



BAL BHARATI PUBLIC SCHOOL, PITAMPURA, DELHI – 110034

SUBJECT: COMPUTER SCIENCE

CLASS - X

CHAPTER - SOCIETAL IMPACTS OF IT
(CONT'D)

Guidelines:

Dear students read the notes carefully and thereafter attempt the quiz.

Introduction:

In the last e-Lesson, we discussed about various types of Viruses that prevail in the cyber world. In this lesson, we shall study about the remedy or antidote of VIRUS, i.e. Antivirus...

Subtopics

- ANTIVIRUS
- HACKERS AND CRACKERS
- BENEFITS OF ICT
- IMPACT OF ICT ON SOCIETY

ANTIVIRUS

It is a utility program or set of programs that are designed to prevent, search, detect and remove viruses and other malicious programs like worms, Trojans, adware and many more. It is very important to use an antivirus software for users, who use Internet because a computer without antivirus may get infected within few minutes,

e.g. Symantec Norton, AVG, McAfee Scan, Quick Heal, Avast, Windows BitDefender etc.

WHAT DOES ANTIVIRUS SOFTWARE DO?

Some basic functions perform by an antivirus to protect your computer from malicious programs are as follows:

- Scans files or directories for any malware or unknown malicious patterns.
- Allows you to schedule your scan timings.
- Removes any detected malicious code. You will be notified about an infection and will be asked if you want to clean the file, other programs will automatically do this in the background.
- Displays health of your computer system.
- Scans incoming E-mails for attached viruses.

WHAT DOES ANTIVIRUS SOFTWARE NOT DO?

Antivirus software cannot protect your computer against:-

- Spam.
- Any kind of fraud or criminal activity online not initiated by a virus.
- A hacker trying to get into your computer over the Internet.
- It is not effective, if it is switched OFF or not updated with the latest virus signatures.

HOW DOES ANTIVIRUS WORK?

Viruses can be known or unknown to the antivirus software. Thus, antivirus employs different ways to deal with them, which are as follows:

- **Heuristic analysis:** - It is a method used to detect viruses that are previously unknown to the antivirus programs and for the new variants of the known virus. It is an analysis that determines the susceptibility of a system toward particular threat/risk using various decision rules or other methods.
- **Signature verification:** - The virus signature is like a fingerprint that is used to detect a specific virus, used by antivirus programs. The antivirus, searches for this signature, identifies the virus and removes from your computer. They are also able to detect the variants of a virus because the signature code usually remains intact.

These videos will help understanding the concept better:-

1. <https://www.youtube.com/watch?v=bTU1jbVXlmM>
2. <https://www.youtube.com/watch?v=MA7IsrcSmJY>

HACKERS AND CRACKERS

- A hacker is someone who seeks and exploits weaknesses in a computer system or computer network. Hackers may be motivated by a multitude of reasons, such as profit, protest or challenge.
- Cracker is a person who breaks into computer for criminal gain. Cracker's motivations can range from profit, a cause they believe in general maliciousness or just because they like the challenge. Cracker violates the system integrity of remote machines with malicious intent. Crackers can easily be identified because their actions are malicious.
- **The main difference between hackers and crackers is that hackers are generally interested in gaining deep knowledge about computers and may use this knowledge for playing mischief. On the other hand, crackers use their knowledge to break secure systems, creates bad sectors on the disk, destroying parts of programs and files.**

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

It is the study of technology used to handle information and communication. ICT includes different communication devices, such as radio, television, cellular phones,

computer hardwares, softwares etc., as well as various services and applications associated with them, such as video conferencing and distance learning.

Benefits of ICT

Watch these videos before reading the given text to get a better understanding:-

- <https://www.youtube.com/watch?v=ZQ7dghuyD1Q>
- <https://www.youtube.com/watch?v=ZQ7dghuyD1Q>

In Education

1. A person can attend a class anytime and anywhere.
2. Teachers can create interactive classes and make the lessons more interesting.
3. Generally, students find images and graphical representation of concepts, more interesting as compared, to the theoretical knowledge. In addition, using ICT, teachers can explain even the most complex concept in a very simplified manner using graphics, videos and animations.
4. An individual can learn on pace he/she is comfortable.
5. Learning resources can be accessed remotely.

In Healthcare

1. Automated hospital information systems can help to improve quality of care.
2. Decreased^ costs of treatment.
3. ICT has significantly enhanced the services being provided and brought behavioural changes.
4. This technology helps doctors, hospitals, the general public and all other medical care providers.
5. Pharmaceutical industry is the industry that enjoys the biggest benefits of ICT.
6. ICT has made E-Health possible.

In Governance

1. Enhancing good governance practices, being more responsive and governing more effectively.
2. The Internet gives governments the opportunity to offer public services and to provide information and policies more efficiently.
3. ICT has helped in providing better response to customers and effective management.
4. The extensive use of the Internet has provided an opportunity to the government to offer services and information in an efficient manner.

IMPACTS OF ICT ON SOCIETY

1. Knowledge Based Society

A knowledge-based society refers to the type of society that lays maximum emphasis on knowledge.

It refers to societies that are well educated and therefore, rely on the knowledge of their citizens to drive the innovation, entrepreneurship and dynamism of that

society's economy.

The excessive use of information communication technologies has benefited the richer class people as they can afford to avail the computer learning. The ICT has led to the unity of the people who have the digital knowledge and separated those who do not have such knowledge.

2. **Infomania**

It is the compulsive desire to check or accumulate news and information via phone or computer. This symptom is also referred as not giving importance to anybody because of being completely involved in his or her E-mail or phone. Info mania is simple defined as the distraction caused in life due to the technologies and other source of information.

E.g., Common example, for infomania is checking the E-mails and keep on looking in browsers for any information during the holidays.

3. **Digital Unity**

Now-a-days, information and knowledge has become an important driving force in the society as compared to land, capital or labour. Therefore, it has become important for the society to manage and maintain the knowledge based intellect. Digital unit is the ability of individuals to access and use information and communication technology. It ensures that everyone in society get equal share of technology.

4. **Digital Divide**

It is an economic and social inequality according to categories of persons in a given population, in their access to use or knowledge of information and communication technologies. The excessive use of ICT has led to digital unity of the computer intellects in urban areas and divided the people who do not have the digital knowledge.

These videos will help you understand the concepts of Digital Unity and Digital Divide better.

- <https://www.youtube.com/watch?v=qQD5soc2r7Y>
- <https://www.youtube.com/watch?v=p2CxtLRnp18>

ASSIGNMENT:-

Attempt this quiz to test your learning! The quiz can only be attempted if you are logged in with your official ID.

<https://forms.gle/pchLMn2Fo2pGBZqz9>