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International Electronic Trade
Carrying out Consumer and Commercial Transactions

April 15, 1998
Revised January 4, 1999

Originally submitted as LL.M. requirement to Osgoode Hall Law School York University, Toronto, Canada
International Trade and Competition Law program

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1. Introduction

Professor Nicolas Negroponte in his bestseller, "Being Digital", states that world trade has traditionally consisted of exchanging atoms. When you go through customs you declare your atoms not your bits.[1] Although he believes that our economy may be moving towards an information economy, he feels that we still measure trade and write our balance sheets with atoms in mind.

> "The Information superhighway is about the global movement of weightless bits at the speed of light. As one industry after another looks at itself in the mirror and asks about it's future in a digital world, that future is driven almost 100% by the ability of that company's product or service to be rendered in digital form. …" If you make a cashmere sweater or Chinese food, it will be a long time before we can convert them to bits. "Beam me up Scottie" is a wonderful dream but not likely to come true for several centuries. Until then, you will have to rely on Federal Express, bicycles and sneakers to get your atoms from one place to another. This is not to say that digital technologies will be of no help in design, manufacturing, and management of atoms-based businesses. I am only saying that the core business won't change and your product won't have bits standing in for atoms." [2]

As you can see from footnote 1, his book was written in 1995. Since then a number of initiatives have taken place in the world which may result in the conversion of the way we measure trade, a movement by authorities to tax our bits, the growth of an economy that place more emphasis on bits than on atoms, and changes in our core businesses. This paper will examine the transitions that have and will take place in the way we conduct business, economics and law as a result of the technology. The law has dealt with the traditional ways in which people have transacted commerce. The law will adapt to the technological changes, but in the majority of cases it will still be in the framework of

[1] Negroponte, Nicholas. Being Digital. New York, Knopf, 1995 , 4
[2] ibid. , 12-13

traditional commerce. Technology will have to address and rein in the problems which the law cannot approach.

When I started to read about this subject I did not know very much about the technical workings of electronic commerce including the Internet. Therefore, in order to educate myself and neophite Internet users and readers, I prepared an Appendix on The Fundamentals Needed to Understand Electronic Commerce (Appendix I). The purpose of this Appendix is to explain some of the fundamental technical terms involved in understanding how some of the tools needed to conduct electronic commerce work. This will assist the reader to understand the purpose of the model laws, guides and legislation that are directed to deal with the problems present in the technology. I apologize if the approach is too elementary. I felt that it would be best left out of the body of the paper, for those readers who had more than a rudimentary understanding. If it is better in the body, feel free to "cut and paste".

Electronic commerce can be conducted over telephones, fax machines, automatic teller machines (ATMs), electronic payment systems such as prepaid telephone cards, electronic data interchange (EDI), television and the Internet. Theoretically, the Internet is the main technology whereby all elements of a commercial transaction (advertising, production, purchase, payment and the delivery of the service) can be conducted on an interactive basis with more than one person, unconstrained by time and space, in a multimedia (sound, image and text) environment at a relatively low cost.[3] For that reason most of the focus will be on the Internet.

The paper is first structured to deal with business opportunities and concerns. It will confront common Internet fears; similarities between selling on the Internet and the

[3] Bachetta, Marc, Patrick Low, Aaditya, Ludger Schuknecht, Hannu Wager and Madelon Wehrens, Electronic Commerce and the Role of the WTO, World Trade Organization, Geneva, 1998, 5

real world; differences including security problems that are inherent in the technical structure of the Internet; and the various secure solutions. It will append a web site selling goods in order to see how some of the business concerns have been addressed.

Within the same vein, the paper addresses some of the start-up legal considerations companies and individuals wishing to do business on the Internet should apply. It examines the structuring and locating of web sites, electronic contract formation; and how other issues normally dealt with in the international sale of goods by traditional commerce are affected by the technology.

The article then examines the economic changes that are the consequence of electronic commerce over the Internet. The purpose is to give the reader an understand of the supply and demand forces on competition, the potential ability of small companies to compete where it was previously impossible, the barriers to entry, the change in the structure of firms and industries and the opportunities to benefit from these changes. The economic section reports some statistics which will give the reader an understand of the magnitude of the Internet and which nations are the current beneficiaries of the distribution of electronic commerce wealth.

The next part of the writing explores the fundamental principles of public international law that govern economic relationships between states. The purpose is to explain these principles to a reader who has little understanding of public international law. The paper then deals with how these principles have been carried from an institution that has historically been dominated by the trade in goods to one that has recognized the changing importance of services and technology and its attempts to address these issues in GATS and TRIPS. Through this mechanism member states enact agreements which they subsequently ratify in their domestic domain and consequently enact supporting legislation.

The paper will then look at diverse proposal, model laws and guides that have been prepared by international organizations. Membership in these organization consist of states. The organizations have various mandates and interests in promoting electronic commerce, and providing solutions to the problems that the average business person may encounter in dealing in this new medium. Some of these problems have been identified in this paper. This group of international organizations have also taken notice of the work in this area by private organizations in some member states such as the American Bar Association, whose committees have often been comprised of private citizens of more than one nation state.

The paper then surveys electronic commerce policy, laws and initiatives that are happening or have happened at the domestic level. The purpose is to see how consistent the domestic scene is with their international endeavors. It also serves to show their willingness to support the technology.

The final section deals with specific Internet commerce concerns raised by the international legal community, in areas of jurisdiction, intellectual property, competition law violations, and tax . The purpose is to see how states perceive whether existing codified and case law will adequately deal with these changes and where the reliance will have to revert to the technology and not law.[4]

[4] This paper was written in April 1998 and revised in January 1999. It is almost impossible to keep up with the volume of material and the plethora of sources on e-Commerce issues. Although not dealt with extensively here, it must be emphasized enough how important it is to be aware of the changes that the Internet and e-Commerce have had on traditional business models. It is difficult to advise on laws that might affect an organization in its dealings in the virtual world without understanding how the Internet is affecting traditional business strategy. There are many books that deal with these subjects and they can be found in a business oriented library or the business section of a book retailer.

2. Business Opportunities and the Concerns (Business and Legal) of Doing Global Electronic Business.

2.1Concerns and Web Site Structure

The Internet may not be useful for all businesses, nor do all have to develop an Internet information strategy. Some businesses are concerned with the start-up costs of connecting such as purchasing hardware and software, subscribing to an Internet connection or service provider, and training staff. Others are concerned with the necessary search and navigation skills one has to develop to be able to use it as a cost effective business tool. Some businesses are concerned that, as a result of technical congestion during certain times, the Internet will not effectively improve their ability to disseminate and retrieve information. Most businesses are concerned about Internet security relating to issues of unwanted intrusions into sensitive databases, electronic payments, contracting with authorized parties and protection from electronic viruses.

The entry by telephone and cable companies into the Internet service provider business within the last few years has given new hope to the congestion problem in that they now have a vested interest in investing in infrastructure. The Internet connection and set-up cost are not inexpensive for every business, however, the competitive cost of not having it probably outweighs the financial cost of connectivity. Even if businesses deal with customers that are domestic or local, reaching the customer is only one aspect of the Internet. It can be used to communicate with suppliers to build supply networks, order materials, sales or other information 24 hours a day, 7 days per week.[5]

[5] Industry Canada. "Confronting Common Internet Fears", July 26,1996 , http://strategis.ic.gc.ca/cgi-bin/…ft_text%20CONTAINS%20'internet')))

If the business decides to purchase the equipment, software and connect to the Internet, it will then have to decided how it conducts its electronic commerce. If it wishes a presence on the WWW, it should resolve whether it will use the site for marketing, or to provide information in an advisory capacity to the public or to conduct on-line transactions for the sale of goods and services. The business will have to select and register a domain name. The company may or may not be able to obtain a domain name similar to its business name [6].

The company will then need to develop a web site through the services of independent web sites developers or design its own with the Netscape Page Composer template or similar software. If the services of the developer is contemplated, then there are a number of legal considerations.

1. The business should obtain the transfer of the copyright in the completed web site.
2. The business should get a grant of a license by the developer in the use of the developer's confidential information and intellectual property which is integrated into the web site.
3. The developer may use defamatory, misleading, deceptive or objectionable material in the site. An indemnity should be obtained.
4. Objective criteria should be set to ensure that the web site performs in terms of download rates, bandwidth usage and response times. Customers will not visit sites on a repeat basis if getting to it, uses up their prepaid Internet account credit[7].

Once the web site is developed, the business requires the web site to be hosted and supported on a server. Here the business wants to be certain that the site will be accessible 24

[6] Author's note: See the discussion on domain names in the Appendix I and the section on Intellectual Property and on Language below.

hours a day, 7 days per week. Depending on the intended use of the web site, the cost of hosting may differ.[8] Having links from search engines such as Excite or Yahoo through Netscape under the generic nature of a business may increase traffic to your site. For consumer products, being listed in e.g., Excite Shopping, appears to be helpful. There are also links to shopping malls or shopping precincts (SPs), which are virtual malls through which shoppers can contract to purchase goods. In malls, individual merchants can rent space form the mall operator. The financial arrangement may include some charges for monthly rental, charges for storage space required and usually a transaction charge. See an example on the Excite Shopping Channel at http://www.excite.com/channel/shopping/.

When considering what town, state or nation in which to host the web site, reference should be made to the discussions under the sub-heading "Jurisdiction," "Taxation" and "language". It may be desirable, if it is practical, to locate the web site in a jurisdiction where one can minimize liability (tax and civil) and make it expensive for someone to commence litigation against the company. This will require individual legal advice.

An example of a good web site can be viewed at http://www.gap.com. There are certain minimum legal requirements in addition to the business needs. Duncan Card, in his article "Legal Consideration In Electronic Commerce"[9] list web sites legal requirements. They include *inter alia* notices relating to intellectual property, disclaimers relating to detrimental reliance, privacy and security, information accuracy, and the fact that linking to other sites is not an endorsement of those sites. The site should contain a "terms and conditions of web site use" clause which includes user's competency to contact, and governing law. For a more complete list of the legal considerations in establishing a web site please refer the articles in the footnote.[10]

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[7] Standen, David, Timothy Hughes, Simon Pollard, and Brendan Scott, "Internet Compliance Manual". Gilbert & Tobin , Sydney (Aus.) 1997, 5 of 11, http://gtlaw.com.au/gt/pubs/icm/internetcompliance.html
[8] Ibid., 7 of 11
[9] Card , Duncan Cornell. Netlaw '97. The Canadian Institute. Toronto, April 1997
[10] (a) Ibid.

Selling on the Internet or through the WWW is similar to selling in the real world.

1. Prior to the contract :The customer enters the merchants web site, views the product and company information and
2. Contract : a) If the vendor and the buyer have established a mechanism that neither of them should be able to repudiate the offer price or the products ordered , and

b) if the customer is convinced that the product will arrive at an approximate specified delivery time, and

c) If the vendor is satisfied that it will be paid

d) Then, the customer will place an order.

3. Settlement of the amount due**:** the vendor invoices, the customer authorizes/pays.
4. Post Sales: warranty, support and customer data gathering.

There is some **debate regarding the formation of an electronic contract over the Internet**. One of the differences between contracting over the Internet and contracting by any other electronic means is the on-line Internet Service Provider. The issue is whether the parties are communicating and contracting directly or are they communicating and contracting through a third party.[11] Under the acceptance rule a contract will not be formed until acceptance of the offer by the offeree has been communicated to the offeror. The exception to the rule is called the postal rule, where an offeror has explicitly or implicitly agreed to the offer being accepted by the post office, once the letter or other communication has been posted. The contract is deemed to have been formed even if the offeror does not receive the letter accepting the offer. In building the web site documentation, it should be made clear in the relevant terms and conditions or by a statement that will be seen by the user before sending their request by email to purchase an item,

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(b) Duncan C. Card , "Considerations For The Marketing, Sale And Distribution Of Goods And Services By Electronic Commerce—Don't Get Caught In The World Wide Web Of Technology Transfers Through Cyberspace" Canadian Bar Association-Ontario 1988 Institute Of Continuing Legal Education. Toronto. 1998.

(c) see footnote 7

[11] Davies, Lars. "The Internet and the Elephant". International Business Lawyer. London. April 1996, 156

that the contract will not be formed until the web site owner has received the email accepting its offer.[12]

The **international aspect of contracting over the Internet** may complicate matters as other jurisdictions (civil Law for example) might hold that their local legal requirements with which a valid contract is formed, have not been complied.[13] If the sale is other than consumer goods, the principles of the CISG[14] may apply. Other issues are the requirements that certain contracts have to be in writing and require an actual signature of the contracting parties by statute formalities, (e.g., Statute of Frauds).

Web page presentation and content - products, description, pricing and delivery, and consumer warranty - will help the consumer to make the decision. The rest of the transaction is carried on across the World Wide Web, but most cases will require additional mechanisms connected to it. The purchase of digital products, such as the text of an article, can be carried on entirely through the web page. The buyer selects the desired article and enters a credit card account number, and the web server transmits the article. If there is some security mechanism to keep the buyers credit card private then the sale would be made without risk.

However, commerce over the Web requires a mechanism for processing the sales as well. Those mechanisms cover the process or the point which the sale information has been captured through the web. It is then necessary to move the information to the appropriate systems within the merchant's organization, as well as outside, and to companies that provide services like credit card authorization, to banks, electronic banking services and to organizations involved in the electronic transfer of value and if non-media tangible goods, an external shipping mechanism.[15]

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[12] Rowe, Heather "Legal Implications of Consumer Oriented Electronic Commerce." A Paper (ND/156) Presented at the International Bar Association Section on Business Law Section on General Practice 1997 Conference, New Delhi, Nov.1997 , 8

[13] The European Union enacted the Directive On The Protection Of Consumers In Respect Of Distance Contracts 97/7/EC OJ R144/19 at http://www.eec.org

[14] UN Convention on Contracts for the International Sale of Goods (CISG) adopted by UNICITRAL see below

[15] Loshin, Pete and Paul Murphy . Electronic Commerce: Online Ordering and Digital Money 2nd ed. Charles River Media 7-9 and 19

2.2 Security problems in doing business over the Internet

The problems of conducting business over Internet are the following:

1. **Fraud:** Negotiating Prices and delivery options by e-mail is quite easy; making sure that payment and delivery both occur is hard. With no control over online identities, it's difficult to determine who actually sent the email. In traditional commerce, buyers often send funds (by cheque or money order) to a post office box and they never receive the merchandise they order. There are methods to minimize these risks, and they have included obtaining telephone numbers, addresses and references. There has been a minimal amount of fraud with credit cards over the Internet, but people are reluctant to give their credit card number to vendors whom they suspect might be subject to fraud.[16]

2. In addition to the problems between the buyer and seller, there are **problems inherent in the Internet** that contributes to the insecurity of the system. As explained in the Appendix I description of TCP/IP protocols, the advantage to the system was the ability to insure that a packet of data reached it's intended source by splitting the information and going down various routes until the packets met at the recipient computer. Once the data is transmitted beyond the originating computer, it could be handled by a number of intermediate computers (called routers) which make sure the data is delivered to it's intended destination. However in this process, eavesdroppers may be able to intercept information. [17]

3. There are **weaknesses within organizations** themselves. Examples are poor procedures for password security.

4. **Interception by third parties**, particularly when you're sending sensitive information like credit card numbers or electronic cash.

[16] ibid. , 24
[17] ibid., 30-31

5. Another risk might be **forgery by the use of email** based on the structure of the email protocols. It is possible and probable that someone could send a message that appears to be coming from someone else (i.e. someone sends mail and signs your name). Another risk is that someone intercepts your mail, changes it and sends it on to its final destination. An example could be a change of payment instructions so that there is direction to pay it to the criminal's account.[18]

Internet communications are functionally equivalent (on a security basis) to communicating in a public hall. In order to secure yourself over the Internet, if you want to talk to someone at the office at the end of the hall, you rely on intermediaries to carry messages between you.[19]

2.3 Secure methods of Communication and Commercial Transactions

There are two areas where we need to have the confidence that the security necessary to transact electronic commerce is in place. **One** is the **transmission of data messages needed to form contracts** including the identity of the author of the message, an association of the author to the message, and the confirmation that the author intended to send the message. The **second area** is the **ability to securely pay for what the author contracted**.

Parallel to the development of the Internet has been the development of computerized cryptography which is the applied mathematics of codes and secrets which is used in translating text into secret writing and back to text again. For a primer on encryption, please see Appendix II.

2.4 More Secure Methods Of Payments On The Internet

The private sectors are beginning to provide solutions to make electronic commerce more secure and trustworthy such as; insurance policies protecting merchants against liability risks of business on the Internet, and transaction brokers who provide centralized secure and cost

[18] On October 30, 1998, President Clinton signed the Identity Theft and Assumption Deterrence Act of 1998 (HR4151) making it a crime to knowingly transfer or use a means of identification of another person, which includes

effective service as intermediaries between the banks and small business who are unable to obtain merchant credit card numbers or who can't afford to acquire software to offer secure commerce. Accordingly, the barriers to secure electronic commerce will be reduced.

In traditional commerce, consumers like the flexibility of cash, credit cards, personal cheques, and other instruments of convenience. For the Internet seller, being able to offer customers flexibility and security will translate into increased sales. Internet commerce can focus on secure credit card transmission, electronic cheques, smart cards and digital currencies. Applying encryption to credit card transactions can be relatively simple from a technological viewpoint, however it is still not prevalent in the Canadian market.

SET Secure Electronic Transaction Technology[20] was developed by VISA and Mastercard to bring security, privacy and authentication to Internet purchases. To prevent someone from stealing a consumer/card holder's account no. while the card older is on the Internet, a public key encryption is used to scramble and protect customer's credit card account information in a SET Secure Electronic Transaction. The consumer's second problem is knowing if they are dealing with a legitimate merchant. SET certifies that the merchant is a legitimate merchant who is registered for the Visa or Mastercard Secure Electronic Commerce and it can accept the Visa or Mastercard through it's relationship with the bank that processes the merchant's authorizations and transactions. A digital certificate is issued containing information that can be used to authenticate that the consumer is a valid cardholder and is delivered to the consumer's bank, the merchant and the merchant's bank all in one transaction. Once it's authorized a merchant sends a confirmation of the purchase and sends the order to the consumer by delivery whether it be digitally sent or physically sent to through an order system.

"unique electronic identification".
[19] Loshin and Murphy, 37-41
[20] Is being Beta tested in Singapore

The consumer's computer software actually signs on it's behalf. A consumer obtains the software through it's bank or through it's web browser. [21]

VisaCash - this is similar to prepaid telephone cards, which are used to make small purchases such as a cup of coffee, newspaper or public transportation. Some are disposable and some are reloadable. The disposable ones are predetermined; once the value of the card is used, the card is discarded. Loadable cards come without a predefined value and they are loaded at the special ATM's and can be reloaded as many times as you have available cash. Each card is a microchip that records monetary value and once you purchase something the amount of that purchase is automatically deducted from the balance. VisaCash is going to be used on the Internet and is currently in it's trial state. Transactions occur similar to the physical world, with card balances displayed both before and after the transaction. It gives financial institutions participating in the cash program, an Internet payment alternative that does not require incremental system changes. For merchants, the VisaCash can be integrated into the existing transaction settlement process. Moreover, small payment transactions enable merchants to offer a wider range of merchandise particularly low cost items.[22]

Mondex International implements digitally signed electronic cash encoded in smart cards which can be loaded by ATMs. They are tested in U.K., USA and Australia.[23] In Canada a few tests have been conducted in Ontario.

For intangibles such as electronic newsletters, First Virtual is one of the leaders. Its Internet Payment System is based upon three principles:

1. Electronic information merchants can produce as many copies of electronic information at no incremental cost per copy. If digital material is delivered and not paid for, no real loss.
2. Information buyers need a way to examine before they buy.

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[21] I was unable to determine if it is available in Canada yet.
[22] (a) Loshin and Murphy , 91 et seq.
(b) http://www.visa.com

3. Buying and selling should be easy.

Using an automated telephone system and sophisticated email to collect payment information, First Virtual eschews encryption or digital signature, preferring to rely on close monitoring of sales and purchases to reduce fraud. For small companies selling intangible products or companies just entering the Internet marketplace it will remain an important mechanism.

CyberCash,[24] acts as a conduit between the Internet merchants, consumers and banking networks. The merchant and consumer require the software. CyberCash verifies that the order and the payment have not been modified by cryptography. For security, payment information is not decrypted until it arrives at their server. For the consumer once registered, there is no need to give information on subsequent purchases.

The above is only a description of a few methods that will be used for secure Internet payment. Banks and other financial institutions are working with companies like, Netscape, Microsoft, and others to produce seamless payment systems for consumers and merchants alike. For consumers the most important issues will be reliability, security, simplicity and acceptability to many merchants. To keep abreast on the status of the newest methods and companies offering secure payment search with your favorite web browser.[25]

In summary, if a consumer is looking for a particular product and a vendor's site is located in another city, country or part of the world, the consumer may have reservations as to whether the vendor is reputable, whether goods will ever be delivered, and whether they have the same ability to exchange or return the goods as they would dealing with a local retailer, a reservation probably not much different than print mail order houses. Perhaps Internet retailers could learn from reputable and trusted catalogue vendors such as Timothy Eaton who assured satisfaction guaranteed or money refunded. This issue has not been lost on a lot of big name retailers whose

[23] Loshin and Murphy , 124.
[24] Ibid., 142-173
[25] Ibid , 104 -108

annual Christmas sales increased more than 25% over last year, due to their online retailing period. A search conducted on a web browser under the heading of “shopping“ would reveal many familiar names.

