10

Future Trends and Legal Aspects

10.1 INTRODUCTION

Today the business has shadowed the geographical boundaries of world. Now it is the age of globalised business. In the present era of communication revolution, information can be sent from one end of globe to another end within seconds. It is possible to perform different business transactions without being presenting physically the parties involved. Now with a single mouse click, you can buy the best roses of the seasons from a distant shop or book a hotel room from the home computer or you can pay your telephone bill from your bank account without even going to the bank branch. All this is performed through Internet and termed as e-business just like e-mail. The websites involved are called business portals and are responsible for marketing, executing and safeguarding different business transactions through their sites.

Web designing is an unique subject, which involves both technical as well as legal issues. Web designing, is not just knowing about technology, but it requires considerable amount of creativity, intellectual labour and aesthetic sense. It confers certain legal rights on the designer. At the same time, the designer should not infringe others' rights in his attempt to

develop a web page. Hence today's web designers should have proper understanding of the related legal issues.

10.2 OBJECTIVES

After going through this lesson, you would be able to:

- explain the impact of e-commerce and m-commerce
- identify the factors that influence the future direction of e-commerce
- recognize the factors that determine e-commerce
- describe the concept of copyright and IT act
- appreciate legal rights over web design
- describe infringement concept of copyright
- explain disclaimer and digital certification

10.3 EMERGING TRENDS

We would discuss in this section the emerging trends in e-commerce, m-commerce, their advantages and disadvantages, modes of payments, success factors and issues in e-commerce.

10.3.1 E-Commerce

It is often referred to as simply e-commerce. It refers to business that is conducted over the Internet using any of the applications that rely on the Internet, such as e-mail, instant messaging, shopping carts, Web services, UDDI, FTP, and EDI, among others. Electronic commerce can be between two businesses transmitting funds, goods, services and/or data or between a business and a customer and even between two customers.

B2B: Business-to-business electronic commerce (B2B) typically takes the form of automated processes between trading partners. For example, a company that makes chicken feed would sell it to a chicken farm feed dealers rather than directly to consumers (chicken farms). An example of a B2C transaction would be a

consumer buying grain-fed chickens at a grocery store. B2B can also encompass marketing activities between businesses, and not just the final transactions that result from marketing.

B2C: Business-to-consumer electronic commerce (B2C) is a form of electronic commerce in which products or services are sold from a firm to a consumer. The B2C transactions can be through: (a) direct sellors and (b) online intermediaries.

a. **Direct Sellers**: Companies that provide products or services directly to customers are called direct sellers. These types of B2C companies are the most well-known. There are two types of direct sellers: e-tailers and manufacturers. Upon receiving an order, the e-tailer ships products directly to the consumer or to a wholesaler or manufacturer for delivery. Example: www. amazon.com The manufacturer sells directly to consumers via the internet. The goal is to remove intermediaries, through a process called disintermediation, and to establish direct customer relationships. Disintermediation is not a new idea as catalog companies have been utilizing this method for years. Example: www.dell.com

b. **Online Intermediaries**: Online intermediaries are companies that facilitate transactions between buyers and sellers and receive a percentage of the transaction's value. These firms, make up the largest group of B2C companies today. There are two types of online intermediaries: brokers and infomediaries.

Advantages: The following are advantages of using B2C E-commerce:

1. Shopping can be faster and more convenient.
2. Offerings and prices can change instantaneously.
3. Call centers can be integrated with the website.
4. Broadband telecommunications will enhance the buying experience.

Disadvantages: The two main challenges faced by B2C e-commerce are *building traffic* and sustaining *customer loyalty*. Due to the winner-take-all nature of the B2C structure, many smaller firms find it difficult to enter a market and remain competitive. In addition, online shoppers are very price-sensitive and are easily lured away, so acquiring and keeping new customers is difficult.

C2C: Consumer-to-Consumer (C2C) e-commerence is an internet-facilitated form of commerce that has existed for the span of recorded history in the form of barter, flea markets, swap meets, yard sales and the like. Notably, most of the highly successful C2C examples using the Internet take advantage of some type of corporate intermediary and are thus not strictly "pure play" examples of C2C. An example a venue where consumer-to-consumer e-commerce of this type takes place is Ebay.

