

Unit 7

Q1) Social Responsibilities of IT:-

Reliability and failure:- Information Technology is extremely complex. Although systems in the future are expected to feature more redundancy and lower failure rates, there is always the possibility of a system failing. The results of such a system failure range from inconvenience to catastrophe. There is serious public concern about seeing that systems are designed and installed with adequate considerations of reliability and backup. The IS profession has not yet approached such levels of redundancy. Some systems have extensive hardware redundancy, but very few systems have software that is independently developed and executed on separate machines to provide reliability and backup. Obviously, such an approach is costly, but for certain kinds of systems envisioned in the future, it may become necessary. More research is needed to conduct the cost/benefit analysis necessary for selecting the proper design for reliability. The profession in general does not have a well-developed procedure for analyzing the risks of various types of system failures. Without this assessment capability, it is difficult to determine the steps necessary to achieve acceptable levels of reliability for any given system. There are also many problems related to the prevention of system failure.

2) Privacy:- The technology industry is the

U.S. is a strong engine for growth and jobs. Yet this industry is threatened by piracy primarily of software. It is a violation of what is often referred to as intellectual property rights. The Asia Pacific region is considered by most companies to be the largest center of piracy. Estimates of piracy in the People's Republic of China run as high as 98 percent. The score for Russia and Latin America is estimated to be 90 percent.

The violation of intellectual property rights is not confined to individuals selling pirated copies of "software" anytime you borrow a program a friend purchased with a licensing agreement and install it on your computer, you are probably violating the licensing agreement. Software companies offer a variety of licensing arrangements. Frequently universities are licensed to use software in a computing lab at a very low fee in order to introduce students to the programs. For the software vendor, the misappropriation of its intellectual property rights is a major problem.

3) Applications of IT :- Electronic Securities Markets on October 19 and 20, 1987; the stock market came close to what was later described as a "meltdown". There were a number of investigations of what happened during this market collapse. Two investment and trading strategies that are possible only because of computers were given a significant amount of blame for

the problem - One strategy, called portfolio insurance, involves the sales of futures to offset a falling stock market. In addition, the insurer sells stock while the market is falling; thus contributing to a decline in the price of stock. Arbitrageurs look for differences between stock index futures prices and the prices of the underlying stocks. Investigations of the October 1987 crash suggest that this arbitrage, combined with portfolio insurance, drove the market down and was responsible for much of the volatility in the market following October 19.

There are concerns that technology contributed to a lack of stability in the market and this may discourage individual investors from investing. However, even with these concerns, stock exchanges are moving to develop electronic markets and sometimes closing the comparable physical exchange. The speed and low cost of these trades have encouraged "day trading" - where investors buy and sell the same stock in a short period of time.

4) Monitoring :- Computer systems offer the opportunity to monitor worker performance closely. An insurance company can determine how long it takes a representative to serve a customer on the telephone. An airline can tell how long a reservations agent takes on each call and how many calls the worker handles in each shift. On the production line, errors are traced

back to the individual making them. Control systems also track individual worker productivity. Many individuals respond negatively to such monitoring. For example, one employee sued her employer for monitoring her e-mail messages. It is possible employees will refuse to work with or that they will try to sabotage systems that closely monitor their work performance.

5) Harassment :- Too many times, it appears we are harassed by companies' computers. Systems are designed to automatically send second third, and even further overdue notices when a customer has a legitimate complaint about a bill. Computers are connected to automatic dialing machines harass consumers via the phone. Systems appear unresponsive to an individual's problems because of the need to process large volumes of information quickly. Some systems may be flexible but require cumbersome manual procedures to update records and keep them accurate. If a clerk makes an error or omission, the computer will continue sending letters to the customer. In other situations, employees learn to rely on systems and do not provide customer service when a system is unavailable.

6) Defense :- Since so much of the economy of developed countries depends on technology, these nations are vulnerable to electronic warfare. In a recent popular novel, a

war with the United States begins when the aggressor country's banks make massive sales of Treasury bills through electronic markets, driving down the value of the dollar and affecting the U.S. stock market. The Army Intelligence and Security Command also plan electronic offenses against enemies and defenses for the U.S. ("Cyberwar"). As an example, a country might try to insert a computer virus in an enemy's telephone switching stations to cause a nationwide failure of communications. If you insert logic "bombs" in enemy communications networks, you can set them off to disrupt rail and air transportation as well.

