

# Computers Are Your Future

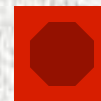




# Computers Are Your Future

## Chapter 7

### The Internet and World Wide Web



## What You Will Learn . . .

- ✓ How the Internet works
- ✓ Methods for accessing the Internet
- ✓ The Internet and the World Wide Web
- ✓ Hypertext
- ✓ Web browsers and Web servers



## What You Will Learn . . .

- ✓ Parts of a URL
- ✓ How to access Web pages
- ✓ Web subject guides and search engines
- ✓ Use operators to improve search results
- ✓ Reliability of information on the Web
- ✓ Most popular Internet services





# The Internet

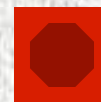


- ✓ The Internet is a global, interconnected computer network in which every computer connected to it can exchange data with any other connected computer



## How the Internet Works

- ✓ Interoperability is the ability to communicate with a computer even if it is a different brand or model



# Accessing the Internet and Web



## ✓ You will need:

- A computer with an operating system, such as Windows, MAC OS, or UNIX, that supports Internet protocols
- Communications equipment such as a modem, ISDN adapter, or Ethernet card
- An Internet service provider (ISP)
- Web browser software such as Internet Explorer or Netscape Navigator





## Accessing the Internet

✓ The Internet can be accessed in the following ways:

➤ **Dial-up** access with Point-to-Point Protocol (PPP)

*a data link protocol commonly used in establishing a direct connection between two networking nodes.*

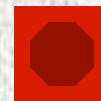
➤ **Digital Subscriber Line (DSL)**

*Digital subscriber line (DSL) is a family of technologies that provides digital data transmission over the wires of a local telephone network.*

- xDSL; ADSL (Asymmetric Digital Subscriber Line), the most commonly installed DSL technology
- ADSL2, SDSL, IDSL, VDSL, etc.

➤ **Cable and satellite access**

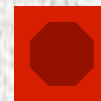
➤ **LAN access**





## The Internet and Web: What's the Difference?

- ✓ **The Internet** is the physical connection of millions of networks
- ✓ **The Web** (www:World Wide Web)
  - uses the Internet for its existence
  - is a system of interlinked hypertext documents accessed via the Internet
  - consists of hypertext embedded on Web pages that are hosted on Web sites
  - The Web Using concepts from earlier hypertext systems, British engineer and computer scientist **Sir Tim Berners-Lee**, now Director of the World Wide Web Consortium (W3C), wrote a proposal in March 1989 for what would eventually become the World Wide Web.



## The Web Site

- ✓ A **Web site** is a collection of related Web documents that are made available to the public
- ✓ The **index page**, or **home page**, is the first page of a Web site
- ✓ **Web pages** are individual Web documents



# The Hypertext Concept

## ✓ **Hypertext**

- is text displayed on a computer or other electronic device with references (hyperlinks) to other text that the reader can immediately access, usually by a mouse click or keypress sequence.
- Apart from running text, hypertext may contain tables, images and other presentational devices. Hypertext is the underlying concept defining the structure of the World Wide Web.

- ✓ **Hyperlinks** are underlined or highlighted words that can be used to view another document or Web page
- ✓ **Hypermedia** refers to a link to multimedia, such as music and movies
- ✓ The Web is a **distributed hypermedia system** or a system where the responsibility for creating content is distributed among many people