B2E: Business-to-Employee electronic commerce (B2E) uses an intrabusiness network which allows companies to provide products and/or services to their employees. Typically, companies use B2E networks to automate employee-related corporate processes.

Examples of B2E applications include:

- Online insurance policy management
- Corporate announcement dissemination
- Online supply requests
- Special employee offers

The following are some of the organizations offering services at e-commerce platform:

Financial

- PayPal
- iBill
- Yahoo!

- Moneybookers
- Webmoney (Russia)

Software

- ATG
- eMeta Corporation
- NetSuite Inc.
- osCommerce
- Wax Digital
- Zen Cart

The following are some of the entities using e-commerce:

- Amazon.com
- eBay
- exostar
- rediff.com
- Smarthome
- Nuvvo

10.3.2 M-commerce

M-commerce or mobile commerce stands for M-commerce made through mobile devices. M-commerce is currently mainly used for the sale of mobile phone ring-tones and games, although as 3G/UMTS services roll out it is increasingly used to enable payment for location-based services such as maps, as well as video and audio content, including full length music tracks. Other services include the sending of information such as football scores via SMS.

Currently the main payment methods used to enable m-commerce are:

- premium-rate calling numbers,
- charging to the mobile telephone user's bill or
- deducting from their calling credit, either directly or via reverse-charged SMS.

Other examples of m-commerce applications are information-on-demand systems like news services or stock tickers, banking and stock brokerage applications by SMS, WAP or iMode. Although there are currently very few regulations on the use and abuses of mobile commerce, this will change in the next few years. With the increased use of m-commerce comes increased security. Cell phone companies are now spending more money to protect their customers and their information from online intrusions and hackers.

Advantages: The following are advantages of using m-commerce:

1. The benefits of m-commerce include customer satisfaction, cost savings,and new business opportunities.
2. Use m-commerce anytime, anywhere with the light-weighted device.
3. Single owner has control over data whereas the mobile device can be highly personalized.
4. m-commerce can bring the buyer and seller together more easily and facilitate greater profits and a closer customer relationship.

Disadvantages: The following are disadvantages of using m-commerce.

1. Mobile devices do not generally offer the graphics or processing power of a PC.
2. The small screens of mobile devices limit the complexity of applications.
3. Each network has a differing approach to m-commerce meaning that the international reach and ubiquity of E-commerce will not be matched.

Concerns over slow transmission rates of mobile devices are less valid with UMTS gaining ground. As far as security issues are concerned, mobile devices are capable of using the same technologies (for example,. SSL) as traditional PCs.

10.3.3 Modes of Payment

We have seen a wide variety of payment schemes in ordinary business transaction like an old-age barter system, currency notes, payment orders, cheques, promisory notes etc. But due to their very nature, they all need physical appearances what is almost impossible in case of electronic commerce. Some alternate methods of payment have been discovered in the process of populating e-commerece.

Electronic money: Also known as electronic currency, digital currency, digital money or internet money refers to money which is exchanged only electronically. Typically, this involves use of computer networks, the internet and digital stored value systems. Electronic Funds Transfer (EFT) and direct deposit are examples of electronic money. Also, it is a collective term for financial cryptography and technologies enabling it.

Singapore has a very successful electronic money implementation for its public bus transportation system. The electronic money, known as EZLink by most Singaporeans, is a card which is the size of an ordinary credit card. It has a smart chip plus a wireless communication module. Passengers just need to tap the EZLink when they board the bus and tap the card again when they alight; the bus fare system automatically deducts the calculated bus fare from the EZLink value. Recently, McDonalds is setting up EZLink payment infrastructure at their fast-food branches all over Singapore's main island. It is believed that in the near future EZLink will gain more acceptance as a convenient electronic money solution in Singapore.

Alternative systems: Technically electronic or digital money is a representation, or a system of debits and credits, used (but not limited to this) to exchange value, within another system, or itself as a stand alone system, online or offline. Also sometimes the term electronic money is used to refer to the provider itself. A private currency may use gold to provide extra security, such as digital

gold currency. An electronic currency can be fully backed by gold, like e-gold, or non-gold backed, like eeeCurrency and Liberty Reserve.

