Abstract

In the knowledge society of 21st century, computer, internet and Information and Communication Technologies (ICTs or e-revolution) have changed the life style of the people. Today we have new terminologies like cyber world, netizens, e-commerce, etc. Apart from positive side of e-revolution there is a seamy side also resulting into cyber offences.

Further, in 1990s Business people were aware of increasing use of ICTs as it was easier, faster and cheaper to store, transact and communicate electronic information but were reluctant to interact electronically because there was no legal protection under existing laws. Accordingly, a new Branch of jurisprudence known as Cyber Law or Cyber Space Law or Information Technology Law or Internet Law, emerged to create order in cyber space. For the first time, a Model Law on E-commerce (MLEC) was adopted in 1996 by United Nations Commission on International Trade and Law (UNCITRAL) which was subsequently adopted by General Assembly of United Nations . Significantly, main objective of MLEC was to have uniformity at international level regarding law relating to e-commerce and to provide equal treatment to paper-based and electronic information.

Various countries, signatories to this Model law either enacted new laws or amended their existing laws in tune with this Model Law. India was also a signatory to this Model law and hence, enacted the Information Technology Act, 2000. To keep pace with technology, the Model law on E-Signature (MLES), 2001 was adopted by United Nations Commission on International Trade and Law (UNCITRAL). Accordingly India enacted the Information Technology (Amendment) Act, 2008.

However, a critical analysis of the said Model Laws shows that various legal issues (such as Jurisdiction, Taxation, IPRs and Domain Names) arising due to activities of in E-commerce in cyber space remain untouched by these Model Laws and are attracting attention of international community.

This paper is a humble attempt to make indepth study of International and Indian Law relating to E-Commerce and various legal issues which need immediate attentions.

Methodology

It is theoretical study based on international and national instruments, reports, article and the internet.
**Introduction**

In the knowledge society of 21st century, computer, internet and Information and Communication Technologies (ICTs or e-revolution) have changed the life style of the people. Today we have new terminologies like cyber world, netizens, e-commerce, e-transaction, e-banking, e-return and online contracts. Apart from positive side of e-revolution there is a seamy side also and computer, internet, and ICTs in the hands of criminals have become weapon of offence.

Further, in 1990s there was increasing use of ICTs in conducting business transactions and entering into contracts, because it was easier, faster and cheaper to store, transact and communicate electronic information than the traditional paper documents. Business people were aware of these advantages but were reluctant to interact electronically because there was no legal protection under existing laws. Accordingly, a new Branch of jurisprudence known as Cyber Law or Cyber Space Law or Information Technology Law or Internet Law, emerged to create order in cyber space and to tackle the problems of new concepts like E-commerce, e-governance etc., and of Cyber Crimes in Cyber Space commonly. For the first time, a Model Law on E-commerce (MLEC) was adopted in 1996 by United Nations Commission on International Trade and Law (UNCITRAL). It was further adopted by General Assembly of United Nations by passing a resolution on 30th January, 1997. Significantly, MLEC was first legislative text to adopt the fundamental principles of non-discrimination, technological neutrality and functional equivalence that are widely regarded as the founding elements of modern electronic commerce law. It’s main objective was to have uniformity at international level regarding law relating to e-commerce and to provide equal treatment to paper-based and electronic information.

India was also a signatory to this Model law and had to revise its national laws as per the said model law. Further, International trade through electronic means was growing tremendously and many countries had switched over from traditional paper based commerce to E-commerce. Therefore, India also enacted the Information Technology Act, 2000. Subsequently, the Model law on E-Signature (MLES), 2001 was adopted by United Nations Commission on International Trade and Law (UNCITRAL). Accordingly India enacted the Information Technology (Amendment) Act, 2008. Due to the new and different type of activities in E-commerce, various legal aspects have come up. These legal disputes and case law are attracting attention of industries and governments around the world. A few legal aspects in E-commerce are: E-security; Integrity; Authentication, Jurisdiction; Contracts; Liability, Warranties, Taxation, Copyrights, Patents, Trademarks and Domain Names. This paper is a humble attempt to make indepth study of International and Indian Law relating to E-Commerce.
2. Law Relating to E-Commerce: International Scenario

There are two Model Laws directly or indirectly relating to e-Commerce and subsequently a Convention is adopted:

(i) UNCTRAL Model Law On Electronic Commerce, 1996
(ii) UNCTRAL Model Law On Electronic Signature, 2001
(iii) United Nations Convention on the Use of Electronic Communications in International Contracts, 2005

(i) UNCTRAL Model Law on Electronic Commerce (MLEC), 1996

The Model Law was adopted in 1996 to facilitate the use of modern e- means of communication and storage of information, such as electronic data interchange (EDI), electronic mail and telecopy. It’s main objective was to bring uniformity in national laws relating to e-commerce. It has granted legal recognitions to data message and digital signature. It has encouraged national legislators to adopt a set of internationally acceptable rules for validity of electronic commerce by providing equal treatment to paper-based and electronic information. Significantly, such equal treatment is essential for enabling the use of paperless communication, thus fostering efficiency in international trade.

It is commendable to note that The MLEC was the first legislative text which adopted the fundamental principles of non-discrimination, technological neutrality and functional equivalence. In order to ensure that a document would not be denied legal effect, validity or enforceability solely on the grounds that it is in electronic form it has laid down the principle of non-discrimination. The principle of technological neutrality involves the adoption of provisions that are neutral with respect to technology used. The principle of functional equivalence makes electronic communications equivalent to paper-based communications.

This Law has been divided into two parts i.e., part I dealing with E-Commerce in General consisting of 3 Chapters and part II consisting of Chapter 1 only. Significantly, Part I has provided for the establishment of a functional equivalent for paper-based concepts such as "writing", "signature" and "original". In addition, this part lays down rules for the formation and validity of contracts concluded by electronic means, for the attribution of data messages, for the acknowledgement of receipt and for determining the time and place of dispatch and receipt of data messages. Further, certain provisions of the MLEC were amended by the Electronic Communications Convention in light of recent electronic commerce practice. Moreover, part II of the MLEC, deals with electronic commerce in connection with carriage of goods and is complemented by other legislative texts, including the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea (the "Rotterdam Rules") and may be the object of additional work of UNCITRAL in the future.
Salient Features of MLEC

Important features of this Model Law are:

i. First feature of this law is "electronic equivalence". Significantly, the Model Law does not directly consider electronic communications valid but it provides that information or documents will not be denied legal effect or enforceability solely because they are in electronic format. Therefore, it conferred validity on e transaction indirectly.

ii. For achieving electronic equivalence, the model law provides various rules specifying conditions which must be fulfilled for an electronic communication to constitute a legally valid substitute for a conventional and paper-based communication. It provides that a legal requirement to provide information or a document sent "in writing" is satisfied by its electronic equivalent if it is in a form that can be subsequently accessed and used by the recipient.

iii. Further, under the law electronic documents are treated as "original" documents if there is a reliable assurance as to the integrity of the information and that the information is capable of being displayed to the person to whom it is to be presented. Further, the information must be complete and remain unaltered, apart from the addition of any endorsement and any change that arises in the normal course of communication, storage and display. However, the question of reliability is to be determined in the light of all the circumstances, including the purpose for which the document was created.

iv. It confers the validity on e-evidence as it provides that evidentiary rules donot deny the admissibility of an electronic communication solely on the grounds that it is in electronic form.

v. Significantly, the law lays down the conditions for data retention. It provides that the message must be retained in the format in which it was generated and any information indicating origin, destination, date and time of the message is retained. Another important condition for retention is that the information contained with the electronic message must be accessible so as to be usable for subsequent reference.

vi. It is heartening to note that the Model Law is accompanied by a Guide to Enactment, which provides background and explanatory information to assist States in preparing the necessary legislative provisions. The CLOUT (Case Law on UNCITRAL Texts) system contains cases relating to the application of the Model Law on Electronic Commerce.
(ii) **UNCITRAL Model Law On Electronic Signatures (MLES), 2001**

This Model Law was approved by the UNCITRAL and came into force in 2001. It's main objective was to grant legal recognition to e-signature and to bring uniformity in national laws relating to e-signature. It consists of two Parts i.e., Part I consisting of 12 articles and Part II, Guide for enactment of the MLES.