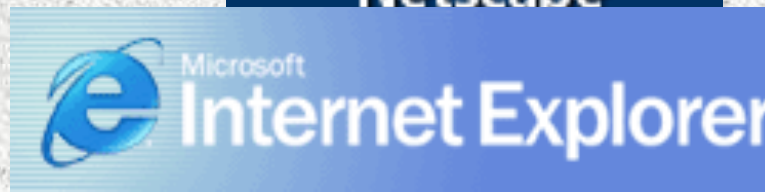
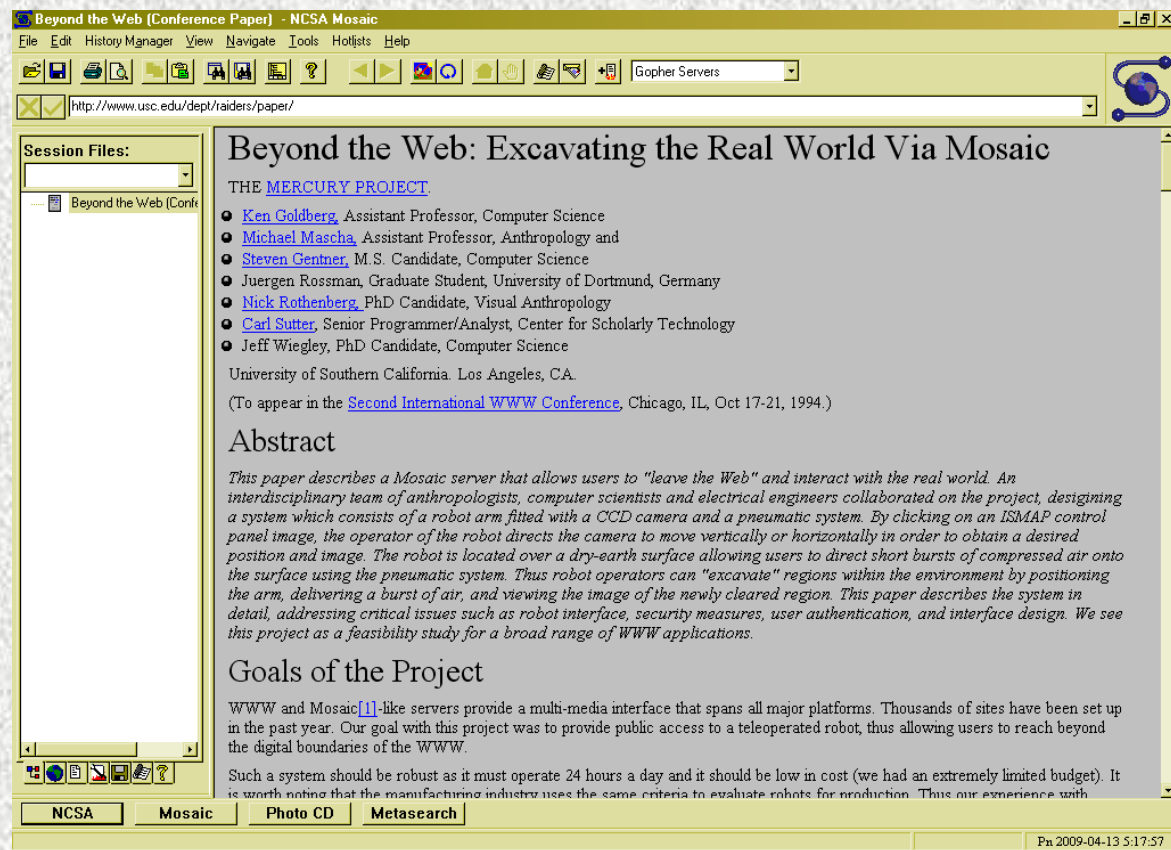




# Computers Are Your Future Chapter 2

## Web Browsers and Servers

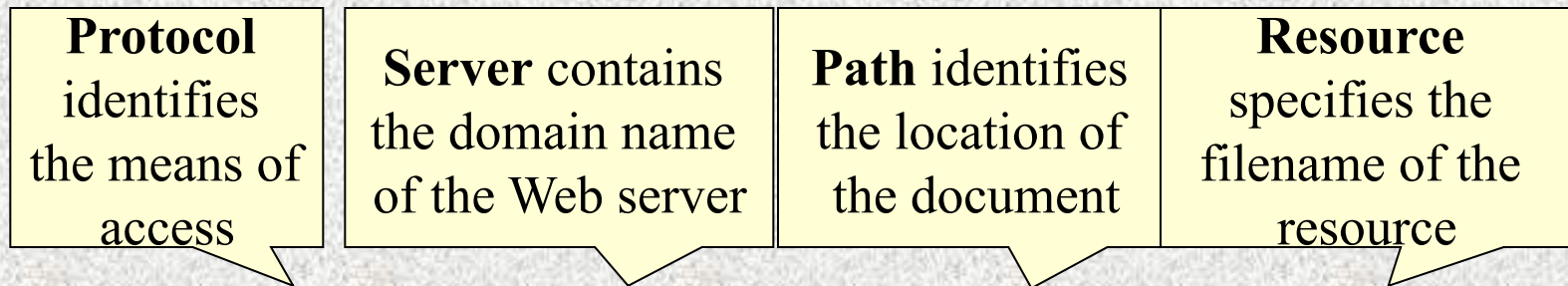
- ✓ Web browsers display a Web document and enable users to link to other Web pages
  - The first browsers were text-only
  - Mosaic was the first graphical browser
- ✓ Web servers respond to the requests of browsers. They find and send requested resources back to the browser