Many systems will sell their electronic currency directly to the end user, such as Paypal or e-Bullion, but other systems, such as e-gold, sell only through third party digital gold currency exchangers, like OmniPay or IceGold who service orders manually, or automated websites.

In the case of Octopus Card in Hong Kong, deposits work similarly to banks'. After Octopus Card Limited receives money for deposit from users, the money is deposited into banks, which is similar to debit-card-issuing banks redepositing money at central banks.

Some community currencies, like some LETS systems, work with electronic transactions. Cyclos Software allows creation of electronic community currencies. Ripple monetary system is a project to develop a distributed system of electronic money independent of local currency.

Virtual debit cards: Some companies now propose virtual debit cards, which are prepaid and sometimes rechargeable VISA or Mastercard cards which the client can use in online merchant sites like any other VISA or Mastercard. This system has the advantage of being anonymous and more secure since the client can never be debited more than the value of his prepaid card; also this can be useful for people living in countries which do not authorize international money transfer. The card can be recharged with systems like e-Bullion, e-Gold or money transferred from another bank account.

Advantages: The following are the advantages of paying money elecronically.

Most money in today's world is electronic, and tangible cash is becoming less frequent. With the introduction of internet/online banking, debit cards, online bill payments and internet business, paper money is becoming a thing of the past.

Banks now offer many services whereby a customer can transfer funds, purchase stocks, contribute to their retirement plans and

offer a variety of other services without having to handle physical cash or checks. Customers do not have to wait in lines.

Debit cards and online bill payments allow immediate transfer of funds from an individual's personal account to a business's account without any actual paper transfer of money. This offers a great convenience to many people and businesses alike.

Disadvantages: The following are the disadvantages of paying money elecronically.

Although there are many benefits to digital cash, there are also many significant disadvantages. These include fraud, failure of technology, possible tracking of individuals and loss of human interaction.

Fraud over digital cash has been a pressing issue in recent years. Hacking into bank accounts and illegal retrieval of banking records has led to a widespread invasion of privacy and has promoted identity theft.

There is also a pressing issue regarding the technology involved in digital cash. Power failures, loss of records and undependable software often cause a major setback in promoting the technology.

Privacy questions have also been raised; there is a fear that the use of debit cards and the like will lead to the creation by the banking industry of a global tracking system. Some people are working on anonymous e-cash to try to address this issue.

10.4 SUCCESS FACTORS IN E-COMMERCE

Technical and organizational aspects: In many cases, an e-commerce company will survive not only based on its product, but by having a well-organized business structure and a secure, well-designed website. Such factors include:

1. Providing an easy and secure way for customers to order. Credit cards are the most popular means of sending payments on the internet, accounting for 90% of online purchases. Card numbers are transferred securely between the customer and merchant through independent

payment gateways.

2. Providing reliability and security. Parallel servers, hardware redundancy, fail-safe technology, information encryption, and firewalls can enhance this requirement.

3. Providing a 360-degree view of the customer relationship, defined as ensuring that all employees, suppliers, and partners have a complete view, and the same view, of the customer.

4. Constructing a commercially sound business model. If this key success factor had appeared in textbooks in 2000, many of the dot.coms might not have gone bust.

5. Engineering an electronic value chain in which one focuses on a "limited" number of core competencies - the opposite of a one-stop shop.

6. Operating on or near the cutting edge of technology and staying there as technology changes.

7. Setting up an organization of sufficient alertness and ability to respond quickly to any changes in the economic, social and physical environment.

8. Providing an attractive website. The tasteful use of colour, graphics, animation, photographs, fonts, and white-space percentage may aid success in this respect.

9. Streamlining business processes, possibly through re-engineering and information technologies.

Naturally, the e-commerce vendor must also perform such mundane tasks as being truthful about its product and its availability, shipping reliably, and handling complaints promptly and effectively. An unique property of the Internet environment is that individual customers have access to far more information about the seller than they would find in a brick-and-mortar situation.

Customer-Oriented: A successful e-commerce organization must also provide an enjoyable and rewarding experience to its customers. Many factors go into making this possible. Such

factors include:

1. **Providing value to customers**. Vendors can achieve this by offering a product or product-line that attracts potential customers at a competitive price, as in non-electronic commerce.