**Salient Features of MLES**

Model Law applies where electronic signatures are used in the commercial activities. However, it does not override any rule of law intended for the protection of consumers. Important features of this Model Law are:

i. Significantly, the Model Law grants legal recognition to E-Signature as it provides that where the law requires a signature of a person, then that requirement is met in relation to a data message if an electronic signature is used provided that the signature is as reliable as was appropriate for the purpose for which the data message was generated or communicated. The reliability is determined in the light of all the circumstances, including any relevant agreement.

ii. It defines electronic signature as "data in electronic form in, affixed to, or logically associated with, a data message, which may be used to identify the signatory in relation to the data message and indicate the signatory's approval of the information contained in the data message." Significantly, two parties involved in data message are: Signatory i.e. a person that holds signature creation data and acts either on its own behalf or on behalf of the person it represents and relying party who may act on the basis of certificate or an electronic signature.

iii. Further, an electronic signature is reliable provided it meets following four conditions: the signature creation data are linked solely to the signatory; the signature creation data was under the sole control of the signatory; any alteration of the electronic signature, made after signing, is detectable; and where the purpose of the signature is to provide assurance as to the integrity of the underlying information, any alteration of that information must be detectable.

iv. It imposes duty on the signatories to use reasonable care to avoid unauthorized use of their electronic signature. Therefore, where they become aware that the security of their electronic signature has been compromised, they must notify any person that might be affected without delay.

v. It also imposes duty on a relying party (a party receiving certificate or e-record) to verify the reliability of an electronic signature or to observe any limitations that may be placed on a certificate. A certificate is a data message that confirms a link between the signatory and the
vi. It is important to mention that signatories who use e-signature must have Electronic Signature Certificate (ESC) issued by a certification service provider who apart from issuing certificates also provides other services related to electronic signatures. Further, according to Law certification service providers must fulfill following: to act in accordance with States' policies and practices; to exercise reasonable care to ensure the accuracy of any information found on its certificates; to provide reasonably accessible means whereby parties relying on a certificate can confirm certain information pertaining to the certificate; and to utilize trustworthy systems.

vii. Further, following factors must be considered when determining trustworthiness of the certification service providers: Financial and human resources of the provider; Quality of hardware and software systems; Procedures for processing certificates; Availability of information to signatories and relying parties; Regularity and extent of independent audits; and Regulation or licensing by government authorities.

(iii) UNITED Nations Convention on the Use of Electronic Communications in International Contracts, 2005

It was adopted in November 2005 and came into force in 1 March 2013. It aims at facilitating the use of electronic communications in international trade by assuring that contracts concluded and other communications exchanged electronically are as valid and enforceable as their traditional paper-based equivalents. It intended to strengthen the harmonization of the rules regarding electronic commerce and foster uniformity in the domestic enactment of UNCITRAL model laws relating to electronic commerce, as well as to update and complement certain provisions of those model laws in light of recent practice. Finally, the Convention may provide those countries not having yet adopted provisions on electronic commerce with modern, uniform and carefully drafted legislation.

Important provisions of the Convention

The Electronic Communications Convention is based upon UNCITRAL Model Law on Electronic Commerce and the UNCITRAL Model Law on Electronic Signatures which talked about three fundamental principles of electronic commerce legislation, i.e., non-discrimination, technological neutrality and functional equivalence. Significantly, the Convention also laid emphasis on these principles. The Convention applies to all electronic communications exchanged between parties whose places of business are in different States when at least one party has its place of business in a Contracting State. It
may also apply by virtue of the parties' choice. It is important to note that only business contracts and not the personal contracts are covered under the Convention as it clearly provides that contracts concluded for personal, family or household purposes, such as those relating to family law and the law of succession, as well as certain financial transactions, negotiable instruments, and documents of title, are excluded from the Convention's scope of application.

Further, the Convention establishes the general principle that communications are not to be denied legal validity solely on the grounds that they were made in electronic form. It is important to note that like MLEC and MLES it mentions criteria for establishing the functional equivalence between electronic communications and paper documents, as well as between electronic authentication methods and handwritten signatures. Similarly, the Convention defines the time and place of dispatch and receipt of electronic communications, tailoring the traditional rules for these legal concepts to suit the electronic context and innovating with respect to the provisions of the Model Law on Electronic Commerce.