Q2] Ethics and Information Technology :-
In the era of the Information Technology, IT has become one of the life changing matters in medicine, transportation, banking sector, government sector, security, research sector and so on. Similarly it has affected both direction in right and wrong in aspect of community life, education, freedom, relationship, age, law and so on.
As a part of IT, Internet has made big impact in revolution of global communication. Internet has opened the door for people to share lots of things such as find and share views in internet, find much information in web. It has given the facility for online shopping, online

grocery where everything can be found, all we have to do is add in basket and pay after finishing shopping. Now a day's most of the bank has given online facilities so that one can manage their daily transaction by sitting in a room. Due to this reason it has gone so far that it has created conflict in different cultures. From last couple of year's e-dating has emerged so drastically in western country, people with fake name and addresses are dating online. So many of the Muslim country has banned the e-dating sites. Pornography in the western and some of the eastern country has become the business means but some the eastern country still don't allow any pornography websites in their country. So in western country there is no violation done by the e-dating and pornography as long as it is in law but in the Eastern country it is unacceptable and unethical. As a responsibility of the social network, it is our duty to act ethical towards the work place and everyone knows that what is right from wrong. There may be many people (users) to act unethically and there is no one to stop these acts from them. There are many companies who keeps track of employees report, personal mail or the uses of internet as its policy or to secure any important files that may not be leaked outside or to stop doing and side job or personal business.

using company's computer system. This is done by ~~the~~ the company to shield any employees from any legal charge that may not be illegal of their company, though there may be a big issue against the privacy. So to overcome such issue all companies have their own law and policies against the unethical behaviour in the workplace. So each company having any electronic tracing have to be careful so that there may be a balance in company ethical and privacy issue.

As on the privacy, some people collect some private information such as the name of person, address, contact info, email address, card details and so on, sell this information to other company or some people.

As increasing use of social networking such as Facebook, LinkedIn, Twitter, this personal information have become handy to anyone. So the identity theft and credit card theft have been happening using these social networking. So to overcome such things ~~these~~ these companies are giving some option to increase the privacy.

Obviously someone's creation or invention is legally protected or copyrighted or may have trademark to sell that brand only by that company or person. Making duplicate CD or sharing of music, videos, software of a copyright protected is illegal. P2P has become commonly.

used unethical software. It has abuse of right and made every one guilty against the ethics. P2P is not against the law. But the way it is being used is illegal. Uploading and downloading of trademark or copyright software, files, document, music, videos is said to be illegal. As doing P2P and making duplicate CD affected the copyright protected company. They may loose their income. Which means government is also loosing the money. Yet law against copying or sharing the copyright protected thing was unsuccessful. So to overcome these copying and sharing the copyright protected thing, company use P2P as to promote their sales. They started to give some trial software for free. Even Music Company gives some sample song to listen and persuade to buy the song. Still there so far it has created some relief to company and publisher but it is still believed as unethical.

In other case Plagiarism play significant role in doing work by itself or copying from other. In internet everything and any information can be found. So the users copy and put the information for own use and some argue as their own creation. Especially journal, students of universities, colleges, schools and even some writers are most likely to be guilty. Copying is not plagiarism or unethical if they give proper footnote and references.

In addition, "Being ethical is doing what the law requires". Each country has its own law for their public. Till now there is no such thing which bound all the international country in one law. Any information or thing posted may be legal to one country but may be illegal to other country. For example, Voice over Internet Protocol is legal to most of the countries like UK, US etc but countries like Nepal, Bhutan and so on it is illegal. In some countries like China, U.K, Arabian, they regularly filter websites with illegal content or which may be against law of a country. Though there may be unethical acts that are not covered by the law of country, hiding or lying private things is not supposed to be guilty against law. But trust worthy to the law is completely measured as ethical.

Q3] The future with Information Technology:
Before we go forward, let's look back: when it comes to technology in the workplace, the last few decades have seen a tidal wave of change that's rapidly gaining momentum - from the switch from typewriters to word processors to computers, and most recently, to tablets and smartphones, technology is quickly changing the modern office. As we are aware, the typical 9-5 workday

in an office environment has, in many cases, been completely altered due to the need for increased productivity and lowered costs. Here's what we can expect from technology in the workspace in the future.