3. Economic Changes as a Result of a New Method of Conducting Business.

The September 1997 report of the Information *Highway Advisory Council* discusses the dynamics of a knowledge based economy. The highlighted quote is worth repeating:

> "The information highway is triggering profound technological and social changes that challenge fundamental economic assumptions. The knowledge, information and data services traveling the information highway and forming the lifeblood of the knowledge based economy are bought, sold used and valued differently from manufactured goods such as the tables or refrigerators in the industrial economy. The scope and pace of innovation in the new economy redefine markets and industries with a bewildering speed. Meanwhile, trade liberalization is creating a tightly knit global economy qualitatively different from the relatively discreet national economies of the industrial age." [26]

In Connection Community Content [27] IHAC summarized the transition from:

"- a resource based to an idea based economy…

- a stable comparative advantage[28] to a dynamic comparative advantage economy…

- investment and physical capital being the key to competitiveness (in the old) versus investment in human capital being the key to competitiveness (in the new)…

- monopolistic, low value-added infrastructure to competitive high valued infrastructure

- growth from discreet domestic and international markets to

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[26] Industry Canada. Information Highway Advisory Council (IHAC). The Internet: Advancing the Information Highway. Ottawa. 6 - 1. http://strategis.ic.gc.ca/SSG/ih01649e.html

[27] Industry Canada, IHAC. " The Challenge of the Information Highway Final Report," September 1995, Ch. 2 "From Old Economy to New Economy", Industry Canada, Page 25

[28] Comparative Advantage is a theory developed by David Ricardo in his book The Principles of Political Economy, published in 1817. The proposition can be generalized as follows:

> "A country should specialize in producing and exporting goods in which its comparative advantage, or comparative disadvantage is smallest, and should import goods in which its comparative disadvantage is greatest"

This was a modification of Adam Smith's Absolute Advantage theory:

> " If a foreign country can supply us with a commodity cheaper than we can make, better buy it of them with some part of the produce of our own industry."

From: Trebilcock Michael J. and Robert Howse, "The Evolution of Industrial Trade Theory and Policy", The Regulation of International Trade, Routledge, London, 1995, 1-3.

interdependence of domestic and international markets

- multinational firms to global firms/strategic partnering…

- subsidies to slow change to encouragement to adapt".

In a more recent study by the WTO[29] it stated that the proliferation of electronic commerce is predicted to lower transaction cost and production cost, facilitate entry and increase competition. This, in turn, will lower prices, increase quality, and create new and more diverse products thereby increasing growth and welfare.

IHAC advocates increased economic competition in the Internet supply side including the communication infrastructure and addition of the wider bandwidths, which will enhance the ability of Canadian firms to use those services to compete both domestically and internationally[30]. The WTO agrees with this theory and says that Internet congestion, if prevalent, is also likely to affect future Internet demand. The large demand for bandwidth in the last few years is a consequence of both an increase in the number of users and the capacity required for new and more sophisticated applications.

The Internet is relatively inexpensive and the market base is very large thereby making it a desirable arena for commercial activity. In the new economy, the geographic market definition for competition law[31] purposes would be 'global' to the extent that search engines or browsers can access electronic products being sold. Throughout the globe, the pricing would be comparative and on the product market definition there would be a high elasticity of demand, unless authors were the only vendors and distributors of products being created. This might very well be the case as the need for intermediaries or middlemen to reach remote areas of the market are not

[29] World Trade Organization, op.cit. chapter III " The Economics of Electronic Commerce And The Internet "page 15,
[30] IHAC Op.Cit page 29
[31] Hypothetical Monopolist Theory: "A relevant market is the smallest group of products and smallest geographic area in relation to which sellers, if acting as a single firm that was the only seller of these products in that area, could profitably impose and sustain a non-transitory price increase. See Merger Enforcement Guidelines of the Director of Investigation and Research, Competition Act, R.S.C. 1985, c. C-34 as am.

necessary, particularly if the material being sold is electronic material and the merchant vendor has set up the on-line commercial environment.

It has been said that the Internet is the greatest equalizer between large corporations and small and medium sized enterprises (SMEs). It allows the SMEs more transactions with decreased marketing and communication costs, and the opportunity to form virtual alliances thereby leading to global expansion and improved networking with minimum capital outlay. These benefits apply to new economy companies as a substantially greater amount of SMEs than large corporations use the Internet. [32]

There are still a number of barriers to entry into the geographical Internet market as well as the product market, many of which have to do with issues previously raised such as trust, security, payment mechanisms and up front costs to obtain the secure sites, the credit card or digital cash software.

The Internet and electronic commerce will change the structure of firms and it will spawn new industries, weaken some, change the way certain industries do business and require substantial infrastructure investment. Banks, financial services, telecommunications and advertising will generate increased revenue. Delivery services may have increased opportunities if consumers and businesses increasingly order goods electronically which require physical delivery. However, on the international basis high shipping and administrative costs for products that can't be delivered over the Internet may make low value transactions unprofitable.[33]

There will be some erosion of local tax base as jurisdictional issues will arise between local and national governments ability to tax transactions. As retail transforms to on-line merchants, sales positions may also be lost.

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[32] IHAC Op.Cit chapter 3 page 9, Authors Note: There seems to be some differences of opinion on the extent of the SME use of the Internet. See Canadian Federation of Independent Business (www.cfib.ca)
[33] Bachetta, Marc, Patrick Low, et al. op.cit ,29-33.

For purposes of the influence various States will have on electronic commerce a few statistics from the WTO study follow.

1. Japan, Canada and then United States have the most ATMs.
2. In 1996 about 200, 000 of U.S. 6 million firms used EDI. Worldwide was 500, 000. Anticipate U.S. is 30-40 percent of businesses in year 2000.
3. Over 85 percent of world Internet generated revenue in 1996/ 97 was generated in the United States, whereas the United States share of users only amounted to 62 percent.
4. 70 percent of web sites are located in the U.S.; 8 percent in Canada; 14 percent for Europe; 4 percent Asia and 2.3 for Latin America and Africa.
5. By year 2000 United States Internet commerce use will be most prevalent in wholesale and retail businesses followed by manufacturing, then services and utilities. [34]
6. According to some industry analysts, total Internet business will climb from $2.6 billion in 1996 to $220 billion in 2001.
7. In late 1997, 57 million adults were already on-line in U.S. and Canada and 10 million had actually purchased a product or service on-line.
8. Internet advertising which is about $300 million in 1996 is estimated to reach $4.35 billion by year 2000.[35]

[34] Ibid., Ch. I and Ch. IV
[35] Prepared Statement of the Federal Trade Commission on "Internet Fraud" Before The Subcommittee On Investigations of the Governmental Affairs Committee, U.S. senate, Washington, D.C., Feb.10, 1998. 2
[35] http://www.bna.com/e-law/docs/digisgcom.html

4. Basic Pillars of GATT 1994 / WTO

By the technical nature of the Internet and the global opportunities that have arisen in the world of e-Commerce it is not possible for countries to enact or amend laws relating to e-Commerce which are inconsistent with those of other Nation States.

> "The law of International Trade can loosely be divided into 3 general areas. First the general rules of public International Law governing the economic relations of states. This law, which is derived both from general principles and treaty law, sets the framework within which states may legislate and under which International Trade is conducted. Second, the Law of Contracts by which persons, companies and state trading enterprises, order their trading relationships…. Third, the laws governing the Importation and Exportation of goods to and from Canada…." [36]

4.1 World Trade Organization

The background of the first area is the following: The General Agreement on Tariffs and Trade (GATT), is a multilateral treaty, that aims to promote trade among its members. Originally signed by Canada and 22 other countries in 1947, the GATT now has more than 120 contracting parties composed of both developing and developed states. The first GATT treaty was entered into force on a temporary basis in 1948, as it was expected to be superseded by the International Trade Organizations (ITO Havana Charter 1948). The ITO failed to find support when the US Senate did not ratify the treaty in 1953. The principles of 'non-discrimination' and 'transparency' are central to GATT, which was taken in part from the Havana Charter.

Non-discrimination is reflected in the Most Favored Nation clause, ("MFN")[37] which in essence says that a party granting a trade advantage/favor to one country is required to give that same advantage to all contracting parties. The Second portion of non-discrimination is **National Treatment ("NT")** which means that imported goods are to be treated as if they were domestic products and any form of discrimination against them in favor of like national products, is

[36] Castel , J.G. ,William C. Graham, Armand L.C. De Mestral, Susan Hainsworth, and Mark A. A. Warner. The Canadian law and Practice of International trade with Particular Emphasis on Export and Import of Goods and Services. 2nd ed., 1997, Emond Montgomery.Toronto. 2 (Note hereafter cited as 'CGMHW')
[37] GATT article 1.1

prohibited.[38] **Transparency**, another principle of GATT, means that trade measures should be made known to other contracting parties so that they may be assured that the system of multilateral trade rules are in fact operating. All laws, regulations, tariffs of member countries should be published and open. The GATT attempts to lessen the use of import quotas and other laws restricting the flow of goods among the contracting parties. The GATT provides more favorable treatment for developing countries, and puts obligations on countries to provide technical assistance to lesser developed countries. In 1995, an international organization was finally created with a new oversight body called the World Trade Organization (WTO). In 1996, the Uruguay Round of Negotiations talks to expand GATT were finally concluded and formally signed.

Member States must ratify these treaties in their own countries, and when they ratify it they enact legislation to modify existing Federal laws on their books in order to comply with their international obligations. In the real world, States are attempting to remove trade barriers and Domestic laws are being modified to reflect this new spirit. It has taken a long time to weaken the protectionist position primarily adopted by developing nations. In the world of e-Commerce, it is hoped that nations will create the rules together so as to avoid misunderstandings and avoid rebuilding barriers in a system that technologically has none.

The WTO is effectively a government of governments in trade related aspects, although its enforcement powers are not always used. The GATT was created when international trade was dominated by trade in goods. Since then, trade in services; transportation, travel, banking, insurance, telecommunications has come more important, so has the trade in ideas; inventions

[38] GATT article 3.4

and designs. Therefore the GATT has been amended and updated into the new WTO Agreements and it lives along side of GATS and TRIPS.[39] [40]

In March 1998, the WTO released its study entitled Electronic Commerce and the Role of the WTO. The study examined the potential gains to trade from the increased use of the Internet for commercial purposes and contends that the Internet, as an instrument for international trade will fall under the WTO's General Agreement on Trade in Services (GATS).

WTO Director-General Renato Ruggiero who represented the WTO at the Ottawa Ministerial in October 1998 indicated that the goal of the WTO was not to create a set of new rules to govern the electronic marketplace, rather to use existing frameworks already in place. Agreements such as the GATS, Trade Related Aspects of Intellectual Property Rights (TRIPS) and Agreement on Telecommunications Services are WTO agreements that already in one form or another deal with e-Commerce related issues. NAFTA basically flows from the WTO principles.

4.2 General Agreement on Trade in Services (GATS)

As services represent a substantial portion of the modern economy, the principles enumerated in the GATT have been extended to services. The removal of barriers to free trade in this sector became a concern. GATS is the first multilateral agreement to provide legally enforceable rights to trade in all services. It has a built in commitment to continuously liberalize through periodic negotiations. It is designed around three basic principles: It covers all services except those provided in the exercise of government authority, it incorporates the national treatment principle (NT), and the most favorite nation principle (MFN). However the agreement does provide certain exceptions to the aforementioned standards. The Member States can

[39] WTO. "WTO and GATT—are they the same?", http://www.wto.org/about/facts6.htm
[40] In addition to this section, TRIPS is also discussed in this paper under "Intellectual Property", although it is part of the WTO Agreements and it is also discussed in Appendix III

choose the services in which they make market access and NT commitments; they can limit the degree of market access and NT they provide; and they can take limited exception even from the MFN obligation, for a ten year period.[41] Unlike GATT, the GATS permits the use of quotas where government wishes to maintain limitations on market access.[42]

According to the recent WTO study, "it is not always clear from Members' GATS Schedules how their market access and national treatment commitments cover the supply of Internet access services. A distinction must be borne in mind here between the supply of Internet access services, and the supply of other services using the Internet has a medium of delivery."[43] (i.e., whether the supply is in the GATS or GATT regime.)

The Agreement is divided into six parts and the annexes which deal with the limits on MFN. Part I deals with scope and definitions. Part II General obligations and disciplines covers *inter alia*: MFN,[44] Transparency (the requirement to publish promptly all measures which pertain to the application of this agreement and to make it available through inquiry points in each state),[45] except if the disclosure of confidential information would impede security, public interest or may prejudice legitimate commercial interests within that state.[46] Part II also includes obligations on members to enact or maintain institutions for due process of law in enforcing the obligations.[47] There are also similar provisions to GATT Article XXIV allowing free trade zones in services[48] which was subsequently reflected in NAFTA [49]. The General exceptions, which allow Members to adopt measures inconsistent with the above are similar to GATT Article XXI ,i.e. if necessary to protect public morals or maintain public order, necessary to protect human ,and animal and plant

[41] WTO, "General Agreement on Trade in Services- the design and underlying principles of the GATS, http://www.wto.org/wto/services/services.htm
[42] Bachetta, Marc, Patrick Low, et al. op.cit. ,
[43] Ibid., 47
[44] GATS Article II
[45] GATS Article III
[46] GATS Article III bis
[47] GATS Article VI
[48] GATS Article V bis
[49] NAFTA chapter 12

life, etc. Part III deals with specific commitments regarding market access and national treatment. It is probably the greatest intrusion into national sovereignty in the service sector and will bolster global access via electronic commerce subject to the restrictions in the agreement. The commitments negotiated by federal systems like Canada take into account how GATS will affect present federal and provincial restrictions on foreign participation in the insurance, banking and broadcasting fields. Canada did not commit to anything unless the provinces affected were in agreement.[50] Part IV, Progressive Liberalization, deals with the commitment to continue, within a 5 year frame, the reduction or elimination of the adverse effects on trade in services with the goal of market access being a priority while at the same time having respect for national domestic policy of its Members.[51] Part V deals with dispute settlement which is the same provisions as in the WTO Agreement. It therefore makes the GATS an enforceable agreement. Part VI deals with the right of a Member to deny benefits of this agreement. It is generally to a non-member or a Member to which the denying member does not apply the WTO agreement.[52] That part also has an extended definition section which is to be read with Part I.

Two of the Annexes deal with Financial Services and Telecommunications, which are the backbone of global electronic commerce. These areas have not made as much progress as was intended. The establishment of international rules in these areas has always been difficult. One of the reasons with respect to financial services, is the goal of maintaining its integrity has a direct impact on economic health and security of a state.[53] The roles played by foreign institutions have always been closely monitored. On a regional basis under the European Union and NAFTA improvements have been made. Perhaps GATS will eventually arrive at those levels.[54] There are

[50] CGMHW. , 316-317
[51] GATS Article XIX.
[52] GATS ArticleXXVII
[53] Examples of this are the Asian and Mexican economic crisis's
[54] CGMHW pages 319-321

73 countries that committed on banking and other financial services, but only 15 agreed to the cross border supply of services market access with a similar number for NT.[55]

In the Telecommunications Annex there is also some reluctance as culture is the key issue here. The Decision on Negotiations on Basic Telecommunications is an agreement to agree on progressive liberalization. Among the parties who announced their intention to take part are quite a few industrialized countries (including the European Union) as well as developing and transition countries. These are countries that have some or greater access to telecommunications infrastructure.[56] In the Communication Services sector the percentage of those committed to full cross border market access and NT are similar to above. However, in the Computer and Related Services sectors a very high percent favor those principles.[57]

4.3 Agreement On Trade Related Aspects Of Intellectual Property Rights (TRIPS)[58]

The increasing importance of the digital world and electronic commerce transactions generate more importance in the protection of intellectual property rights in the hardware, copyright, trademarks and topography of integrated circuits. We are all aware of pirate tapes and CD's in the music industry and with digitalization and direct selling. The respect for those intellectual property rights by all members of the WTO had to be strengthened. The United States was one of the stronger proponents of intellectual property protection and accordingly the TRIPS Agreement evolved. It is the most comprehensive multilateral agreement on intellectual property. It covers copyright and related rights (i.e. the rights of performers, producers of sound recordings and broadcasting organizations); trademarks including service marks, geographical indications

[55] Bachetta, Marc, Patrick Low, et al. op.cit., 54 "table 11: GATS commitments on mode 1 and 2 trade for various service sectors"
[56] Ibid., 7
[57] Ibid., 54
[58] Author's Note: Canada is bound to TRIPS and made several pre TRIPS amendments in 1991 (Bill C-91) to intellectual property legislation based on principles in the Draft TRIPS. Recently the European Union were contemplating a consultation relating to Pharmaceutical Patents which would be heard under TRIPS.

including appellations of origin; industrial design, patents including the protection of new varieties of plants, the layout of integrated circuits and undisclosed information including trade secrets and test data. The TRIPS Agreement sets out the minimum standards of protection to be provided by each member by each of the main elements of protection as defined, namely; the subject matter to be protected, the rights to be conferred, and permissible exceptions to those rights and the minimum duration of protection (i.e. 20 year patent rule which exceeds that which Canada had adhered to before). TRIPS in fact makes all WTO members adhere to the prior conventions of the World Intellectual Property Organization (WIPO) i.e. the Paris Convention For Protection Of Industrial Property and the BERN Convention For The Protection Of Literary And Artistic Works[59]. It incorporates the principles of National Treatment[60] and the Most Favored Nation Treatment. [61]

There are certain transitional provisions and provisions related to developing countries deferring their implementation. The important point to note about TRIPS Agreement is that it is a substantial reduction of the sovereignty of WTO members, as the dispute settlement procedures of the WTO are mandatory and incorporated. Therefore nationals can enforce the trade sanctions of the WTO and it is the most comprehensive agreement relating to the new media and global intellectual property. In the context of the Internet, TRIPS may be used to enforce copyright and trademark infringements arising from multi jurisdictional infringements through the process of hyperlinking on the web.

[59] TRIPS articles 2.1, 2.2 and 9
[60] TRIPS article 3
[61] TRIPS article 4

5. The Legal Framework Guiding Business in Conducting the International Sale of Goods and Services (Traditional and Electronic).

As the focus of this paper is the international sale of goods (atoms and bits) and services over the Internet and other means of electronic commerce, it will examine how the existing laws, and institutional rules relating to the international sale of goods and services are affected by the new media and the paperless international transaction. In order to do this I will summarize some of the salient terms of the major international endeavors to create agreements, model laws and conventions dealing with international sales and examine whether the governing institutions and private organizations have addressed the effect of the new media on the existing laws. I will also examine domestic legislative attempts to address the international problems relating to the Internet.

5.1 UNICITRAL Model Law on Electronic Commerce

The United Nations Commission on International Trade Law (UNICITRAL), whose membership consists of States from all regions and economic development, and whose mandate is to promote harmonization and unification of international trade law. It has previously formulated the United Nations Contract for the International Sale Of Goods (CISG),[62] the UNICITRAL Model Laws on International Commercial Arbitration, to name a few. It has prepared the Model Law on Electronic Commerce. The Model law was prepared as a model to countries for the evaluation and modernization of their laws relating to computerized or other modern communication techniques and would also be used by a number of states with limited familiarity with modern communication techniques. The Commission commenced their studies of this area in 1985 and after a series of recommendations put forth the text of the Model Law in

[62] see UNIDROIT sub-section below for a description of CISG

1996.[63] They also prepared a guide for the benefit of member states to use in preparing their domestic laws.

The Model law is divided into two parts. Part One is "Electronic Commerce In General" and Part Two is "Electronic Commerce In The Carriage Of Goods" applicable to maritime, road, rail and air transport.[64] The Model law took a "functional equivalent" approach based on the analysis of the purposes and functions of the traditional paper-based requirements of contracting to determine how those functions could be fulfilled electronically. The purposes of paper documents are *inter alia* 1) **legibility**, 2) **inalterability**, 3) **ability to produce a copy**, 4) **authentication of data by means of a signature**, 5) **easy storage**, **finalizing and recording the intent of the author in a form acceptable to public authorities**. The Model Law intends that electronic means will fill a similar function.[65]

The scope [66] of application of the Law is to provide the principles 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's not intended to alter traditional rules on paper-based communications. It was intended to apply to commercial applications growing out of trade relationships, but should not discourage States from using the Model law to apply to both domestic and international matters and non commercial matters that use electronic medium. The law does not specifically deal with consumer protection and the Commission deferred to existing or future domestic legislation in this area. [67]

Rather than using 'persons' or 'contracting parties' the Law defines "Originator" and "Addressee" to reflect the different parties to a data message. In some cases it can be the

[63] UNICITRAL, www.un.or.at/unicitral/texts/electcom/ml-ec.htm, articles 125-150.
[64] Article by Article Remarks, paragraphs 24 and 110 respectively.
[65] Ibid., paragraphs 16, 31, and 47
[66] Article 1
[67] op.cit., paragraphs 24-29

same person. Although the focus is on their relationship, the role of third party intermediaries is recognized.[68]

Article 5 is analogous to National Treatment. Data messages should not be discriminated against i.e. they should be treated at parity with paper documents, even if there are statutory requirements for writing or an original. You cannot deny legal validity based only on form.[69]

Articles 6, 7, and 8 are similarly written and are to be read as a group reflecting the functionally equivalent approach taken by UNICITRAL. Article 6 says that if the law requires information to be in writing, it is legal if the information is accessible and usable (by humans and computers[70] for subsequent reference. The Model Law allows states to enact their own exclusion to comply with their domestic laws, e.g., formalities of negotiable instruments under their Banking and Bills of Exchange Acts.

