A LEGAL INFRASTRUCTURE FOR ELECTRONIC COMMERCE?

Paul Heath QC*

Introduction

Much of New Zealand's basic commercial law is derived from 19th century English law; both common law and consolidating statutes.[1] When this law was made the only forms of electronically generated communications were the telegraph and the telephone: the Bell Telephone Company itself not being founded until 1877. Over a century later, in 1987, one finds an article in the New Zealand Law Journal entitled *The Process of the Courts: The slowing effect of electronic devices,* in which Charles Hutchinson QC lamented

"It would appear that the modern world is being plagued by the over use of electronic devices such as the photostatic copies of cases, computers and word processing machines, ..."[2]

The comments of Charles Hutchinson QC are cited not so much for their direct applicability to the theme of that particular article (ie that information produced in an undigested form was rarely of assistance to the court) but, rather, to show the extent to which technology has moved only in the last twelve years. Now, it is possible to communicate directly in an almost instantaneous fashion with anyone in the world through the use of the Internet[3] and the World Wide Web.[4]

* Queen's Counsel, LLB, FCI Arb (UK), FAMINZ (Arb). Barrister and Solicitor of the High Court of New Zealand; Barrister and Solicitor of the Supreme Court of the Australian Capital Territory and Barrister of the High Court of Australia; Consultant to Law Commission, Wellington NZ. The author gratefully acknowledges the assistance of Nicholas Russell LLB (Hons), Research Officer, Law Commission in the preparation of this paper. This article is based on a paper given to the Asia Pacific Economic Law Forum seminar in Christchurch on 6 December 1997.

1 For example, Sale of Goods Act 1908, Mercantile Law Act 1908, Partnership Act 1908 and (until 1996) Arbitration Act 1908.

2 [1987] NZLJ 404.

3 The Internet (as it is now known) was developed by the United States Defense Department in the early 1970s. It was then known as ARPANET (Advanced Research Projects Agency Network). It was designed to provide communications which would not be disrupted even in the event of a major emergency. Computers were interconnected so that each computer in the network was connected to each other computer. Electronic messages could be sent from A to B directly or via any other computer or computers in the network. If part of the network became unoperational, the message would arrive at its destination regardless via an alternative route. The second feature is that the messages are now sent as a single stream of data. Rather they are divided into discrete "packets" that are sent separately and reassembled by the recipient computer. Each packet may take a different route to the destination in order to avoid congestion. The Internet is identical to the ARPANET in its operation with the major difference being that while the APARNET consisted of approximately 40 computers, there are now literally millions of inter-connected computers any of which can communicate freely with the others: generally, see Gringras, *The Laws of the Internet* (Butterworths, London, 1997) at page 3.

4 The technology that makes the Internet usable by other than specialists is the World Wide Web (www). This is a system of linking text, graphics, sound and video on computers spread across the globe. The basic technology of the web was created to assist physicists keep track of all data generated by their experiments. At the heart of the technology is a programming language, HTML, which allows a phrase or graphic in one document to be linked to another document anywhere on the global Internet. Web sites are being used to provide information about particular companies or their products; other web sites are being used to sell goods directly over the Internet in a form of electronic mail order: see, generally, Gringas, op cit, at p 388.

The ability for both businesses and consumers to access products through the Internet renders it necessary to reconsider fundamental principles of business law by asking what, if any, changes ought to be made to the law to facilitate trade on an electronic basis.

It has been estimated that business to business commerce over the Internet (consisting of parts and supplies ordering, financial services and the like) may reach $US8 billion this year: ten times the 1996 total.[5] While it is not possible to vouchsafe the accuracy of the estimated value of future electronic commerce, it is plain that there are many advantages to business by trading through electronic means rather than through a paper based regime. The business benefits are summarised by Viehland[6] as being lower information transfer costs, lower procurement costs, reduced inventory costs, product customisation, ability to conduct business with distant partners in the same way as with neighbouring partners and increasing operational efficiency.

The law New Zealand inherited from the common law of England at the turn of the last century was designed to facilitate paper based transactions. At the eve of the 21st century the question is whether the legal infrastructure which has served the common law so well in respect of paper based transactions is, without reform, sufficient to meet the needs of those who wish to engage in trade through electronic means.

Role of the Law Commission

The New Zealand Law Commission was established by the Law Commission Act 1985. Included among its principal functions are the responsibility to make recommendations for the reform and development of the law of New Zealand[7] and the requirement to advise the Minister of Justice on ways in which the law of New Zealand can be made as understandable and as accessible as practicable.[8] The latter function includes an educational (as well as a traditional law reform) function.[9]

The Law Commission has a respectable pedigree in relation to its support of uniform statutes to facilitate international trade: in particular, reference is made to the reports which preceded the enactment of the Sale of Goods (United Nations Convention) Act 1994 and the Arbitration Act 1996.[10] The proposed work of the Commission on electronic commerce builds on that foundation.

