

Module 2

Legal and Ethical Issues in E-Commerce

Introduction

This module introduces you to the existence and nature of legal issues that must be addressed by any participant in electronic commerce today. Many of these issues overlap with those that arise in traditional commerce, except that with e-commerce, the speed at which transactions occur and the increased chances of dealing with people or business partners, whom we have never met, make it necessary to think about these issues so as to avoid unwanted conflict.

We begin with major areas of concern which feature widely in newspapers and discussion groups today. We move from this to a general overview of how some of the important and relevant issues are treated in emerging law. The third part of the module takes a look at some of the social issues with which businesses are dealing today. There is an increased awareness worldwide that the activities of business have deep and important effects on the societies within which they operate. Business people are increasingly called to account for their social effects – from increased stress to oil spillage and truth in advertising. To be successful in an increasingly communicative world, it is more important than ever to heed social views and avoid ‘bad’ business behaviour, which turns society against commercial actions.

Legal, ethical, and social issues are frequently aired in newspapers, especially within IT supplements, magazines, and on television. You should make it a practice to note issues that arise, and relate them to your own current or expected work situations.

Upon completion of this module, you will be able to:



Outcomes

- *describe* various legal issues to be considered by anyone engaged in e-commerce.
- *discuss* ethical issues relating to corporate activity in e-commerce.
- *outline* the major effects that e-commerce is having on communities.



Terminology



Terminology

Cookie:	A cookie is a data file that is placed on your hard drive by a remote Web server whenever you visit the website. The cookies are modified by user activity and the information is returned to the website when asked. This records one's visits to and activities on a website.
Digital economy:	Also called the Internet Economy, the New Economy or the Web Economy. It is an economy that is based on digital technologies, including digital communication networks, computers, software, and other related information technologies.
Digital literacy:	Basic competence in the use of computers and networks like the Internet.
Domain name:	A name-based address that identifies an Internet-connected server. Usually it refers to the portion of the address to the left of .com and .org, etc.
Encryption:	The process of scrambling a message in such a way that it is difficult, expensive, or time-consuming for an unauthorised person to unscramble it.
Intellectual property:	Intangible property created by people or companies and protected by copyright, trade secret, and patent laws. Copyright law has been established for printed materials, source codes and object codes, but not completely for all software work.

Legal and ethical issues

Overview

Implementing any business system involves a number of legal and ethical issues. In the case of new systems and procedures, and notably for us, those arising from e-commerce, we cannot simply draw upon a long tradition to guide us – we are forced to consider the issues from the start.

Ethics is that branch of philosophy that seeks answers to the questions of 'why' and 'how' we decide that some things are right and others are wrong. 'Morals' is the term generally used to describe the applied

versions of ethical behaviour found in a society. Generally, broad agreement exists within societies as to what constitutes morally good or bad behaviour; we agree that murdering the neighbours is bad, helping the aged is good, and cleaning one's teeth is morally neutral.

There are many instances when an individual is faced with a decision as to whether an action is lawful and whether it is moral. It may often be the case that what is legally permitted is seen by society as morally wrong, and other times what is morally right is not in fact legal. As managers, we must be aware of the inherent complexities within our actions, even if we can find no simple rules of guidance. What is considered correct behaviour in one culture may not be so in another, providing many headaches for managers of global or transnational businesses.

Many Western countries, for example, have a higher concern for the individual and their rights to privacy than some Asian countries. In Asia, more emphasis is placed upon the rights of the society to order the individual's life and to monitor it. What results does this difference of opinion have?

Consider a company trying to formulate rules for the privacy or public nature of email within a company, for example. What might the attitudes of customers and staff be to the gathering, sorting and selling of information regarding their online or other behaviour? What issues might arise when a company gathers data in one cultural or legal environment and then wishes to use it in another, perhaps different, cultural and legal environment. These and many more examples of clashes, some far more important, occur daily and are emerging with greater urgency as our ability to monitor individuals, gather and manipulate data, and affect the lives of others with electronic systems increases.

One suitable response to this is the move by most leading businesses worldwide to create corporate codes of conduct, similar to codes of conduct drawn up by professional bodies for their members. These codes give guidance at a basic level to staff and partners as to what behaviour is considered morally acceptable within the company, and therefore gives guidance as to how a customer or partner may trust the company to behave in its dealings. In sophisticated business environments such as Hong Kong, organisations such as the Trade Development Council or the Chambers of Commerce typically keep a reference library of such codes of conduct, as do professional associations, such as the Hong Kong Computer Society, which produces a code of conduct for its members.

**Table 2.1: An overview of ethical issues**

Privacy Issues	Accuracy Issues
What sort, and how much, information should a person be required to give to others?	Who takes responsibility for the truth of information collected?
What kind of surveillance is appropriate for an employer to use on staff?	How can we know that information is correctly and accurately compiled and presented?
What things are we willing to allow remaining private, if a person does not wish to offer information freely?	How can we make sure that errors in data processing are accidental, not deliberate?
What information about people should be allowed in databases; how secure is the information from unauthorised access?	Who must take responsibility for the accuracy of a system; What compensation is due when information is misused?
Property	Accessibility
Who owns the data?	Who has access to the data?
Are there fair prices paid for data?	How much should be charged for access?
Who owns communication channels? How are copyright issues resolved?	Should disabled workers be given their own means of access to computers?
Can company machines be used for private purposes?	Who provides the means of permitted access to information?
How should access to information channels be controlled?	What, when, and how does an organisation (or government) have to demand or require information; What safety measures should accompany this?