If the law requires a signature of a person, according to Article 7; if the data message can identify that person and can indicate that person's approval of the information and the method used is reliable for the purposes and circumstances or as set out in an agreement such as eg, a TPA or a third party service agreement, then the data message method of signature is legal. Paragraph 58 of the Guide list some criteria to examine the method. The Article establishes the general conditions under which data messages would be regarded as authenticated with sufficient credib  and be enforceable in the face of signature requirements which currently present barriers to electronic commerce. Other approaches would have tied new technology to paper as opposed to examining papers function.[71]

Article 8 deals with the **situation where the law requires information to be presented or retained in its original form**. If there is reliable assurance, (in light of the purposes for

[68] ibid., paragraphs 35-39 and Article 2
[69] ibid., paragraph 46

which the information was generated), that the information has remained complete and unaltered from when it was first generated in final form, (other than any additional endorsements and changes arising in the normal course of communication, storage and display) then the requirement shall be met. Various technical means are available to certify the contents of a data message to confirm its "originality". Without this "functional equivalent" parties to the sale of goods would be forced to use paper to supplement electronic commerce. The concept of integrity links the concept of originality to a method of authentication and puts the focus on the method to be followed to meet the requirements.[72]

Article 9 deals with **admissibility and evidential weight of data messages**. Reliability of how the message was generated, stored, communicated and its correspondingly integrity and identity of the originator should be the key factors to examine.

Article 10 says that **if information is required to be maintained**, then data message retention is satisfactory if the information is accessible and usable for subsequent reference; **and** it is retained in the format in which it was generated or an accurate facsimile; **and** the retained information enables one to ascertain the origin and destination and when it was sent or received.

Chapter III (articles 11-15) deals **with communication of data messages and the whole concept of electronic offer and acceptance**. Paragraph 76 of the Guide says Article 11 is not intended to interfere with the law but to provide increased legal certainty as to electronic contract formation. It deals with the expression of offer and acceptance generated by computers without immediate human intervention. It covers cases where both offer and acceptance are communicated by electronic means but also where only the offer or the acceptance is communicated electronically. Article 12 deals with the recognition of data

[70] paragraph 50
[71] paragraph 56

messages by parties in situations not related to the conclusion of a contract, e.g. notice of defective goods[73].

Article 13 deals with the situation when there is a question as **to whether a data message was really sent by the person indicated as the originator**. This article deals with the functional equivalent to **forged signatures**. The basic presumption is if the originator sent it, the data message is of the originator and it goes on to qualify that basic presumption in cases where the addressee knew or ought to have known that the data message was not that of the originator.[74] The basic presumption is extended to bind the originator if it was sent by a person with apparent authority or a system programmed by or on behalf of the originator. If the addressee received notice or knew or ought to have known, the presumption is rebutted. Where the originator and addressee have a existing TPA and the addressee applies the previously agreed authentication the presumption stands even if there was unauthorized use.

Article 14 deals with the **acknowledgment of receipt**, which can range from acknowledgment of an unspecified message to agreement with the content of a specific data message. It is not to be confused with communication relating to the contents of the acknowledged message. Some of the Internet email programs have acknowledgment of receipt prompts which can be activated. This activation by the originator whether it is mechanical or imbedded is discretionary. The Model Law only deals with evidence of receipt and not legal ramifications of the acknowledgment. Where the parties haven't agreed on a receipt method it can be given by any means of communication or by the addressee conduct indicating receipt. If he message is conditional upon receipt acknowledgment it must be satisfied.

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[72] paragraphs 63 and 65
[73] paragraph 81
[74] paragraph 83

Article 15 deals with **the time and place the message was sent and received**. Due to the use of intermediaries such as service providers and routers, users of electronic commerce communicate from State to State without knowing the location of the intermediaries. The Model Law ignores the intermediaries location and focuses on the place of business of the originator and the addressee. The time of dispatch is when the data enters an information system outside the control of the originator which could be the addressee's or an intermediary's. If it is the addressee's designated information system both dispatch and receipt are simultaneous, otherwise the receipt is when the addressee retrieves the message from another system.

Part Two is dedicated to specific rules relating to electronic commerce and the first chapter relates to carriage of goods. The general rules of Part One still apply but specific rules relating to e.g.EDI and transport documents were required.

Article 16 sets out those actions to which the chapter applies. Article 17 confirms provisions of Part One and establishes safeguards for duplication of paper and electronic data where paper is a negotiable instrument.

Many of the aspects of the Model Law have been incorporated by some of the Member States into their draft or approved legislation.

5.2 General Commercial Terms For Electronic Commerce

The International Chamber of Commerce (ICC) is a world business organization that promotes international trade, investment and the market economy system worldwide. In addition to running the International Court of Arbitration it makes rules that govern the conduct of business across borders. It has top level links with the UN, WTO and OECD.[75] In 1936 the ICC published a set of rules for the interpretation of trade terms (INCOTERMS) which were amended numerous times, most recently in 1990. The rules define in a simple and safe manner respective

responsibilities of buyers and sellers. Parties may adopt specific "INCOTERMS" or vary them to suit the circumstances. Although they only govern the parties if they stipulate, courts have been influenced by the rules in interpreting breach of agreements. Terms such as "FOB" and "CIF" primarily relate to methods of delivery, but they also affect cost, insurance and risk. The INCOTERMS relate only to trade terms used in the contract of sale and not similar terms used for carriage of goods.[76] In the context of electronic commerce and the Internet, the ICC has created the Working Party on Eterms whose purpose is to develop an accessible body of terms, conditions, and related materials that trading partners will be able to use or refer to in establishing an electronic commerce relationship. The difference between Trading Partner Agreements and Eterms is that the latter could be included in "one-off" contracts between parties who are strangers to one another and could be included within orders placed by EDI and WWW techniques. Embedded references to Eterms will allow mechanical screening of incoming transactions or viewing before transmission. The "UNICITRAL Model Law on Legal Aspects of EDI and Related Means of Communication" is currently available on Eterms repository.[77] The ICC has developed self regulatory codes for ethical conduct for advertising and marketing and recently revised guidelines to apply to advertising and marketing over the Internet, World Wide Web, online services and Electronic Networks.[78]

5.3 Digital Secure Contract Formation

The ICC has also drafted the "General Usage for International Digitally Ensured Commerce (GUIDEC)" [79] which is a general framework for the "ensuring", i.e., the act of

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[75] International Chamber of Commerce: "What is the ICC", www.iccwbo.org/what/what0.htm
[76] CGMHW pages 127- 129.
[77] www.verisign.com/eterms/ and www.webcom.com/pjones/eterms.html
[78] http://www.iccwbo.org/commissions/marketing/internet_guidelines.html - Visit the ICC site to see a number of other policy statements and guidelines relating to electronic commerce. The ICC through its Member Nation Organization organized the Business and Industry Advisory Committee which acted as a voice of industry and business at the recent OECD Ministerial on Electronic Commerce held in Ottawa, Canada in October 1998.
[79] www.iccwbo.org/guidec2.htm

digitally signing an electronic message, and "certification" of digital messages, based upon existing civil and common law treatment of the subject as well as pertinent international principles. The GUIDEC treats the concepts and issues in the context of international commercial law and practice. It assumes practices in which transacting parties are expert commercial actors. It does not attempt to define rights and responsibilities for transactions involving consumers. It enhances some of the concepts set out in Digital Signature Guidelines[80] produced by the American Bar Association from an international point of view. It also draws upon and extends existing international law treatment of digital signatures in UNICITRAL Model Law on Electronic Commerce.[81] The ICC list in SectionV.1. the shortfalls of the UNICITRAL Model law.

For global Internet commerce to be successful the contracting parties need to establish mutual trust. The GUIDEC, in addition to taking the position that applying atom based rules to bits will work to the detriment of the international trading community, states that conflicting legislative efforts directed at facilitating electronic commerce at the domestic level can effectively deter the development of a coherent global framework. GUIDEC advocates a top down global approach.

"Ensuring" is the term used in the GUIDEC as opposed to digital signature. It means securing or guaranteeing in the dictionary and here it means: "to record or adopt a digital seal or symbol associated with a message with the present intention of identifying oneself with the message."[82] In Section VII.1. a message is ensured if acceptable evidence indicates (a) the identity of the ensurer and (b) that the message has not been altered since ensured.

The system proposed by GUIDEC is the appointment of trustworthy third parties (Certifiers) who will issue certificates which receiving parties can rely upon verifying that the

[80] see below
[81] See below (note the GUIDEC uses the 1995 version in its comments)
[82] GUIDEC sectionVI.1 page 16

ensuring party has the ability to contract and bind either himself or is an authorized representative. The Certifiers will also maintain technologically secure Public Key encryption mechanisms and maintain records of transactions. The Certifiers could be existing professionals such as Notaries in civil jurisdiction and Lawyers in common law jurisdiction. It is an electronic extension of notarial certification with more stringent rules and shifting of liability to parties that are capable of obtaining indemnity insurance. It does not suggest that these professions are the only parties who could be Certifiers. GUIDEC deals with the effect of a valid certificate and the suspension and revocation of valid certificates.

5.4 American Bar Association Digital Signature Guidelines[83]

Another non-governmental attempt has been made by the American Bar Association (ABA) Science And Technology Section, Electronic Commerce Division, Information Security Committee has prepared Digital Signature Guidelines which endeavor to establish a secure computer-based signature equivalent which will minimize the occurrence of electronic forgeries, provide the means and encourage the reliable authentication of documents in computer form, facilitate commerce by means of computerized communication and give legal effect to the general import of technical standards for authentication of computerized messages.[84] They are intended as "general statements of principle, … that may serve as a common basis for more precise rules in various legal systems". The Guidelines are based upon the interactive roles of a trusted third party **certification authority** who associates a key pair with the identity of the person who is to sign, a **subscriber** or person signing or sending the message, and the **relying party** or recipient of the message who relies on the digital signature created by the subscriber. The Guidelines are grounded upon the premise that digital signature technology

accomplishes and even surpasses paper technology in the attributes of: **signer authentication**; who signed the message and was the signer authorized, **message authentication**; what is signed and was it altered or tampered with, **affirmative act**; the signer's sense of having legally concluded a transaction, and **efficiency**; the high level of assurance that the digital signature and message of the signer are that of the signer.[85] The ABA contemplates the growth of the legal profession as qualified certification authority in the role of a CyberNotary who would possess technical expertise to facilitate computer based transactions.

Part 1 is Definitions. It contains the Guidelines definitions of terms such as "certification authority, digital signature, private key, and trustworthy system together with commentary on the reason specific words were chosen.

Part 2 are General Principles which sets out the frame of reference being that the Guidelines should be interpreted consistent with what is commercially reasonable under the circumstance and sets out the duty of care of the parties.[86]

Part 3 deals with Certification Authorities, their requirement to use trustworthy systems, have adequate financial resources to bear the risk of liability to subscribers and relying parties, and maintain records,. It also outline their duty to notify of suspensions, revocations and issuance of certificates and what they must do to protect subscribers and relying parties.

Part 4 is the guidelines relating to the duty of care that subscribers owe, including the duty to make full disclosure when obtaining their private key and maintaining it securely.

Part 5 is titled "Relying on certificates and digital signature." It is the operative section of the Guideline. It equates a proper digital message with a proper paper document.(S5.1)

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[83] Author's Note: Although this does not fit into this part of the paper, (as the ABA is not an international organization as a sense of the other organizations mentioned in this part) it is relevant for its work in digital secure contract formation and because so much notice was taken of it by international organizations.
[84] ABA, op.cit., pages 22-23
[85] pages 8-9, 14

Section 5.2 provides that a digital signature satisfies formal requirements of a signature if it's made with the intention to authenticate the message and meet the public key procedure., 5.3 deals with the consequences of unreliable signatures and 5.4 deals with circumstances where a relying party knows or ought to know not to rely on the digital signature. 5.5 states that a copy of a digitally signed message is as effective, valid and enforceable as the original of the message.

The Committee was made up of Inter disciplinary parties from international jurisdictions and aside from the GUIDEC, the Guidelines have been looked at seriously by jurisdictions contemplating legislation in this area.

This paper will look at the ABA prospectus on the subject of jurisdiction.[87]

5.5 Cryptography

OECD

The Organization for Economic Cooperation and Development (OECD) is a Paris based organization whose purpose is to provide its 29 member countries with a forum in which governments can discuss problems and seek solutions which can then be applied within their own national context. The OECD 's purposes is to achieve highest sustainable economic growth and social well being. The multidisciplinary approach at committee levels encourages transparency.[88]

The 29 Member States of the OECD and the Government of Canada held a Ministerial Conference titled "A Borderless World" on Electronic Commerce in Ottawa, Canada from the 7th to the 9th of October, 1998. The conference brought together Ministers of the OECD Member

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[86] page 77
[87] American Bar Association, Section of Business law, Committee on Law of Commerce in Cyberspace, Subcommittee on International Transactions and others. "Transnational Issues in Cyberspace: A project on the law relating to jurisdiction" http://www.perkinscoie.com/aba/prospect.htm
[88] http://www.oecd.org/about/whats.htm

States, industry leaders[89], consumer representatives, leaders of international organizations and representatives of selected non-member states.

The main issues addressed at the conference were:

- Building trust for users and consumers
- Establishing ground rules for the digital marketplace
- Enhancing the information infrastructure for Electronic Commerce
- Maximizing the benefits

The OECD published a series of working papers and recommendations on a variety of issues relating to Electronic Commerce including Taxation of Transactions over the Internet, Privacy Policy, Consumer Protection, Encryption and the Economic Effects of the Internet. Most are available at the OECD web site[90] and are worthwhile to review.

Dispute Mechanisms

An other agreement worth mentioning is the OECD's, Multilateral Agreement on Investments (MAI). The MAI is intended to incorporate the GATT principles into the treatment of investors in order to establish a broad multilateral framework for international investment with high standards for the liberalization of investment regimes and investment protection with effective dispute settlement procedures.[91] Part V deals with dispute settlement and this is a departure from GATT in that provisions are included for resolution of disputes directly between an investor of one contacting party and another contracting party (state). By execution of the agreement and subsequent ratification each contacting party will have agreed to submit to international arbitration. This allows individuals and corporations who own companies in another jurisdiction, who have not been treated in accordance with the principles of the MAI, to

[89] The author was a Canadian delegate representing the Business and Industry Advisory Council (BIAC)
[90] http://www.oecd.org

have redress through the settlement processed and obtain a declaration, monetary compensation or restitution. The MAI is similar to the investor chapter of NAFTA. In the context of the Internet, this will allow commercial vendors, investors in sites and service providers to have redress against member states that have not applied the rule of law and fundamental access to justice.[92]

5.6 Contract Interpretation and Jurisdiction

Unidroit

The International Institute for the Unification of Private Law (Unidroit**)** is an independent intergovernmental organization comprised of 57 member states, based in Rome that examines methods of harmonizing private laws of states and prepares for the adoption by various states of uniform rules. Since creation it prepared over 70 studies, many resulting in international instruments drawn by Unidroit and adopted by member states. Its' work has also served as the basis for a number of international instruments adopted under the auspices of other international organizations. An example of the latter is the UN Convention on Contracts for the International Sale of Goods (CISG) adopted by UNICITRAL. Of the former, Unidroit Principles of International Commercial Contracts June 1994, presents a new approach to international trade law. These principles are neither model clauses nor contract forms. They are applicable to sale of goods, services and investments. They are an enunciation of norms to regulate international contracts. The principles cover contract formation, validity, interpretation, content, performance and non-performance.[93] They are not binding and are only persuasive. The Preamble states "they (Principles) may provide a solution to an issue raised when it proves impossible to establish the relevant role of applicable law". Although they only apply if

[91] MAI, preamble
[92] Since the original version of this paper, the MAI has died. Some feel that the principles might be more acceptable under the WTO than the OECD, which would include the have not nations who are Member States of the WTO.

incorporated into the agreement, (and according to Canadian Law and Practice of International Trade with Particular Emphasis on Export and Import of Goods and Services, it is wise to combined the reference with an international arbitration agreement) they may be incorporated by reference by adjudicators in contested electronic agreements as they have already been in paper contracts in the interpretation of the CISG.[94] It is interesting that article 1. 10 defines "writing" as "any mode of communication that preserves a record of the information contained therein and is capable of being reproduced in tangible form." In light of the above Model Law and guidelines there is a strong argument that it could be applied.

The CISG**,** which was ratified by Canada, is a set of precisely (but not perfect) codified norms to govern certain aspects of international sale of goods. They are rules created from a combination of civil and common law principles. The CISG is divided into Part I dealing with the sphere of application an general provisions; Part II deals with formation of the contract for the sale of goods; Part III deals with the sale of goods. The sphere of the Convention is that it applies to parties whose respective places of business are in (different) states which have ratified the Convention. Most developed States have adopted the Convention. If only one party's state is a signatory country and the rules of private international law lead you to that state to interpret the contract, the CISG will apply.[95] The parties may exclude application of the CISG by expressly providing that the local laws of a non CISG State apply or by agreeing that the CISG does not apply.[96] The parties may also exclude specific provisions of the convention by specifying that certain other rules apply.[97] The CISG applies only to sales contracts for the commercial sale of goods and does not cover international consumer sales of goods bought for personal, family or household use unless the seller didn't or couldn't have known. CISG does

[93] CGMHW page 165
[94] Klotz, James M, International Sales Agreement; an annotated drafting and negotiation guide, 1997 Canada Law Book . Toronto,17-18.
[95] CISG article 1 (1) (b)
[96] CISG article 6

not cover situations where individuals order from foreign mail-order houses.[98] It also doesn't cover sale of marketable security. It would cover business to business transactions depending on whether the Internet service is characterized as falling under GATT or GATS. The CISG only protects certain features of contracts. It governs the formation, and the rights and obligations of the buyer and seller. It is not concerned with validity or product liability. [99] The application to electronic commerce will be similar to the Unidroit principles in the fact that courts or tribunals may look for guidance where agreements are silent.

5.7 Intellectual Property Governance

World Intellectual Property Organization (WIPO)

The WIPO, an agency of the UN located in Geneva, is an umbrella organization that administers the Paris and Berne conventions as well as other intellectual property conventions. Their dispute settlement and enforcement mechanisms have not been considered effective by the global community. This may change as a result of a cooperation agreement be the WTO and itself and with the ratification of TRIPS. Two new treaties of the WIPO, being the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty relate to the use of works on the Internet concerning the right of communication, circumvention of technological measures and integrity of rights management information [100]will be discussed below. The WIPO is also actively involved in consultative meetings relating to the harmonization of national and regional laws concerning trademarks and Internet domain names and has published a Memorandum of Understanding on gTLDs.[101]

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[97] ibid
[98] CISG article 2 and Klotz page 7
[99] CGMHW page 154 .
[100] WTO page 62
[101] http://www.wipo.org/eng/internet/domains/tdn/cm/cm_ii_2.htm *and* http://www.gtld-mou.org/

gTLDs,

The Generic Top Level Domain Memorandum of Understanding is the international governance framework in which policies for the administration and improvement of the Internet's DNS. This includes the addition of new gTLDs in cooperation with IANA. They are proposing seven new gTLDs, which they thought was a modest change to the existing DNS. They canvassed the Internet and trademark community before coming to the conclusion. They were planning to pre- register commencing March 1998, but this has been delayed by the U.S. Government's Green Paper of January 30th , 1998 which incorporates may of their ideas but also contains divergent views.[102]

5.8 WWW

The World Wide Web organization W3C has a number of initiatives dealing with the problems raised. They include the W3C digital signature initiative and the electronic commerce interest group. The digital signature initiative is concerned with the technical protocol for a mechanism to help end users decide what web content they can trust. The working draft is available at http://www.w3.org/pub/www/tr/wd_dsig_label.html.[103]

The Electronic Commerce Interest group is a forum designed to allow members to share information on this subject.

[102] http://www.gtld-mou.org/docs/faq.html
[103] http://www.w3.org/pub/www/security/dsig

6. Domestic Efforts to Address the Issues

The following domestic efforts have been made to either implement some of the above legislation, guidelines or proposals. It some cases, it is a domestic view of what the international marketplace requires in order to deal with issue raised in Part 2.0. Reference to the economic section above, will indicate why this subject matter is relevant to respective domestic states.