The approach which the Law Commission takes in deciding to embark upon a particular project is neatly summarised by the Common Law Team of the Law Reform Commission of England and Wales.[11] First, the Commission must be satisfied that there is something wrong with the law,

5 Viehland, *Electronic Commerce* (S 535, Institute of Chartered Accountants of New Zealand, August/September 1997) at page 5 citing Forrester Research. The estimate for business to business commerce over the Internet by the year 2002 is stated to be $US327 billion.

6 Ibid at pages 14-16.

7 Law Commission Act 1985, Section 5(1)(b).

8 Ibid s5(1)(d).

9 Generally, as to the Law Commission's functions, see Palmer, *Systematic Development of the Law: the Function of the Law Commission* [1986] NZLJ 104 Sir Owen Woodhouse. *The New Law Commission* [1986] NZLJ 107 and Cameron, *Allies of a Kind. The Politics of Law Reform* [1988] NZLJ 18.

10 See NZLC R24 (The United Nations Convention on Contracts for the International Sale of Goods: New Zealand's Proposed Acceptance) and NZLC R20 (Arbitration) respectively.

11 Feasibility Investigation of Joint and Several Liability, a consultation paper by the Common Law Team of the Law Commission published by the Department of Trade and Industry,(1996).

in particular that it is unfair or inefficient; second, the Commission must be satisfied that there are acceptable legislative solutions that would remedy any deficiencies.[12] Accordingly, the Commission has approached issues raised by electronic commerce by asking itself those questions. The Commission is satisfied that undesirable uncertainty might arise in the application of the law of contract and the law of evidence to commerce conducted by electronic means and, therefore, has decided to embark on a project to consider ways in which the law can be improved to remove avoidable uncertainty.

The Commission has also decided that its work on electronic commerce will be part of a wider review of the law relating to international trade. This has some immediate consequences. First, the review will be limited to commercial transactions between parties which are both engaged in commerce. This means that issues relating to consumer commerce over the Internet will not be addressed at this stage.[13] The second consequence is that domestic business transactions will not be considered discretely. The Commission will consider whether its work in the international trade arena should be followed by a subsequent report indicating the extent (if any) to which further amendments to the law are required to facilitate electronic commerce on a domestic basis. Obviously, some changes to the law to facilitate international electronic commerce will be equally applicable to domestic commerce.

The report on electronic commerce is the first on international trade issues to be released. It will be followed by a discrete report which will consider whether the UNCITRAL Model Law on Cross-Border Insolvency[14] should be enacted in New Zealand. Subsequently, the Commission will consider whether any reform is necessary to accommodate purely domestic electronic commerce. Finally, the Commission will consider other international trade issues arising out of other United Nations' reports and Model Laws to which New Zealand has not yet subscribed. These will include, but not be limited to, consideration of whether New Zealand should adopt various Conventions on the recognition of foreign judgments and consideration of issues of *forum* in this context.[15] The Commission is pleased that it will be working closely with the Ministry of Commerce on both of these projects. It gratefully acknowledges the assistance of the Ministry.

12 Ibid para 1.2 at page 1.

13 The Ministry of Consumer Affairs is currently looking at electronic commerce and consumer law: *Electronic Commerce and the New Zealand Consumer: Issues and Strategies for the Future* (discussion paper, August 1997, ISBN 0-478-00016-2, Ministry of Consumer Affairs, Wellington; http//www.moc.govt.nz/mca). Reference is also made to the seminar *Electronic Commerce and the New Zealand Consumer* held on 23, 24 and 25 March 1998 in Wellington which was endorsed by the Ministry of Consumer Affairs

14 For the text of this Model Law, see *International Legal Materials*, Vol 36, No 5, September 1997 at pp 1388 et seq. See also the introductory note by Harold Burman and Jay Lawrence Westbrook.

15 Matters to be discussed in the second part of the project will include the United Nations Convention on Independent Guarantees and Stand-by Letters of Credit, UNCITRAL Model Law on International Credit Transfers, United Nations Convention on International Bills of Exchange and International Promissory Notes, the possible adoption of the Brussels Lugano and San Sebastian Conventions (see also Australian Law Reform Commission Report No. 80 *Legal Risk in International Transactions* at pages 221 et seq) and the UNCITRAL Model Law on Insolvency. Consideration will also be given to the proposed European Convention on Insolvency Proceedings and the United Nations Convention on the Carriage of Goods by Sea 1978 (Hamburg Rules); in the case of the latter the question will be whether the Hamburg Rules are more suited to electronic commerce than the amended Hague Rules currently enshrined in the 5th Schedule to the Maritime Transport Act 1994, see in particular, s 209.