Table 2.1 lists a few of the questions that are dealt with every moment by computer systems. In many cases, the answers have not been thought out in advance, but have arisen as a consequence of the way a system has been designed. As all users become more aware of the issues involved as well as their importance, the design issues to answer these questions will be continually and increasingly challenged. It is therefore important for us to have these, and similar questions, at the forefront of our minds, as we design and extend information systems.

Activity 2.1



Activity

Code of practice

Find a code of practice that applies within your organisation, a similar organisation, and a professional organisation to which you might belong (e.g., Computer Association of Nepal) and compare their ethical standards.

Protection of privacy

While this means different things to different people, in general, we consider privacy as the right to be left alone. We would consider privacy as the right to be free of unwanted interference. In regard to the privacy of information, we consider the right of individuals or businesses to decide for themselves when, how, and to what extent, information about them is given to others, or publicly broadcast.

In many countries, the right to privacy has been determined by law, but in nearly every case, the right of privacy is not absolute. Privacy is balanced against the needs of society, and the public's right to know may sometimes override the individual's need for privacy.

Until recently, the difficulties involved in collecting, sorting, filing and accessing information by hand from many sources gave protection against misuse of private information. It was simply too expensive and difficult to invade privacy. However, expanded computing power, powerful software, large databases and the Internet has changed this. For instance, many cases of fraud can be detected, tax evasion can be captured, people can be traced, and communications can be monitored. The simple question is, what price (in terms of loss of privacy) can a society expect an individual to pay, for the social gains determined by society as a whole?

Activity 2.2



Activity

Code of practice

Go to <http://www.ftc.gov/acoas/> and retrieve the document *Final Report of the Federal Trade Commission Advisory Committee on Online Access and Security* published 15 May 2000 by the U.S. Government Federal Trade Commission.

This is a 30-page document investigating the questions of online access and the privacy implications of Internet usage.

As the country with the largest consumer and business usage of the Internet and e-commerce, it is hardly surprising that the U.S. government



should be taking these issues seriously, in advance of many other countries. Read this and take note of the sections which directly affect an organisation with which you are familiar.

What is information, and how is it collected?

Information is linked to individuals in various ways. Data can be tightly tied to a specific individual's name, address and birth date. Data can be related to a device such as the individual's telephone, Internet browser, or computer, in which case it may show or betray the activities of those who use the device. In such instances, we are left with data that is often personal to an individual but perhaps not unique to the individual. The data collected in both cases may be used for nearly identical purposes. For example, information about an individual's use of a credit card may be used to determine the value of advertising in his monthly billing statement, just as information about the actions of a computer browser may be used to determine the advertising placed on the next page the browser visits.

Here are some ways in which the Internet can be used to gather information:

- Reading newsgroup postings
- Checking directories
- Reading email
- Recording information from browsers.

Commercial websites and their customers often have a common interest in making sure that customers are aware of the information that the website has collected about the consumer. For example, think of an online bookshop site that receives an order from a new customer and within 24 hours, is ready to ship. It makes sense for the website to give the customer access to the shipping information, perhaps sending an email to say, "This is what we think you ordered and this is where our records say you want it shipped." Both consumer and website have an interest in the accuracy of information, and sharing it with the consumer is a useful safeguard against errors or fraud in the order process. The same interest in preventing errors may lead commercial websites to provide their customers with access to other personal information that the website has maintained about the customer. In the same way, banks and customers both benefit from the sending of detailed credit card statements each month. Among other things, the opportunity to check each billing protects both parties against fraud.

Website registration and cookie collection are the most common ways of getting information for companies. In this context it is helpful to consider the distinction between active and passive data provision. Information is actively solicited from the individual through the use of surveys, registration forms, and other solicitations. At other times, data is gathered without the individual's explicit cooperation, as in the collection of click stream data. (**Note:** Monitoring the computer input and navigation as a

user surfs or uses Internet facilities, is generally called click stream data.) This is commonly referred to as passive data collection because the individual is not actively providing information. Passive collection is like watching or tracking without necessarily seeking the knowledge or consent of the person watched.

Website registration: Many sites ask or require users to fill out forms in order to access their information. It is seen as a fair trade: 'If you want to use the material I have posted on my site, please tell me a bit about yourself so that I know who my audience is.' While many sites try to collect information in this manner, many people refuse to supply the information, or simply give false information.

Cookie collection: A cookie is a piece of information that is put on your computer when you visit a website. The cookies are modified by user activity and the information is returned to the website when asked. This records one's visits to and activities on a website – a shopping cart must use cookies, for example. The use of cookies allows websites to gather and collect a lot of information over time – passwords, surfing patterns and so on.

Intellectual property

Intellectual property is the intangible property created by people or companies and protected by copyright, trade secret, and patent laws.