2. **Providing service and performance**. Offering a responsive, user-friendly purchasing experience.

3. **Providing an incentive for customers to buy and to return**. Sales promotions to this end can involve coupons, special offers, and discounts. Cross-linked websites and advertising affiliate programs can also help.

4. **Providing personal attention**. Personalized web sites, purchase suggestions, and personalized special offers may go some of the way to substituting for the face-to-face human interaction found at a traditional point of sale.

5. **Providing a sense of community**. Chat rooms, discussion boards, soliciting customer input and loyalty programs (sometimes called affinity programs) can help in this respect.

6. **Owning the customer's total experience**. e-tailers foster this by treating any contacts with a customer as part of a total experience, an experience that becomes synonymous with the brand.

7. **Letting customers help themselves**. Provision of a self-serve site, easy to use without assistance, can help in this respect.

8. **Helping customers do their job of consuming**. E-tailers and online shopping directories can provide such help through ample comparative information and good search facilities. Provision of component information and safety-and-health comments may assist e-tailers to define the customers' job.

10.5 ISSUES IN E-COMMERCE

Even if a provider of e-commerce goods and services rigorously

follows these seventeen "key factors" to devise an exemplary e-commerce strategy, issues can still arise. Sources of such issues include:

1. **Failure to understand customers, why they buy and how they buy**. Even a product with a sound value proposition can fail if producers and retailers do not understand customer habits, expectations, and motivations. e-commerce could potentially mitigate this potential problem with proactive and focused marketing research, just as traditional retailers may do.

2. **Failure to consider the competitive situation**. One may have the capability to construct a viable book e-tailing business model, but lack the will to compete with Amazon.com.

3. **Inability to predict environmental reaction**. What will competitors do? Will they introduce competitive brands or competitive web sites? Will they supplement their service offerings? Will they try to sabotage a competitor's site? Will price wars break out? What will the government do? Research into competitors, industries and markets may mitigate some consequences here, just as in non-electronic commerce.

4. **Over-estimation of resource competence**. Can staff, hardware, software, and processes handle the proposed strategy? Have e-tailers failed to develop employee and management skills? These issues may call for thorough resource planning and employee training.

5. **Failure to coordinate**. If existing reporting and control relationships do not suffice, one can move towards a flat, accountable, and flexible organizational structure, which may or may not aid coordination.

6. **Failure to obtain senior management commitment**. This often results in a failure to gain sufficient corporate resources to accomplish a task. It may help to get top management involved right from the start.

7. **Failure to obtain employee commitment**. If planners do

not explain their strategy well to employees, or fail to give employees the whole picture, then training and setting up incentives for workers to embrace the strategy may assist.

8. **Under-estimation of time requirements**. Setting up an e-commerce venture can take considerable time and money, and failure to understand the timing and sequencing of tasks can lead to significant cost overruns.

9. **Failure to follow a plan**. Poor follow-through after the initial planning, and insufficient tracking of progress against a plan can result in problems. One may mitigate such problems with standard tools: benchmarking, milestones, variance tracking, and penalties and rewards for variances.

10. **Becoming the victim of organized crime**. Many syndicates have caught on to the potential of the Internet as a new revenue stream. Two main methods are as follows:

    a. Using identity theft techniques like phishing to order expensive goods and bill them to some innocent person, then liquidating the goods for quick cash.

    b. Extortion by using a network of compromised "zombie" computers to engage in distributed denial of service attacks against the target Web site until it starts paying protection money.

INTEXT QUESTION

1. Write True or False for the following:

   (a) E-commerce can only be possible if two parties are physically present.

   (b) Two categories in B2C are direct sellers and on line intermediaries.

   (c) M-commerence cannot bring the buyer and seller together more easily.

   (d) Electronic money is known as electronic curreny.

(e) on line insurance policy management is the example of C2C.