Once the Commission has completed these projects a wider question can be addressed. That question can be stated as follows: whether the developing trend of adoption, by countries reliant upon international trade, of uniform statutes recommended by organisations such as UNCITRAL, can truly be regarded as a modern transnational *lex mercatoria.*[16] This is an issue which must be addressed because of the global nature of the Internet. The law applicable to Internet transactions (which, itself, is likely to build on the Conventions and Model Laws to which I have referred) may well turn on international trade custom rather than national legislation. In this regard, it is sometimes said that a search for the "proper law" of a contract on conflict of law principles "is out of touch with the realities of modern international trade; and that what is needed is not a particular national system of law, but a modern law merchant. Such a law, it is argued, would meet the requirements of international commerce in much the same way as the *lex mercatoria* met the requirements of traders living under the Roman Empire; or as enactments of customary law (such as the celebrated *Consulato del Mare*) met the needs of sailors and merchants in the Mediterranean in the fourteenth century."[17]

While much of this is for another day, the Commission intends to provide input into the development principles of law and to ensure that New Zealand derives benefit from the overseas' research that is being done.

The Commission proposes to release a Preliminary Paper on Electronic Commerce by August/September 1998.

The United Nations' Work

The United Nations Commission on International Trade Law (UNCITRAL) has produced a Model Law on Electronic Commerce which was approved by the General Assembly of the United Nations on 16 December 1996.[18] The Model Law is divided into two parts; the first deals with electronic commerce generally while the second deals with electronic commerce in specific areas (carriage of goods and transport

16 Although the notion of a general *lex mercatoria* has been disowned by the common law in recent times the suggestion is not without good authority. In *Luke v Lyde* (1759) 2 Burr 822, 97 ER 614 Lord Mansfield noted, in relation to a maritime case that it "was desirous to have a case made of it, in order to settle the point more deliberately, solemnly and notoriously; as it was of so extensive a nature; and especially as the Maritime Law is not the law of a particular country, but the general law of nations: ..." Lord Mansfield then referred to a quotation from Cicero, *De Republica 3.22.33.* " nor will it be one law at Rome and a different one at Athens, nor otherwise tomorrow than it is today: but one and the same law will bind all peoples and all ages." As Hon Justice Sir Kenneth Keith observed in his recent paper *The International Law Commission's Work the Shaping of International Law* (Unpublished, Colloquium on Progressive Development and Codification of International Law, New York, October 1997): "[Lord Mansfield] was not agreeing with Cicero that the law was unchanging but he was saying that we must concentrate on the essence of our time and understand present conditions and future needs. The dictates of common sense should be heard in the language of recorded experience." See also the approach of the Privy Council in *Re Piracy Jure Gentium* [1934] AC 586 at 588-589 per Lord Sankey LC and Dame Rosalyn Higgins *Problems and Process - International Law and How we Use It* (Oxford University Press, 1994).

17 Redfern & Hunter, *The Law and Practice of International Commercial Arbitration* (2nd ed, 1991, Sweet & Maxwell London) at pp 117-121; see also, generally Sir Michael Mustill, *The New Lex Mercatoria The First Twenty-Five Years* (1988) 4 Arbitration International 86. In that scholarly paper Lord Mustill (as he now is) put forward a list of 20 principles as constituting a modern l*ex mercatoria* from 25 years of international arbitration: see Redfern & Hunter (op cit).p 120. fn 73.

18 UNCITRAL Model Law on Electronic Commerce with Guide to Enactment 1996; approved by General Assembly Resolution 51/162 of 16 December 1996.

documentation).[19] In discussing the issues raised in debate the *Guide to Enactment* states:

"It was observed that the Model Law should permit States to adapt their domestic legislation to developments in communications technology applicable to trade law without necessitating the wholesale removal of the paper based requirements themselves or disturbing the legal concepts and approaches underlying those requirements. At the same time it was said that the electronic fulfilment of writing requirements might, in some cases, necessitate the development of new rules. This was due to one of the many distinctions between EDI [electronic date interchange] messages and paper based documents, namely, that the latter were readable by the human eye, while the former were not so readable unless reduced to paper or displayed on a screen."[20]

The UNCITRAL Model Law relies upon the "functional equivalent approach".[21] This "functional equivalent approach" is

"..... based on an analysis of the purposes and functions of the traditional paper based requirement with a view to determining how those purposes or functions could be fulfilled through electronic commerce techniques. For example, among the functions served by a paper document are the following: to provide that a document will be legible by all; to provide that a document would remain unaltered over time; to allow for the reproduction of a document so that each party would hold a copy of the same data; to allow for authentication of data by means of a signature; and to provide that a document would be in a form acceptable to public authorities and courts. ... However, the adoption of the functional equivalent approach should not result in imposing on users of electronic commerce more stringent standards of security (and the related costs) than in a paper based environment."[22]

Further, the United Nations Conference on Trade and Development (through the United Nations Trade Point Development Centre [UNTPDC] based in Melbourne, Australia) has been involved in development of a secure technical infrastructure for electronic commerce. Discussions have now been commenced on a legal infrastructure to support the technical structure it has developed. The Commission has been in contact with the UNTPDC and hopes to be involved in consultation designed to build on the principles encapsulated in the UNCITRAL Model Law on Electronic Commerce.