Copyright law has been established for printed materials, source codes and object codes, but not completely for all software work. Argument rages over whether concepts, functions and features of software can be copyrighted. In general, advice is to avoid legal disputes in this area, as the only certainty is that they will be expensive to resolve.

A **trade secret** is intellectual property of a company which is not public information. In this category fall such things as business plans.

A **patent** is the legal right to the exclusive use of an invention for a determined time

As we see in newspapers every week, the topic of the Internet and copyright is in everyone's minds. Problems arise because the laws governing copyright were written to safeguard physical products and not for digitised products. Companies argue that unless they are given protection, the Internet will function as a worldwide copying machine for software, books, films, music and other products. They demand legislation, protection and barriers. On the other hand, many people fear that strict rulings and laws will, in addition to protecting legitimate copyright interests, lead to restrictions on the right to read, listen and browse the Internet.

Free speech and censorship

The emergence of the Internet has provoked a worldwide discussion and reconsideration of the value of freedom of expression and access to information. The United Nations Declaration of Human Rights defined



the freedom of speech for the world in 1948. Article 19 of the document stated:

“Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.”

Before the arrival of the Internet, governments could happily agree to this statement. In practice, the right to express opinions remained firmly in the hands of the governments and the powerful because they controlled the only media through which ideas could be expressed. With the Internet this has changed, and many different groups are fearful of the unknown results of uncensored expression of ideas. Challenges to the freedom of the Internet range from governments seeking to stifle discussion about their policies, to special interest groups demanding that other people should not have access to the idea of Darwinian evolution, pictures of people without clothes, or whatever subject concerns them.

Taxation

Electronic commerce transactions, although small in terms of overall world trade, are growing. Naturally, each taxation authority, from local through regional to national, wants to grab a slice of the money involved. The problem is that there are no clear ways of going about this. As of writing it is not possible to predict the forms that taxation will take, nor the help or hindrance to Internet trade that they will produce.

Applying existing legal rules to new media of exchange is far from simple. It is estimated that there are 30,000 state and local jurisdictions in the U.S. alone.

To decide which zones are applying tax is not obvious, apart from international considerations. One solution, adopted as a temporary expedient, is to consider cyberspace as a separate tax zone with unique rules and considerations applying specially to it. The current lack of taxation while work is being done is working well, despite the complaints of other businesses that sales taxes should be imposed on Internet sales just as on mail-order business.

Encryption and security

A major concern for all Internet trade, from B2B EDI through to single consumer purchases, or message transfer, is security.

Encryption is the key to greater security and various organisations are looking at policies on its use. A handwritten signature has long been accepted as valuable evidence regarding the authentication of documents. A digital signature produced by the use of encryption, goes further than a traditional signature in linking the content of a message and the signature to demonstrate that the message has not been altered, intercepted, or otherwise tampered with en route.

Despite the sensible concern for message authentication and the need for private transactions, many governments are trying to block access to secure means of coding messages. They argue that they have the right to open and read any message and demand that users of encryption should supply with the keys.

This attitude is not widely shared outside selected government circles and has proved impossible to enforce. While the legal sale or export of some encryption programs is forbidden by some laws, plenty of sites on the Internet offer free encryption programs, such as PGP, which may be downloaded and used by anyone. The technology of encryption is complicated, and the ethical issues and cross-national legal issues are complex. You are encouraged to be aware that these issues exist, but at this stage further discussion of this topic lies outside this module.

Emerging legal issues

Introduction

Different legal structures have emerged around the world; the two major systems being based upon Roman Law and the English mixture (case law, common law, and statute law). Different systems suit different circumstances and temperaments – and powerful ruling groups, of course. For this reason, we can speak only in generalities about law and you will need to relate what you read here to your own situation.

Contracts and online sales

Our key question in the area of online sales is whether a legal contract of sale and purchase has been created. Companies looking to effect online sales need to know whether the chosen contracting process will lead to the formation of an enforceable agreement.

In jurisdictions whose legal systems are derived from that of the U.K., concepts of contract are based on notions of offer, acceptance and consideration. These legal terms are the subject of much definition and scrutiny together with legal case definitions, but fall outside the scope of this module. There is, as at the time of writing this module, no internationally agreed upon legal basis for the formation of online contracts, but the International Chamber of Commerce is working on this (www.iccwbo.org). In general, to test whether an enforceable contract will be formed by the chosen online method, ask:

- **Who are the parties?** Third persons cannot generally enforce rights created under a contract between others.
- **Have the parties agreed on something?** It must be clear that the parties intend to be legally bound. This may happen when one party accepts an offer made by the other party (for example, clicking on an ‘accept’ or ‘submit order’ button after reading the terms of sale). A contract may also be formed by conduct (for



example, a customer agrees to take services or download software, knowing that terms and conditions will apply.)

