



**FACILITATING ELECTRONIC COMMERCE
THROUGH THE DEVELOPMENT OF LAWS TO
RECOGNIZE ELECTRONIC DOCUMENTS AND TRANSACTIONS**

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TABLE OF CONTENTS

	Page
INTRODUCTION.....	1
UNCITRAL MODEL LAW ON ELECTRONIC COMMERCE.....	2
UNITED STATES	4
A. State Initiatives.....	4
B. Federal Initiatives	6
AUSTRALIA	7
EUROPEAN UNION.....	8
CANADA.....	9
A. <i>Uniform Electronic Commerce Act</i>	9
B. Federal Initiatives	12
C. Provincial Initiatives.....	13
CONCLUSION.....	15



CANADA

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INTRODUCTION

Electronic commerce is having a dramatic impact on the way in which business is being done. Increasingly, business communications are being conducted with computers, telephones and television cable lines as businesses move online and adapt their operations to an electronic environment. In this new business environment where electronic transactions are becoming the norm, the use of paper to document business transactions is becoming less important. In fact, one of the benefits of conducting business by using digitized information is that it obviates the need to transmit and store paper.

Although businesses are adapting to the electronic environment, legal rules continue to stipulate that certain transactions or documents be in writing. Many see such legal requirements as an impediment to transacting business electronically. It is argued that, with a few exceptions, there is little or no benefit in requiring that electronic transactions be put in written form and signed manually. Indeed, it is now widely recognized that legal requirements calling for written documents and manual signatures must somehow accommodate the world of electronic communications. This view has been the driving force behind efforts by international bodies and individual countries to develop rules which would give the same level of legal recognition to electronic transactions as is accorded to paper documents that perform the same function.

This paper will review initiatives by the United Nations Commission on International Trade Law (UNCITRAL) and in the United States, Australia, the European Union and Canada to develop legislation governing the use of electronic alternatives to paper-based forms of communication.

UNCITRAL MODEL LAW ON ELECTRONIC COMMERCE

In furtherance of its mandate to promote the harmonization and unification of international trade law, in 1996, the United Nations Commission on International Trade Law (UNCITRAL) adopted the UNCITRAL Model Law on Electronic Commerce.

The UNCITRAL Model Law was developed in response to the rapid changes that have taken place in the methods of communication used to conduct business and international trade. As the use of electronic mail and electronic data interchange increased and became more prevalent, the existence of legal impediments to electronic communications and uncertainty about their legal effect and validity became evident.

UNCITRAL's decision to formulate model legislation on electronic commerce was also a response to the fact that much of the existing legislation governing the communication and storage of information did not contemplate the use of electronic commerce. In a number of cases, this legislation imposed or implied restrictions on the use of modern means of communication, for example, by prescribing the use of "written," "signed" or "original" documents.⁽¹⁾

The Model Law aims to provide national legislatures with a set of internationally recognized rules to remove legal obstacles and create a more certain legal environment for electronic commerce. It seeks to provide equivalent treatment for users of paper-based documentation and for users of computer-based information. As a "framework" law, however, it does not set out all the rules or cover every aspect of the use of electronic commerce.

The Model Law adopts a "functional equivalent approach" to dealing with electronic commerce. This approach is based on analyzing the purposes and functions of paper-based requirements and determining how those purposes and functions can be fulfilled through electronic-commerce techniques. For instance, paper documents serve some of the following functions, i.e., they:

- provide a legible document;
- ensure that a document remains unaltered;
- allow for the reproduction of documents so that parties can have a copy of the same data;

(1) United Nations Commission on International Trade Law, UNCITRAL Model Law on Electronic Commerce with Guide to Enactment, 1996, p. 13.
<http://www.uncitral.org/english/texts/electcom/ml-ec.htm>

- allow for the authentication of data by means of a signature; and
- provide that a document will be in a form acceptable to public authorities and courts.⁽²⁾

The Guide to the Model Law notes that for “all of the above-mentioned functions of paper, electronic records can provide the same level of security as paper and, in most cases, a much higher degree of reliability and speed, especially with respect to the identification of the source and content of the data, provided that a number of technical and legal requirements are met.”⁽³⁾

Article 5 sets out the fundamental principle of the Model Law: that electronic communications should not be discriminated against or denied legal effect simply because they are in electronic form. Article 6 establishes the basic standard to be met by an electronic document when there is a legal requirement for a document to be in writing; it provides that a legal requirement to present information in writing will be met by providing an electronic document if information contained in the document is “accessible so as to be usable for subsequent reference.”