The Commission's objectives

The Commission has identified as an objective of its work the need to ensure that business efficiency is enhanced by ensuring that the law keeps apace with technology rather than being reactive to it. With that objective in mind the Commission has developed four principles which it proposes to follow in determining whether legislation is required to create a legal infrastructure for electronic commerce.

The Commission sees its work on electronic commerce and other international trade issues as being no more than an initial study of the more general, and difficult, issues that arise. Wider issues include the need to balance rights of privacy and desires for business confidentiality against the State's interests in law enforcement and national security. Those issues must await resolution once a legal framework has been put in place to enable business to conduct commercial activities by electronic as well as paper based means without undue risk or additional compliance costs. The work of the Commission in this first phase should provide the ground

19 Ibid, para 11 at pages 18-19.
20 Ibid, para 15, at page 20.
21 Ibid, para 15 at page 20
22 Ibid para 16 at pages 20-21.

work for more detailed recommendations in the future. Liaison with other international bodies will also assist in ensuring compatibility of approach with our major trading partners.

Guiding Principles

Generally speaking, the guiding principles identified by the Commission follow the themes which underpin the UNCITRAL Model Law and are consistent with policy statements which have been released since December 1996 in other jurisdictions.[23]

So far as the stated objective (to increase business efficiency by ensuring that the law keeps apace with technology rather than being reactive to it) is concerned it is important to remember that, electronic commerce will be transacted by parties who also participate in traditional paper based systems. Because the Internet is based on a technology made up of bits rather than atoms many historical barriers of time and distance disappear. There are also potential benefits for buyers and sellers to find each other within a global market without costs involved in marketing. However, if electronic commerce is to result in true savings to business it must be both sufficiently secure and sufficiently adaptable to meet the needs of businesses which currently trade in the paper based environment. This entails merchants trading with each other having the ability to carry out other functions (such as documentation for shipping of physical goods by air, sea or road, insuring of risk and completion of financial settlements) through the same electronic system. A fully integrated electronic commerce system will require Government regulatory bodies to provide and accept certificates and other "documentation" in electronic form to facilitate trade. There is already a facility to transact business electronically through the Ministry of Customs. The Inland Revenue Department is also moving to an electronically based system. A coherent regime is required to ensure that all of these various aspects of trade can blend together in electronic form to produce a wholesome product.

To enhance business efficiency, the need for a coherent regime can be met through a legal infrastructure and/or contractual arrangements. The following guiding principles should assist in determining the extent to which a legislated framework is required:

23 For example, *A Framework for Global Electronic Commerce* (A policy statement issued by President Clinton and Vice-President Gore by the White House, Washington D C on 1 July 1997), a *European Initiative in Electronic Commerce* (a Communication to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions, 15 April 1997), the American Law Institute and National Conference of Commissioners on Uniform State Laws, *Revision of Uniform Commercial Code: Article 2 - Sales* (Draft, 1997), the Uniform Law Conference Canada's *Consultation Paper on a Proposed Uniform Electronic Evidence Act* (March 1997), Standards Australia's *Strategies for the Implementation of Public Key Authentication Framework (PKAF) in Australia* (1996), *Electronic Commerce: Cutting Cybertape - Building Business* (Corporate Law Economic Reform Program, Commonwealth of Australia, Report No 5, 1997) and the report produced for the French Ministrie de l'economie des Finances et de L'industrie, *Electronic Commerce; A new Factor for Consumers, Companies, Citizens and Government* (1998).

1 To ensure that business people can choose whether to do business through the use of paper documentation or by electronic means without any avoidable uncertainty arising out of the use of electronic means of communication.

As the Guide to Enactment of the UNCITRAL Model Law recognises[24] it is not a matter of electronic communications replacing paper based methods of doing business — rather, it is a matter of enabling businesses to choose which of the systems they wish to use. (A different principle may well apply if electronic systems are given legislative approval in order to replace existing paper based systems.[25] If an electronic regime is mandated by legislation it can be argued cogently that Government should assume a responsibility to ensure that the electronic system is no less safe and secure than the paper based system[26]; or, possibly more precisely, that mechanisms are put in place to ensure that market participants will not be disadvantaged by the removal of the right to trade through paper based systems.)

Subject to that one (possible) qualification, the principle of choice remains paramount. The principle of choice is entirely compatible with legislation designed to achieve avoidable uncertainty to businesses which wish to do business by electronic means.