- **Have the parties agreed on all essential terms?** For example, no contract will be formed if the price has not been agreed (or there is no way to determine a mutually accepted price.)
- **Are the terms sufficiently clear?** The terms of the agreement must be clear enough for an independent outsider (in practice this would mean an arbitrator or judge) to determine the meaning. In any case, it is always sensible policy to ensure that the terms of any agreement are clear and unambiguous.
- **Is there consideration?** This means that we must look to see that each party to the transaction offers to play a specified part in the fulfilment of the contract. A simple undertaking on the part of one party with no recompense is not enforceable.
- **Is there any reason why the agreement will not be enforced?** In Hong Kong, as in many other jurisdictions, contracts that are formed for an illegal purpose are not enforceable by law. Under many circumstances, gambling contracts may be unenforceable, and in this context it was once argued (unsuccessfully) that a contract on the Hong Kong Futures Exchange constituted a gambling contract, and was therefore unenforceable!

Is an online contract written?

In many places written contracts are needed for the following:

- assignments of copyright;
- transactions dealing with land; and
- agreements where parties submit to arbitration under the UNCITRAL rules.

It is not yet quite clear whether on-line waybills and similar instruments retain their negotiable nature if they are not in a physical form. You should seek specific legal advice if your company needs to perform this kind of online transaction.

Do we need a signature?

In most cases, an actual physical (written) signature is not a necessary condition for a valid document. Notable exceptions include: transactions involving land, deeds (which must be executed under seal), and assignments of copyright.

Even though signatures are not usually necessary to give a contract formal validity, in the physical world they are the main method of evidencing the fact that an agreement has been reached. Issues arising from digital signatures on online contracts are discussed further below.

Terms of the contract

The terms of a contract may be:

- **Express written terms.** In an online environment, take care to ensure that the express terms are clearly incorporated into the contract. In other words, it must be clear from your contracting process that the parties intend to be bound by certain express terms.
- **Implied terms.** Courts will sometimes imply terms to give force to a contract, or imply the existence of a contractual arrangement from a course of dealing by the parties.

Are electronic contracts admissible in court?

When engaging in electronic commerce, the likely areas of contention in regard to an electronic contract are:

- A sender denying that a message stored on the receiver's computer was really sent by him or her; and
- A sender admits he or she sent a message but denies that the message stored on the recipient's computer corresponds with the message actually sent.

When the nature of an online contract is questioned, we can expect the issue to arise of whether the digital evidence is admissible and reliable. Keep an eye out for emerging legislation, if this concerns you.

The reliability of the evidence is another issue, and affects the belief that a court will have in it. The value that would be given to evidence of an electronic contract would depend on the circumstances of the case, including:

- The nature of the contracting process;
- The security of the storage and retrieval procedures; and
- The means of authentication used by the parties (although there have been no cases expressing an opinion on digital signatures, public/private key authentication, or other recently devised authentication procedures).

It is likely that any party to an action would need to produce expert witnesses on the reliability or unreliability of the procedures used.

Limitations of liability

Typically in sales and service contracts, the seller will limit its liability for certain types of damages. Local legislation will cover:



- Liability for negligence resulting in death or personal injury (this may not be excluded by contract);
- Limitations on liability for negligence resulting in injury to property and other damages must be reasonable in light of the particular circumstances; and
- All unreasonable limitations in standard form and consumer contracts are unenforceable.



Note it!

The common law concept of ‘reasonable’ is used often in consumer law based on the U.K. system and its definition and application is determined and limited by case decisions. An assertion on the part of a single company or supplier that they found a particular course of action ‘reasonable’ does not get very far in a court of law or arbitration.

Valid payment procedures

Several varieties of electronic payment schemes have arisen to facilitate electronic commerce. Internet accounts linked to credit cards (FirstVirtual), cheque accounts (NetChex) and electronic cash (Cybercash and Digicash) can be used to pay for goods and services electronically. These include:

- Credit and charge cards (including Visa, MasterCard);
- Stored value cards (such as those used for phones and transport); and
- Electronic purses (an idea which didn’t catch on - see Mondex).

If it seems like a good idea for your business to use such cards as part of an electronic payment or incentive scheme, you should obtain specific advice on how to conform to these laws.

Tax issues

These have yet to be resolved – although as online trade increases, governments will move to recover taxes, and this may have an adverse effect on online buying.

Marketing

Different countries have different regulations regarding the following:

- Collection, storage and use of personal data;
- The rights of a person to access and correct their personal data;
- Matching procedures (automated comparison of data bases);

- Transfer of data outside of the country; and
- Direct marketing.

So, when considering online business, make sure that you stay within the guidelines of each country that you are trading in. (Easier said than done for a small business).

Advertising guidelines

There are many codes of practice relating to the content and nature of advertising material and programming content. Many of these are put out by the Broadcasting Authorities and do not directly apply to online services. But as there are many areas of overlap, it is wise to check all content against regulations that may be invoked before incurring large expense or widespread dissemination of material that may be open to question.

Many of the issues that online sellers face have been raised before in connection with direct marketing, and the results of experience have been gathered and codified. In this context, it is useful to note that the World Federation of Direct Selling Associations publishes the Direct Selling Code of Conduct for its national Direct Selling Association members. Some of the obligations imposed by the Code on direct sellers in relation to consumers, include:

- No misleading, deceptive or unfair sales practices;
- Truthful identification of the direct seller, his or her company, the products and purpose of the contact with the consumer;
- Accurate and understandable answers to questions;
- Verbal promises must be authorised; and
- Order forms must specify that the consumer may withdraw the order within seven days.