Specifically, given the proliferation of automated message systems, the Convention allows for the enforceability of contracts entered into by such systems, including when no natural person reviewed the individual actions carried out by them. The Convention further clarifies that a proposal to conclude a contract made through electronic means and not addressed to specific parties amounts to an invitation to deal, rather than an offer whose acceptance binds the offering party. Moreover, the Convention establishes remedies in case of input errors by natural persons entering information into automated message systems. Finally, the Convention permits contractual parties to exclude its application or vary its terms within the limits allowed by entering into contrary agreements which is otherwise permitted under legislative provisions.

3. Law Relating to E-Commerce: Indian Scenario


It is important to note that India was signatory to the UNCITRAL Model Law on Electronic Commerce, 1996, hence it was compulsory for India to enact its information Technology law in tune with that Model law. The Information Technology Act 2000 aims to provide legal recognition for the transactions carried out by the means of electronic data interchange and other means of communications, commonly referred to as “Electronic Commerce”, which involve the use of alternatives to paper based methods of the communication and storage of information, to facilitate electronic filing of document with the government agencies. The Act consists of significant provisions relating to e-commerce.
It contains provisions for Legal recognition of electronic record and digital signatures rules for attribution of the e-record, for mode and manner of acknowledgement, for determining time and place of dispatch and receipt of electronic records. Significantly, under the Act the Certification authority is a focal point around which this Act revolves as most of the provisions are relating to Regulation of Certification Authorities i.e., appointment of a Controller of CAs, grant of license to CAs, recognition of foreign CAs and duties of subscribers of digital signature certificates. Further, it provides for civil liability i.e., Cyber contraventions and criminal violations, penalties, establishment of the Adjudicating Authority and the Cyber Regulatory Appellate Tribunals.

Further, the Act also amended the Indian Panel Code, 1860, the Indian Evidence Act, 1872, Banker’s Book Evidence Act, 1891 and the Reserve Bank of India Act, 1934, and for the matters connected therewith or incidental thereto. The main purpose of these amendments is to address the related issues of electronic commerce, electronic crimes and evidence, and to enable further regulation as regards electronic fund transfer. The Information Technology (amendment) Act 2008 has been incorporated for implementation of the UNCITRAL Model Law On Electronic Signatures, 2001 in India which has brought many changes so as to facilitate E-Commerce. i.e. it has introduced the concept of e-signature, amended definition of intermediary, etc.

It is commendable to note that the Act recognizes the legal validity and enforceability of the digital signature and electronic records and also lays emphasis on the secure digital signatures and secure electronic records; hence, it encourages the growth of e-commerce in India. Because the secure computer based signatures will automatically decrease the incidence of electronic forgeries; encourage authentication of computerized communications and would facilitating commerce by the means of electronic communications.

3. Conclusion and suggestions

Form the above study it is concluded that e-commerce is an offshoot of e-revolution and two model Laws i.e., MLEC, 1996 and MLES, 2001 were adopted the UNITRAL. Significantly, the Model Laws acted as models for the countries all over the globe to enact their cyber laws so as to have uniformity. Unfortunately these laws are not legally binding and focus on online contracts and hence, laid down principles of non-discrimination, technological neutrality and functional equivalence.

Further, United Nations Convention on the Use of Electronic Communications in International Contracts, 2005 is a legally binding document which was based upon the Model laws and was adopted to strengthen the harmonization of rules regarding E-commerce. Significantly, a critical analysis of the said Model Laws and the Convention shows that various legal issues such as Jurisdiction, cross border Taxation, IPRs and Domain Names, arising due to activities of in E-commerce in cyber space remain untouched and are attracting attention of international community.
In India, the IT Act 2000 has been adopted in tune with the MLEC, 1996. Subsequently, it was amended by the IT (Amendment) Act 2008 so as to incorporate changes introduced by the MLES. Significantly, this amended Act has played commendable role in growth of e-commerce. However, like Model laws, the IT Act 2000 is also silent on various issues.

Therefore need of the hour is cover these issues and to fill the gap.

Important suggestions are:

(i) A protocol must be attached to the Convention to cover various issues various legal issues arising due to e-commerce such as Jurisdiction, cross border Taxation, IPRs and Domain Names.

(ii) Till then judiciary especially in India should apply present law of physical jurisdiction to e-contracts and must give wider interpretation to the existing laws so as to cover various issues relating to e-commerce.