Article 7 of the Model Law acknowledges that in a paper-based environment, the role of a signature is to indicate approval of a document’s contents and to verify the document’s authenticity. This article provides that a requirement for a person’s signature will be met in the case of an electronic document if a reliable method is used to identify the person and to indicate the person’s approval of the information contained in the document.

Another important function carried out by a paper-based document is to satisfy a legal requirement for an original document. Article 8 of the Model Law aims to remove the obstacles that a requirement for an original document may pose to electronic documents. It provides that where the law requires information to be presented or retained in its original form, that requirement will be met by an electronic document if:

- there is a reliable assurance as to the integrity of the information from the time when it was first generated in its final form as an electronic document; and
- the information is capable of being displayed to the person to whom it is to be presented.

(2) *Ibid.*, p. 15.

(3) *Ibid.*, pp. 15-16.

Article 9 of the Model Law deals with the admissibility of electronic documents in legal proceedings.

Article 10 addresses the legal requirement for certain documents to be retained for a period of time or for specified purposes by setting out the conditions that must apply if electronic documents are to meet this requirement. These conditions include:

- being able to access the information contained in the electronic document so that it can be usable for subsequent reference;
- retaining the document in the format in which it was generated, sent or received; and
- retaining the information to enable the identification of the origin and destination of the document as well as the time when it was sent or received.

Another important purpose of the Model Law is to inject certainty into contracts that are concluded electronically. The Model Law deals with the formation of contracts, the form in which an offer and acceptance may be expressed, and the time and place of dispatch and receipt of electronic documents. It does not, however, change the law dealing with the formation of contracts.

In formulating the Model Law, UNCITRAL believed that electronic communications would most likely be used for contracts relating to the carriage of goods. As a result, Articles 16 and 17 deal specifically with documents in this area.

Since its inception, the UNCITRAL Model Law has gained increasing international acceptance as the model upon which a number of national laws are being based. It has informed electronic commerce statutes in a number of countries including the United States, Australia, the European Union and Canada.

UNITED STATES

A. State Initiatives

In 1999, the National Conference of Commissioners on Uniform State Laws (NCCUSL) promulgated the *Uniform Electronic Transactions Act (UETA)*. The *UETA*

represents the first national effort at providing uniform rules to govern electronic commerce transactions.⁽⁴⁾

The *UETA* applies only to transactions that the parties have agreed to conduct electronically. It does not create a new system of legal rules for the electronic marketplace, but rather ensures that electronic transactions are equivalent to and as enforceable as paper-based transactions.

The basic rules, set out in section 7 of the *UETA*, provide that:

- a record or signature may not be denied legal effect or enforceability solely because it is in electronic form;
- a contract may not be denied legal effect or enforceability solely because an electronic record was used in its formation;
- any law that requires writing will be satisfied by an electronic record; and
- any signature requirement in the law will be met if there is an electronic signature.

Most of the other rules in the *UETA* are derived from these basic rules and serve to answer legal questions about the use of electronic documents and signatures. Section 15, for instance, sets out when information is legally sent or delivered in electronic form. It establishes when electronic delivery takes place, i.e., when an electronic record capable of retention by the recipient is legally sent and received.

The *UETA* defines and validates electronic signatures. An electronic signature is defined as “an electronic sound, symbol, or process attached to or logically associated with an electronic record and executed or adopted by a person with the intent to sign the electronic record.” It removes writing and signature requirements that create barriers to electronic transactions. The *UETA* ensures that contracts and transactions are not denied enforcement because electronic media are used.

Another rule supporting the validity of electronic documents and signatures in transactions is set out in section 9 of the *UETA* which provides that a signature is attributable to a person if it is an act of that person, and that act may be shown in any manner. Section 10 establishes rules relating to errors and changes in electronic documents.

(4) National Conference of Commissioners on Uniform State Laws, *Uniform Electronic Transactions Act*, 1999. <http://www.law.upenn.edu/bll/ulc/fnact99/1990s/ueta99.htm>

The *UETA* validates contracts formed by electronic agents, i.e., computer programs that operate automatically to conduct business in electronic form. It also protects against errors by providing appropriate standards for the use of technology to ensure the identification of the parties involved.