Emphasis must also be placed upon the stated objective of ensuring that "avoidable uncertainty" does not arise out of the use of electronic means of communication. The word "avoidable" has been deliberately chosen. There is as tendency to seek standards of security from electronic forms of communications which are, in fact, higher than those demanded from paper documentation. Risks are inherent in doing business. There is always a risk that a paper document will be forged or that a facsimile sent to accept an offer will not be received. Thus, the emphasis should be on ensuring that "*avoidable* uncertainty" is removed while accepting that there will always be some *unavoidable* uncertainties in the business process.

There are also compliance cost issues inherent in this guiding principle. Businesses (particularly the small and medium sized enterprises which may benefit the most from electronic commerce[27]) may be dissuaded from using electronic communication because of *avoidable* uncertainties in the law and the likely cost of litigating (in both direct terms and in opportunity costs) if problems arise. Elimination of *avoidable* uncertainties in this way will help the growth of the electronic medium as a means of doing trade.

24 UNCITRAL Model Law Guide to Enactment para 15, page 20.

25 Eg the proposed changes to the method by which shares can be transferred under the upgraded FASTER (Fully Automated Screen Trading and Electronic Registration) system which are required to be effected through Order in Council: see Securities Transfer Act 1996, s 7.

26 Submissions of New Zealand Law Society's Commercial and Business Law Committee on proposed changes to the FASTER System; 23 October 1997.

27 As to the impact of small and medium sized businesses on the New Zealand economy see Cameron, Massey and Tweed *New Zealand Small Businesses - A Review* (1997) Chartered Accountants Journal (October 1997) 4-5.

2 To ensure that fundamental principles underlying the law of contract and tort remain untouched save to the extent that adaptation is required to meet the needs of electronic commerce.

The law of contract has developed over the centuries to meet the needs of the people whom it serves. Similarly, the law of torts has developed to govern relationships where no contractual obligations exist.[28] Fundamental principles encompass the elements of contractual or tortious causes of action.

An example of the versatility of the common law to adapt to meet changing circumstances is the development of the principles which underlie the law of agency. The law of agency will need careful consideration in the context of the role and responsibilities of Internet providers when business is transacted through the Internet.

Many of these principles will adapt neatly to the electronic environment. Accordingly, the Commission takes the view that existing law should be adapted (rather than fundamentally reformed) to recognise two distinct imperatives: first, as set out in the first principle, that parties should be free to choose the medium by which they do business: and second, that the concepts evolved through the common law to meet the needs of traders should remain with only minimum necessary modifications to ensure that the law does not discriminate against those who choose to trade through electronic means.[29]

I will return to deal with some concrete examples of the way in which the law might be adapted to clarify contractual obligations and evidential requirements.

3 To ensure that any laws which are enacted to adapt the law of contract or the law of torts to the use of electronic commerce are expressed in a technologically neutral manner so that changes to the law are not restricted to existing technology and can apply equally to technology yet to be invented.

Technology has advanced so quickly over the last fifteen or so years that adherence to this principle will be a real challenge. However, it should be possible to draft law in such a way as to meet evidential requirements. An attempt has already been made in the UNCITRAL Model Law to draft a provision which will encompass further technological advances. Reference is made in particular to the following extract from the UNCITRAL Model Law *Guide to Enactment:*

"The approach used in the Model Law is to provide in principle for the coverage of all factual situations where information is generated, stored or communicated, irrespective of the medium on which such information may be affixed. It was felt during the preparation of the Model Law that exclusion of any form or medium by way of a limitation in the scope of the Model Law might result in practical difficulties and would run counter to the purpose of providing truly "media -neutral" rules. However the focus of the Model Law is on "paperless" means of communication and except to the extent expressly provided by the Model Law, the Model law is not intended to alter traditional rules on paper based communications."[30]

28 Generally, see Gringras, *The Laws of the Internet* (Butterworths, London, 1977). In particular see chapters 2 (contract) and 4 (tort).

29 This is consistent with the "non-discrimination" principle underlying Art. 5 of the UNCITRAL Model Law; see also para 46 of the *Guide to Enactment*.

30 UNCITRAL Model Law *Guide to Enactment* para 24.

Thus, the Model Law adopts the term "data message" in order to capture all forms of electronic communication, present and future. [31]

In May 1994 the Law Commission released Preliminary Paper No 22 *Evidence Law: Documentary Evidence and Judicial Notice: A Discussion Paper*. That Preliminary Paper was released as part of the Commission's evidence reference the purpose of which is to make the law of evidence as clear, simple and accessible as is practicable and to facilitate the fair, just, speedy judicial resolution of disputes.[32] The Commission will release a final report in April 1998 which will recommend the enactment of an Evidence Code. The electronic commerce team within the Law Commission is liaising closely with the evidence team to ensure that recommendations are compatible.

4 To ensure compatibility between principles of domestic and private international law as applied in New Zealand and those applied by our major trading partners.