10.6 LEGAL ASPECTS

In this section, you will learn the legal aspects of web designing. We are discussing the relevant provisions of Copyright Act, 1957 with its various amendments (Act No. 14 of Year 1957 which came into force on 21st January 1958, vide Notification No. S.R.O. 269, dated 21-1-1958, Gazette of India) and the Information Technology Act, 2000 (No. 21 of 2000, passed on 15 May 2000 and came into force on 17 October 2000). Along with this, we are also discussing some general legal principles concerning the creation and use of web designing.

10.6.1 Copyright

Copyright is a form of intellectual property. The importance of copyright has increased enormously in recent period due to the rapid technological development in the field of computer industry and due to the advent of Internet.

The object of copyright law is to encourage artists, designers and authors to create original works by rewarding them with the exclusive right to a limited period to exploit the work for monetary gain. Copyright is the right of the owner to reproduce or permit someone else to reproduce copyrighted works. Though it is intangible in nature, it can be legally protected. Copyright protects not the idea but the original expression of the idea by artists/ writers etc. To get copyright in a web design, the designer has to give the ideas a concrete form. Mere providing of idea, though it is original and brilliant, does not give any right because ideas are not copyrightable. To qualify for copyright protection, the design must be original. That is, it must originate from the designer him/herself. The designer must have bestowed his/her personal skill, judgments and efforts upon the work. The design must be the result of the intellectual labour of the designer himself, and it must not be a copied one.

The written matter in the web page may be considered as literal work and copyright can be claimed for this, if it is original. The

design will be protected as an artistic work. The designer's right extends to all pictures, graphics, HTML and text.

The 'copyright' in the design is very much important for a web-designer. The designer owns 'copyright' in his original artistic design of the web page. That creation (design) is an intellectual property of the designer, which can be protected from infringers. The designer gets a bundle of rights the moment he /she **creates** a web page.

Rights: The works in which copyrights subsists are e nlisted under section 13 of the Copyright Act, 1957 and the various rights granted to the creators of original work are enumerated under section 14 of the Copyright Act, 1957. Original literary, dramatic, musical and artistic works, cinematographic film and sound recording etc. are copyrightable subject matters. A computer programme is entitled for copyright protection as a literary work. The copyright confers exclusive rights to do or authorize others to do certain acts (those conferred under section 14) in relation to the copyrighted work. The right for doing the respective acts extends not only to the whole of the work but also to any substantial part thereof or to any adaptation or translation thereof.

The copyright gives the designer both '*moral'* and *'economic'* rights. The economic rights consists of:

- Right to prevent all others from copying his design.
- Right to publish, communicate, make adaptation, license, assign etc. of the design.

The moral right confers on the original designer the right to claim authorship and to restrain other from any distortion, mutilation, modification, etc. of the work (section 59). The economic rights guaranteed under the Copyright Act lie with the copyright owner. The moral rights guarantee under the Copyright Act lie with the copyright author.

Registration: Registration of the work under the Copyright Act is not compulsory to acquire copyright. Copyright in a design subsists automatically as soon as the original design is created. Since, copyright registration is a powerful tool in combating

infringement, and ensures the best evidence to protect the work and rights, registration of the webpage and design is advisable. Registration carries much evidentiary value. Registration can be done by making an application to the Copyright office. Registration is the fast, effective and low cost way to protect the work from infringement and misuse. Indian copyright office is functioning under the Ministry of Human Resource Development. Presenly the copyright office is situated in Delhi. Section 44 of the Copyright Act, 1957 provides for the registration of all works in which copyright subsists. Chapter IV of the Copyright Rules, 1956 sets out the procedure for the registration of a work. Application for registration is to be made to the Registrar of Copyrights in the prescribed form (Form IV along with Statement of Particulars prescribed in the first schedule to the C opyright Rules, 1956) along with the prescribed fees.

Term: The duration of copyright depends on the nature of work. Usually for literary, dramatic, musical, artistic work etc, the owner of the work will get lifetime protection plus sixty years. Likewise, the designer will get copyright in his design during his/her lifetime plus sixty years. After the expiry of this period, the work will fall into public domain.