By its very nature, Web trading reaches far beyond the confines of a single culture and must treat all customers fairly, not taking advantage of the ill-informed, hasty or simply gullible.

Restrictions on advertising

Legislation already applies to the advertising of certain products around the world. Specific legal advice should be obtained before advertising sensitive items from your server. Some examples include:

- Tobacco products (advertising tobacco on the Internet is specifically prohibited);



- Recognition of countries such as Tibet and Taiwan which are under occupation or threat;
- Medical products, including claims that a product has a particular therapeutic benefit;
- Gambling.

Trademarks, domain names and copyright

Registration of trademarks

Each country has its own trademark registration system which gives the owner the exclusive rights to use, or authorise others to use, the mark on specified products or services for the type of goods for which the mark is registered. Although the owner of an unregistered or common law trademark might be deemed by a court to already have important rights in the use of that mark, gained by custom and practice, registered trademark owners enjoy the following specific advantages:

- **Ease of enforcement.** If the owner of a registered trademark wants to take action against another using the mark without permission, they don't need to prove that the mark has become recognised as theirs through use (which they would need to do if the mark had not been registered). The mark may not have been used at all, but so long as it was registered with an intention to use it, and is in fact used within five years from the registration date, it holds its power;
- **Criminal penalties.** In many places the wrongful use of a registered mark can mean substantial criminal penalties;
- **Protection of foreign marks.** Decisions are made on national level for the use of trademarks that are not registered in those countries but they are advertised anyway and they are protected under the law. An unregistered mark can be protectable if it is (a) distinctive and it is (b) "used in commerce".

Domain names

To register a domain name the applicant must demonstrate an intention to use the name on a regular basis on the Internet. In most countries, if a name is not used for a period of 90 days or more, the authorities have the power to assume that the registration was not serious and deregister the name.

At the same time, an applicant must also undertake that the use or registration of the name does not interfere with the right of another party in any jurisdiction with respect to trademark, service mark, trade name, company name or any other intellectual property right. This is to prevent 'domain squatters' and to forestall later disputes over ownership and use of established names. Coca Cola may overlook registration of its domain

name in Pakistan, but still one would not be able to register www.Pak-cocacola.com for personal use.

Gambling

The topic of Internet gambling is controversial and best left to specialists in the field.

Dispute resolution

There are well-established ways of resolving business disputes – the processes of law and arbitration being well defined now for many industries and international trade. An emerging problem found more intensely in electronic commerce, however, is the question of who has the right or obligation to resolve or arbitrate in the case of commercial disputes.

Consider a seller in one legal jurisdiction, their server in another, the goods sourced from a third and sent to a fourth, after a buyer in a fifth jurisdiction enters into a contract electronically. Where has the contract been formed? Whose laws govern the agreement, the delivery, and the responsibility for events occurring as a result? These and similar questions are arising and pressing for a clearer and agreed-upon standard on jurisdiction.

Jurisdiction

In common law there is a presumption that a legislature is concerned only with all conduct taking place within the territory over which it has the right to decide, and with no conduct occurring outside of it. This is not always the case, as many countries believe that they may regulate the activities of their nationals abroad, but a discussion of this falls outside our brief. There is a related presumption that general words in a statute are limited so as to have effect only within the jurisdiction of the legislature, and do not reduce the right of foreigners within their own territories.

These principles of statutory interpretation are only presumptions, and must give way before a clearly expressed legislative intention to the country. Given the changing nature of international trade and the difficulties of establishing exactly when and where a transaction has taken place, for legal purposes, we can expect courts to attempt (successfully, or not remains to be seen) to change or extend the legal concepts of behaviour and corporate presence in e-commerce. There may be recognition that a business can operate across national boundaries entirely through software and Internet agents rather than through physical presence or human agents. The local and domestic regulation of activities such as banking, stock broking and gambling will be increasingly ineffective unless it also applies to the actions of such agents of e-commerce across national borders. The nature and extent of acceptable and practical legislation in these areas is, as yet, unclear.



Civil liability

Two areas of civil liability that may easily cross national borders are defamation and infringement of copyright. For each of these, a company or individual may incur liability in almost any country where material can be downloaded.

Social issues

Although we are concerned primarily with managing information systems and electronic commerce as a business phenomenon, we must also be aware that it forms part of a broader process of social change. This is characterised by the extension and even globalisation of markets, the shift towards an economy based on knowledge and information, and the growing importance of all forms of technology in everyday life. These major changes are under way and seem set to continue into the foreseeable future. In short, electronic commerce is being shaped by, and is increasingly shaping, modern society as a whole.

Social factors will thus have a profound influence on its future development. They will also demand attention from a public policy standpoint, both to establish the social conditions that allow electronic commerce to reach its full potential and to ensure that its benefits are realised by society as a whole.

For these reasons we should all be aware of the social processes that will influence the development of electronic commerce and how quickly it can grow, as well as the areas where it may have striking effects on the societies in which we live.