6.1 USA

"…the United States will work through the World Trade Organization to turn the Internet into a free-trade zone within the next 12 months…. We will advocate as we seek to establish basic rules for international electronic commerce with new regulations and no new discriminatory taxes"
President Bill Clinton, July 1, 1997.[104]

That was a portion of the remarks the President made when releasing A Framework for Global Electronic Commerce which is the Administration's strategy for fostering increased business and consumer confidence in the use of electronic networks for commerce. It was released after widespread consultation with industry, consumer groups and the Internet community.

The Framework lists five principles to guide government support for the evolution of electronic commerce and makes recommendations about nine areas where international efforts are needed to preserve the Internet as a non-regulatory environment.

The five principles are as follows:

1. The private sector should lead. The Internet should be market driven and industry self-regulated.
2. governments should avoid undue restrictions, involvement or intervention on electronic commerce.

[104] http://www.usis.fi/current/elcom5.htm

3. where government needs to play a role, it should be to ensure competition, protect intellectual property and privacy, prevent fraud, foster transparency and facilitate dispute resolution.
4. government should recognize the unique quality of the Internet, i.e., bottom up governance, which will not fit in with the regulatory structure set up for telecommunications, radio and television.
5. the Internet is global and the legal framework should be consistent in all jurisdictions

The recommendations are summarized as follows:

1. Taxes and tariffs: it should be declared a tariff free environment due to its true global medium. No new taxes should be applied. A uniform approach to existing taxes should occur across jurisdictions.
2. Electronic Payments System: as the technology is rapidly changing, don't enact inflexible regulations and in the near term monitor each experiment.
3. Uniform Commercial Code for Electronic Commerce: it is good to have predictable and widely acceptable legal principles supporting commercial transactions. An international uniform code should encourage governmental recognition of electronic contracts, acceptance of electronic signatures and other authentication procedures; and promote dispute settlement.
4. Intellectual Property Protection: for commerce to work, sellers must know that their intellectual property will not be stolen. Buyers must know they are getting authentic products. WIPO treaty for copyright protection should be ratified. The Administration will work only to resolve conflicts that arise from different national treatments of trademarks as they relate to the Internet. It may be possible to have a self regulated body dealing with conflict of trademarks and domain names.

5. Privacy: this is essential if people are to be comfortable using the Internet. Data should not be collected unless consumers know how it will be used and have a choice on its use. Consumers should have redress for improper use or disclosure of personal information. The Administration supports private sector initiatives to self regulate and the government will work with industry and privacy advocates to address concerns.
6. Security: the Global Information Infrastructure (GII) must be secure and reliable. The Administration will work with industry to create a proper encryption environment.
7. Telecommunications infrastructure and information technology: the United States will work internationally to remove barriers to competition, choice, lower prices and improved service.
8. Content: Administration encourages industry self regulation and will encourage development of user friendly filtering and blocking technology.
9. Technical Standards: the marketplace, not governments, should determine technical standards for interoperability on the Internet.[105]

Following the framework, the President issued a Directive[106] to heads of executive departments and agencies to pursue the above with specific actions. [107]

Federal Communications Commission

The FCC is the regulatory authority over broadcast and telecommunications in the U.S.. Lines leased to Internet service providers falls within the definition of Telecommunications. The Office of Plans and Policy of the FCC has conducted a series of studies and working papers with a view to formulate a policy on issues of access, bandwidth, access charges, competitive concerns.

[105] http://www.whitehouse.gov/WH/New/New/Commerce/summary-plain.html
[106] http://www.whitehouse.gov/WH/New/New/Commerce/directive.html
[107] See the November 1998 First Annual Report of the U.S. Government Working Group on Electronic Commerce to see how the Administration faired. Http://www.doc.you/ecomerce/review.htm

The FCC wants the hands of government kept off the Internet. The agency released a paper that advises government agencies, including the FCC itself, to limit regulation of Internet services. The document is a "working paper" and is not an official statement of the FCC, according to a press release issued by the agency. Still, the paper is consistent with the hands-off attitude towards the Net often repeated by Reed Hundt, chairman of the FCC. Because it is not tied to traditional models or regulatory environments, the Internet holds the potential to dramatically change the communications landscape.[108]

Federal Trade Commission

The FTC pursues its mission of promoting the efficient functioning of the marketplace by seeking to protect consumers from unfair or deceptive acts or practices and to promote vigorous competition. It enforces the FTC Act which gives it enforcement authority over a broad sector of the economy. Commerce on the Internet falls within that mandate.[109] In their statement on Internet Fraud they said they drew from their experience in the 900 number pay per call industry and after public hearings in 1995, they published a report[110], which reflects the following policy: consumer protection is most effective with targeted and coordinated law enforcement against fraud and deception and with education of new consumers and new Internet marketers through private initiatives and public /private partnerships.[111]

The FTC addressed the issue of invasion of privacy with respect to children. Their position is that it would be deceptive practice under Section 5 of the FTC Act to represent that a Web site was collecting personally identifiable information for one purpose; such as playing a game; when in fact the information is used for marketing. They also addressed the issue of

[108] Wingfield, Nick, "FCC Net paper is laissez-faire". CNET NEWS.COM. March 28, 1997, http://www.news.com/News/Item/0,4,9211,00.html
[109] Prepared Statement of the Federal Trade Commission on "Internet Fraud" Before The Subcommittee On Investigations of the Governmental Affairs Committee, U.S. senate, Washington, D.C., Feb.10, 1998. ,1
[110] FTC, "Anticipating The 21st Century: Consumer Protection In The New High-Tech, Global Marketplace" http:// www.ftc.gov
[111] ibid page 2

illegally collecting personally identifiable information from children; via email, etc., and selling the information or disclosing it to third parties without notice to parents and the parents right to control its use.[112]

Department of Commerce

One of Clinton's directives was to the Secretary of Commerce to work with the private, state, local and foreign governments to create a legal framework recognizing, facilitating and enforcing electronic commerce worldwide. This focused on common approaches to authentication / digital signatures. The Department of Commerce published a notice in the Federal Register requesting public submissions on the following issues:[113]

1. State digital signature laws: two dozen states passed some form of digital signature law. The Department wanted input from these states and users.
2. the Department wanted comments from private sector attempts such as the UCC and ABA.
3. the Department wanted comments from the new emerging industry of certificate authorities and those offering services and technology.
4. the Department wanted comments from international representatives such as UNICITRAL, OECD as well as representative from a number of countries who have enacted legislation e.g. Japan, Germany, EU.

Submissions have been made and a report of the Department should follow in the next few months.[114]

[112] http://www.ftc.gov/speeches/pitofsky/rpfeb298.htm (views expressed by Chairman Pitofsky and not necessarily of the FTC)
[113] http://www.bna.com/e-law/docs/digisgcom.html
[114] For an update on U.S. Electronic Commerce Policy see http://www.ecommerce.gov/ and http://www.doc.gov/ecommerce/e-comm.pdf for the Department of Commerce 1st Annual Report on Electronic Commerce November 1998.

Domain Names Register

On January 30th, 1998 the Administration (Department of Commerce) published its draft proposal for phasing out the U.S. Government control over the Internet Domain Name System[115]. Reflecting the view as expressed by President Clinton, the Administration feels there is a need for change as:

1. there is no competition in domain name registration
2. mechanisms for resolving conflict between trademarks and domain names are costly and cumbersome
3. a proliferation of lawsuits around the world could lead to antitrust and intellectual property confusion as local laws would apply to the Internet,
4. more Internet users from outside the U.S. want a voice in Internet coordination
5. it is inappropriate for research agencies such as NSF and DARPA to participate and fund a commercial Internet.

NTIA feels a new system should be based on and driven by the principles of stability, competition, private, bottom up coordination and governance that has characterized the Internet to date, and international representation.

They proposed the creation of a new nonprofit corporation, governed by a board of director's equitably representing the interests of IP number registries, domain name registries, the technical community and Internet users. It would handle the functions now performed by IANA. It would set policy for allocating domain name space, oversee operation of the root server system, oversee policy for new gTLDs and technological standards.[116] [117]

[115] Department of Commerce, National Telecommunications and Information Agency (NTIA). "A Proposal to Improve Technical Management of Internet Names and Addresses, Discussion Draft 1/30/98", 5 http://www.ntia.doc.gov/ntia home/domainname/dnsdrdf.htm,
[116] BNA Electronic Commerce and Law Report , Washington, D.C.. vol. 3, no.5, 142
[117] On November 25, 1998 the Department of Commerce in the U.S. signed a Memorandum of Understanding which is available at http://www.ntia.doc.gov

On the competition side, up to 5 new generic top level domains (gTLDs) would be created such as ".vend", or ".store" while NSI could still be the registry for ".com.", ".net" , ".edu" and ".org". New entities could apply to be domain name registers.

Where there is a conflict between trademarks and domain names a dispute mechanism should be in place so that it can be resolved as efficiently as possible.

The proposal is not welcome by everyone. The Geneva based Council of Registrars, the group that proposed the gTLDs Memorandum of Understanding, proposed 7 new gTLDs.

Congressional Bills Dealing with INTERNET and Electronic Commerce

> "Drawing analogies between the Internet and traditional media makes it easier to decide whether existing bodies of law or regulation apply to new Internet-based services. Thus, for example, the debate over the constitutionality of the Communications Decency Act (CDA), which seeks to restrict the transmission of indecent material over the Internet, has often boiled down to a conflict of analogies. Opponents of the CDA have compared the Internet to a telephone network, while supporters often describe the Internet as similar to broadcasting. Because telephone carriers are generally not legally responsible for the content routed over their networks, but broadcasters may be subject to fines for transmitting inappropriate material, the choice of analogy can predetermine the legal outcome."[118]

A search of the Federal Register[119] for the 105th Congressional Bills will indicate a large portion of legislative issues surrounding the Internet. Issues include access, proposed amendments to the Communications Act, encryption, digital copyright and database protection, privacy issues such as bulk unsolicited email, and protection of children from unsuitable on-line material, amendments to the Internal Revenue code, computerized crime and legal business arrangements negotiated and documented by paperless means to name only a few. However, nothing of any importance has been passed. Consistent with the policy of the Administration, Congress also believe that the industry and private sector will address and self regulate the identified issues.

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[118] Werbach, Keven, "Digital Tornado: The Internet and Telecommunication Policy," Office of Plans and Policy, Federal Communication Commission , Washington, DC, March 1997, http://www.fcc.gov

From BNA's[120] article, Legislative Outlook 98, the following summarize that publication's view of some of the key legislative issues and how they will be addressed:

Encryption remains a top concern and the Security and Freedom Through Encryption Act (HR 695) deals with the lifting of some of the U.S. export restrictions on encryption technology. This is favored by industry. It has had numerous amendments as a result of various committees with security still being the outstanding issue.[121] The Secure Public Networks Act (S 909) a Senate proposal is favored by the Administration, but the Administration is planning it own bill that will: "permit any strength encryption for domestic use; make participation in a key management infrastructure voluntary; set forth the legal conditions and authority for the release of key recovery information to law enforcement officials; protect key recovery agents from lawsuits, make it illegal to use encryption to further a crime; and permit firms in key recovery businesses to qualified as government approved key recovery agents".[122] The release of key management to U.S. law enforcement officials has been stated to be totally unacceptable to the European Union.[123]

On the privacy issue the FTC will allow the information technology industry to self regulate for the near future. However, S 771 the Unsolicited Commercial Electronic Mail Choice Act requires Internet advertisers to label messages and provide blocking software to filter out messages labeled as advertisements and is expected to receive importance in 1998.

On electronic commerce two bills were introduced late last year which are expected to have prominence this year. They are the Electronic Financial Services Efficiency Act (HR2937) and the Electronic Commerce Enhancement Act (HR2991) which address issues stemming from

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[119] University of California, library, GPO gate http://gpo.ucop.edu/cgi-bin/gpogate
[120] Gregorits , Angela, Jennifer B. Lucas and David Kaut, BNA Electronic Information Policy and Law Report, volume 3 no.4, Jan.28, 1998, 111-128
[121] Unless the U.S. Administration liberalizes laws easing encryption technology exports, the Economic Strategy Institute, a non-partisan I think tank, estimates that losses to the U.S. economy due to the restriction is between $37 billion and $96 billion over the next five years. Reuters, April 3, 1998, "top democrats ask Clinton to junk encryption plan" http://legalnews.findlaw.com/scrip…19980403/n0352388.html&frame=right
[122] ibid page 112
[123] BNA Electronic Commerce and Law Report ,volume 3, no.6, page 177

electronic authentication. This is important for the same reasons the subject has been addressed by UNICITRAL and other international bodies.

On February 2nd, 1998, Digital Signature And Electronic Authentication Law of 1998 (S1594) would clear the way for financial institutions to use electronic authentication technologies in transactions sent over the Internet. If passed it will override the various and vastly differing State legislative enactments as they apply to federally regulated financial institutions however State laws dealing with consumer rights would not be affected.[124]

The WIPO Copyright And Performances And Phonograms Treaty Implementation Act (HR 2281, S 1121) is expected to the passed so that the treaties can be ratified, however representatives of consumer groups and the technology industry say the bill imposes liability for lawful activities that fall under the "fair use" provisions of the copyright act.

This is only a sample of the legislation before Congress in this area.[125]

UCC: Draft Article 2B

In the United States commerce is within state jurisdiction. In the 1950s, the American Law Institute and the National Conference of Commissioners on Uniform State Laws (NCCUSL) prepared the first Uniform Commercial Code. The code is in force in all the common law states (49) and deals with sales, commercial paper and other negotiable instruments and documents of title. Therefore there is now a uniform U.S. commercial law.[126]

Although the President's 3rd recommendation called for a new UCC, the preparation had begun prior to his speech. Over several years the NCCUSL and the ABA and other groups examined the consequences of what appeared to many to be a clash between contract law aimed

[124] BNA Electronic Commerce and Law Report ,volume 3, no.6, page 176, and 196-198 for a copy of the Bill
[125] The 105th Congress passed the Internet Tax Freedom Act, the Digital Millennium Copyright Act, the Children's Online Privacy Protection Act, and the Next Generation Internet Research Act, which were many of the Administrations Electronic Commerce priorities. Internationally the U.S. fostered a WTO agreement to have a moratorium on duties on electronic transmission, and ratified the WIPO Digital Copyright Treaties. Electronic Commerce & Law Report, BNA Electronic Commerce and Law Report, Vol 3, No.46, p.1367, December 9, 1998
[126] CGMHW, Op. Cit., 147

at defining relationships relating to the sale of goods (article 2), and contract relationships in which information (or more generally, intangibles) where the centerpiece of the transaction and the contractual format most often involved a license, rather than a sale. What evolved was Draft Uniform Commercial Code Article 2B-License[127] which has two basic premises. The first; information transactions differ from sales. The differences are manifested in both the conditional nature of the transaction and that the value obtained or conveyed lies not in the tangible property, but in the information and rights that are severable from the tangibles. The second; that there is a major commercial significance both currently and in the future in the information industry.[128] Originally the project focused on proposals relating to software transactions only but realized that it had to deal with "information" meaning data, text, images, sounds, computer programs, databases, literary works, audiovisual works, motion pictures, mask works, or the like, and any intellectual property or other rights in formation

Article 2B is too large to fully analyze in this paper, but in the context of reviewing the previous guides, model laws and legislation, here are a few of the relevant Articles.

2B-102 Definitions:

"**Authenticate**; means to sign, or to execute or adopt a symbol, or encrypt a record… with intent to identify the authenticating party, or to… accept a record, or to establish the authenticity of a record…". This article replaces the traditional idea of "signature"… with a term that incorporates modern electronic systems.[129]

"**Electronic Message**; means a record that, for the purposes of communication to another person, is stored, generated, or transmitted by electronic means. The term includes electronic data interchange, electronic or voice mail, facsimile, telex, …scanning and similar communications." The commentary says this "expands the UNICITRAL Model Law definition

[127] The American Law Institute and National Conference of Commissioners on Uniform State Laws. " Draft Uniform Commercial Code Article 2B", 1997 , 12 (http://www.law.epenn.edu/library/ulc/ucc2/ucc2b797.htm)

which didn't include fax, telex and similar communications."[130] The expansion relates to issue whether contracts are formed when a human interacts with a computer or two computers interact with each other in the absence of human direct guidance.[131] This is reinforced in the definition of "**Electronic Transaction** which means a transaction formed by electronic messages in which the messages of one or both parties will not be reviewed by an individual as an ordinary step in forming the contract."

2B-103. SCOPE

This Section defines the scope of 2B to apply to licenses of information and software contracts. Where a transaction involves both information and goods, this article applies to the information, its packaging and documentation but Article 2 or 2A govern the goods.

2B-106 Law In Multi-Jurisdictional Transactions

If the choice of law is not stipulated, the presumptive choice of law is that of the licensor/vendor. Otherwise where an on-line vendor automatically relays direct marketing to the world through the Internet, any other formulation would required the vendor to comply with the law of all the 50 States and 170 countries since it would not be clear where the information is being sent.[132]

2B-107 Choice Of Forum

The parties may choose an exclusive forum to settle a dispute, except it the jurisdiction chosen would not otherwise have jurisdiction and the choice unfairly disadvantages a consumer.

Mass Market Transaction

This shifts away from traditional patterns in the UCC which focuses on consumers. "'Mass-market transaction' means a transaction in a retail market for information involving information directed to the general public as a whole under substantially the same terms for the

[128] ibid
[129] ibid. page 39
[130] [I disagree as a definition in Article 2 (a) UNICITRAL does.]
[131] ibid page 41
[132] ibid page 53

same information, and involving an end-user licensee that acquired the information in a transaction under terms and in a quantity consistent with an ordinary transaction in the general retail distribution. The term does not include:

(A) a transaction between parties neither of which is a consumer….

(B) a transaction in which the information is customized….

(C) a license of the right publicly to perform or display a copyrighted work; or

(D) a commercial site license…."[133]

This is a standard form contract which will affect viewers visiting websites. The implications are numerous and are reviewed in the "Themes of the Draft" at http://www.law.upenn.edu/library/ulc/ucc2/ucc2b797.htm, page 24 et seq. See also UCC Proposed Electronic Transactions Act (Nov.25, 1997 draft).[134] See the Proposed Uniform Electronic Transactions Act (September 18, 1998 Draft) at http://www.law.upenn.edu/library/ulc.htm.

[133] htpp://www.law.upenn.edu/library/ulc/ucc2/ucc2b/ucc2b797.htm
[134] http://www.law.upenn.edu/library/ulc/ulc.htm

6.2 CANADA

The Government of Canada in creating the Information Highway Advisory Council has focused on promoting the information society including the Internet.[135] Since then, the Government has *inter alia*[136] commissioned studies on what legislative action is needed to clarify the question of liability for content of owners, operators and users of bulletin boards, Internet and Usenet sites.[137] This study, which the authors claim was the first of its kind in the world, dealt with the Criminal Code and the Internet focusing on obscenity, child pornography, and hate propaganda. It also dealt with Trade- marks Infringement on the Internet by the improper use of a registered name or mark in advertising services on the Internet, or if the mark is used in relation to performing services on the Internet, or distributing goods through the Internet. They also deal with the conflict between the domain name and trademarks.

The third area dealt with Civil Liability and the Internet . The six principal areas were: defamation, liable and harm to reputation; invasion of privacy; misuse or failure to protect personal information; communication of erroneous information; violation of secrecy; and unfair competition.

In examining who is responsible for the performance of an illegal act on the Internet, the authors examined the role of all who are involved in the transmission of the message and tried to identify them with the legal responsibility of analogous roles played by the traditional publishing and broadcast industries.

The last area they dealt with is Copyright Infringement on the Internet . This subject will be dealt with below .[138]

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[135] Government of Canada, Information Highway Reports (3) (see References in Annex V)
[136] See http://www.strategis.ic.gc.ca for a list of some of the studies, task forces, and other material on Canada's role in the information highway .
[137] Leduc, Pierre, Michel Racicot, Mark S. Hayes, Alec R. Szibbo, and Pierre Trudel " The Cyberspace is not a 'No Law Land'— A Study of the Issues of Liability for Content Circulating on the Internet", Industry Canada, 1997 http://Strategis.ic.ca nme Cat. No. C2-312/1997E , the Canadian Institute, The 3rd annual Symposium, Netlaw ' 97, New Legal Principles and New Strategies for a Borderless World, tab A-I
[138] ibid., summary, pages 1-23.

The conclusions recommended to the Government are to examine existing laws to determine whether the basic underlying principles could be applied to new fact situations. They suggest a wait and see approach based upon the courts interpretation and laws should be amended only as necessary. However, they state that where it is clear that certain statutes should be amended, or if the risk to society is high if the laws are held inapplicable or applicable as the case may be, the legislators should intervene[139]. Enforcement problems should not create needs for new laws but should encourage international cooperation. In order for liability issues to be avoided education is important. Where international enforcement is hindered by some states, global pressure should be implemented.[140]

Cryptography

The Government has recently centred its attention in the areas of cryptography [141]and privacy[142] . In cryptography, Canada policy is to achieve a balance between:

1. the accelerated roll-out of the infrastructure which would offer public access to cryptography;

[139] There are a number of Bills before the second session of the 35th parliament 1996-1997 dealing with Internet regulation.