The *UETA* authorizes state governmental entities to create, communicate, receive and store records electronically, and encourages state governmental entities to move to electronic media. It also ensures that the courts accept electronic records into evidence.

The vast majority of U.S. states have adopted some variation of the *UETA*.⁽⁵⁾

B. Federal Initiatives

The U.S. federal *Electronic Signatures in Global and National Commerce Act*⁽⁶⁾ came into effect on 1 October 2000. The Act gives electronic signatures and documents equivalent legal status with handwritten signatures and paper-based documents. It is technology-neutral so that the parties entering into electronic contracts can choose the system they want to use to validate an online agreement.

The law provides that no one is required to use or accept electronic documents or signatures. If a notice must be provided to a consumer in writing, an electronic version will meet that requirement only if the consumer consents to accepting an electronic version and can access the information in electronic form.

The Act specifies that a state can preempt the federal law, but only by adopting the *Uniform Electronic Transactions Act* or by passing a law that is consistent with the federal act and essentially technologically neutral. In addition, the Act does not apply to documents such as:

- wills, codicils and testamentary trusts;
- adoptions, divorce or other family law matters;
- a notice of cancellation or termination of utility services or the default, acceleration, repossession, foreclosure or eviction under a credit agreement secured by, or a rental agreement for, an individual's primary residence;

(5) National Conference of Commissioners on Uniform State Laws, *Introductions and Adoptions of Uniform Acts*, p. 1. http://www.nccusl.org/uniformact_factsheets/uniformacts-fs-ueta.htm

(6) *Electronic Signatures in Global and National Commerce Act*.
http://www.ecommerce.gov/ecomnews/ElectronicSignatures_s761.pdf

- the cancellation or termination of health or life insurance benefits; or
- the recall or notification of a material failure of a product.

Although many states have passed electronic signature laws, the U.S. Congress held the view that a federal law was necessary because state electronic signature and electronic commerce statutes lacked uniformity. Some states, for example, provide that any type of electronic signature is valid. Others require some form of security such as tying the electronic signature to the person signing or being able to determine that the electronic message has not been altered. Still others recognize only digital signatures. In addition, state laws have provided different uses for electronic signatures. Some laws allow electronic signatures to be used only in relation to transactions with government agencies; others allow the signatures to be used only for certain kinds of commercial transactions.

AUSTRALIA

In 1999, the Australian Parliament passed the *Electronic Transactions Act 1999 (ETA)*.⁽⁷⁾ The *ETA* is designed to facilitate the development of electronic commerce in Australia by removing existing legal impediments, under national law, to using electronic communications.

The Act is based on the recommendations of the Australian Electronic Commerce Expert Group which recommended that Australia enact legislation based on the UNCITRAL Model Law on Electronic Commerce.⁽⁸⁾

The *ETA* is founded on two principles:

- *functional equivalence* (sometimes called media neutrality): ensures that paper-based transactions and electronic transactions are treated equally by the law; and
- *technology neutrality*: ensures that the law does not discriminate between different forms of technology.

(7) *Electronic Transactions Act 1999*. <http://law.gov.au/publications/ecommerce/>

(8) Information about the *Electronic Transactions Act 1999* is largely drawn from the document, *Summary of the Electronic Transactions Act 1999*.
<http://law.gov.au/publications/ecommerce/ETactssummary.html>

The basic requirement under the Act for any electronic communication is that it must be readily accessible so as to be usable for subsequent reference. This ensures that others will be able to access and use the information contained in the electronic communication. In addition, a person should also be able to retain the information in some way if he or she wishes to do so.

One of the basic requirements of the Act is that a person must consent to receiving electronic communications. Consent, however, can be express or inferred from a person's conduct.

The Act sets out general rules that allow certain legal requirements to be satisfied by electronic communications. In addition to these general rules, the Act covers specific issues such as electronic signatures. To comply with the Act, electronic signatures must identify the person and indicate their approval of the information communicated. The Act provides for the production of an electronic document where the law requires the production of a paper document.

Other provisions deal with the electronic recording of information, the retention of documents electronically, and retention of electronic communications. The Act also sets out rules in relation to the time and place of sending and receiving electronic communications.

The *ETA* has a two-stage implementation process. As of 15 March 2000, the Act applies to certain laws. The second stage – application to all national laws unless specifically excluded – will be implemented by 1 July 2001.