Analysis of the social dimensions of modern information systems is hindered, however, by both the speed of change, and by the difficulty of isolating the effects of the range of ICTs in use. Many of the effects of the latter are becoming documented in studies and reports on the information society, but electronic commerce, particularly in the business-to-consumer field is too new to evaluate. Our search for knowledge is also hampered by the pervasiveness of electronic commerce in the economy and the consequently diffuse nature of its linkages to broader social, institutional and cultural factors. Within these limitations, this section seeks to point to areas where a significant relationship appears to exist between social and economic considerations and which will attract attention in terms of public policy, toward which we shall be expected to contribute.

Social enablers of electronic commerce

Two groups of social enablers are fundamental to electronic commerce: the first is access and its determinants and constraints; the second is confidence and trust.

Access to the digital economy

The death of distance that comes from information networking is probably the single most important economic force shaping society today. Both for individuals and for businesses, affordable access to the information infrastructure has become a necessity for effective participation in a knowledge-based economy and society. Access to the Internet in particular has become a critical enabler of electronic commerce, since it has emerged as the dominant platform for a wide range of services associated with business-to-business as well as business-to-consumer applications. As a result, several aspects of access are important: the availability of advanced networks; consumers' and businesses' ability to connect to networks and services; and the existence of the skills and capabilities necessary to use the information networks.

Network availability

Access to a computer and a link to a telecommunications network capable of supporting data traffic at an adequate bandwidth, are currently the necessary pre-conditions for accessing the Internet and engaging in Internet-based electronic commerce. Access to the physical network and high bandwidth capabilities will clearly affect the take-up and implementation of electronic commerce activities, particularly for consumers and small and medium-sized enterprises (SMEs) located outside cities in the developed world. Therefore, governments need to look at ways to promote the development and availability of advanced networks, either by means of a policy of regulation or incentive measures.

Connectivity

To participate in electronic commerce, most people use dial-up access to the Internet from their homes. Access implies the cost of an Internet service provider (ISP), hardware costs and skills acquisition and support costs. For many people, such expenses may not be trivial; it is therefore reasonable to assume that the total cost of access will significantly affect consumer involvement in electronic commerce. We know that connectivity costs vary considerably across countries and in some cases within countries as well.

Although hardware costs are relatively constant and declining, others, such as charges by ISPs and network providers, may differ widely for different consumers. Local telephone access costs largely account for these variations, but any long-distance charges needed to reach an Internet node can also involve substantial costs. As a result, where these costs are fairly low, as in the developed world, the rate of Internet connectivity has been generally high. Pricing trends appear to be moving downwards in order to maximise network usage.

Telecommunications policy and regulations could favour growth prospects for electronic commerce by encouraging this lowering of prices.



Business connections

Engaging in electronic commerce as a supplier requires more in terms of bandwidth and reliability. The costs of networking are therefore more substantial, and may vary even more, depending on location, telecom provider, and the local regulations. Small businesses and businesses operating in rural and remote areas may be particularly disadvantaged. In terms of policy, connectivity issues may be more crucial to the development of electronic commerce than consumer access since they would determine the degree to which a viable and competitive industry can emerge on an economy-wide basis.

Skills and digital literacy

Basic competence in the use of computers and networks like the Internet are necessary for involvement in electronic commerce and in the digital economy in general. Becoming computer literate can be a significant additional cost, one, which is likely to vary as a function of age and educational background. An education system that teaches Internet technology and business skills training is a cost, but will allow equal access to employment to all sectors of the population. It is widely recognised that emphasis must be placed on ensuring a solid universal base for developing computer skills and Internet awareness among school students.

Confidence and trust

Most business relationships, whether between a company and a consumer or between businesses, rely on a strong element of confidence and trust. While both conventional and electronic markets rely on high levels of mutual trust, electronic transactions create specific challenges for both businesses and individuals.

Because they are impersonal and remote, these exchanges make mechanisms that reduce or eliminate risk especially important to establish. In particular, the potential for anonymity can pose greater risks of fraud for parties engaged in an electronic transaction than for those involved in more traditional forms of commerce. A specific form of risk is the possibility that personal or corporate information may be revealed or misused.

Internet-based technologies make it possible to keep, update, and give third-party access to detailed profiles of individuals. Better information may mean that sales promotions can be targeted to those interested in the product, so that those who would find the information intrusive will be spared unnecessary communications.

Issues of confidence and trust are also relevant for business-to-business electronic commerce. The creation of extranets to facilitate supplier-seller relationships is largely welcomed by companies for the increased efficiencies and cost-savings possible, despite lingering concerns with security issues. Proprietary information sent over networks, including trade secrets and company strategies, may be stolen. More than 80 per cent of companies say security is the leading barrier to expanding

electronic links with customers and suppliers. Businesses that expand their internal networks to include linkages with other businesses typically need to develop strong trust relationships. Security concerns, as well as the sensitivity of information transmitted over company networks, prompt many businesses to forge alliances with partners they trust. Such alliances create co-operation based on personal relationships and mutual confidence, which can lead to greater efficiency but may result in closed market structures. These may tend to restrict market entry for competing businesses that lack such close relationships.

Benefits and social impacts

The growth of electronic commerce and its importance in economic life can dramatically affect social relationships at many levels. Owing to the speed of the information technology revolution, it is impossible to measure the full range of social impacts and their effect. We can already see, however, that the social outcomes of electronic commerce are important to governments and policy makers in several areas. For instance, some electronic commerce applications are emerging as effective means of enhancing the social infrastructure. Moreover, like other aspects of information technology, electronic commerce may affect the individual and society in a more general way.