Bill C-396 is an act to restrict the use of the Internet to distribute pornographic material involving children by amending certain portions of the criminal code which puts the onus on Internet service providers that only received its first reading.

Bill C-353 is an act to amend the criminal code relating to Internet lotteries making it lawful for the government to license Internet service providers or other persons to operate and manage lottery schemes on the Internet that only had its first reading.

A number of bills have received royal assent and in those acts the government has inserted notification provisions whereby notification will be done in an electronic version of the notice in a location that is generally acceptable to persons who have access to what is commonly referred to as the Internet. This is an example of the governments willingness to take a proactive role in using the services for the commerce of the government. An example is Bill C-20 and Bill C-44.

Bill C-391 is similar to C-396 which is only in its first reading and it also deals with publication of child pornography covering transmissions by electronic mail or posting the material on the Internet or other electronic net.

[140] ibid., pages 293-297
[141] Industry Canada , Task Force on Electronic Commerce. " A Cryptography Policy Framework for Electronic Commerce -- Building Canada' s Information Economy and Society " ,1998-02-21 ,http://strategis.ic.ca/SSG/cy00005e.html
[142] Industry Canada, "Privacy and the Information Highway-Regulatory Options for Canada " 11/12/96 http://strategis.ic.gc.ca/SSG/ca00265e.html

2. the controls over product manufacturers and service providers relating to domestic sales, import and export of cryptography; and
3. the ability to safeguard encryption from illegal usage which could affect crime prevention and national security.

As cryptography was originally used for military or diplomatic secrets, Canada's current policy is based on the fact that it signed an arrangement[143] to restrict its export in hardware or software form.[144] This is to protect its allies. Under a trial period, which will expire June 30th, 1998, Canada has allowed the export of customized encryption software and hardware with key lengths of less than 56 bits. Canada doesn't restrict the export of digital signature products and like most of the original signatory countries permits the export of any strength of mass market software (MMS) or public domain software (PDS) used for encryption.[145] Canada and United States have no restrictions on encrypted software or embedded hardware between them. Canada has no import restrictions for domestic use.

Canada is currently reviewing its encryption policy as the supply and demand in the world for stronger encryption has increased dramatically . Stronger encryption is available in shrink-wrapped MMS software and PD "free-ware" on the Internet. A national policy stance completely at odds with Canada's allies could damage long term security relationships. A national policy at odds with the position of other producer nations risks being ineffective.[146] Canada has a number of options relating to encryption of stored data, Internet communication, and export controls.[147]

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[143] COCOM (the Coordinating Committee for Multilateral Strategic Export Controls), the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-use Goods and Technologies

[144] Export and Import Permits Act (EIPA) of 1947, Section 3 (d) "to implement an intergovernmental arrangement or commitment" is used to add items to the Export Control list, which is a regulation.

[145] Industry Canada "Cryptography policy in Canada Today" Part 2 -2 , http://strategis.ic.gc.ca/cgi-bin/…NTAINS%20'digital%20signature, (see footnotes 14 and 17 in that article. General Software Note (GSN) under COCOM is part of the Wassenaar. The effect for cryptography is to exclude MMS and PDS software from export controls. Some analysts argue that the GSN was formulated in a time when few knew the increasingly dominant role played by MMS/PDS. Five countries including USA and U.K., override the GSN and control the export of MMS/PDS.)

[146] Industry Canada , "Cryptography policy in Canada Today" Part 3: considerations in developing Canada' s Cryptography Policy", 8

[147] Industry Canada , "Cryptography policy in Canada Today" Part 4: Policy options Page 1-4

Regarding privacy, Canada has led the world in the development of the first voluntary standard for the protection of personal information. The CSA Model Code for the Protection of Personal information has been used by sectors to develop their own privacy codes. Examples are the Canadian Bankers Association and the Insurance Bureau of Canada. Unfortunately Canada has only partially enacted the OECD guidelines relating to transborder flow of personal data. At the 1996 annual meeting of International Privacy Commissioners, the Government committed to enact legislation prior to year 2000.[148] The Government has taken the first steps in the legislative process with the release of a public consultation paper titled "the Protection of Personal Information: Building Canada's Information Economy and Society", a joint effort of the federal and provincial ministers.[149]

Canada's Radio-television & Telecommunication Commission ("CRTC") [150]

The CRTC established under the Canadian Radio-television & Telecommunication Commission Act amended by the Broadcast Act of 1991 is the authority which develops strategies for policy and regulates federally chartered telecommunications carriers and broadcasters. It has jurisdiction over the Broadcasting Act[151] and the Telecommunications Act[152].

Under the Broadcasting Act, it licenses and regulates television and radio programming, new media and specialty and pay services in English and French. Under the Telecommunications Act it licenses and regulates the Canadian telecommunication carriers.

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[148] A few events have propelled Canada to draft and propose privacy legislation earlier than the year 2000. Canada hosted the OECD Ministerial Conference "A Borderless World: Realizing the Potential of Global Electronic Commerce" in Ottawa, October 7-9, 1998. At the conference Ministers including Canada adopted a declaration reaffirming their commitment to the protection of privacy on global networks, and launching action in this area to be pursued over the next two years. See the Ministerial Declaration on the Protection of Privacy on Global Networks (Ottawa Conference. October 1998) available on the OECD web site. The European Directive 95/46/EC referred to under Privacy (below) was instrumental in requiring Canada to table Bill C-54 "Personal Information Protection and Electronic Documents Act". "The purpose of the first part of the Bill is to provide Canadians with a right of privacy with respect to their personal information that is collected, used or disclosed by an organization in an era in which technology increasingly facilitates the collection and free flow of information." (S.3) It adopts the CSA model law. See the complete bill at http://www.parl.gc.ca

[149] Industry Canada, Information Policy and Planning," The Privacy Pages: Legislation " page 1

[150] http://www.crtc.gc.ca

[151] S.C. 1991, c.11

[152] S.C. 1993, c.38

These carriers provide facilities for Internet Service Providers to provide Internet access to the public. The carriers have recently been providing the access themselves through affiliated services. An Internet use which is predominantly text (email) and "pulled" by the Internet user as opposed to being broadcast by Internet Service Providers may not fall within the CRTC broadcasting jurisdiction or be exempt if it did. On the telecommunications side they may have to play a stronger regulatory role as the carriers (telephone, cable and wireless) begin to dominate.[153][154]

6.3 China[155]

China recently passed the Computer Information Network and Internet Security, Protection and Management Regulations.[156] They go beyond earlier provisional regulations. They are geared at managing the security of domestic and international computer information network. It outlines the duties and responsibilities of China's Internet service providers and punishments for Internet use to leak State secrets, damage State interests, threaten state security or distribute harmful information. Fines for violation are stringent. The Government recognized it is impossible to block all objectionable sites (certain U.S. newspapers) as there are multiple ways around. The electronic blocking of certain pornographic, violent or subversive sites were intended to deter people accessing the sites. China's current technology allows it to monitor which Internet accounts were used to make visits to restricted sites, allowing them to gather evidence to make arrests. All Internet users must register with Public Security and accounts may

[153] For a discussions on the role of the CRTC and the Internet see: Koch , Michael, "Square Pegs and Round Holes: CRTC regulation of the Internet" the Canadian Institute, The 3rd Annual Symposium, Netlaw ' 97, New Legal Principles and New Strategies for a Borderless World

[154] In December 1998, the CRTC held hearings on Regulation of the New Media. See Broadcasting Public Notice 1998-82, 1998-82-1 and Telecom Public Notice 1998-20, 1998-20-1 New Media - Call for Comments.

[155] According to ChinaNIC there were 620,000 Internet user in China at the end of 1997. For more statistics and links, see http:/www.virtualchina.com/matrix/

[156] U.S. Embassy Beijing translation is posted at http://www.redfish.com/USEmbassy-China/sandt/sandt.htm and the full Chinese text is at: http://www.edu.cn/lawglbf.html. See also http://www.redfish.com/USEmbassy-China/sandt/net codereg.htm

not be lent or transferred. China also reduced the rates of telecommunications services to make the Internet more accessible.

6.4 JAPAN

The Japanese Ministry of Posts and Telecommunications issued a policy report The Rules for the Flow of Information on the Internet[157] . In Japan, the Internet is categorized as one of the communication media and is regulate by related laws including the Telecommunication Business Law . The report states that the problems of the Internet is that unlike other media, the sender of information does not have any particular code of ethics to adhere to, anonymity makes it easy to irresponsibly distribute information, there are ways to distribute past structured blocks imposed by countries, servers, and Internet service providers.

Illegal or harmful content could affect national security (production methods of bombs), or could include the selling of distasteful products including pornography, inciting hatred or discrimination, economic security (fraud, instructions on how to forge credit cards), information security, privacy invading, slanderous or illegally competitive advertisements, and distribution without permission of contents granted copyright. Anything which could infringe public policy is considered.

The Ministry suggest the following:

1. The public should be made aware of the risks at the same time as being made aware of the economic and educational benefits.
2. Apply existing laws and if new laws are required, balance freedom of speech, protection of minors and individual privacy.
3. Allow ISPs to self regulate but monitored by the government. ISPs have right and duty under Telecommunications Business Law (Articles 3, 4, 7 and 34) to regulate content.

4. Consider disclosure of the sender of illegal content (to the public under WWW and via email) under restricted conditions and due process.
5. Use technical measures, such as filtering and refusing email.
6. ISPs should establish procedures for complaints and inquiries.

6.5 European Union

A European Initiative in Electronic Commerce[158] is the report of the E-Commerce Commission to the European Parliament. This set of action-oriented proposals for advancing electronic commerce in Europe address access to the global marketplace, legal and regulatory issues, and promoting a favourable business environment. Their implementation will involve close consultation with the relevant industry sectors and involve all relevant policy domains. To implement this European Initiative in Electronic Commerce the Commission plans to undertake the following key actions:

- ensure full implementation of the telecommunications liberalisation package by Member State;
- promote full implementation of WTO basic telecommunications agreement by its signatories;
- implement the ITA and MRA Agreements for the removal of tariff and non-tariff barriers on IT products;
- promote active involvement of Europe's industry and public bodies in the evolution of the Internet and the provision of high bandwidth infrastructure through the R&D and TEN-TELECOM programmes;
- implement thematic call on electronic commerce in the Esprit R&D programme; further focus appropriate R&D programmes;

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[157] http://www.mpt.go.jp/policy reports…munications/rules_reportidx_e.html
[158] European Union E-Commerce Commission: A European Initiative in Electronic Commerce. Com.97/157, http://www.cordis.lu/esprit/src/ecomcomc.htm

- launch Fifth Framework Programme with electronic commerce as a priority for technology development and take-up;
- adopt communication on a European standardisation initiative for electronic commerce (with action Plan);
- launch a specific action on standardisation projects for electronic commerce;;
- launch specific actions for international cooperation in CEEC, MED, G7 Global Marketplace for SMEs within the EU R&D programmes;
- identify single market barriers and legal uncertainties affecting electronic commerce;
- launch regulatory initiative in the area of electronic payments, contracts negotiated at a distance for financial services, copyright and neighboring rights, legal protection of conditional access services and digital signatures;
- assess the need for further initiatives covering single market horizontal questions, regulated professions, commercial communications, contract law, accountancy, fraudulent use of electronic payments, data security, data protection, industrial property, direct and indirect taxation and public procurement;
- reinforce international dialogue in the appropriate multilateral and bilateral forums to achieve an adequate global regulatory framework for electronic commerce, in particular in data security, data protection, intellectual property rights, and taxation;
- adopt communication on consumer dimension of Information Society, including promotion of consumer access to electronic commerce;
- promote electronic commerce awareness and best practice actions, by implementing a specific Euro-Infor-Centres initiative, launching a Euromanagement programme and setting up a European co-ordination structure for electronic commerce use in the tourism sector, as well as through promotion of the Euro for SMEs;

- intensify support for and launch new best-practice pilots, large-scale awareness activities, take-up actions using ICT R&D, innovation and standardization programmes and Structural Funds;
- present an action plan on stimulating the development of electronic procurement;
- present Guidelines and measures addressing interoperability issues related to public administrations in IDA;
- present Action Plan for Commission to become leading user of electronic commerce;
- learning and training initiatives for electronic commerce programmes such as Leonardo and Socrates; and
- stimulate public dialogue on electronic commerce in Europe, including establishment of dedicated website.[159]

See the European Commission proposal for Directive on Common Framework for Electronic Signatures dated October 23rd, 1998 and the European Commission Proposal for Directive on Common Framework for Electronic Commerce Dated November 18, 1998 at http://www.ispo.cec.be/ecommerce/legal.htm.

6.6 Germany

Germany has the largest number (2 million) of host computers connected to the Internet in Europe. Users are tele-shopping, tele-banking, and surfing the Internet.[160]

The German Federal Government enacted the Digital Signature Law which came into effect on August 1st, 1997 and the Digital Signature Ordinance followed. It is the first digital signature law to be enacted in Europe.[161] The Ordinance sets forth further details for a voluntary,

[159] A European Initiative in Electronic Commerce. Com.97/157, http://www.cordis.lu/esprit/src/ecomcomc.htm
[160] U.S. Department of Commerce, "Germany-Encryption Software-Best Sales Prospects http://strategis.ic.gc.ca/cgi-bin/
[161] Christopher Kuner, " Germany—New Digital Signature Ordinance enters into force", International Technology ,vol.16 no.1, April 1998, International Bar Association Section On Business Law, page 4

government-approved digital signature procedure, the basic conditions for which are set out in the Law. Neither the Law nor the Ordinance deal with the issue when a digital signature satisfies written form requirements.[162] The legislation is concerned with providing a secure infrastructure for use of the government digital signature procedure. It is a very high standard of procedure and only a handful of German certification authorities are capable of handling them. It requires expensive hardware and smart card readers. The author of that review questions "whether users and the German Internet economy will accept such a cumbersome and expensive digital procedure".

Germany also passed The Information and Communications Services Act in June 1997 which is Internet related legislation that sets standards for child protection and defines which activities require regulation. The legislation distinguishes between traditional media forms that use the Internet, and should therefore fall under media rules, and new services such as email or video conferencing that the government says should not be classified as media.[163]

6.7 France

On January 16, 1998, Prime Minister Lionel Jospin launched a wide ranging plan[164] to promote the use of information technology and the Internet in government, education and the private sector. France lags behind its major trading partners. The French Government and population are largely using a Minitel system--- the French forerunner to the Internet. The report wants the government to switch over by year 2000. All communications can then be on-line. In the past the French government has intervened forcefully in economic affairs and this report is consistent. Industry is asking them to take more of a hands-off approach.

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[162] See on this issue: Loos, Alexander, "The World of Electronic Commerce—Electronic Contracting with Suppliers under German law", A Paper (G/68) Presented at the International Bar Association Section on Business Law Section on General Practice 1997 Conference, New Delhi, Nov.1997

[163] Reuters, "German Net Regulations Moving", June 13, 1997, CNET www.news.com/News/Item/0,4,11499,00.html

[164] "Preparing France's Entry Into the Information Society" French text is available at

On the subject of cryptography regulations, France will liberalize encryption products under 40 bits but keep numerous restrictions in place. This is still being debated. The view is France will miss the boat.

7. Legal Concerns

7.1 Jurisdictional issues[165]

In traditional commerce, jurisdiction is a term of large and comprehensive import and embraces every kind of judicial action. Jurisdiction of the person is power to subject parties in a particular case to decisions and rulings made in such case.[166] Initially, personal jurisdiction principally required the physical presence of a defendant within the boundaries of the jurisdiction (i.e. the state, province, country as the case may be). As commerce moved outside boundaries, substitute tests were developed if the virtual presence of the defendant was in the jurisdiction.[167] In Canada, courts ensure that the action is tried in the jurisdiction that has the closest connection with the action and the parties. In the U.S. the defendant's conduct and connection with the forum must be such that the defendant should reasonably anticipate being haled into court there.[168] The defendant has to have had minimum contact with the forum so that the maintenance of the suit does not offend "traditional notions of fair play and substantial justice".[169]

In Inset Systems, Inc. v. Instruction Set, Inc.[170] the long arm of the court was used to claim jurisdiction. Inset was a Connecticut software company that conducted business throughout the world and had a U.S. federal trademark for "INSET". Instruction was a Massachusetts company that obtained the domain name "inset.com" and used this to advertise its goods and services on the Internet. Inset sued Instruction in Connecticut for trademark infringement. In a motion to dismiss the court denied same since Instruction had continuously advertised over the Internet which included 10,000 sites in Connecticut. The court said that

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[165] for purposes of this paper I will attempt to summarize the law of jurisdiction in a simple form. For a more detailed analysis please see:
Sookman, Barry B.," Personal Jurisdiction and the Internet: If you Put Material in Cyberspace, Where Can You Be Sued?" Canadian Bar Association—Ontario, 1998 Institute of Continuing Legal Education; and also see Footnote 108

[166] Black's Law Dictionary, 991 (4th edition 1968) West Publishing Co., St. Paul, Minn

[167] ABA , Jurisdiction, page 2

[168] Sookman, op. Cit pages 4-5 to 4-9.

[169] International Shoe Co. v. Washington, 326 U.S.310, 316 (1945)

advertising via the Internet is "solicitation of a sufficient repetitive nature" to satisfy Connecticut's personal jurisdiction.

General jurisdiction is an attempt to assert jurisdiction over a non resident defendant when the defendant's contacts are unrelated to the dispute. The standards here are very high and it is rare that the courts will permit it.[171]

Specific jurisdiction is where the courts will apply the following tests to determine whether the defendant had minimum contact with the forum:[172]

1. where the non resident defendant targets his/ her actions to that forum. An example is writing a story outside the forum but have it published and distributed in the forum where you want the subject matter read.
2. the claim must be one which arises out of or relates to the defendants forum related activities. Parties who reach out beyond one state and create continuing relationships and obligations with citizens of another are subject to the other states (laws)[173].
3. the exercise of jurisdiction must be reasonable and fair.

Courts apply these tests so that a defendant does not have to defend lawsuits initiated where there is no connection.

To understand how these traditional commerce concepts of jurisdiction are applied to the Internet see the agreed facts on what is the Internet from ACLU v. Reno [174]. In addition, the Internet permits interaction between persons who do not know each other's physical locations, only their "net location". The Internet servers frequently use a process called cache, which is essentially copying and storing information from frequently visited sites so as to increase the retrieval speed when a user request material. The materials displayed on the users machine will

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[170] 1996 U.S. District LEXIS 7160 (D. Conn. April 17, 1996)
[171] ABA, Jurisdiction page 3
[172] Core-vent v. Noble Industries AB, 11F.3d 1482 (9th Cir. 1993) at 1485
[173] Burger King Corp. v. Rudzewicz, 471 U.S. 462
[174] See footnote 21 of Appendix I

appear to come from the original source. Another issue is HTML. It is a process which allows connection of one Web site to another regardless of location. If one site is within the courts jurisdiction is the hyperlinked site as well [175]?

The ABA says its difficult for the courts to apply traditional commercial jurisdiction rules to Internet commerce due to its nature and those courts that have may not have discussed how the Internet works.[176] However, a series of cases (14) found personal jurisdiction over a non-resident defendant resulting from Internet contact including inter alia, presence of a Web site which was within the access of residents of the forum.[177] A further series of cases[178] find no personal jurisdiction based on the mere fact that a defendant may have placed an ad on the Internet or maintained a Web site. The line of reasoning is that the placing of a Web site is analogous to placing an ad in a national or international periodical. Without any other forum related actions it would be unfair to claim jurisdiction.

As Barry Sookman concludes, "the state of law… is still in a state of evolution. Until this law is resolved, persons doing business over the Internet run significant risks…."

The foregoing has dealt with the North American law of jurisdiction relating to Internet transactions. The European perspective has not been assisted by a similar body of case law, and due to their predominant civil law system, they have relied on statutory law. As the laws cover members of the European Union, it has an international application and accordingly could serve as an example for interpretation of Internet jurisdiction.[179]

The provisions of the CISG relating to jurisdiction should also be examined.

7.2 Taxation

[175] ABA op.cit page 6
[176] ibid
[177] ibid, pages 7-15 summarize the cases.
[178] ibid, pages 15-21 summarize the cases

"… taxes generally applied across the economy, such as retail sales tax and business income taxes, should apply equally to Internet based activities in order to avoid putting competing suppliers in other media at an unfair advantage. Taxes specialty directed at Internet services, however, could have a detrimental effect on use of the Internet and discourage investments in new products and services."[180]

Canada's former Revenue Minister Jane Stewart, announced that an Electronic Commerce Committee will examine the growing use of the Internet, to determine the implications for revenue administration and make recommendations for changes to ensure continued compliance with Canada's tax laws.[181]

Jurisdiction of governments (provincial/ state and federal) to collect taxes

A revenue authority must have jurisdiction over the income or the taxpayer in order to assess the tax.[182] This applies to local, provincial/state and national governments. However, there are differences between traditional commerce and Internet commerce which affect the jurisdiction to assess and collect taxation:

1. Jurisdictional concepts based on physical geography such as the residence of the taxpayer who receives the income, the source with which the income has the closest connection, the situs of the property that gives rise to the income and the taxpayers permanent establishment or nationality / citizenship may require modifications to fit the world of electronic commerce.
2. the same applies to characterization of income as services rendered vs. goods sold, business profits vs. royalties particularly in digital sales.