Along with developments at the national level, the national, state and territory governments have developed the Uniform Electronic Transactions Bill 2000 for enactment by the state and territorial governments. The bill is closely modelled on the *Electronic Transactions Act 1999* and will apply to contract law.

EUROPEAN UNION

On 4 May 2000, the European Parliament approved the Directive on Electronic Commerce. Member States will be required to implement the Directive into national law within 18 months by amending laws that could impede the use of electronic contracts. The Directive provides that, in certain circumstances, Member States will be able to maintain restrictions on the

use of electronic contracts. It also obliges Member States to impose requirements for the conclusion of electronic commerce to assist consumers in avoiding technical errors.⁽⁹⁾

CANADA

A. *Uniform Electronic Commerce Act*

In June 1999, the Uniform Law Conference of Canada adopted the *Uniform Electronic Commerce Act (UECA)*, a model law designed to implement the principles of the UNCITRAL Model Law on Electronic Commerce.⁽¹⁰⁾ Drafted over a two-year period, the *UECA* has been proposed as the model upon which provincial and territorial governments can develop a harmonized approach to electronic commerce.

The *UECA* is divided into three parts:

- Part 1 (sections 5-18) sets out rules for functional equivalence between electronic and paper-based documents, and spells out that they apply when the parties involved in a transaction have agreed, expressly or by implication, to use electronic documents. This part also allows governments to set their own rules for accepting electronic documents because a blanket acceptance of any electronic communication may expose governments to formats and media that they cannot handle and that may not work for their particular purposes.⁽¹¹⁾
- Part 2 (sections 19-23) sets out rules for specific types of communications, such as the formation and operation of contracts, the effect of using automated transactions, the correction of errors when dealing with computer-based transactions, and deemed or presumed time and place of sending and receiving computer messages.⁽¹²⁾
- Part 3 (sections 24-25) deals with the carriage of goods.

(9) European Union, “Electronic Commerce: Commission welcomes final adoptions of legal framework Directive” 2000. http://europa.eu.int/comm/internal_market/en/media/electcomm/2k-442.htm

(10) Uniform Law Conference of Canada, *Uniform Electronic Commerce Act Annotated*, 1999. <http://www.law.ualberta.ca/alri/ulc/current/euecfa.htm>

(11) *Ibid.*, p. 2.

(12) *Ibid.*

In Part 1, the governing principle of the *UECA* is set out in section 5 which provides that information shall not be denied legal effect or enforceability solely because it is in electronic form. Section 6 makes it clear that a person is not compelled to use electronic documents but a person's consent to do so may be inferred from the person's behaviour. For instance, providing a person with your e-mail address could be considered as consent to receive communications via e-mail. Information coming into government, however, is subject to special provisions.

Under the *UECA*, a legal requirement that information be in writing is satisfied by information in electronic form if the information is accessible so as to be usable for subsequent reference.⁽¹³⁾ A legal requirement for a person to provide information in writing to another person is satisfied by the provision of the information in an electronic document, if the electronic document is accessible by the other person and capable of being retained by that person so as to be usable for subsequent reference.⁽¹⁴⁾ The drafters of the *UECA* reasoned⁽¹⁴⁾ that when the law requires someone to provide information to someone else in writing, then more is needed than mere accessibility. The recipient has to receive the document in a way that gives him or her control over what becomes of it. This section therefore requires the information to be accessible for subsequent use, and that the information be capable of being retained by the person to whom it is provided.⁽¹⁵⁾

The *UECA* deals with legal requirements to provide information in a specific non-electronic form by allowing such information to be provided electronically if it is provided in the same or substantially the same form, and the electronic document is accessible by the other person and capable of being retained by the other person so as to be usable for subsequent reference.⁽¹⁶⁾

The *UECA* allows for the use of electronic signatures. The Act requires that the information purporting to constitute the signature be created or adopted by a person with the intent to sign the document, and that it be associated in some way with the document.⁽¹⁷⁾

(13) *UECA*, section 7.

(14) *UECA*, section 8.

(15) *UECA*, p. 7.

(16) *UECA*, section 9.

(17) *UECA*, section 10.

Signatures submitted to governments, however, would have to meet information technology standards and rules established by such governments.

