


Chapter One

Introduction to Computers

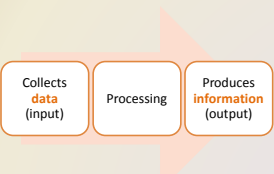
Discovering Computers & Microsoft Office 2010

Selected Slides from Chapters 1-5



What Is a Computer?

- A **computer** is an electronic device, operating under the control of instructions stored in its own memory



Information Processing Cycle

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The Components of a Computer

- A computer contains many electric, electronic, and mechanical components known as **hardware**

Input Device	• Allows you to enter data and instructions into a computer
Output Device	• Hardware component that conveys information to one or more people
Processing Hardware	• Case that contains the electronic components of the computer that are used to process data
Storage Media	• Holds data, instructions, and information for future use
Communications Device	• Enables a computer to send and receive data, instructions, and information to and from one or more computers or mobile devices

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The Components of a Computer



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Figure 1-3

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Processing Hardware

- The **motherboard** is the main electronic component of the computer
– **Circuit board**
- The **microprocessor** is one of the most important pieces of processing hardware on the motherboard
- **Expansion Cards** are removable circuit boards



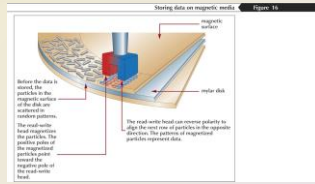
Storage Media

- A computer **file** is a named collection of stored data
- An **executable file** contains the instructions that tell a computer how to perform a specific task
- A **data file** is created by a user

Storage Media

Magnetic media

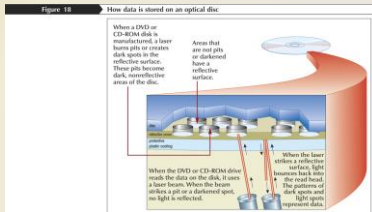
- Hard disk
- Tape
- Floppy



Storage Media

Optical storage device

- CD
- DVD
- CD-R
- CD-RW
- CD-ROM



Storage Media

Flash memory

- Flash memory cards
- USB flash storage device
- USB drive (flash drive)



Advantages and Disadvantages of Using Computers

Advantages of Using Computers

- Speed
- Reliability
- Consistency
- Storage
- Communications

Disadvantages of Using Computers

- Violation of Privacy
- Public Safety
- Impact on Labor Force
- Health Risks
- Impact on Environment

Computer Software

- **Software**, also called a **program**, tells the computer what tasks to perform and how to perform them



System Software

- Operating system
- Utility program



Application Software

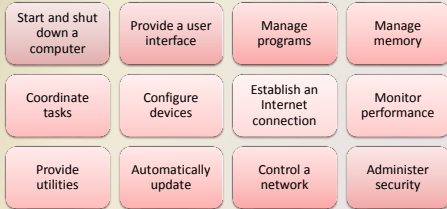
System Software

- **System software** consists of the programs that control or maintain the operations of the computer and its devices



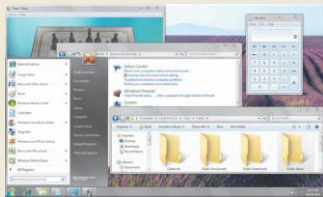
Operating Systems

- An **operating system (OS)** is a set of programs containing instructions that work together to coordinate all the activities among computer hardware resources



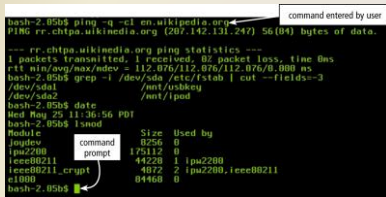
Operating System Functions

- A **user interface** controls how you enter data and instructions and how information is displayed on the screen
- With a graphical user interface (GUI), you interact with menus and visual images



Operating System Functions

- With a **command-line interface**, a user uses the keyboard to enter data and instructions



Stand-Alone Operating Systems

- A **stand-alone operating system** is a complete operating system that works on a desktop computer, notebook computer, or mobile computing device



END OF CLASS