Authorship v/s Ownership: It is desirable for the designers to claim copyright in the design itself. In order to claim the rights, it is important to decide who is the 'author' and the 'owner' of the web design. The person who creates the design (the designer) is the author. An author (designer/ artist) may create a work on his own behalf or at the instance of another person (commissioned work). If the designer designs a web page at his own initiative, then the designer is the author as well the owner of the copyright in the work. If the designer creates the design for a valuable consideration, then the owner is the person at whose instance the design is made/who is commissioning the work. If the design is created by an employee in a contract of service and in the course of his employment, then the employer is the owner of the copyright. There can be a special contract to the contrary also.

License: The designer can give license to others to use his/her copyrighted design and permit the licensee to exercise his/her exclusive rights. License is an authorization to do the acts in respect of which only the designee has rights. If it is done by any

other person without license, it would be an infringement. The designer can license all or some of his rights to the licensee. The license deed must be in writing and signed by the owner of the copyright.

Copyright Notice: Designer's copyright is protected by law; the minute something is created, copyright protection comes automatically, whether the author has a copyright notice or not. Still, it is advisable to give a copyright notice on the web. Copyright notice can be given on the web with © symbol. For example, if X is the designer and the design n is created in 2006, the notice will be: **Copyright © X 2006**. **All rights reserved.** The copyright notice will be a warning to the whole world making copying and reproduction illegal. The owner of the copyright can give the notice as folows.

> All content of this web site is Copyright © 2006 X.Except where explicitly stated, all rights are reserved, and content should not be copied, modified, deleted, adapted, redistributed, or otherwise used without the prior written permission of X. Any publication, copying, hiring, lending and reproduction of any materials is strictly prohibited and constitutes infringement.

Infringement: A particular web design will be available to an Internet navigator (browser) at a mouse click. The browser is legally entitled to see, read, appreciate and understand the web contents and the web design. Anything more will be an unauthorized act; for example, copying, downloading etc. the reason being whatever appears on the web is the product of creator's ingenuity. Others are not at liberty to use the labour and skill of another for the purpose of producing their work. Most copyright owners on the Web will not object to the personal use of their Web pages. But, unauthorised copying or reproduction or commercial exploitation of the design in any form by a person without authority constitutes infringement. (Infringement literally means violation of some legal rights. In copyright, infringement stands for violation of the exclusive rights granted to copyright holder). Reproduction of a web page can includes printing a web page, copying the html, java script or other code of a page, downloading an image to hard drive, printing an image etc.

Whoever wants to copy or download any contents on the protected Web must obtain consent/ permission/ authority of the copyright holder. Otherwise that will constitute infringement. So a designer, in his/her attempt to create a web page, must not use anything from another person's site, be it writing, images, graphics or html code, unless there is permission. Owner of the copyright or an exclusive licensee can initiate legal action against infringer. A suit relating to infringement can be instituted in a District Court or a High Court. An infringement suit must be filed within 3 years from the date of infringement. Civil and Criminal remedies are available in case of copyright infringement. Civil remedies include injunction, damages or accounts of profit and delivery up of infringing copies. Criminal remedies include imprisonment of the infringer, fine and seizure of infringing copies. The Registrar of copyright has power to order delivery of infringing copies.

Doctrine of fair use: Generally, copyright owners have the legal right to prevent the reproduction of a copyrighted work, and to demand royalty (payment) when copyrighted work is reproduced. A strict enforcement of these rights may hinder the dissemination of knowledge and education. Hence, the doctrine of fair use permits researchers, educators, scholars, etc. to use copyrighted works without seeking permission or paying royalties. To put it in another way, a copyrighted work may be used fairly for certain legally permitted purposes without infringing the rights of copyright owners. This exemption can be used only for research, education, criticism, *bonafide* private use etc. This is not a right to use somebody else's work in anyway, but this doctrine can be taken as a defense against accusations of infringement, if the use of a copyrighted work was a reasonable fair use. If a use is challenged by the owner as infringement , then it will be the user's burden to prove that his/her use was a "fair use".

In India, fair use of any copyrighted work is permitted by virtue of section 52 of the Copyright Act. Section 52 provides that fair dealing can be done for private study, review, criticism, research etc. No consent of the owner is required for any sort of fair dealing. If a person can bring the action in the ambit of section 52, then it will not constitute infringement.