Under section 11 of the *UECA*, an electronic document can function as an original if there are sufficient assurances about the integrity of the information in it.

Part 2 of the *UECA* covers the formation of contracts by electronic means. The Act does not change the general law of contracts, but rather seeks to ensure that electronic communications are capable of conveying the kinds of intention that are necessary to support contractual relations. Section 21 provides that a contract may be formed by the interaction of a computer and an individual or by the interaction of two computers. Section 22 deals with errors that may arise in these situations. The *UECA* provides that an electronic contract made by an individual with an electronic agent (computer) has no “legal effect and is not enforceable” if the individual made a material error in the document and

- (a) the electronic agent did not provide the natural person with an opportunity to prevent or correct the error;
- (b) the natural person notifies the other person of the error as soon as practicable when the natural person learns of it and indicates that he or she made an error in the electronic document;
- (c) the natural person takes reasonable steps, including steps that conform to the other person’s instructions to return the consideration received, if any, as a result of the error or, if instructed to do so, to destroy the consideration; and
- (d) the natural person has not used or received any material benefit or value from the consideration, if any, received from the other person.

The *UECA* also establishes rules with respect to the time and place of sending and receiving electronic documents. Section 23 provides that a message is sent when it leaves the control of the sender and creates a presumption as to when a message is received. If the recipient designates an information system or uses a particular information system for receiving documents, then the document is presumed to have been received when it enters the information system. If the recipient does not designate or use an address, then the message is not presumed to be received until the addressee has notice of it, and is able to retrieve and process it.

In Part 3, sections 24 and 25 of the *UECA* address the electronic versions of contracts pertaining to the carriage of goods.

B. Federal Initiatives

At the federal level, the *Personal Information Protection and Electronic Documents Act*⁽¹⁸⁾ implements measures to create functional equivalency between electronic and paper documents. Part 2 of the Act provides for “the use of electronic alternatives ... where federal laws contemplate the use of paper to record or communicate information or transactions.” Among other things, the Act provides for:

- making payments to the federal government in electronic form;
- submitting information to the federal government in electronic form;
- using electronic documents to satisfy a requirement under federal law for a document to be in writing;
- using electronic signatures; and
- providing electronic documents when an original document is required.

In some situations, the Act requires the use of a “secure electronic signature” – an electronic signature resulting from the application of a prescribed technology or process. Before a technology or process can be prescribed, it must be proved that:

- the electronic signature is unique to the person using it;
- the person whose electronic signature is on the document has control of the use of the technology to attach the signature;
- the technology can be used to identify the person using the electronic signature; and
- the electronic signature can be linked to an electronic document to determine if the document has been changed after the electronic signature was attached to it.

The Act also deals with electronic documents used as evidence in legal proceedings. In a typical court proceeding, original documents are usually required to satisfy a court that the terms and conditions of an agreement have not been changed since it was signed. This requirement is difficult to satisfy where electronic documents are involved because the

(18) *Statutes of Canada 2000*, Chapter 5.

original cannot be distinguished from an amended document and because handwritten signatures do not authenticate the document. The Act requires the use of secure electronic signatures for electronic documents whenever the law provides for original documents or statements of truth.

In addition, the Act provides that notices and acts published electronically by the Queen's Printer have the same legal authority as notices and acts published in paper form, and gives official status to the electronic version of revisions of the statutes and regulations of Canada as well as the consolidated version of the statutes and regulations.

C. Provincial Initiatives

Provincial governments are moving to facilitate electronic commerce by clarifying the status of electronic documents. Saskatchewan,⁽¹⁹⁾ Manitoba⁽²⁰⁾ and Ontario⁽²¹⁾ have enacted legislation to recognize electronic documents and signatures. Nova Scotia,⁽²²⁾ British Columbia,⁽²³⁾ Quebec⁽²⁴⁾ and Yukon⁽²⁵⁾ have introduced bills in their respective legislative assemblies. Most of the other provinces are in the process of developing legislation.

These statutes and bills are, for the most part, modeled on the *Uniform Electronic Commerce Act* and consistent with the UNCITRAL Model Law on Electronic Commerce. They contain a series of "functional equivalency" rules that set out the conditions that must be met for an electronic communication to satisfy a legal requirement for written communication. For example, when information or a document must be in writing, the electronic equivalent is acceptable if it is accessible so as to be usable for subsequent reference. Where there is a legal requirement to provide information or a document to a person in writing, an electronic document

(19) *The Electronic Information and Documents Act, 2000*, Statutes of Saskatchewan, Chapter E-7.22.

