# The Internet and World Wide Web

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#### Chapter4

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# The Internet



# What is the Internet? Worldwide collection of networks that connects millions of computers

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### History of the Internet

 How did the Internet originate?

> Goal: **To allow scientists** at different locations to share information

#### ARPANET

Networking project by **Pentagon's Advanced Research Projects** Agency (ARPA)

> Became functional September 1969

### History of the Internet



• How has the Internet grown?

#### Today More than 150 million host nodes

#### 1969 Four host nodes

# History of the Internet



- Who controls the Internet?
  - No one—it is a public, cooperative, and independent network

### How the Internet Works



 How can you connect to the Internet?

Slow-speed technology

#### **Dial-up access**

modem in your computer uses a standard telephone line to connect to the Internet

Connection must be established each time you log on. Slow but inexpensive

#### High-speed connection

Digital subscriber line (DSL), cable telephone Internet services (CATV), cable modem provide connections using regular copper telephone lines

> Connection is always onwhenever the computer is running





- What is a home page?
  - The first page that a Web site presents Often provides connections to other Web pages

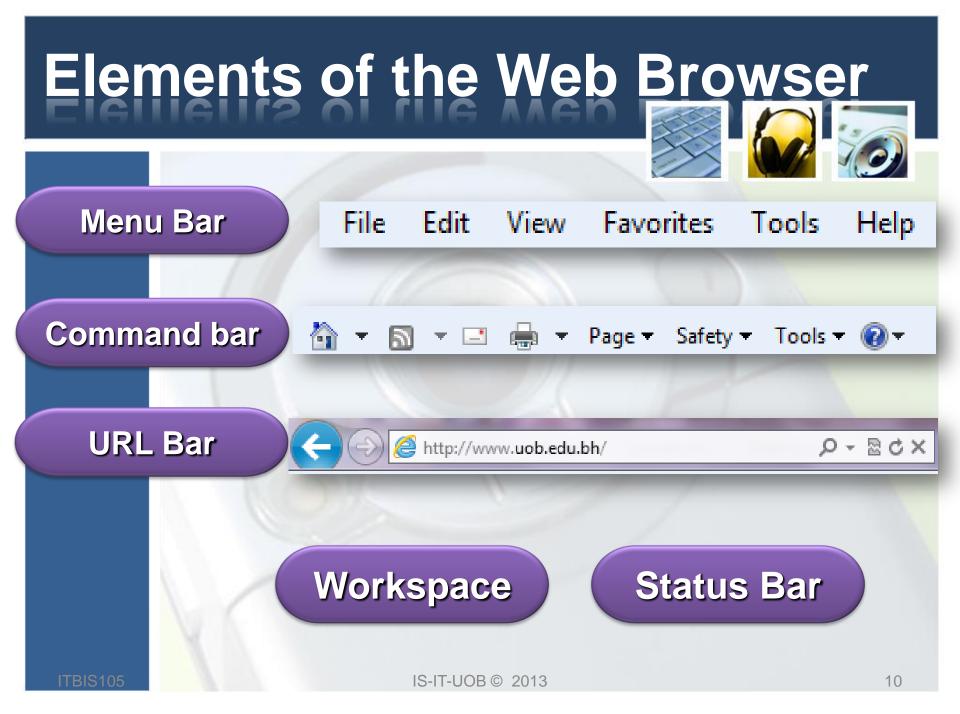




- What is a Web browser?
  - Program that allows you to view Web pages



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#### Internet Service Provider (ISP)

- Internet Service Provider (ISP), is any company that
- provides individuals and organizations with access to
- or presence on the Internet.

• E.g. Batelco.



- What is downloading?
- The process of a computer receiving information
- The transmission of information from a local computer to a remote computer is called Uploading

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#### Unique address for a Web page

- What is a hyperlink (link)?
  - Built-in connection to another related Web page location
  - Item found elsewhere on same Web page
  - Different Web page at same Web site
  - Web page at a different Web site

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How can you recognize links?

Pointer changes to a small hand when you point to

a link A link can be text or an image

Text links are usually underlined and in a different color





- What is a search engine?
  - Program used to find Web sites and Web pages by entering words or phrases called search text
    - Also called a keyword

Search Engine	Web Address
AllTheWeb	alltheweb.com
AltaVista	altavista.com
Ask Jeeves®	askjeeves.com
Excite	excite.com
Google	google.com
HotBot	hotbot.com
LookSmart	looksmart.com
Lycos	lycos.com
Overture	overture.com
WebCrawler™	webcrawler.com
Yahoo!	yahoo.com



- What is a portal?
  - A Web site that offers a variety of services from one, convenient location, usually for free
    - E.g. Yahoo

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- What is multimedia?
  - Application integrating text with other media elements
    - Graphics
    - Animation
    - Audio
    - Video



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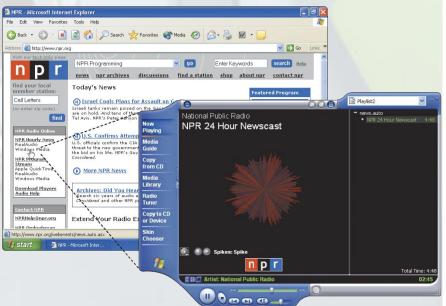
- What is animation?
  - Appearance of motion created by displaying a series of still images in sequence



- What is audio?
  - Music, speech, or any other sound
  - Common Web audio file formats are MP3, WAV, WMA (Windows Media Audio), MPEG, RealAudio, and QuickTime



- What is streaming audio?
- Transfers data in a continuous and even flow.
  - Enables you to listen to the sound as it downloads to your computer.