1) Virtual communication & remote work environments: - Traditional work environments are becoming more unproductive than ever before and many businesses are moving towards the hybrid workplace - giving employees the opportunity to utilize remote access technologies, cloud services and audio/video conferencing solutions to work from outside the office.

2) Smaller & more portable devices: - Many businesses are choosing smaller, more portable devices compared to traditional PCs. In fact, many devices are developed with minimal footprint while maintaining the ability to portray high-resolution images & run critical applications, which means more employees will be much more flexible. Several concept laptops rely on touch-sensitive screens that act as the system's keyboard and mouse and go beyond today's multi-touch technology. Imagine being able to slide your finger across the screen to immediately shut off the display and keep what you're working on confidential and you get an idea of its potential.

3) Enhanced device power and internet speed: - The next generation of laptops, notebooks and tablets will deliver a

much higher level of computing power than those available today while the next generation of broadband Internet connection speeds and bandwidth will increase drastically to improve efficiency in the workplace. By 2015, the typical mainstream notebook could be outfitted with a 2TB hard disk drive, which should be plenty of room for even the biggest data hog, the experts speculated.

4) Affordable & cost-efficient devices :-

As the global smartphone market is expected to grow exponentially in the upcoming years, the growth is dependent on reducing the cost of mobile devices, including tablets and smartphones, in order to reach the hands of mass market users while ensuring affordability.

5) Collaboration will become a central belief of the IT culture :-

The days of the lone genius programmer getting everything done all by themselves in a dark room are long gone. Although there are still visionaries, hiding from public recognition, the overwhelming majority of IT professionals are starting to acknowledge and embrace the power of collaboration. Team work will be emphasized and individual workers will find themselves working together on completing key projects. When

Workers aren't busy being productive at their desks, there are an increasing number of conferences and workshops set up around the world to allow people to come together and share ideas. Expect a major shift in working spaces within the IT industry due to collaboration. Whereas workers would be assigned their own individual workstations and collaborate with teammates in separate rooms, employees in future generations are going to be installed in collaborative working spaces where they can gather around in close proximity for teamwork. The "one desk, one person" mentality will soon be gone.

6) User experience will be far more important for customer satisfaction - Because technology is advancing at such a rapid pace, many consumers may feel left behind. They might restrain themselves from using a product on the wimpy notion that it is too complicated for them to use as they see fit. Take a look at Apple's Mac operating system as an example.

One of the reasons why you see many workers switching from Windows to Mac is due to the ease with which you can use their operating system. Even though it can handle most of the same complexities as other operating systems, it is easy to learn how to

we use it for casual computing purposes. The tutorials are simple and most people report that it eventually feels intuitive to use the Mac.

Those developing IT products will be forced to examine their application design critically and put themselves in the shoes of their local demographic. Simplicity will be the key focus, and any inefficiencies in the form of unnecessary complexity will have to be removed. In a world that is running at breakneck speeds, consumers ~~won't~~ won't have the time to sit down for hours and learn how to use a product. The learning curve needs to be made as small as possible. Expect to see "pick up n' play" mentality being adopted when the user interface is being optimized for the customer.

3D Printing :- One of the biggest game changes in the manufacturing industry for all sectors has been the invention and development of 3D printing. It sounds like a dream come true - you send a digital 3D design to a printer and it will recreate that entire thing. With printing speed improving and the cost of printing becoming cheaper, it will be the most valuable tool for any company that regularly manufactures and ships IT products. Customizations in design will become far

easier and less human supervision will be required.

Cyber Security :- It goes without saying that an IT system is only as good as the security that is being used to protect it.

If you have been for eg, the data dating site known as Ashley Madison was hacked, leading to private information of thousands of individuals being leaked and exposed to the public.

Many of its users suffered serious life-altering consequences because of this breach and the damage has clearly been done.

IT companies will be forced to employ ~~max~~ maximum security measures as they continue to develop the latest technologies. Systems will have to be continually tested, and knowledge gaps will have to be filled in order to stay one step ahead of those who have malicious intent. Expect the standards for cyber security, both from consumers and workers, to rise sharply with each passing year.