New Zealand is a small country. Although we are reliant upon export earnings, we have no real control over the laws that may be enacted by our major trading partners. There is no point whatsoever in New Zealand having (at least in our own minds) the best laws in the world to deal with the issues arising out of electronic commerce. Any laws which are recommended must be compatible with principles of private international law which will, in any event, regulate the law by which the contract will be governed. Generally, there is no clear distinction in principle, so far as choice of law is concerned, between contracts entered into electronically or on paper. One possible exception is in the area of contract formation. While a contract formed by exchange of e-mail will appear instantaneous the reality is that the communication has passed through Internet providers of the parties to the communication. Sometimes the Internet provider is located in a different country to the person who sends or receives the message. Thus, it may be necessary to clarify the law to provide a presumptive rule as to applicable law which ignores the jurisdiction in which the Internet provider happens to be located.

In addition, many of our major trading partners have already been involved in initiatives through the United Nations which may lead to common standards (both in terms of technology and in terms of law). Reference is made in particular to the UNCITRAL Model Law on Electronic Commerce and to the work undertaken by the United Nations Conference on Trade and Development to devise a secure electronic commerce environment. The Commission intends to work closely with representatives of the United Nations to ensure compatibility of approach.

Adaptation? Some examples.

What type of adaptations might be expected in any recommendations that may be made for a legal infrastructure for electronic commerce?

31 UNCITRAL Model Law, Art 1 and Art 2(a), defines "data messages" as "information generated, sent, received or stored by electronic, optical or similar means including, but not limited to, electronic data interchange (EDI), electronic mail, telegram, telex or telecopy" See also paras 24–28 on the *Guide to Enactment*

32 NZLC PP 22, Preface.

The following examples are given in order to provide guidance on the issues to be addressed:

(a) *Formation of a Contract:* How should the law deal with issues of offer and acceptance when a contract is concluded through electronically generated material? In particular:

(i) At what point is consensus reached? This is important if an offer is withdrawn;

(ii) Should the postal acceptance rule apply or not?

The postal acceptance rule has been firmly embedded in the common law at least since 1818[33] and is based largely on practical convenience: see *re Imperial Land Co of Marseilles (Harris' Case)*[34] and *Household Fire & Carriage Accident Insurance Co Ltd v Grant*.[35] The rule applies when an acceptance of an offer is communicated by post or by telegram so that acceptance is complete at the time that the acceptance is placed in the hands of the Post Office concerned.[36]

The Sale of Goods (United Nations Convention) Act 1994 creates a presumptive regime in respect of international contracts for the sale of goods in the same way that a presumptive regime is created by the Sale of Goods Act 1908 in respect of domestic transactions. Part II of the Schedule to the Sale of Goods (United Nations Convention) Act 1994 deals with issues concerning the formation of a contract. In particular, Art 15 states:

(1) An offer becomes effective when it reaches the offeree.
(2) An offer, even if it is revocable, may be withdrawn if the withdrawal reaches the offeree before or at the same time as the offer."

Article 24 of the Schedule makes it clear that an offer, declaration of acceptance or any other indication of intention "reaches" the addressee when (a) it is made orally to him or her or (b) delivered by any other means personally to that person's place of business or mailing address or, in the absence of a place of business or mailing address, to his or her habitual residence. This approach as to the time at which an offer is accepted is endorsed by the UNCITRAL Model Law on Electronic Commerce.[37]

33 *Adams v Lindsell*(1818) 1B & Ald 681; 106 ER 250. See also *Laws NZ, Contract* paras 46 and 47.

34 (1872) LR 7 Ch App 587 at 594 per Mellish LJ.

35 (1879) 4 ExD 216 at 223 per Thesiger LJ.

36 *Brinkibon Limited v Stahag Stahl Und Stahlwarenhandelsgesellschaft M.b H* [1983] 2 AC 34 (HL) at 41 per Lord Wilberforce.

37 UNCITRAL Model Law on Electronic Commerce Art 14. Article 14 creates a presumptive regime whereby, if there is no agreement that an acknowledgement of receipt must be given in a particular form or by a particular method, an acknowledgement may be given by any communication by the addressee (automated or otherwise) or any conduct of the addressee sufficient to indicate to the originator that the data message has been received. Where a particular form of acknowledgement has been required the data message is treated as though it had never been sent until such time as the acknowledgement is received.

Generally speaking, a contract involving the international sale of goods will be governed by the Act of 1994. However, where the Act does not apply it is arguable that the postal acceptance rule applies. Although acceptances of contracts communicated by telex and facsimile have been held not to be subject to the postal acceptance rule,[38] an offer sent by e-mail may more nearly resemble an offer sent through the post than an instantaneous offer made by means of telephone or facsimile or telex. In the latter types of communications contact is instantaneous and there is no "mail service" through which the message is delivered. In the case of an e-mail, however, the message is transported through providers which, in essence, act in lieu of the postal service: the Internet provider being the "functional equivalent" of a postal service. The only difference is the relative speed of an e-mail transaction as opposed to a postal transaction.[39]

Which view should prevail? Should the postal acceptance rule apply or not in the absence of the applicability of the Sale of Goods (United Nations Convention) Act 1994? It is most undesirable that there should be any uncertainty over anything so fundamental as the point at which a contract is legitimately entered into under our law. The fact that sales of goods internationally may be covered, in the main, by the 1994 Statute should not dictate an idle response to the question. In any case, the 1994 Statute does not apply to the provision of services, which is an area in which electronic communications may bring great changes. The advent of products, such as computer software, which may be delivered electronically raises new challenges for traditional commercial law. When the purchaser buys a licence to use software which is downloaded from the Internet, has he or she bought "goods" or "services"?