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[179]Lindberg, Agne, "Jurisdiction on the Internet—The European Perceptive, An Analysis of Conventions, Statutes and Case Law", Stockholm, 1997. Http://www.perkinscoi.com/aba/eujuris.html

[180] IHAC, Information Highway, chapter 3, 3.6

[181] Press release April 10, 1997 http://www.rc.gc.ca/`drenaud/04-14-97/acece2.htm

The Advisory Committee's terms of reference are to examine emerging electronic payments systems and their effect on audit trails, the effect of security, technology and encryption on traditional access powers and the analogous problem of the lack of paper found in the underground economy.

The Committee will examine the implications of these developments for compliance with tax laws and make recommendations. The overall objective is to ensure that Revenue Canada is able to collect appropriate revenues from domestic and international electronic commerce activities. In being certain that their objectives are consistent with OECD and other international organization they will examine approaches by other countries. , Electronic Commerce World Institute, April 11, 1997, http://www.ecworld.org/Resource_Center/News_Release/terms.html

3. a taxpayer's Internet identity does not necessarily provide evidence about that taxpayer's true residency status.
4. taxpayers can conduct a substantial business with a transient and insubstantial presence.
5. GST and VAT rules governing international services are amplified for electronic commerce services.
6. It is impossible to know the geographical points at which billions of Internet transactions began or ended. Attempts to tax intangible electronic commerce might lead to double taxation, and multiple reporting issues.
7. As an increasing amount of Internet traffic is transmitted by satellite-based technology and wireless transmissions. Jurisdiction claims of States through whose Ether transactions pass loses meaning.

These are some of the problems relating to jurisdiction which taxing authorities will address so as not to artificially advantage or disadvantage electronic commerce over traditional commerce. Canadians contemplating establishing electronic commerce businesses as new ventures or subsidiaries of existing businesses should determine whether for a myriad of reasons it should be resident in Canada or some other country which has a bilateral tax treaty with Canada. Tax counsel advice is required.

Obligation to maintain records of transactions.

In the Canadian context, if an electronic commerce business is a resident of Canada, or if it is established offshore and the FAPI[183] rules apply, or if they are otherwise required to pay or

[182] Example see Income Tax Act Canada, R.S.C. 1985,Set section 2(1) for residents ,2(3) for non-residents and section 3 income that is taxable and related sections referred thereto.
[183] Foreign accrual property income ("Fapi") covers rents, royalties, dividends, interest and any other passive income. It also covers offshore trading companies unless you can get certain exemptions. In the electronic licensing scenarios, Fapi might be attracted. The problem with Fapi is that the income could be attributed to you even though you have not received the proceeds, i.e. it is your offshore company that did.

collect taxes, the taxpayer must maintain records in Canada of the transactions[184]. Record now includes "any other thing containing information, whether in writing or any other form".[185]

All parties to e-Commerce transactions should investigate the record retention requirements of each other's respective jurisdictions. In September 1998 Revenue Minister Dhalinal said "Interpretation Circular 78-10RS and 779R (Book and Record Retention/Destruction) will be revised to explain the Department's views with respect to the electronic environment. Revenue Canada will work with authorities in other OECD Countries relating to information exchange as they currently do under the WTO and NAFTA relating to customs and excise matters such as Rules of Origin of Goods. Revenue Canada also believes that there is adequate search and seizure powers under the Criminal Code and the Income Tax Act to deal with the difficulty of accessing encrypted information.

Using traditional industries as analogous lessons

Canadian and international taxing authorities, and the OECD are examining various proposal to taxing the Internet. Some of the OECD[186] guideposts for efficient and equitable taxation are:

1. Similar transactions should be taxed in the same way.
2. Minimize administrative costs as well as compliance cost.
3. Taxpayers should know what is to be taxed and when.
4. Minimize the potential for tax evasion and avoidance.
5. Structure tax changes to ensure a fair sharing of the tax base between countries.

How do they actually implement these principles for e-Commerce?

- Make use of available technology and commercial development.

[184] ITA Subsection 230(1)
[185] ITA Subsection 248 (1)
[186] WTO page 41. See OECD Model Tax Convention on Income and Capital at http://www.oecd.org.

- Maintain the **ability to access** reliable and verifiable **information** in order to identify taxpayers involved in e-Commerce in light of encryption and the debate over government access to private key codes of its citizens.
- Make sure appropriate systems are in place to control and collect taxes. This is one of the reasons for new central collection proposal of Revenue Canada.
- Rules for the **consumption tax** of cross border trade should result in the place where the consumption takes place and international agreement should be reached as to when supplies are consumed in a particular jurisdiction.[187]

There has been an economic theory which suggest taxing the data stream flowing over the Internet rather than the transaction itself. This **"bit tax"** is aimed at tax avoidance. Critics believe it has shortcomings.1. The volume flow is difficult to measure and 2. There is a problem with attributing value to the data (i.e., non-commercial email vs. commercial transaction) and determining what is taxable (differences between window shopping and researching) [188]

Until new legislation is enacted on an international basis, states may adopt principles that they have applied to traditional businesses such as inter-jurisdictional paper,/telephone/fax mail-order transactions and technology transfers of intangible know-how.

Customs Duty

On February 19, 1998, United States proposed to the WTO, that Members "…maintain… current practice not to impose duties on electronic transmission." This means that electronic transmission of digitalized information will not be taxed for customs purposes only. However, the physical goods that may have been ordered by that transmission are not custom

[187] Electronic Commerce and Canada's Tax Administration, A response by the Minister of National Revenue to his Advisory Committee's Report on Electronic Commerce, September 1998. Http://www.rc.gc.ca/ecomm/
[188] WTO page 41. See OECD Model Tax Convention on Income and Capital at http://www.oecd.org.

duty exempt, unless they are by virtue of a free trade agreement or otherwise.[189] This was confirmed at the Ottawa OECD Ministerial.

7.3 Intellectual property issues:

Copyright

Copyright, means the right to copy. Only the owner of the copyright, usually the creator of the piece, is allowed to produce or reduce the work in question or to permit anyone else to do so. Copyright law rewards and protects the creative endeavor by giving the creator the sole right to publish or use his/her work in any number of ways. The creator may also choose not to publish his/her work and to prevent anyone else from doing so.[190] The right arises automatically in respect of the work created in for example, Canada, and in most foreign countries that have signed the international copyright conventions referred to above[191]. Reciprocal rights apply to other countries nationals.[192] Infringement[193] of copyright is when anyone publishes, performs or copies anyone else's work without their permission. One must prove the ownership of a valid copyright and that the protected elements were copied in order to succeed in an action in tort for infringement. In the U.S. it is a strict liability tort.[194] In addition most legislation have criminal sanctions if the violation is knowingly done for commercial purposes.[195] Some copying is not a breach of copyright and some copying is permitted by the concept of "fair dealing ". That concept permits copying for private study or research, criticism, review or newspaper summary.[196]

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[189] ibid, page 50
[190] Industry Canada, Canadian Intellectual Property Office (CIPO), "Guide to Copyrights", Minister of Supply and Services Canada, 1994 B.1 Http://xinfo.ic.gc.ca/opengov/cipo…_ser/online/guides_e/g_cop_el.html
See Copyright Act, RSC. 1985. c.C-42 Section 3 (1)
[191] See also TRIPS and WIPO above.
[192] Ibid Section 5
[193] Ibid. section 27
[194] Martens, Don W., "The Administration of Intellectual Property Law in Cyberspace", page 3, A Paper (ND/107) Presented at the International Bar Association Section on Business Law Section on General Practice 1997 Conference, New Delhi, Nov.1997
[195] Ibid. sections 42 et. seq
[196] Ibid. sections 27(2)-(6) and 28

Copyright laws in other western jurisdictions are based upon similar principles with the exception that the principles have been interpreted either broader or narrower in the respective jurisdiction.

As the Internet moves from its role as a research medium to electronic commerce, is the existing law adequate and how has the law of copyright been interpreted regarding copying? Other issues are: What type of conduct or copying constitutes an infringement on the Internet? Who will be held liable; the person putting the work on the Internet, the company that operates the web site where the work is displayed, or the Internet access provider? The following is a short review of some of the leading cases which are American.

Playboy Enterprises, Inc. v Frena[197]: the defendant operated a bulletin board(BBS) on the Internet. A subscriber uploaded unauthorized copies of Playboy photos to Frena's site which he merely managed. The court held that Frena violated the copyright as he supplied a product containing unauthorized copies. It was irrelevant that he didn't copy the works. Intent or knowledge is not an element of direct infringement. His display was a public one though limited to subscribers. The audience consisted of a substantial number of persons outside of a normal circle of friends. Fair use defense was rejected. Contrast that to Religious Technology Center v.Netcom On-Line Communication Services Inc.[198] Netcom was an Internet Service Provider. A critic posted Religious' copyright material in an Internet discussion group. The ISP software made temporary electronic copies automatically as part of its implementation of the discussion group. The court held that the act of designing that software was not unlike the owner of a copy machine who lets the public make copies with it. It also said that Netcom (as other ISPs) was more than a mere common carrier as it provides more than just wires and connections. Other decisions have allowed the fair use defense.[199] In ProCD et al v.Zeidenberg[200] the defendant purchased copies of the plaintiff's telephone listings stored on CD, set up a bulletin board,

[197] 839 F. Supp. 1553 (M.D. FLA. 1993)
[198] 907 F. Supp. 1361 (N.D. Calif. 1995)
[199] Martens, Op.cit page 5

downloaded telephone listings stored on the CDs and then made the telephone listings available to Internet users by placing the data on the Internet host computer. The court held that the raw telephone data was not subject to copyright as it did not meet minimum standards for copyright. He did not use the software on the CD. He used the raw data and created his own. Although the lower court said that shrink wrap licenses were not enforceable as the buyer could not read it before purchasing, on appeal, the terms of the shrink wrap license on the CD was held enforceable as unlike contract law issues when the buyer can claim they did not know about the license until after the purchase, copyright is a right against the world and this is not an acceptable defence.

A paper of this size cannot deal with this issue in detail and there have been a substantial number of articles which have done an excellent review.[201]

The law has taken a flexible view of copyright and new technology. The courts have been unable to adapt existing statute law to the Internet. A quote from Richard Owens speech is worth mentioning.

" And Internet experiences so far are probably just a warm-up to what will happen when and if the Internet becomes a true information highway, when bandwidth is increased to permit access to proprietorial systems for downloading whole movies… and multimedia entertainment packages. Copyright protection then will most likely emphasize technological rather than legal solutions because of enforcement difficulties, but the legal framework will nonetheless remain important"[202]

In the U.S, the Administrations White Paper on Intellectual Property and the National Information Infrastructure, is causing some concern. In an article by Pamela Samuelson, visiting professor at Cornell Law School, she says "the white paper regards digital technology so threaten to the future of the publishing industry that, it argues, the public must be stripped of all the rights

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[200] 908 F. Supp.640 (W.D. Wisc.1996)
[201] See: Martens ,op.cit.
also Owens, Richard. " Trade-Mark and Copyright Infringement on the Internet."
Http://www.smithlyons.ca/it/tcii/index.htm
Halligan, R. Mark . " Recent Intellectual Property Law Developments on the Internet"
http://www.execpc.com~mhallign/ internet.html
[202] ibid. page 1

that copyright law has long recognized…." She states that two of the eight interrelated parts of the white paper's agenda intend to: "attach copyright management information to digital copies of a work, ensuring that publishers can track every use made of digital copies and trace where each copy resides on the network…and protect every digital copy of every work technologically" [203]

The European Commission has prepared a draft Directive to update and harmonize member state copyright laws, and bring those laws in line with obligations that would be imposed under two new WIPO digital copyright treaties, and . It contains strong statements of on-line content owners' right to control the distribution and presentation of their property on-line. This draft legislation places Internet service providers at risk of legal liability for infringement of digital works.[204]

Trade-marks are words or symbols used to distinguish the goods or services of one person or company from those of another. They arise from common law and by registration under the States legislation, such as Canada's Trademarks Act .[205] Sometimes one aspect of a work may be covered by copyright and the other trademark, for example a game could be copyright protected and the title could be trademarked.

The issues that arise with trademarks in cyberspace are the following:

1. Two or more companies carry on business with the same names in different jurisdictions. This generally is not a conflict. If these companies were to open a web site consumers would be confused. .[206]
2. As hyperlinks[207] allow users to move from one web sites to another, movement from one site to the other may cause users to believe that they are affiliated or approve each other. There

[203] Samuelson , Pamela, "The Copyright Grab", 1to3 Wired Magazine, http://www.wired.com/wired4.01/features/whitepaper.html
[204] European Commission, "(draft for a) proposal for a European Parliament and Council directive on the harmonization of certain aspects of copyright and related rights in the information society.", http://www.bnacom/e-law/main.html
[205] R.S.C. 1985, c. T-13
[206] Martens, Op.Cit. page 25
[207] Web site creators encode key words into the HTML which are only visible in the web pages source code.

are some links which can give rise to trademark infringement as one party's logo or mark is embedded in the other's site.[208]

3. Domain names have become quasi-trademarks. There is no single clearing house resolving disputes between domain names and trademarks. The Internet Architecture Board stated the domain name does not have trademark status and it is up to the applicant to be sure they are not violating anyone's trademark.[209] It is advisable to register the domain name as a trademark and vice versa.
4. For technical reasons, domain names do not permit parties to distinguish themselves by capitalization, stylized formats or designs.

For a review of cases and a more detailed analysis please see the articles and cases footnoted.[210]

7.4 PRIVACY

Within the context of GATS and the WTO principles, a recent piece of legislation in the European community has the effect of creating barriers to trade against non-European community countries. Directive 95/46/EC of The European Parliament and of The Council of October 24, 1995 on The Protection of Individuals With Regard To The Processing of Personal Data And on The Free Movement of Such Data comes into effect on October 1, 1998 with regard to third party countries, who must institute similar levels of privacy and data protection legislation. The Directive is intended to protect individual privacy by prohibiting the improper collection, use and transfer of data relating to individuals. In accordance with Article 7a of the Treaty of Establishing of the European Community, there are provisions encouraging the free flow of personal data between

[208], Ibid.
[209] Dueker, Kenneth Sutherlin , " Trademark Law Lost In Cyberspace: Trademark Protection for Internet Addresses", 9 Harv.J.L. & Tech. 483 (Summer 1996) at 497.
[210] http:://www.smithlyons.ca/it/UofT/intro1.htm
Dueker, Op.Cit.

member states provided fundamental rights of the individuals are safeguarded. The Directive requires EU members to adopt laws to protect personal information, both the public and private sectors, and to block transfers of information to non-member states that did not provide an adequate level of protection .[211]

Defining the adequacy of the level of protection afforded by the third country, the European community will assess the circumstances surrounding data transfer operation, particularly considering the nature of the date, the purpose and duration of the proposed processing operation or operations, the country of origin, the country of final destination, the rules of law, both general and sectoral, in force in the third country and the professional rules and security measures which are complied with in that country.

A discussion paper released January 26, 1998 by Industry Canada and the Federal Department of Justice, stated that "its Directive has the potential to make the protection of personal information a major non-tariff trade barrier with Canada. Failure to provide adequate protection for personal information may put Canada at risk of having data flows from the European Union blocked. Without comprehensive data protection legislation, Canadian businesses may be forced to undertake individual contractual negotiations to show compliance with the EU rules. This process will be fraught with uncertainty and could become lengthy and expensive."[212] As trade and commerce is a federal matter, Canada's federal privacy legislation only applies to federal government departments, federal agencies and some federal crown corporations and does not apply to either the private sector or the provinces. Some Canadian provinces have enacted privacy legislation with Quebec's Act respecting the protection of personal information in the private sector being the most extensive, as it applies to data mining and

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[211] EUDirective. 95/46/EC articles 1.2 and 25.1
[212] BNA Electronic Information , vol. 3, no.5, 149; Industry Canada http://strategis.ic.gc.ca/privacy

disclosure. In order to not be affected by the Privacy Directive it was necessary for the Federal Government to enact legislation. It is based on the Canadian Standards Associations Model Code for the Protection of Personal Information which sets down principles for the protection of personal information in the private sector.

The United States was not happy about the attempt of the European community to erect these trade barriers. The Federal Trade Commission and the U.S. Administration is in favour of self regulation in the area of privacy. President Clinton has said "We want to encourage the private sector to regulate itself as much as possible. We want to encourage all nations to refrain from imposing discriminatory taxes, tariffs, unnecessary regulations, cumbersome bureaucracies on electronic commerce."[213]

However, on February 4th, 1998 the European Commission stated that the European Union will not shut off the flow of electronic trade to or from the United States if the United States does not adopt data privacy laws compatible to the European Unions sweeping directive on data privacy. Telecommunications Commissioner Martin Bregman said that "if we force the US or any other country to have laws similar to ours it would be Helms Burton in reverse and we do not want that."[214] On March 26, 1998 the White House announced plans to hold a conference exploring Internet privacy issues. The goal was be to evaluate the administration's current self-regulatory policy.[215] In October 1998, the European Union agreed to delay enforcement while the U.S. and EU negotiators worked out an agreement that would allow the EU to recognize as adequate the self regulatory approach thereby averting a major trade dispute. U.S. Undersecretary of Commerce David Aaron said both parties recognize a significant overlap of approach in principle

[213] U.S. Information Service, "Current Issues: Economy and Trade: Clinton Remarks on Electronic Commerce Report July 1st 1997 (Note: there is a Bill R/98 before the Congress; Consumer Internet Privacy Protection Act 1997
[214] BNA Electronic Commerce and Law Report ,volume 3, no.6, 177.
[215] Http://Legalnews.findlaw.com/scrip…bcinternetprivacy.html 1998 Reuters. (see also the ABA Digital Signature Guidelines 3. 8.1)

even though the procedures and structures are different. U.S. approach is a mix of industry self regulation, regulation and legislation.

7.5 Access

If States are concerned that their nationals take advantage of the new educational and economic opportunities through the information highway and the Internet in particular, they have to address the issue of universality of access to that highway.[216] Their are a number of issues involved in solving universal access and they include, both on the domestic and international levels, the following:

1. Access will have to be designed to close the gap between the rich and the poor citizens within States and between developed and developing countries.
2. Infrastructure expenditure will have to be made to accommodate the increased traffic and the provision of broadcasting and telecommunications to remote areas. This may be in the form of satellite or other wireless communication or an extensive fibre optic network. Opened competition is necessary in the broadcasting and telecommunication industries in order for services to be provided at affordable rates. This should be monitored to determine that anti-competitive behavior will not result in a subsequent sustainable rate increase thereby affecting accessibility.
3. Effective access to content depends on the speed of access. Government should, in cooperation with industry, monitor the deployment of higher speed access so that applications that require it will be available.
4. Make Internet access available in remote areas without long distance charges. This may again required different technology than is used in urban areas.

5. Have a general delivery mail box in public locations so that people without computers can send and receive email and surf the web.[217]
6. Target schools, libraries to improve digital literacy.[218]

7.6 Culture and Language on the Internet

On this subject The Information Advisory Counsel concluded that many home pages, browsers and search engines tend to point to foreign content first, with the result that Canadian content can be more difficult to find on the Internet. Exceptions to this observation, (such as Simpatico, Yahoo Canada and Canoe all which allow easy access to Canadian content). IHAC said despite these notable exceptions, we believe the roots to foreign content are more numerous than those to domestic content.[219] Regulation, does not represent an appropriate response to the situation. They recommended that voluntary action by Internet access providers. In recommendation 4.19 they stated that the various levels of government should work closely with industry and Francophone communities across Canada to develop a critical mass of French language content and services for the Internet. Those reviews that are echoed by France's Prime Minister Jospin who proposed that government place a greater emphasis on ensuring that French speaking nations and French culture are represented on the Internet.[220] [221] Web site owners should be culturally sensitive. Site advertising and distribution of "Junk email" as an advertising

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[216] IHAC, Information Highway, chapter 4 "Access: Cornerstone of the Information Society". Http://strategis.ic.gc.ca/SSG/ih01642e.html page 1 introductory quote: " … the Information Highway should be at least as accessible, affordable, and relevant to Canadians as telephone and television services are today."
[217] CRTC Information Highway Proceeding—Summary of Report page 3 http://www.crtc.gc.ca/ENG/INFO_sht/G9e.htm
[218] France is spending $85 million U.S. on Internet connections and hardware at schools.
[219] CRTC Information Highway, chapter 4, recommendations 4.17 - 4.19
[220] BNA,
[221] In June 1998 Vice President Al Gore and French President Jospin committed the U.S. and French governments to the principles of open access to information and the free flow of culturally and linguistically diverse content: US Government Working Group on Electronic Commerce First Annual Report, November 1998 op.cit.

vehicle on a non-discriminatory basis particularly with "push technology" may offend cultural mores of users in certain jurisdictions.