10.6.2 Disclaimer

Even though utmost care and caution is taken in the creation of a web page, there can be some inevitable errors. This is very true especially in cases of information and other contents on the web are concerned. Hence, it is the usual practice to give a 'disclaimer' in every web site. A disclaimer is an acknowledgment by the author/ creator of the web page that he/she does not claim any accuracy, completeness, or usefulness of information and contents disclosed on the web. This means that the author/ designer does not warrant or assume any legal liability or responsibility for the correctness of the contents. If a properly framed disclaimer is there then the designer /author shall not be liable for any errors or delays in the content or data, or for any actions taken in reliance thereon. So, to be on the safer side, you must have a disclaimer on your web. The following illustrates a standard from of disclaimer, supposing X is the owner of the website:

> Informations and contents on this site should not be regarded as legal advice or opinion. For Informations and contents available at this site, X do not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information. While X made reasonable efforts to ensure that the information is both accurate and honest, X cannot accept any liability regarding the accuracy or completeness of information.

10.6.3 Digital Certification

In this electronic era, more transactions are carried out over Internet and electronic records are commonly used everywhere. This necessitated legal recognition of electronic records and digital signature. By virtue of the Information Technology Act, the secure electronic records and secure digital signature have been granted legal validity and enforceability. (Digital signature is an encryption and decryption process allowing both the positive identification of the author of an electronic message and verification of integrity – that is the message is not tampered with during transmission - of the message. A digital signature certificate is a computer-generated record, which contains the identity of the holder (subscriber) of the certificate. A Certifying Authority can issue a digital signature certificate to a subscriber.

A digital signature certificate consists of a string of characters and the signatory's name, title, certificate serial number, the name of the certificate authority *etc.* Section 35 of the IT Act and the Certifying Authorities Rules framed under the IT Act provides for the methods for issuance of a digital signature certificate. A digital signature certificate can be suspended on a request from the subscriber or from an authorized person or in public interest). The IT Act also provides security procedure for electronic records and digital signatures.

The IT Act also prescribes conditions for revocation of digital signature certificates, if requirements for issuance of the Digital Signature Certificate were not satisfied, for example:

- Where the subscriber or any other person authorized by him makes a request to that effect; or
- Upon the death of the subscriber, or
- Upon the dissolution of the firm or winding up of the company where the subscriber is a firm or a company.
- If it is obtained by false representation

10.6.4 IT Act- Salient Features

The Information Technology (IT) Act, 2000 is Indian Cyber Law. It aims to provide a legal and regulatory framework for the promotion of e-commerce and e-governance. With this enactment, the electronic documents have got legal recognition. The Act, among other things, enabled:

- Legal recognition to electronic transaction / record.
- Facilitate electronic commerce and electronic data interchange
- Prevent computer crime, forged electronic records, international alteration of electronic records fraud, forgery or falsification in electronic commerce and electronic transaction.

The IT Act also facilitates electronic filing of documents with the Government agencies, electronic record keeping and data

protection, signature in e-documents and authentication E-Gazette, E-taxation etc. It also establishes Cyber Appellate Tribunal for the adjudication of cyber offences. In this lesson, we mainly concentrate on computer related offences and their punishment covered under the IT Act.

Network service providers' liability for offences committed by third party: Section 79 of the Act reads as under:

"For the removal of doubts, it is hereby declared that no person providing any service as a network service provider shall be liable under this Act, rules or regulations made thereunder for any third party information or data made available by him if he proves that the offence or contravention was committed without his knowledge or that he had exercised all due diligence to prevent the commission of such offence or contravention.

Explanation. -For the purposes of this section, -

(a) "network service provider" means an intermediary;

(b) "third party information" means any information dealt with by a network service provider in his capacity as an intermediary."

Damage to computer system: The Act defines 'damage to computer system' as:

"If any person without permission of the owner or any other person who is in charge of a computer, computer system or computer network, -

a. accesses or secures access to such computer, computer system or computer network;

b. downloads, copies or extracts any data, computer data base or information from such computer, computer system or computer network including information or data held or stored in any removable storage medium;

c. introduces or causes to be introduced any computer contaminant or computer virus into any computer, computer system or computer network;

d. damages or causes to be damaged any computer, computer system or computer network, data, computer data base or any other programmes residing in such computer, computer system or computer network;

e. disrupts or causes disruption of any computer, computer system or computer network;

f. denies or causes the denial of access to any person authorized to access any computer, computer system or computer network by any means;

g. provides any assistance to any person to facilitate access to a computer, computer system or computer network in contravention of the provisions of this Act, rules or regulations made thereunder;

h. charges the services availed of by a person to the account of another person by tampering with or manipulating any computer, computer system, or computer network."