38 For example, *Entores Limited v Miles Far East Corporation* [1955] 2 QB 327 (C) and *Brinkibon Limited v Stahag Stahl Und Stahlwarenhandelsgesellschaft M.b H* [1983] 2 AC 34 (HL) at 41 per Lord Wilberforce. While, in the *Brinkibon* case held that the postal acceptance rule did not apply to communications by telex generally their Lordships did observe that in some telex communications the senders and recipients may not be the principals to the contemplated contract: rather they may be servants or agents with limited authority. Further, the message may not, in fact, reach the designated recipient immediately; it may be sent out of office hours or at night on the assumption that it would be read at a later time. Their Lordships took the view that no universal rule could cover all such cases which fell to be resolved by reference to the intentions of the parties sound, business practice and, in some cases, by a judgment as to where the risks should lie; see in particular the observations of Lord Wilberforce at page 42, Lord Fraser of Tullybelton at pages 43-44 and Lord Brandon of Oakbrook at page 50. Both Lord Russell of Killowen and Lord Bridge of Harwich agreed with the speeches delivered by Lord Wilberforce and Lord Brandon of Oakbrook. For a New Zealand case involving facsimiles see *Designer Salads Ltd v Foodtown Supermarkets Ltd* (1990) 4 PRNZ 644 at 649–650 per Master Williams QC (as he then was).

39 In *Brinkibon Limited v Stahag Stahl Und Stahlwarenhandelsgesellschaft M b.H* [1983] 2 AC 34 (HL), Lord Fraser of Tullybelton at page 432 noted that "The posting rule is based on considerations of practical convenience arising from the delay that is inevitable in delivering a letter. But it has been extended to apply to telegrams sent through the post office and in strict logic there is much to be said for applying it also to telex messages sent by one business firm directly to another. There is very little, if any, difference in the mechanics of transmission between a private telex from one business office to another and a telegram sent through the post office - especially one sent from one large city to another. Even the element of delay will not be greatly different in the typical case where the operator of the recipient's telex is a clerk with no authority to conclude contracts, who has to hand it to his principal. In such a case a telex message is not in fact received instantaneously by the responsible principal." Having made those observations however, Lord Fraser took the view that acceptance sent by telex should be treated as if it were an instantaneous communication on the authority of *Entores v Miles Far East Corporation* [1955] 2QB 327 which, his Lordship observed, "seems to have worked without leading to serious difficulty or complaint from the business community."

(b) *Place where Contract made*: If I take a portable computer with me overseas and I send an order by e-mail from Canada (or even from my seat in an aeroplane above the Pacific Ocean) to a trader in Chile what law prevails? Where is the contract made? Does the fact that my Internet provider may be in New Zealand alter the answer? Would the answer be different if any of the countries involved were not parties to the United Nations Convention enacted by the 1994 New Zealand statute? All of these questions have relevance to the issue of private international law as to the law which governs the contract in the absence of agreement to the contrary.

(c) *Evidence:* How should the law deal with concepts such as "writing" "signature" and "original" in the context of electronically generated materials? Should the law be modified to ensure that legal recognition is given to technological equivalents for these concepts (sometimes known as electronic handshakes) which are concerned with evidential value based on authentic documentation and unique characteristics? What rules should apply with regard to the admission of "documents" generated digitally by a computer without human intervention? What rights of access to computers should be given to those engaged in litigation?

(d) *Definitions:* In an evidential sense it will be necessary to define with precision what is and is not admissible in a Court for both civil and criminal law purposes. It may also be necessary to define terms to make clear whether electronic data interchange includes not only data exchange carried purely by electronic means but also by partly manual means. For example, when a magnetic disk containing electronic messages is delivered by courier will the definition apply? These definitions also need to be considered carefully in the context of SWIFT (being the banking system's method of dealing with electronic transactions) and the upgrade of FASTER (Fully Automated Screen Trading and Electronic Registration) which has been proposed by the New Zealand Stock Exchange as a system for approving electronic transfers of shares.

