic action is absolutely necessary to foster an environment favourable to electronic commerce; and
- (iii) those areas where it is possible for developing countries to resolve the legal issues in an expedited manner.

If a particular area falls into these categories, the UNCTAD study suggests, then it would be expedient to act with respect to the particular issue.

In the light of the ongoing work in many Asian-African countries towards the enactment of national legislation and establishment of regulatory frameworks for e-commerce, it is suggested that the following measures could be considered.

- (a) In the area of commercial law and electronic commerce, the UNCITRAL Model Law embodies a minimalist approach, represents in international consensus and is adaptable to countries with different legal systems. A country wishing to revise its commercial law to make them accommodating for e-commerce can take advantage of the Model Law;

- (b) Governments could take the lead in playing the role of a model user of e-commerce, thus promoting its use by others. There is also a need to foster cooperation among the public and private sectors with a view to developing rules and policies on electronic commerce.
- (c) Developing countries have a stake in helping shape the emerging international consensus on e-commerce. To this end cooperation and coordination among countries with similar problems and concerns is critical to ensure that the emerging regime on the subject is truly global and is sensitive to the special needs of the developing countries.
- (d) Infrastructure and human resource development is an important area that requires attention by developing countries. In this regard, countries need to work closely and effectively utilize the technical assistance and capacity-building programmes launched by UNCTAD, WIPO, the World Bank and other relevant organizations.

It may be noted that while many Asian African countries have started to reform their national laws in this regard, few other AALCC Member States have already put in place a fairly developed legal and regulatory mechanism for the promotion and administration of electronic commerce. The Special Meeting on e-commerce is a timely occasion for the AALCC Member States to take stock of the international and regional developments on the subject and also to exchange views and share their national experiences on measures undertaken to improve infrastructure facilities, capacity-building and reforming of national legislation for the promotion and facilitation of electronic commerce. It is hoped that this background note prepared by the Secretariat would provide the basis for initiating the discussion at the Special Meeting

---

11[1] WTO Committee on Trade and Development, Paper on "Development Implications of Electronic Commerce", WT/COMTD/W/51, 23 November 1998.

12[2] UNCITRAL Model Law on Electronic Commerce with Guide to Enactment, 1996 (United Nations, New York, 1997), p.17.

13[3] See Guide to Enactment of the UNCITRAL Model Law on Electronic Commerce (1996), paragraph 21.

14[4] For an elaborate treatment of UNCITRAL's work, see Gerold Herrmann, "Establishing a Legal Framework for Electronic Commerce: The Work of the UNCITRAL", Paper presented at the WIPO International Conference on Electronic Commerce and Intellectual Property in Geneva, September 1999.

15[5] See presentation by Antonio Mille on "Protection of Databases" at the International Conference on Electronic Commerce and Intellectual Property, Geneva, September 1999.

16[6] A more detailed enumeration on the treaties can be found in Jean Chin, "International Protection of Copyright and Related Rights: Treaties Administered by WIPO", Paper presented at the AALCC's

---

Seminar on Issues relating to the Implementation of Intellectual Property Rights", New Delhi, 15-16 November, 1999.

17[7] See H.B. Rosen, "From Physical Product to on-line Delivery: Electronic Delivery of Publications. Music, Films and Software", Paper presented at the WIPO International Conference on Electronic Commerce and Intellectual Property, Geneva, September 1999.

18[8] For full details of WIPO's Digital Agenda, See <<[http://commerce.wipo.int/press/pr\\_99-185.html](http://commerce.wipo.int/press/pr_99-185.html)>

19[9] WT/MIN(98)/DEC/2.

20[10] See the following document related to e-commerce, available at website: <http://www.unctad.org>. "Telecommunications, business facilitation and trade efficiency: Some major implications of the Global information Infrastructure (GII) for trade and development" (TD/B/COM.3/EM.3/2) "Policy issues relating to access to participation in electronic commerce" (TD/B/COM.3/16); "Implications for trade and development of recent proposals to set up a global framework for electronic commerce" (TD/B/COM.3/17); "Training in the area of electronic commerce: needs and possibilities" (TD/B/COM.3/EM.6/2); and "Electronic Commerce: Legal Considerations" (UNCTAD/SDTE/BFB/1).

---