Strengthening the social infrastructure

Computer and information technologies have begun to make a significant contribution to strengthening the social infrastructure through improvements in education, health, and other aspects of human resource development, including the sense of community. The technologies and applications associated with electronic commerce, such as 'smart cards', automated payment systems, and electronic information, can play an important role in the organisation and delivery of such services. Both the public and private sector as a means of improving and expanding services to the public will increasingly use these tools.

Education and training

High skill levels are vital in a technology-based and knowledge-intensive economy. Changes associated with rapid technological advances in industry have made continual upgrading of professional and vocational skills an economic necessity. This places severe demands on established educational institutions and on traditional professional and vocational training.

The demand for education and training concerns the full range of modern technology, which involves virtually all economic sectors. Information technologies are uniquely capable of providing ways to meet this demand.

For instance, the Internet is at the centre of a learning revolution that is rapidly being adopted by many business entities. Online training via the Internet ranges from accessing self-study courses at a supplier's website, to complete electronic classrooms. These computer-based training



programmes can provide flexibility in skills acquisition and may be more affordable and relevant than more traditional seminars and courses.

Enthusiasts claim that computer-based training has advantages over traditional training programmes in terms of providing information when it is most relevant and immediately applicable. For instance, Oracle, the database software giant, is building a 'virtual campus'. This educational application is meant to assist staff in determining which skills are currently needed for particular aspects of their work and how their current capabilities can be most effectively upgraded with courses available online. This kind of flexibility allows for 'just-in-time' learning, which makes it possible to learn the specific characteristics of a particular software product just before using it. In addition to enhancing the possibilities for lifelong learning, the Internet can make a second important contribution to long-term vocational development.

A sense of community

Electronic commerce modifies the sense of distance and alters the concept of community. Many of these changes are positive – creating links with new people, maintaining closer ties with geographically diverse friends and family members, and creating new online communities with potentially global membership. There are potential costs as well. Some of these costs have already been experienced in countries where pedestrian shopping areas in city centres have been forced out by suburban shopping malls which rely on car access. Just as shoppers lose loyalty to city centre shops, as a business's production facilities and customer base becomes global, their loyalty to a particular area is likely to erode.

There are concerns that because of the new technology, people will no longer have to live in built-up regions and urban centres will decline. However, as much of the infrastructure for effective high-bandwidth communication is found in the traditional built-up areas, a technology-driven exodus from the city is unlikely in the near future.

Cyber-links may allow some rural communities to strengthen their social and economic situation and reverse lower growth trends and shrinking populations. In general, electronic communication tends to reduce the need for direct physical interaction between people.

Time usage

Time affects all interactions and activities in the business as well as in the social realm. Developments such as shorter product cycles, and the rise of 24-hour, seven-days-a-week service delivery are transforming business, but they will also affect the behaviour of individuals, communities, governments and social organisations. These changes will improve the competitiveness of global businesses and will give consumers greater convenience and flexibility. In many ways, we can expect the shrinking of delays brought about by electronic commerce to lead to similar efficiency gains in the management and operations of public sector organisations such as health and educational institutions. The effect of

such developments on the individual and on smaller organisations is less clear. Issues of time concern individuals, organisations and society.

Time management has always been a key component of efficient behaviour, but the requirements of modern business, transformed by technology and globalisation, may increase the demands, in terms of time and stress, placed on managers and senior personnel. While compressed timeframes may get products to market quickly and more effectively and may reduce the time spent on boring, repetitive tasks, these benefits are accompanied by pressures on the decision-making process stemming from the rapid pace of technology change. Articles in magazines and newspapers describe demands for instant information, rapid decisions, and continuous adoption of new, complex technologies.

Workers may be expected to be available or on call for longer periods of time, as there may be increased need for shift work outside normal waking hours to co-ordinate activities and keep systems running. This may increase the percentage of the workforce required to adapt to non-standard working hours. In addition, the need to upgrade skills to accommodate technological change requires more time from workers, many of whom feel compelled to acquire these skills outside working hours. While e-commerce may help drive this change in the supply of labour, its growth is also in many cases a function of consumer demand, as many e-commerce products (e.g., entertainment) are interactive and require immediate consumption.

It remains to be seen whether technologies such as email, Internet discussion groups, and other technological aids to communication can assist in the decision-making process. Ultimately, however, the nature of people will allow only so much compression of the process of communication and understanding. This points to the need to develop a deeper understanding of how cyber time and biological time will mesh and of what the impact is on individuals, organisations and communities. More narrowly, it is necessary to analyse the net impact of e-commerce, as one of its key features is the compression of response times, while it may also free up time previously spent shopping.

Distributive effects

While considering the extension of e-commerce, the social effects of electronic commerce has short- and longer-term implications for the distribution of income and opportunities in an information society. Currently, there is considerable debate regarding the scope and incidence of market failures in emerging information industries and the nature of biases that might prevail in information markets. Data now being collected may give some indication of where electronic commerce may have distributive effects affecting individuals, the workplace, and small business, as well as geo-political relationships.

