

**Introduction to  
Computers & The Internet**

Week 6 – Information Technology

Dr. Ahmad J Reeves  
Computer Science Dep.

---

---

---

---

---

---

---

**Contents**

- What is Information Technology?
- Many uses of computers in society
- Disadvantages of using computers in our everyday lives
- Summary
- Quiz

---

---

---

---

---

---

---

**Information Technology**

- **IT ( Information Technology ):**
- Take advantage of the technical aspects of computer equipment, the capabilities of its input units, output units and networks (wireless or wired) to facilitate the completion of the tasks carried out by humans in different fields: (work, home, communication etc. ).



---

---

---

---

---

---

---

### **Fields Using Information Technology in our Daily Life**

#### **Computer in Education:**

Computers, if used effectively in the education sector assist in achieving many of our educational goals. Computers are useful at all studying levels in advanced countries, and the skills of using computers becomes one of fundamentals in the education field.



---

---

---

---

---

---

---

### **Computer in Education**

Many education ministries across the world develop information technology strategies, e.g.

- Computing in education strategy,
- Information learning strategy,
- Teachers and students training strategy.

These strategies assist in creating courses, conducting research, preparing conferences and seminars.



---

---

---

---

---

---

---

### **Computer in Education**

- Computer Aided Instruction (CAI) - USA
- Computer Aided Learning (CAL) - UK
  
- CAL used in classroom or at home to provide tutorials, problem solving simulations, instructional games etc – like a private tutor.
  
- Help both weak & advanced students.

---

---

---

---

---

---

---

### Computers in Management

• The use of computers in the management field is called Management Information System (MIS). MIS is a computer based information system that derives data from all the departments of an organization and produces routine reports of the organization's performance. Also, computers achieve many goals in such organizations, such as:

1. Reducing number of employees.
2. Reducing mistakes.
3. Providing quick information that helps the decision making process.



---

---

---

---

---

---

---

---

### Computer in Banks

• Computers are used to enable customers to access their accounts via ATM machines. You can also control your day-by-day finances, pay bills and move money between accounts from your home. This service is available 24 hours..



---

---

---

---

---

---

---

---

### Computer in the Medical Fields

Computers are used in various medical fields, for example in medicine learning, medical diagnosis or treatment or medical drugs. It is also widely used in the management of hospitals.

The uses of the computer in the medical field are divided into two parts.

1. Computer Applications in the medical field,
2. Management of hospitals.



1. In medical education computer has helped students in educational achievements and practical training such as training on dangerous surgical operations. The computer helps to study some important parts of the body such as the brain and the heart.

---

---

---

---

---

---

---

---

## Computer in the Medical Fields

2. Here computers help to manage all files in the hospital such systems are known as the Hospital Information Systems. These system includes these files:

1. Treated patients' files.
2. Ambulance patients and outpatient files .
3. Expected patients to enter the hospital files .
4. Medical records about doctors, their specialties, departments where they work in shifts and their schedules
5. Nursing personnel file.
6. Laboratories and laboratory files.
7. Stores files.



---

---

---

---

---

---

---

---

## Computer in Pharmacy

The use of computers in the pharmaceutical industry is divided into two parts:

**First:** Commercial pharmacies, where it is only used for special regulations in terms of storage system, information on the effectiveness of the expiry dates of drugs.

**Second:** hospital's pharmacies. After the doctors prescription, the computer makes some procedures to make sure of drug availability and its appropriate to the patient state, eventually it allows the pharmacy to give the patient adhesive card containing the serial number, name of the patient and the name of the doctor.



---

---

---

---

---

---

---

---

## Computers in Industry

• Now we call the use of computers in the management field Management Information System (MIS). MIS is a computer based information system that derives data from all the departments of an organization and produces routine reports of the organization's performance. Also, computers achieve many goals in such organizations, such as:

1. Reducing number of employees.
2. Reducing mistakes.
3. Providing quick information that helps decision making process



---

---

---

---

---

---

---

---

### Artificial Intelligence

AI is a field of Computer Science, which aims to design intelligent computer systems to help solve problems, such systems have some features available in human behavior in terms of information analysis and decision-making.



---

---

---

---

---

---

---

### Robot

- **Robot:** is a machine that simulates a human being's activities in a fast and organized manner. This machine could also be provided with some senses like (hearing, seeing). Also, it could be programmed to walk or to move its parts (arm, leg ... ) to do specific works. This machine works automatically without the need
- for control or monitoring in accordance with
- the program available to it.



---

---

---

---

---

---

---

### Computer in Phone Telecommunication and Networks

- **Most uses of computers in the daily life related to the computer networks (wired / wireless ) directly or indirectly, as illustrated by the following uses:**
  1. Banking transactions: In association with linking ATMs machines together with the banks branches, and linking branches together, to facilitate their customers and clients transactions.
  2. Telephone and mobile communications: it uses wired and wireless network.
  3. The security agencies and ministries: they are use a (LAN) in their building to manage their units.

---

---

---

---

---

---

---

### Computers in Security

- Traffic sector – car driving licenses, maps and road safety statuses, traffic laws and enforcement.
- Population sector – personal records, ages, education, marriages, children, ID cards
- Passport sector – travel documents and security

---

---

---

---

---

---

---

### Computers in Science

- Computers are used in science to simulate experiments which may be dangerous or difficult to perform in real-life. Computers are used to then record both data and information from the experiment.

- E.g. military testing or
- weather prediction



---

---

---

---

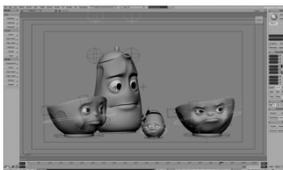
---

---

---

### Computers in Entertainment

- Computers are used to generate animations for films and special effects. They are also used to create interactive games and software to enjoy..



---

---

---

---

---

---

---

### **Disadvantages of Computers**

- Cost – both in hardware and software
- Frequent crashes – lost data and updates
- Privacy – hacking or viruses
- Health – bad for eyes, back and hands – less exercise
- Cybercrime – loss of finances
- Lack of socialisation – prefer online rather than face-to-face

---

---

---

---

---

---

---

### **Summary**

- What is Information Technology
- Many uses of computers in society
- Disadvantages of using computers in our everyday lives
- Summary

---

---

---

---

---

---

---