In Canada, the federal government with its obligations under the Official Languages Act is required to reflect Canada's linguistic duality in its activities and communications and to provide services in both official languages.[222] Internet guidelines were developed by the Treasury Board, however, the Commissioner of Official Languages felt that there were still steps that could be taken to make greater access in both languages to members of the public and public servants visiting federal web sites.[223]

Individual governments might be able to enact legislation protecting cultural differences and making access by their own nationals easier. However, enforcement is an issue of jurisdiction and in federal states, it is also a constitutional jurisdictional issues. Quebec has interpreted Section 52 of the Charter of the French Language to apply to commercial advertising over electronic medium. This in their view includes a web site as well as advertising material sent by fax or email. Quebec considers that they have jurisdiction to require the commercial advertising to be posted in French on the web sites if the vendor's products are available to Quebecers. The Office de Langue Francaise says that a translation may be provided as long as French is given prominence. [224] To establish jurisdiction they are looking at traditional views of head office or place of business in Quebec and are not looking at the technology or how the Internet works to address the solution. For a more complete coverage of this issue, John D. Gregory, Chair

[222] Official Languages Act,
[223] Use of the Internet by twenty federal institutions, Commissioner of Official Languages (Ottawa Supply and Services Canada, December 1996). Also IHAC, chapter 8, page 3 of 6, http://www.strategic.ic.gc.ca/SSG/ih01646e.html
[224] Quebec Language Law and Web Sites, http://www.olf.gouv.qc.ca/charter.html

Electronic Commerce Project, Uniform Law Conference of Canada has written an article entitled "Regulating Languages on the Web".[225]

In Europe there are a number of directives relating to language of food labelling and language of product labelling.[226] If products are being offered into the European Union compliance with these language requirements might be necessary.[227] I have not investigated whether any cases regarding the web have developed.

7.7 Advertising and Promoting

Until the popularity of the World Wide Web, commerce was basically banned from the Internet by both policy and strongly enforced custom.[228] The Internet is a significant interactive multimedia vehicle for transacting commerce throughout the world. Advertising on the Internet has opened up, it has become a very popular vehicle for advertisers and will prove to be a significant media outlet for advertising agencies. The advantages of Internet advertising is that it allows consumers more detailed product and company information than they would receive in traditional print or broadcast advertising primarily based on a costs/time displayed relationship. This is anticipated to increase when access issues are resolved. Advertising on the Internet very often allows the seller to receive immediate feedback in the form of a consumer purchase and it allows the consumer, with limited time, to buy an item immediately.[229]

Advertisers have experimented on the Internet with new technologies such as push "which is used by Pointcast where the advertising becomes part of the interface itself and may

[225] Unpublished
[226] European Union, Com (93) 532
[227] European Union, Com (93) 456
[228] Urbach, Ronald R., "Advertising in Cyberspace: New Challenges and Problems in the Electronic Age", Legal Practical and Tactical Advertising, How to Walk the Advertiser's Tightrope with Bold Successful Campaigns, The Canadian Institute, Section 9, 2
[229] Young, David M. W. and Nancy Ramalho, "Advertising and Marketing on the Internet", The 3rd Annual Symposium NETLAW '97 New Legal Principles and New Strategies for a Borderless World, The Canadian Institute, Toronto, Section VIII, Page 3

include animated or interactive components".[230] The various ways in which advertising is currently being presented on the Internet includes: web sites; shopping malls; private networks, to which consumers and retailers subscribe; electronic bulletin boards which allow competing advertisers to post their products for educational purposes and counteract misleading advertising claims; search engine pages, contests,[231] browser programs which include banner advertising allowing customers to hyperlink from the ad on the browser's program to the advertiser's web site and 'junk' email.[232] [233]

Advertising traditionally and through the Internet raises the issues of trademark, copyright and jurisdictional enforcement which has been dealt with above. An important distinction in jurisdiction is that false advertising falls within the realm of criminal law and Competition law in which case the standard for determining whether a state can exercise jurisdiction occurring within its boundaries is less stringent than the standard for civil jurisdiction. Naturally, the likelihood of enforcement requires some sort of physical presence or property within the state.[234]

Advertisers on the Internet should be guided by the domestic laws that apply to traditional methods of advertising. Internet advertising can effectively be regulated from within the framework of the Criminal Code and the Competition Act and a handful of Federal and Provincial Statutes. In addition self regulatory bodies such as the Canadian Advertising Foundation has published a Canadian Code of Advertising Standards. Other jurisdictions have similar associations that have published codes or guides. On an international basis the

[230] Urbach, op. cit., 2
[231] Scriver , John W., "Surf 'n Win: Conducting Effective (and Legal) Contests on the Web", The 3rd Annual Symposium NETLAW '97 New Legal Principles and New Strategies for a Borderless World, Canadian Institute, Toronto, Section VII
[232] Young and Ramalho, op. cit., 3-6
[233] Push technology is such that Internet service providers can push data to users similar to junk mail. See the American Bar Association Jurisdiction article op. cit. footnote * for discussion of this at page 6 of that Article.
[234] Young and Ramalho, Page 24

International Chamber of Commerce has published a guideline on interactive marketing communications.[235]

[235] ICC, "Guideline on Interactive Marketing and Communications Principals for Responsible, Commercial Communications Over the Internet, World Wide Web, Online Services and Electronic Networks".

8. Conclusion

As domestic markets in certain sectors mature, the ability to enjoy incremental growth becomes difficult and businesses often look to neighboring markets to determine whether their proven skills in home markets can be applied next door or abroad. Implementing this decision can result in a large financial and human resource investment. In addition, issues of regulatory restrictions, lease or building negotiations, and local employment requirements can slow the process. For the SMEs this can sometimes be enough to encourage those companies to stay home and be content with their share. The Internet is recognized as a quicker and cheaper cost of entry for these businesses. It allows the creation of brand awareness prior to physical market entrance. Naturally, success depends on the ability of web businesses to instill trust in the minds of web buyers. As the Internet matures and more businesses open web sites it will become more difficult to appear on the first page of a search engine. This will require businesses to enhance their web presence with advertising either on search engines or accompanying print or other media in communicating their presence. The control of the entrance gate (Portals) by a handful of players such as AOL, Yahoo and Excite will raise the bar to entry.

The legal principles applicable to traditional commerce can apply to electronic commerce, however text of laws may have to be amended if the particular statute does not contemplate this type of contract, instrument, medium or technology. States would most effectively achieve this by amending interpretation acts and other general legislation to provide for definitions not otherwise contemplated. In my view the “functionally equivalent” approach to new legislation makes sense as it is flexible and can be interpreted using analogous jurisprudence. The technology of the Internet and future communication medium will outpace any attempts by the law to guess how to provide how to plug all the holes. Technology and self regulation by user groups has to do this.

Internet 2 was recently announced as being supported strongly by the U.S. government. Effectively it is a reversion to the original Internet purposes of communication for academic research. Internet 2 will work at speeds whereby 30 volumes of the Encyclopedia Britannica can be transmitted in one second as compared to the New York times in the present Internet technology. Internet 2 will provide solutions to health delivery and education concerns of access by a greater population. I believe that Internet commerce will happen in a different system. The speed and performance requirements may be satisfied by government subsidies in bandwidth and other infrastructure improvements. These subsidies would not be contrary to WTO principles as they would reduce trade barriers. Countries with extreme regulatory goals of the Internet such as China, will not get its full benefit.

As concluded by the WTO in its report, the WTO's role within its area of competence, is to foster an environment conductive to international electronic transactions. This translates into an organization comprised of member states that will use the Internet to reduce disparities among developed and developing countries, liberalize telecommunications and information technology access between members, and encourage competition.

APPENDIX I

The Fundamentals Needed to Understand Electronic Commerce

Michael M. Sax

International Electronic Trade
Carrying out Consumer and Commercial Transactions

The Fundamentals Needed to Understand Electronic Commerce

Introduction

This Appendix explains what makes up information in the electronic commerce world, and how people are able to interpret messages between themselves and how fast and economically messages can be delivered. The discussion on transmission media is intended to show the reader why the communications media will change to allow Internet access and use. It will also be relevant in discussion on China's attempt to regulate the Internet. The Appendix then defines the Internet and looks at its history in order to explain how the changes in users and the change of its use has created problems that did not exist prior to the advent of electronic commerce. (It will also help to understand where the Internet will be going with Internet 2).

We then look at the addressing systems and how the design of that system may affect security of the electronic transaction.

Digital and Analogue

Many familiar devices such as speedometers and thermometers work as analog computers. An analog computer replaces a calculation with a physical system that performs the calculation. An example is the rise and fall of mercury in a thermometer that imitates the movement of the temperature. Telephones are analog computers. Although analog computers are extremely fast, they are not as accurate as digital computers. Digital computers count rather than measure, and the number of digits they can handle is their only accuracy limitation.[236]

[236] World Book Encyclopedia, , World Book Inc. Vol. 1, 447-448

"Digital" is an adjective representing any numeral from 0 - 9 [237]. Digital computers form tasks by changing one set of numbers into another set. All data - numerals, pictures, sounds, symbols and words are translated into numbers inside a computer.

Digital transmission is at the basis of the Internet. However, digital information can be transformed into analog signals with the help of a modem.[238] A second modem at the receiving end transforms the analog signals back into digital ones. That is why Internet users can communicate through standard analog telephone lines. A modem is not needed when sender and recipient have a so-called ISDN connection which allows digital data transmission [239].

Atoms vs. Bits

A "bit" is an abbreviation of the term "binary digit," which may be either the digit "0" or "1." [240] Professor Nicholas Negroponte in his book "Being Digital" [241] says "a bit has no colour, size or weight and can travel at the speed of light". It is the smallest atomic element in the DNA of information. The information processed by nearly all computer-based information systems is fundamentally variations in voltage, alternating magnetic polarities, pits on plastic and similar approaches to representing digital bits in physical matter and electric energy. Bits thus represented are imperceptible and unreadable by human beings, unless the information system presents them as symbols such as letters, numerals, punctuation marks and formatting.[242]

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[237] Concise Oxford Dictionary of Current English, 8th edition, Claredon Press ,Toronto
[238] "A modem is a word fabricated out of modulator-demodulator, the process of turning bits into wave forms and back again.", ibid. 22
[239] Bachetta, Marc, Patrick Low, et al World Trade Organization, "Electronic Commerce and the Role of the WTO", 11 fn 7
[240] World Book Encyclopedia, Vol. 4, 908-913
[241] Nicholas Negroponte, "Being Digital, 14
[242] International Chamber of Commerce, "General Usage for International Digitally Ensured Commerce (GUIDEC)" www.iccwbo.org/guidec2.htm/ ,21 par. 8

Bandwidth

Digitizing a signal is to take samples of it and play back a seemingly perfect replica. The amount of bits that you transmit per second through a given channel is the bandwidth of that channel and it relates directly to the fidelity of the music or the image or text. Professor Negroponte says that thinking of bandwidth like the diameter of a pipe, or like the number of lanes on a highway is thinking of bits in the mindset of atoms which he says is misleading.

> "…a ski lift may be a better analogy. The lift is moving at a constant speed while more or fewer people get on and off…. While this sounds wasteful, it is in fact a clever notion, because other people are dropping packets into the same (lift) - the basis of systems as the Internet and ATM….[243] Instead of tying up an entire phone line as you now do for voice, packets are put into the queue with names and address attached to them, so they know when and where to get off the ski lift. You pay for packets, not minutes."[244]

The bandwidth varies according to the transmission media and the bandwidth requirements vary according to type of instrument of electronic commerce. An Analogy to explain this would be if a telephone required the bandwidth equivalent of 1 telephone line, an Internet connection would required 1.5 and a full motion color TV would required 4700 telephone lines.[245]

Copper, Fibre Optics & Airwaves Transmission Media

[243] Automatic Teller Machines
[244] Negropnte, Op. cit. 35-36
[245] Bachetta, Marc, Patrick Low, et al , 8, Table 4 : The Need for Bandwidth.

Copper wire that a telephone uses, has a lesser bandwidth capacity than fiber optic cable. Fiber optics is a branch of physics based on the transmission of light through transparent fibers of glass or plastic the size of a human hair. These optical fibers can carry light over distances ranging from a few inches or centimeters to more than 100 miles. In fiber optic communication systems special lasers transmit coded messages by flashing on and off at extremely high speeds. The messages travel through optical fibers to interpreting devices that decode the messages, converting them back into the form of the original signal. They are better than traditional copper cables in the extent that they are not subject to electrical interference, and have a much larger information carrying capacity.[246] Fiber optics can deliver one thousand billion bits or the equivalent of the Wall Street Journal in less than one second,[247] [248]and are cheaper than copper, including the costs of electronics at each end. Copper has the ability to deliver power. From the perspective of digital transmission the entire planet will eventually be fibre [249].

Airwaves (waveforms) or Ether is the third transmission media. Most television and radio signals broadcast through the air. In television, the engineers at the station use a device called a transmitter to produce a TV signal from separate audio and video signals. The signal is carried by wire to an antenna and broadcast. The signal, the electromagnetic wave, can travel up through the air at the speed of light about 186,000 miles but clear reception is only up to a distance of 150 miles. To send signals farther, one uses other means of transmitting such as copper and fibre optic cable, microwaves and satellites. Microwaves are also electromagnetic waves, and equipment in microwave towers automatically receives, amplifies and then retransmits the signal to the next tower. Satellites carry the signals between stations where you can't build cables. They receive coded signals from special earth stations, amplify them and send them on to other earth

[246] World Book Encyclopedia ,vol. 7 "fibre optics"
[247] Negroponte, op. cit., 16, and 22-23.
[248] With the advent of "Internet 2" to be introduced this year the confirmation will deliver all 30 volumes of the Encyclopedia Britannica in that time.

stations.[250] Low power situations such as TV converters and cordless telephones use wireless communication(s). Once you increase the strength of the signal, you have to transmit to stationary satellites, so as not to cross signals with other predetermined occupiers of the spectrum. Negroponte believes the future is in use of fibre optics. Due to the congestion in airspace. "Save Ether for things that require the use of that spectrum as they move, i.e., planes, boats, cars and wristwatches, many of which all will be computer driven."[251]

Television vs. Computers

A television network is the distribution hierarchy made up of the source (where the signal comes from) and many homogeneous synchs (to where the signal goes). But, computer networks are a lattice of heterogeneous processors, anyone of which can act both as source and synch. TV and computer networks are totally different. [252]

What is the Internet

The Internet is an international network of networks that allows different computer users to share information and communicate interactively. Unlike other forms of communication (like television or telephones), the Internet has no fixed physical location, central control point or permanent intelligence. Instead all stored information and network management is widely distributed, allowing each remote entity to be in charge of it's own area. Each such entity has an equivalent level of authority, priority and control. All work together according to a common set of technical rules and standards. The Internet's most powerful feature is that it allows computers

[249] Ibid., 25-28
[250] World Book Encyclopedia vol.19, 122-124.
[251] Negroponte, op.cit., 24-25
[252] Ibid. 180-181

and networks to communicate openly and effectively regardless of make, architecture, speed, manufacturer, connection or resource period.[253]

In American Civil Liberties Union v. Reno 929 F Supp. 824 (E.D. Pa. 1996) the parties agreed on a pretrial statement of facts on what was the nature of the Internet.

"1. The Internet is a network of networks.

2. Some networks are "closed" networks, not linked to other computers or networks. But many others are connected to other networks which permits each computer in any network to communicate with computers on any other network in the system.

3. From its inception, the Internet was designed to be a decentralized, self-maintaining series of redundant links between computers and computer networks, capable of rapidly transmitting communications without direct human involvement or control, and having the automatic ability to re-route communications if one or more individual links were damage or otherwise available.

4. Messages between computers on the Internet do not necessarily travel along the same path. The Internet uses "packet switching" communication protocol that allows individual messages to be subdivided into smaller "packets" which are sent independent to the destination and are then automatically resembled by the receiving computer."[254]

The facts submitted by the American Civil Liberties Union explain various methods of communication over the Internet:

1. The client/server architecture is the software model used for most types of communications over the Internet.

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[253] Industry Canada, Information Highway Advisory Council (IHAC), "The Internet: Advancing the Information Highway", chapter 3, http://strategis.ic.gc.ca/SSG/ih01649e.html

2. E-mail (one-to-one messaging)

3. Mail Exploders (one-to-many messaging)

a. Mail exploder programs are easy to establish and provide individuals and large or small organizations with a simple ability to create a discussion group on a given topic.

b. Mailing list subscribers can automatically add or delete themselves from the mailing list at any time, and need not use their real names.

4. Newsgroups (many-to-many messaging)

a. Messages posted to newsgroups are automatically distributed to news servers worldwide.

b. By standard practice, responses to messages contain verbatim quotes from original messages.

5. IRC Chat, MUDs, MUSEs, and other real time communications.

a. Conversations on Internet Relay Chat occur in real time and are uncontrolled.

b. Communications via MUDs and MUSEs occur in real time, but also allow the development of on-going interactions that span an extended period of time.

6. FTP (remote information retrieval)

a. FTP is an early method of exchanging files.

b. FTP servers are simple programs with little flexibility.

7. Gopher

a. Gopher is a more advanced way to exchange files and link between sites than FTP.

b. Gopher servers are simple programs with little flexibility.

8. World Wide Web

a. The Web is a dynamic, worldwide, seamless web of content, reachable by hyperlinks, which permits easy browsing through information.

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[254] American Bar Association, Section of Business Law, Committee on Law of Commerce in Cyberspace, Subcommittee on International Transactions and others, "Transnational Issues in Cyberspace: A Project on the law

b. The World Wide Web is a distributed system with no centralized control.

c. Because of caching of World Wide Web content, a content provider is not aware of every request for his content, because an intermediate caching server might provide the requested content from a cache.

9. Content can be reposted to other parts of the Internet without the knowledge of the original content creator.

[255]The architecture of the Internet also breaks down traditional geographic notions, such as the discrete locations of senders and receivers. The Internet uses a connectionless, "adaptive" routing system, which means that a dedicated end-to-end channel need not be established for each communication. Instead, traffic is split into "packets" that are routed dynamically between multiple points based on the most efficient route at any given moment. Many different communications can share the same physical facilities simultaneously. In addition, any "host" computer connected directly to the Internet can communicate with any other host.[256]

"Congestion of the Internet results largely from the shared, decentralized nature of the Internet. Because the Internet interconnects thousands of different networks, each of which only controls the traffic passing over its own portion of the network, there is no centralized mechanism to ensure that usage at one point on the network does not create congestion at another point. Because the Internet is a packet-switched network, additional usage, up to a certain point, only adds additional delay for packets to reach their destination, rather than

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Relating to Jurisdiction", www.perkinscoie.com/aba/prospect.htm (hereinafter called "ABA Jurisdiction"), 5-6

[255]

[256] Werbach, Keven, "Digital Toronado: The Internet and Telecommunication Policy," Office of Plans and Policy, Federal Communication Commission , Washington, DC, Mardch 1997, http://www.fcc.gov , 16

preventing a transmission circuit from being opened. This delay may not cause difficulties for some services such as email, but could be fatal for real-time services such as video conferencing and Internet telephony.[257]

History

The common set of rules or open standards were developed initially by the US Department of Defense to provide for a military computer network that could survive a nuclear strike of one or more of it's components. The results was an effort to link the military establishment, universities and other defense contractors by computer into a network known as the ARPANET.[258] This common language, the TCP/IP Protocols (Transmission Control Protocol / Internet Protocol was vital to the expansion of the Internet outside of it's original military and research community environment. [259] In the mid-1980's the National Science Foundation (NSF) began to provide funding for the establishment of research and academic networks throughout the United States, and began to link those networks into a high speed network known as NSFNet. It eventually replaced ARPNET using the same protocol. As the NSF net evolved in the United States, the National Research and Academic Networks; NetNorth and CDNNET emerged in Canada. Although not based on Internet protocol, these two networks provided a starting point for the establishment of a Canadian Internet Network which eventually emerged in CA*net in 1989. CA*net linked itself to NSFNet as a first important step replacing the more direct link that some Canadian networks had already put in place. Elsewhere around the world, similar patterns took

[257] Werbach, Keven, "Digital Toronado: The Internet and Telecommunication Policy," Office of Plans and Policy, Federal Communication Commission , Washington, DC, Mardch 1997, http://www.fcc.gov , 71
[258] Caroll, Jim and Rick Broadhead, Canadian Internet Handbook, 1995 edition, 43.
[259] IHAC, op.cit , chapter 3

place, and all linked to each other through NSFNet. Commercial networks became linked to academic networks, expanding the range and scope of the network. [260]

The components which make up the TCP/IP are the Internet Protocol (IP) which provides the basic transportation and addressing facility. It neither knows nor cares if the data packs arrive at their destination. This form of address is not human friendly. An IP address consists of 4 sets of numbers separated by periods. Internet protocol numbers are for example 99.35.250.30 that serve as a routing address on the Internet. An IP address is an Internet equivalent to a telephone number. It refers to an address of a specific computer on the Internet The TCP/IP protocol includes the use of numeric IP addresses and domain names. One needs to use either the numeric IP address or domain name to establish a link with another computer on the Internet. In most cases one is only required to use the domain name system and not the IP address.[261] Since people often remember names better than they do numbers, the people involved in the Internet came up with the Domain Name System (DNS).[262] This permits each computer (referred to as a "host") on the Internet to be reached by a simple name rather than just an IP address Domain names are familiar and easy to remember names for Internet computers, for example; "www.yorku.edu".