(20) *The Electronic Commerce and Information Act*, Chapter E55 Continuing Consolidation of the Statutes of Manitoba (Royal Assent, 18 August 2000). Parts 1, 3, 4, 5 and 7 proclaimed in force as of 23 October 2000. <http://www.gov.mb.ca/chc/statpub/free/pdf/b31-1s00.pdf>

(21) *The E-Commerce Act, 2000*, Chapter 17, Statutes of Ontario 2000 (Royal Assent, 16 October 2000). <http://www.ontla.on.ca/Documents/documentsindex.htm>

(22) *Electronic Commerce Act*, Statutes of Nova Scotia, 2000, Chapter 26. <http://www.gov.ns.ca/legi/legc/~acts.htm>

(23) Bill 32-2000, *Electronic Transactions Act* (first reading, 5 July 2000). http://www.legis.gov.bc.ca/2000/1st_read/gov32-1.htm

(24) Bill 161, *An Act to Establish a legal framework for information technology* (first reading, 14 November 2000). <http://www.assnat.qc.ca/archives-36leg1se/eng/Publications/Projets-loi/publics/00-a161.htm>

(25) Bill 29, *Electronic Commerce Act* (first reading, 26 October 2000).

will satisfy the requirement if it is accessible and capable of being retained by the person to whom it is provided.

The legislation establishes that an electronic document will be equivalent to an original document. Where there is a legal requirement for an original document to be provided, retained or examined, an electronic document will be acceptable if the integrity of the information has been maintained. In addition, electronic signatures will satisfy a legal requirement for a written signature.

The retention of documents and provision of copies are also covered. Where a document has to be retained for a period of time, an electronic version can be retained if it is accurate and available to the same extent as the original document and for the same length of time. Where multiple copies of a document must be provided, a single electronic version will be acceptable.

Rules are established for the formation of contracts by electronic means which:

- allow a contract to be formed by using electronic communication which includes an action such as touching or clicking on an icon or place on a computer screen;
- allow a valid contract to be made by way of electronic communication that is automated at one or both ends of the transaction;
- permit a transaction entered into between an individual and an electronic agent (computer program) to be cancelled if a significant mistake is made, if there is no opportunity to prevent or correct the mistake, and the individual does not benefit from the transaction; and
- determine when messages are sent electronically, and when they are presumed to have been received.

These legislative provisions aim to provide increased legal certainty to formation of contracts in an online environment.

Following upon the *Uniform Electronic Commerce Act*, the legislation also provides for the formation of contracts for the carriage of goods by electronic means.

It is important to note that the legislation does not specify what an electronic signature is, other than to provide a general definition along the following lines: “information in electronic form that a person creates or adopts in order to sign a document and that is attached to or associated with the document.” An electronic signature therefore could be a digitized image of a handwritten signature, a biometric signature such as an electronically recorded thumbprint, a

person's name spelled in ASCII characters, a digital signature using a public key infrastructure and a certification authority, or a voiceprint of a person saying his or her name.

Finally, it is important to note that the legislation does not compel a person to provide, use or retain documents in electronic form; however, a person's consent to do so can be inferred from the person's conduct.

CONCLUSION

The move to pass legislation to integrate the world of electronic communication into long-standing legal requirements for written communications, signatures and the formation of contracts started with the UNCITRAL Model Law on Electronic Commerce in 1996, the creation of model laws in Canada and the United States in 1999, and the more recent directive of the European Union in 2000. Now, national, state and provincial governments are introducing or have enacted laws to reduce or remove the legal uncertainties surrounding the conduct of business over the Internet.

In Canada, these efforts are well underway: three provinces have electronic commerce laws in force; bills are now before a number of provincial legislatures; other provinces are at various stages of developing legislation; and the federal government has passed the *Personal Information Protection and Electronic Documents Act*. Recognizing that electronic commerce extends beyond provincial and national boundaries, Canadian governments are opting to model their legislation on the *Uniform Electronic Commerce Act* and the UNCITRAL Model Law. This approach acknowledges that lack of consistent rules governing the use of electronic signatures is an impediment to the continued growth of business-to-business and business-to-consumer transactions over the Internet.