The penalty for damage to computer, computer system etc. has been fixed as damages by way of compensation not exceeding rupees one crore to the affected persons.

Offences: The IT Act defines various types of computer crimes and attaches stringent penalties for the same. The IT Act also applies for offences or contraventions committed outside India. The Act penalizes hacking of the computer system. Whoever with the intent to cause or knowing that he is likely to cause wrongful loss or damage to the public or any person destroys or deletes or alters any information residing in a computer resource or diminishes its value or utility or affects it injuriously by any means, commits hacking. Punishment for hacking as a cyber crime is imprisonment up to 3 years or fine that may extend to Rs 2,00,000/- or both. The Act punishes publishing of obscene matter on computer. The imprisonment may extend up to five years with a fine of up to Rs.1,00,000 (for second and subsequent convictions, imprisonment of upto 10 years and a fine of upto Rs. 2,00,000). The government has authority under the Act to notify certain computer systems or networks as being "protected systems", unauthorised access to which may be punishable with imprisonment upto 10 years in addition to a fine.

Under sections 43 and 44 of the IT Act, the following are civil offences:

- Copy or extract any data, database
- Unauthorised access & downloading files
- Introduction of virus
- Damage to computer System and Computer Network
- Disruption of Computer, computer network
- Denial to authorized person to access computer
- Providing assistance to any person to facilitate unauthorised access to a computer
- Charging the service availed by a person to an account of another person by tampering and manipulation of other computer
- Failure to furnish information, return etc. to the Controller by certifying authorities.

Criminal offences: Sections 65 to 75 of the IT Act make the following offences punishable:

- Tampering with computer source documents (i.e. listing of programmes)
- Hacking with computer system
- Electronic forgery, i.e., affixing of false digital signature, making false electronic record
- Electronic forgery for the purpose of cheating
- Electronic forgery for the purpose of harming reputation
- Using as genuine a forged electronic record
- Publication of digital signature certificate for fraudulent purpose
- Offences and contravention by companies

- Unauthorised access to protected system
- Confiscation of computer, network, etc.
- Publication of information which is obscene in electronic form
- Misrepresentation or suppressing of material face for obtaining
- Breach of confidentiality and Privacy
- Publishing false Digital Signature Certificate

INTEXT QUESTION

2. Write True or False for the following:

   (a) Copyright is a form of intellectual property.

   (b) Registration of the work under the copy right Act is compulsory to acquire copy right.

   (c) A digital signature certificate is a computer generated record contains the identity of the holder.

   (d) Copyright owners have the regal right to prevent the reproduction of copy righted work.

10.7 WHAT YOU HAVE LEARNT

Here we explained the impact of e-commerce and M-commerence alongwith the factors that influence the future direction of e-commerence. We discussed the concept of copy rights and IT act. You also learnt about discliamer and digital certification.

10.8 TERMINAL QUESTIONS

1. Define B2B, B2C and C2C transactions with suitable examples in each category.

2. Name different various parties coming under B2C category

and brief about the activities performed them.

3. Discuss how the monetary transactions are performed on Internet and different types of cash replacement used.

4. What is m-commerce? What are future implications associated with it?

5. Write about different issues that may affect the popularity of e-commerce.

6. What is product suitability? Describe its relevance with respect to e-commerce.

7. Brief about security threats to different transactions performed in Internet.

8. Explain the concept of Copyright in relation to the designer of a web Page?

9. Briefly explain the following:

   a) Offences under IT Act

   b) Digital certification

   c) Copyright notice

   d) Disclaimer

   e) Need for copyright registration

10.8 FEEDBACK TO INTEXT QUESTIONS

1. (a) False (b) True

   (c) False (d) True

   (e) False

2. (a) True (b) False

   (c) True (d) True