The transport layer protocol (TCP) provides a connection-based service that includes error correction to provide a reliable link between two computers.[263] The TCP works by providing functions to break up a piece of digital data into small packets or datagrams, and then transports those packets across any combination of networks to their destination. Neither the actual route nor the communications hardware which makes up that route matter. Indeed, each packet can

[260] Caroll and Broadhead , 44
[261] Caroll and Broadhead , 67
[262] Described below.
[263] Davies, Lars, "The Internet and the Elephant", International Business Lawyer, April 1996, 152.

take a different route to the others. Should the receiving computer not receive all the packets of data, it can merely request the transmitting computer to retransmit the missing packets. [264]

Domain Names

From an administrative point of view, the IP registration system and domain name system are still performed by or subject to agreements with agencies of the United States Government. Every Internet computer has a unique IP number. The Internet Assigns Numbers Authority (IANA) of the Information Science Institute (ISI), of the University of Southern California coordinates the system by allocating blocks of numerical addresses to regional IP registries. (ARIN in North America, RIPE in Europe, and APNIC in the Asia Pacific region) under contract with the Defense Advance Research Projects Agency (DARPA). In turn, larger Internet Service Providers (ISPs) apply to the regional IP registry for blocks of IP addresses. The recipients of those address blocks then reassign to smaller ISPs and to end users. [265]

A more user friendly system is the Domain Name System (DNS) which is added to the basic addressing, described above. It works by using a set of named domains with which a unique address can be constructed. The management of domain names is constructed as a hierarchy. It is divided into top level domains (TLD's) and each TLD is divided into second level domains (SLD's) and so on. More than 200 national or country code TLD's (ccTLD's) are administered by their corresponding governments or by private entities with the appropriate government's acquiescence. An example might be; '.ca' or '.uk'. A small set of Generic Top Level Domains (gTLDs) do not carry any national identifier, but denote the intended function of that portion of the domain space. For example, ".com" was established for commercial users,

[264] Davies, 151-152

".org" for not-for-profit and ".net" for network service providers. The registration and generation of these gTLD's are performed by Network Solutions Inc. (NSI), a Virginia based company under a five year cooperative agreement with the National Science Foundation, intended to expire on September 30, 1998.

What type of domain name will you have? If you purchase a dial-up net Internet account that you will access by modem for your own use, often your account will be assigned to the existing domain of your Internet service provider. Example "mmsax@istar.ca". If you plan on linking your organization to the Internet, you can obtain an Internet domain name for your organization. You would register in the Canadian domain (.ca) or in the descriptive zone name (eg. .com, or .org,) and your choice might be dependent on many factors depending on how your organization wishes to portray itself on the Internet. If you register under the .ca domain, you may be required to indicate city or municipality and provincial code i.e. tor.on.[266]

What does the TCP/IP have to do with the state of reliability and security on the Internet?

Explaining how information moves around also explains the potential lack of security and reliability on the Internet. At the lowest level, where signals pass along the wire/wireless link such as telephone link between home PC user and an Internet service provider, the security works only as long as the data remains on that phone link. As soon as the data leaves to go to another network, and has to be made accessible to systems on that network it is subject to those problems.. On the next highest level the Internet Protocol (or the IP), the source computer addresses it's information to the destination computer and if the destination computer isn't on the

[265] United States Department of Commerce, "A Proposal to Improve Technical Management of Internet Names and Addresses, Discussion Draft 1-30-98, http://www.ntia.doc.gov/ntiahome/domainename/dnsdrft.htm , 1

same physical wire, then intermediate routers pass the information on until it arrives at the destination's home network. Therefore as it is only a "best efforts" protocol, it passes the guarantee as well as security to a higher level. The next highest layer is the Transportation Layer (TCP), and these layers do not implement any security feature. They work for the highest layer which is the Application Layer. This layer handles interaction between the applications running on communicating systems. Security and reliability may both be built into the application layer design. No intermediate routers need to worry about the reliability or the security of the data they transfer from network to network; they just make sure it arrives. Once the data reaches it's destination, the target computer can then make sure the data it receives is reliable and secure. Therefore the software operating in any given layer is concerned only with moving data chunks to it's destination at the same layer. Network layer software moves chunks of data between connections on the same physical layer; the IP layer software moves chunks of data between two specific computers connected to the Internet; TCP layer software moves chunks of data between two programs; and Application layer software moves data between the user.[267]

WWW.

What has the Internet been used for? Personal messaging or email remains the most popular application; the others are growing such as searching for information on products and services, downloading software, participating in on-line discussion groups and reading newspapers and magazines. On the electronic commerce side, companies use it to conduct market research, online business and electronic data interchange transactions (EDI).

With the arrival of the World Wide Web (WWW), created in Switzerland and the use of search engines such as Mosaic, the Internet has become a popular advertising vehicle for

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[266] Caroll and Broadhead, , 69-76.
[267] Pete Loshin and Paul Murphy , "Electronic Commerce:Online Ordering and Digital Money 2nd edition, Charles River Media Inc. pages 33-36

commercial products and services[268] When most people think of the Internet they think of the WWW.. WWW was perfected for high energy world wide communication at CERN Switzerland. The language it is written in is called HTML which is just a system for describing documents. A WWW browser interprets the HTML code and displays it. Mosaic used some elements not specified in HTML Version 1.0 and added to them. Mosaic is now called NetScape which is the leading browser together with MS Internet Explorer.[269]

Until the World Wide Web began, the ability to access the Internet and locate files on the Internet was not user friendly. If you didn't know specifically what you were searching for or what was it's address. In its early stages, it was even difficult to use email. The browsers such as Netscape or Microsoft Internet Explorer allow you to make a search inquiry using plain language e.g. "electronic commerce" to obtain search results which would lead you to other WWW screens which eventually will lead you to the specific bits of information you were seeking. A WWW screen can give you a pointer to a document that links not only the document on the server that you are linked to, but also the documents located on any other server worldwide. As Jim Carroll says, "using the WWW is a little like following a maze; you can take a lot of different turns, and each time you are not sure where you are going to end up. At one moment you might be in Paris and the next in Australia. With the click of your mouse, you will travel the globe discovering the information resources of such breath of diversity that you will be truly astounded by what you discover" .[270]

Email

One of the more frequent questions being asked in the business community today is what is your email address?. Many companies have discovered that a link to Internet email is the most

[268] IHAC op.cit. chapter 3, 3
[269] www.w3.work, "About the World Wide Web, Microsoft Internet Explorer.

useful and essential application of the Internet from the electronic commerce point of view, as was the fax number was in the mid 1980's. There is an increasing trend for individuals and organizations to publicize their Internet email address, or to link their company's or charity's email address system to the Internet. Having an Internet address will link a business to some 80 - 90 million people around the globe. Email systems have been used for approximately 18 years for internal communications, and now increasingly, companies are using the Internet for email communications with their customers, suppliers and other business partners. Internet email addresses are based upon the Internet domain name system. My email address is mmsax@istar.ca. which means the name that I have chosen to identify myself or my organization at the name of my server at the Canada domain. Email today consists of email sent and received from computers i) directly linked to the Internet, ii) commercial and consumer oriented services such as CompuServe iii) bulletin board systems; iv) local area network email systems such as WordPerfect office.[271]

It is important to look at the structure of an Internet email message as set out in the Canadian Internet Handbook. The purpose is to see what information and what identifiers are in either an offer or an acceptance if communicated by email. An example of a message is attached to this Appendix, but usually includes the following fields:

Date sent; date and time message was created by the sender;

the intended recipient of the message; who the message is being sent to;

from; the sender's identification and it's full Internet address. In the email software this is usually automatically inserted once the email address is registered.

Subject; this is optional, the system usually prompts you by stating that no subject has been entered. It is possible to send an email without the subject re: line.

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[270] Caroll and Broadhead, 183
[271] Caroll and Broadhead, 85-90

The message then contains the **text or body of the message**. In most email software, when replying to a message that was previously sent, the text of the original message will be reproduced and highlighted. An example would be, "I have 5,000 pounds of potatoes to sell". That would be highlighted when the purchaser writes back stating that he agrees to the purchase of 5,000 pounds of potatoes.

At the end of the body or text of the message, the message could contain a **typed signature or standard piece of information added by the sender**. The sender may not actually type his/her name and address, thinking that the **From** lines will sufficiently identify him or her. Some Internet email systems automatically append a signature to the end of messages.

Internet email is not necessarily secure. It doesn't necessarily guarantee that the message will be received. Some programs tell you about a failed delivery, other ones do not. Although one can request a receipt for a message, the receipt may not get back to the sender. If a business application is needed that guarantees delivery of email with proof of delivery, the Internet is not always the answer. Other electronic measures such as fax with a confirmation slip may be used.

What is Electronic Data Interchange (EDI)?

It is the transfer of business documents between one computer's application to another computer's application. Many businesses choose EDI as a fast, inexpensive and safe method of sending purchase orders, invoices, shipping notices and other frequently used business documents. The cost savings from EDI come from several areas. There is reduced human intervention, no re-keying of information, reduced postage costs, reduced forms, paper and envelope costs, reduced payment costs, faster turnaround on orders and inventory reduction. It is different than email. Straight transfer of computer files requires that the computer applications of both the sender and the receiver ("the trading partners") agree upon the format of the document. The sender must use an application that creates a file format id which is appended to the recipients computer application. When EDI is used, it is not necessary for trading partners to have identical document processing systems. When a trading partner sends a document, the EDI translation software converts the proprietary format into an agreed upon standard. When a document is received, the EDI translation software automatically changes the standard format into the proprietary format for document processing softwate[272]

In order for a company to participate in electronic data interchange, it is prudent for a company to sign a Trading Partners Agreement (TPA) with the companies they wish to exchange EDI documents. A TPA deals with contract formality issues such as offer and acceptance, which usually states that no document is legally binding until received, thereby eliminating the possibility of the Post Office rule being applied.[273] EDI is usually suitable for high volume and repetitive automated transactions. A corporation has to do is to subscribe to a Value Added Network (VAN)

[272] Rowland and Assoc., "EDI", http:// www.w3c.org Microsoft Internet Explorer.

which manages the flow of EDI documents. The company needs a translator for software to interpret the message and integrate it into its existing software. The corporation can create the EDI documents and send them to the trading partner via a VAN.

The company creates on EDI software a document and place it in an electronic envelope. The VAN is contacted and the message is sent to the VAN for distribution to the trading partner, and the company receives a confirmation from the VAN. Examples of documents that are sent are simple purchase orders, acknowledgment to healthcare laboratories, routine corporate purchasing, advice of what is dispatched, transportation arrangements, automatic payments and government documents, e.g., customs forms. There has been a recent trend to use the Internet to exchange EDI messages. However that will depend on the level of development of Internet security protocols and the accuracy of reception and confirmation of email. The Internet is not as effective as EDI. As the transaction happens at human speed as opposed to automated speed, there is a particular chance of error, therefore a significant increase in cost in detecting and correcting errors and it can not be used for high volume transactions. EDI costs could be expensive, as most EDI vendors charge an annual maintenance, mailbox fee and transmission/transaction fee.[274] Due to the trading partner agreements and established business relationships, there is level of trust established between EDI trading partners, which is one of the issues plaguing electronic vendors, especially the inability of the customer to touch and feel or see the product.

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[273] David Castel, "Electronic Contract Formation", Juris Diction It, Ed. Donald M. Cameron, Smith Lyons, 1997, http://www.jurisdiction.com/ecom3.htm, 2

[274] Loshin and Murphy, 249-251
Steel, Ken, "The Difference Between EDI and Net Commerce," University of Melbourne, www.webcom/pjones/aussie.html

Intranets

Another important trend in recent years has been the growth of "intranets" and other corporate applications. Intranets are internal corporate networks that use the TCP/IP protocol of the Internet. These networks are either completely separate from the public Internet, or are connected through "firewalls" that allow corporate users to access the Internet but prevent outside users from accessing information on the corporate network. Corporate users are often ignored in discussions about the number of households with Internet access. However, these users represent a substantial portion of Internet traffic. In addition, intranets generate a tremendous amount of revenue, because companies tend to be willing to pay more than individual users in order to receive a level of service that they value. [275]

[275] Werbach, Keven, "Digital Toronado: The Internet and Telecommunication Policy," Office of Plans and Policy, Federal Communication Commission , Washington, DC, Mardch 1997, http://www.fcc.gov , 31

APPENDIX II

Encryption: Secure Methods of Communication and Commercial Transactions

Michael M. Sax
International Electronic Trade
Carrying out Consumer and Commercial Transactions

Encryption: Secure Methods of

Communication and Commercial Transactions

Traditional cyrptography[276] used keys and coding algorithms (procedures used to process text). A key is a quantity of data used in cryptography to encrypt, decrypt or authenticate other data. Generally the algorithm is kept secret, as it manipulated the message to be coded in repeated ways. The key which was also secret, provided the starting point for encoding and decoding the text. The simple algorithm uses replacement. Take the word “digital”, if you were to encode it, you would take each letter of the word and replace it with a letter further down the alphabet wrapping the alphabet at the letter “z” again. If the key is “1”, then the word would be rendered as “ejhjubm”. This is a simple example and it is at a much more sophisticated level today.

The size of the key can be compared to a combination lock with a three digit combinations often found on lockers or luggage. It offers minimal protection, since there are only about a thousand different options. Those options could probably be tried in less than a half hour. Add another digit to that combination lock, and your increasing the possible combinations by a factor of ten more numbers. As one increases the amount of digits on that combination lock, the factors increase to the millions. Computer programs can do the factoring in less time than humans, and therefore increasing the size of the key makes it more secure over a longer period of time, however it makes it much more difficult to do currently. A 10 digit combination lock it would take a person a long time to open that lock every time they forgot something in their luggage or locker. Good encryption must balance between security and practicality. The problem with the **private key** encryption, is the need to pass the secret key to the people who need them, and having to rely on everyone to keep the secret key to themselves. There are

methods available to secure the private key such as imbedding the key into a smart card so that the user is not aware of the key however the card itself could be lost. This might be OK for EDI type transactions, however with Internet commerce, the requirement is to transact secure exchanges with anyone calling the Web site, whether or not a preexisting relationship with that person exists or not. To date, the solution has been the **public key method**[277].

Asymmetric or Public key cryptography is the system in which encryption is done with one key and decryption is done with another. The two different keys are mathematical related. One creates a digital signature or transmit a data message into an meaningless form. The other key verifies the digital signature or returns the message to its original form. The complimentary keys are the **private key**, which is know only to the person sending the digital message and used to create the digital signature, which is a sequence of characters and the **public key** which is more widely known and is used by the party relying on the message and signature for verification. The process called a **hash function** is used in both steps. It is an algorithm which creates a digital representation or fingerprint in the form of hash results of a standard length of characters which is usually smaller than the actual message but unique to it. If the message is altered and the recipient applies the hash function, it will produce a different hash results. This is all contained in the encryption software that the signer and the relying party have in their respective computers or is performed on their behalf by their ISP.[278]

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[276] See also http://strategis.ic.gc.ca/cg,_bin…_text%20'signature')))) for an explanation of cryptography if this is unclear.

[277] Pete Loshin and Paul Murphy , "Electronic Commerce:Online Ordering and Digital Money 2nd edition", Charles River Media Inc., 44-47

[278] American Bar Association, Information Security Committee, Electronic Commerce And Information Technology Division, Section Of Science And Technology, " Digital Signature Guidelines: legal infrastructure for certification authorities and secure electronic commerce" 1995, 1996, 9-13.
Note: for a clear tutorial on Digital Signature Technology see page 8 et seq.

Public Key relies on the fact that it is relatively difficult to find the factors of very large numbers[279] and due to the time needed to decrypt the information, it looses it's value to the codebreaker, and it is usually a sufficient method of security.

In 1997 the OECD published a series of recommendations, policy briefs and conference documents relating to electronic commerce. Cryptography Policy: The Guidelines And The Issues was published March 27,1997 to deal with the problems of disparity in policies of member countries in developing and implementing laws relating to cryptography. These problems created obstacles to the evolution of national and global information and communications networks thereby hindering international trade. The guidelines are broad in nature and reflect the diverse views of member states. It is interesting that EU Directive [95/46EC] was considered.[280] The OECD also recognized that cryptography can be an effective tool for the secure use of information, and failure to utilize it can adversely affect protection of privacy, intellectual property, business information, public safety and national security. The OECD further recognize that although there are legitimate government, commercial and individual needs there are also individuals or entities that wish to use cryptography for illegal activities and therefore governments, industry and individuals are challenged to develop balanced policies. Therefore they recommended the following:

1. Their scope would not apply to the responsibilities of governments to protect information in the interest of national security. (This is in the spirit of the security exception in Article XXI of GATT.)[281]
2. Cryptographic methods should be trustworthy in order to generate confidence in the use of information and communication systems. This will happen with market forces and

[279] Loshin and Murphy , 48-49.
[280] See Section 7.4 PRIVACY
[281] Article II

government regulation and licensing. Contracts relating to "key management" should deal with jurisdictional issues.

3. Users should have access to cryptography that meets their needs subject to applicable laws to determine the type and level of security but not laws to limit choice.
4. Technical standards developed nationally should be consistent with international standards.
5. National policies should respect protection of privacy and personal data.
6. Key management systems could provide a basis for balancing users and law enforcement issues on access to cryptography.
7. Liability for misuse of cryptographic keys and cryptographic services should be made clear by legislation and contract.
8. Policies should be coordinated with other countries and lawful access across borders may be achieved by bilateral and multilateral agreements. [282]

In Policy Brief no. 1-1997, the OECD stated that it will monitor implementation at the national level and will engage a continuing dialogue with the private sector. The OECD has also published policy related to Internet taxation, consumer protection and jurisdiction.

[282] http://www.oecd.org/dsti/sti/it/secur/prod/GD97-204.htm

APPENDIX III

What is TRIPS About?

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Carrying out Consumer and Commercial Transactions

What is TRIPS About?

The objective of TRIPS includes the reduction of distortions and impediments to international trade, promotion of effective and adequate protection of intellectual property rights and insuring that measures and procedures to enforce intellectual property rights themselves do not become barriers to legitimate trade. The Preamble also says that "there is a mutual desire of members to support the relationships between the WTO and the World Intellectual Property Organization (WIPO)". The preamble should be read with Article 7 which states "the protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conductive to social and economic welfare and to a balance of rights and obligations."[283]

TRIPS is divided into seven parts dealing with the following issues:

1. General principles governing the standard of treatment of intellectual property rights including the relationship of the TRIPS Agreement and the Bern and Paris Conventions.
2. Specific commitments with respect to the recognition and treatment of intellectual property rights;
3. Commitments with respect to domestic enforcement of these rights;
4. Commitments with respect to the acquisition and maintenance of intellectual property rights under domestic law;
5. Dispute settlement;
6. Transitional arrangements;

7. Institutional arrangements.[284]

Even though Part Two does incorporate the existing Conventions, it does have its own substantive obligations which do go farther than the provisions in the existing Conventions. As previously mentioned, the 20 year requirement on drug patents is farther than Canada's previous protection. Part Three is the enforcement provisions which while not being self excluding have a considerable impact on domestic enforcement systems of WTO members. The first section lays out general obligation that all enforcement procedures must meet and there are two basic objectives. One is to ensure that the effective means of enforcement are available to rights holders, and the other is to ensure that enforcement procedures are applied in such a manner as to avoid the creation of barriers to legitimate trade and to provide for safeguards against their abuse. The enforcement provisions are broken down into general obligations which reflects the principles of fair and equitable transparency and judicial review, civil and administrative procedures and remedies relating to any activity infringing intellectual property rights covered by the agreement. The Agreement deals with the principles of due process, rules of evidence, injunctions, damages and other remedies, rights of judicial authorities to order infringing goods to be disposed of outside the channels of commerce or destroyed and safeguards against abusive enforcement procedures.

The next section of this Part deals with provisional measures, i.e., making sure that the judicial authorities have the authority to order prompt and effective provisional measures until the judicial process is completed. This is used in cases where they need to prevent an infringement from occurring or to prevent infringing goods from entering into the channels of commerce which may require exparte proceedings. There is also a section that emphasizes the enforcement

[283] TRIPS, Article 7
[284] CGMHW , 55-56.

relating to border measures which would enable infringing activity to be stopped at its source i.e. its point of production. According to Article 51 of the Agreement the goods which must be subject to border enforcement procedures must include at least counterfeit trademark and pirated copyright goods that are being presented for importation. The Agreement allows cooperation with customs administration to prevent the release of these infringing imports. The last section of part 3 deals with criminal procedures and this is cases where you have willful trademark counterfeiting or copyright piracy on a commercial scale. Sanctions include imprisonment, fines and in some cases forfeiture and destruction of the infringing goods.[285]

[285] WTO, "an overview of the agreement on trade-related aspects of intellectual property rights (trips agreement), www.wto.org/wto/intellec/intell2.htm