There has been considerable speculation and concern regarding the possible creation of 'information haves and have nots' in the same way that other technology revolutions, such as the mechanisation of agriculture, have expanded the gap between the rich and the poor. In the absence of corrective measures, this could also happen in the information



age. Many national leaders in North America, Europe and Japan have also expressed their commitment to addressing these concerns. In this respect, attention is drawn to variables such as income, language and disability, which appear to affect individuals' participation in the information economy and by extension, their involvement in e-commerce. Many of us view this as a non-issue created by journalists and figures looking for a cause with which to excite people – an “electronic” or “digital” divide is a wonderful slogan with whatever meaning the user wishes.

The imbalance of access to communications networks translates easily into an equivalent or even greater disparity in the use of electronic commerce. In countries with extremely low phone access, Internet access for all must be defined in some way other than access from every home; the alternative is access at the group level of community or institutions. Public access sites located in schools, post offices, community centres, public libraries or even franchised shops are likely to be the preferred alternative. Such sites have a role in both developing and developed countries, especially in rural/remote areas and poorer urban areas. They can be provided with a higher bandwidth connection than the average home and provide access to a variety of electronically delivered government and public sector services. Once access is gained, e-commerce and the Internet offer certain opportunities to developing countries and regions, as previously inaccessible information becomes codified and internationally available. For example, Bangladesh medical schools can now access medical journals online for \$2.50 a month. Previously, the main medical school (Dhaka Medical School) could only afford a few subscriptions to published journals (Abul Kalam, 1997).

The workplace

In addition to overall employment effects, information technologies and electronic commerce have the ability to affect where we work, how we work, and what it is like to work. Telework and home businesses are two phenomena that are closely tied to the capabilities of information technologies and the growth of electronic commerce. Both result in significant changes in the nature of work and the workplace. On the positive side, reduced travel time and flexible hours offer personal and environmental benefits, as do the lower costs of office space, a greater ability to avoid workplace distractions, and the ability to co-ordinate work projects over greater distances.

Small businesses

The effect of electronic commerce on small businesses has received much attention from policymakers and the media. Aside from the economic significance of SMEs, the sector's social significance is widely recognised. In many cases, SMEs reflect the more personal and unique characteristics of a community than larger businesses. They also often serve specific market niches, the very presence of which can be a manifestation of special social and cultural characteristics.

The greater independence and entrepreneurial nature of SMEs are thought to embody desirable social values, and their presence is regarded as an

important source of social stability. The Internet and the transactional tools associated with electronic commerce provide the means that allow SMEs to collaborate and to access important information previously found difficult to acquire.

Smaller companies can benefit disproportionately from the opportunities offered by information technologies and electronic commerce. The Internet can make size irrelevant, because it can level the competitive playing field by allowing small companies to extend their geographical reach and secure new customers in ways formerly restricted to much larger businesses. On the other hand, the workings of electronic markets could create conditions that might impede SME involvement, relating to access to networks and connectivity (see the discussion of access in the previous section), technical standards, or institutional arrangements that might have anti-competitive effects or pose barriers to entry. This means that both governments and the business community must remain attentive to developments in the electronic marketplace in order to prevent or remove barriers to full SME participation.



Module Summary



Summary

This module looked at the structural aspects of electronic commerce.

In any area of life, especially when related to business and hence monetary issues, there have to be frameworks and standards which offer the general structure for more serious issues such as laws, authority and accountability to protect all parties involved, namely the public. Since e-commerce is constantly developing and evolving, so too must the organisations that are tasked with monitoring all issues related to it and so this extends to the impact that e-commerce has on social development as well as community. We have tried to encompass important points related to these issues here but you are asked to keep an open mind and consider all future possibilities that may come into play with developments all over the world, especially with regards to technology and accessibility.

References and further reading



References

- Abul Kalam, A.(1997, June) “MEDINET:A Nonprofit Initiative to provide Internet Access for Medical Professionals in Bangladesh”. Paper presented at INET 97. Retrieved from http://www.isoc.org/inet97/proceedings/E2/E2_1.HTM
- Choi, S. Y., Whinston, A. B. & Stahl, D. O. (1997). *The Economics of Electronic Commerce*. Indianapolis: Macmillan Technical Publishing.
- Kalakota, R. & Whinston, A. B. (1996). *Frontiers of Electronic Commerce*. Reading, Mass.: Addison-Wesley.
- Laudon, K. C. & Traver, C. G. (2009). *E-Commerce: Business, Technology, Society* (5th ed.). New Jersey: Prentice Hall.
- Mark, K. (2004). Wanted: Digital History. *InternetNews.com*. Retrieved from <http://www.internetnews.com/business/article.php/3425681>
- Porter, M. E.(1995). *Competitive Advantage*. New York: The Free Press.
- Rayport, J. F. & Sviokla, J. J. (1995). Exploiting the virtual value chain. *Harvard Business Review*, 73.
- Turban, E., King, D., McKay, J., Marshall, P., Lee, J., & Viehland, D. (2008). *Electronic Commerce A Managerial Perspective 2008*. New Jersey: Prentice Hall.