Statutory definitions may also hinder electronic commerce. There are more than 6,000 statutory provisions in New Zealand requiring something to be done "in writing". Some provisions require the writing to be signed. While many of those provisions do not impact upon trade some, nevertheless, do: a good example being the need for a guarantee to be in writing signed by the party to be bound thereby.[40]

Is a digitally generated message "in writing" or does it become "in writing" when printed out from a computer or read on a computer screen? How is the requirement of a verifying signature to be satisfied? How, if a deed is needed (perhaps, in the New Zealand

40 Contracts Enforcement Act 1956, s 2(1)(d). Note that the Commission has reviewed the arguments for and against this particular requirement, and has tentatively recommended that the Contracts Enforcement Act be repealed entirely: Law Commission, *Repeal of the Contracts Enforcement Act 1956* [NZLC PP30, 1997].

context to avoid argument about consideration), is this to be done electronically? Again the uncertainty of these basic issues demonstrates the need to clarify the existing law to ensure that such uncertainties are resolved.[41]

(e) *Retention of Data Messages:* If disputes arise it is necessary to prove certain things. What are the minimum retention requirements for electronic materials? What form should those requirements take?

In this context it should be noted that it may be possible for all methods of retention to be deleted from computer programmes and therefore it may be necessary to consider reversing the onus of proof where it can be shown that a document has been (deliberately or, possibly, unintentionally) deleted from the computer system of the party involved. Given the ability to rebuild certain data bases, even after deletion, it may also be necessary to provide clear rules for access to the harddrive itself in an attempt to rebuild information in certain types of cases. Further, there must always be the further analysis: are problems caused by electronic commerce in this context unique? People do destroy or lose paper documents.

(f) *Authentication Structures:* Work has been carried out over the past few years by the United Nations through the United Nations Trade Point Development Centre in Melbourne (as part of the United Nations Conference on Trade and Development) with a view to creating a secure environment in which traders can do business over the Internet. Part of the work involves the use of public and private keys designed to act as digital signatures. The whole issue of a digital signature is something that is under the microscope in a number of countries at present. Standards Australia has provided a lengthy report to the Commonwealth Government.[42] Distinct statutes have been passed in several jurisdictions dealing specifically with digital signatures.[43]

Proposals made overseas include establishment of Certification Authorities to provide private key signatures to gain access to messages intended to be confidential between the parties. Cryptography is also an issue. There are problems caused by the Government of the United States' reluctance to allow certain encryption programmes to be sold offshore because of the law enforcement and national security implications.

The United Nations Trade Point Development Centre proposals will be identified in the Preliminary Paper which the Commission will release. The Commission will raise for consideration the legal issues that flow from them. These include whether Certification Authorities

41 An example of an attempt to clarify the meaning of the term "writing" to include electronic data can be found in the technologically neutral definition in Cl. 28 of the Interpretation Bill (not yet enacted) which follows the recommendation of the Law Commission in Cl 19(1) of the draft Interpretation Act in NZLC R17(S) (A New Interpretation Act: To Avoid "Prolixity and Tautology").

42 Strategies for the *Implementation of a Public Key Authentication Framework (PKAF) in Australia* (Standards Australia, November 1996, ISBN 0-7337-0802-1).

43 See, for example, the Digital Signature Act 1997 (Utah), the Digital Signature Act 1997 (Malaysia) and the Digital Signature Act 1997 (Germany).

should be regulated, and if so, how; and the difficult issues of law enforcement and national security that arise if the messages themselves are allowed to be encrypted rather than the signatures only.

Privacy issues are plainly of significance in this regard. Ultimately it is necessary to balance rights of privacy and desires for business confidentiality against the State's interests in law enforcement and national security. For example, should the State have access to private keys in any event because of the potential for insurgent groups to order arms over the Internet? What rights of intervention should be given for law enforcement purposes when there is a trade in drugs or child pornography? All of these are difficult issues.

(g) *Business Records:* A number of statutes prescribe the way in which business records should be kept. An example is s 194(3) Companies Act 1993 which is expressed in technologically neutral language, ie

> The accounting records must be kept –
> (a) In written form and in English; or
> (b) In a form or manner in which they are easily accessible and convertible into English

Similar statutory provisions require review to ensure that they are stated in technologically neutral language; and, indeed, to ensure that they do not address only paper based records.

(h) *Other issues:* Issues relating to shipping documentation, tax consequences and insurance issues also need to be considered. Again, rather than address those matters in detail the Commission proposes to identify the issues and to seek further submissions and comment after the Preliminary Paper has been published. In many cases regulatory bodies or market groups may be better placed to investigate the issues than the Law Commission. Those matters will be considered further after receipt of submissions in response to the Commission's Preliminary Paper.

Conclusion

The purpose of this paper has been to outline the issues which the Commission intends to address in the near future. The Commission welcomes input on these issues both before and after the publication of a Preliminary Paper. This is indeed an exciting project. The opportunity exists for New Zealand to put in place (in advance of compelling need) a legal infrastructure to ensure that the potential of electronic commerce to defeat the twin problems of distance and time can be maximised. Let us not let the opportunity pass by.