Services found on the Internet?

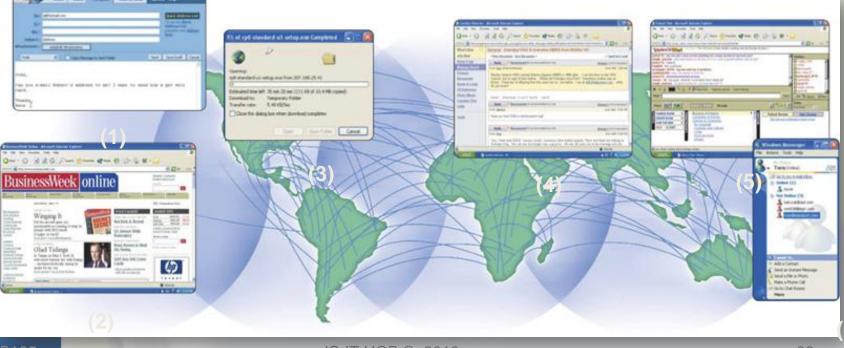
- 1. E-mail
- 2. Web

3.

#### Message board

#### 4. Chat

- 5. File transfer
- 6. Instant messaging



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- What is e-mail?
  - Short for electronic mail
- The transmission of messages and files via a computer network
  - Messages can consist of simple text or can contain attachments, such as documents, graphics, or audio/video clips
  - Internet access providers usually provide an email program
  - Some Web sites—such as MSN Hotmail and Yahoo!—provide free e-mail services





**Step 1.** Start an e-mail program (Microsoft Outlook, for example)



Step 2. Click the New Mail Message button

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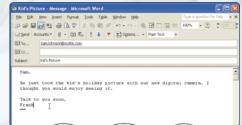


**Step 5.** The recipient opens the message

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We just took the kid's holiday plotgre with our new digital camera. I thought you would enjoy seeing it. Taik to you soon, Frank	
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#### Step 4.

Click the Insert file button if you want to attach a picture, for example, and click Send



#### Step 3.

Enter the recipient's e-mail address, the subject, and the message



What is an e-mail address?

Unique name that consists of a user name and domain name that identifies the user

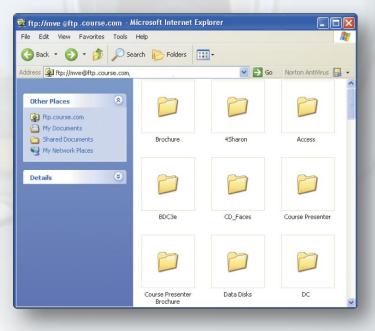


- What is a chat?
  - Real-time typed conversation that takes place on a computer Chat room is location on server that permits users to discuss topics of interest

Hi everyone



- What is FTP?
- File Transfer Protocol—Internet standard that allows you to upload and download files with other computers on the Internet



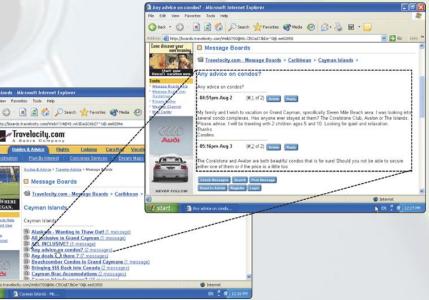
- What are newsgroups and message boards?

#### Newsgroup

Online area where users discuss a particular subject

#### **Message board**

- Type of discussion
  group
- Many Web sites use message boards because they are easier to

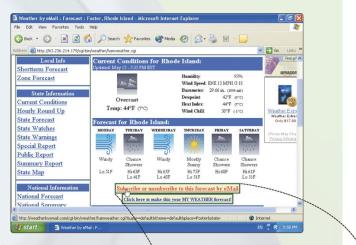


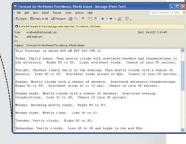


• What is a mailing list?

Group of e-mail addresses given a single name When a message is sent to the mailing list, everyone on the list receives the message

To add your name to a mailing list you must subscribe to it; to remove your name you must unsubscribe







- What is instant messaging (IM)?
  - A real-time Internet communications service that notifies you when one or more people are online and allows you to exchange messages or files

#### **Electronic Commerce**



- What is e-commerce?
  - Short for electronic commerce
- Business transaction that occurs over the Internet

**Business to consumer (B2C)** Sale of goods to general public

> **Consumer to consumer (C2C)** One consumer sells directly to another

> > **Business to business (B2B)** Business providing goods and services to other businesses