## Web Addresses (URLs)

- ✓ Web addresses are an addressing system that identifies where a Web resource is located
- ✓ The **uniform resource locator (URL)** is the standard used to identify Web resources
  - The Uniform Resource Locator was created in 1994 by Tim Berners-Lee
- ✓ The URL consists of:



**URL** <http://www.yahoo.com/help/shop/shop-01.html>

The Hypertext Transfer Protocol (HTTP) is a networking protocol for distributed, collaborative, hypermedia information systems



## Browsing the Web

- ✓ To access a Web page, you can do any of the following:
  - Click a hyperlink
  - Type a URL in the Address box
  - Click a button on the Links toolbar
  - Use the Back and Forward buttons
  - Use a Web site's navigation aids
  - Use the History list
  - Use the Favorites or Bookmarks list



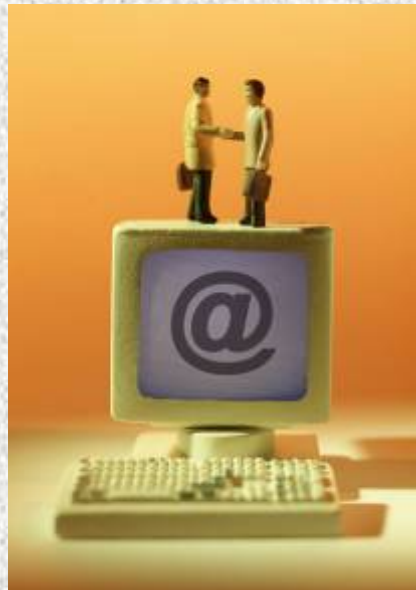
## Uploading and Downloading

- ✓ Downloading – document or file is transferred from another computer to your computer
- ✓ Uploading – files transferred from your computer to another computer



## Emerging Technologies

- ✓ Ways to share information on the Internet
  - Wiki – open-content encyclopedia
  - Weblog (blog) – Internet journal or diary
  - Moblog (mobile blog) - content posted from a portable phone or PDA



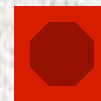


# Finding Information on the Web



✓ Ways to find information on the Web:

- **Browse or surf the Web** – This involves linking from one Web page to another, and so forth
- **Search the Web** – This method involves using search engines to locate Web pages with the information you're looking for
- **Subject guides** – Web pages are grouped under headings



## Using Search Engines

- ✓ To use a search engine, you:
  - Choose a search engine (Google, MSN, Lycos, Alta-Vista, Yahoo, etc)
  - Type in one or more words describing your topic
- ✓ The search engine checks its database of Web pages that contain the words typed
- ✓ The results are sent to your computer
- ✓ Clicking on the link takes you to that page



## Using Search Techniques

- ✓ Learning a few search techniques can increase the accuracy of Web searches
- ✓ Searches using **search operators** will improve search performance
- ✓ Most search engines use the following search operators:
  - Inclusion/exclusion operators
  - Wild cards
  - Phrases
  - Boolean operators



## Using Search Techniques

- ✓ The following tables show the results of using and not using search operators

### No Search Operators

Words Entered	Possible Results – Web pages containing
Fire station	Fire station Fire station

### Using Search Operators

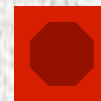
Words Entered	Possible Results – Web pages containing
+Fire+station	Fire station
+Fire+station*	Fire station Fire stations
+Fire-station*	Fire
“Fire station”	Fire station
Fire and station	Fire station
Fire or station	Fire station Fire station
Fire not station	Fire





## Rules for Evaluating Web Pages

1. **Author** – Who is the author?
2. **Sources** – Where does the information come from?
3. **Server** – Who provides the server for the page?
4. **Objectivity** – Is the information objective or one-sided?
5. **Style** – Is the language objective or argumentative?
6. **Purpose** – What is the purpose of the page?
7. **Accuracy** – Is the information accurate?
8. **Currency** – Is the page up-to-date?



## Using the Web for Schoolwork

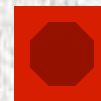
- ✓ Use authoritative online sources
- ✓ Use your library to find articles and books
- ✓ Cite online and offline references



## E-Mail: Staying in Touch



- ✓ **E-mail** is short for electronic mail
- ✓ It's the most popular of the Internet services
- ✓ Messages are sent and received in a few seconds
- ✓ Attachments such as photos, music files, and any document may be sent with the message



# E-Mail Addresses

- ✓ [myname@someserver.com](#)
- ✓ Users name@name of the server that the user is on



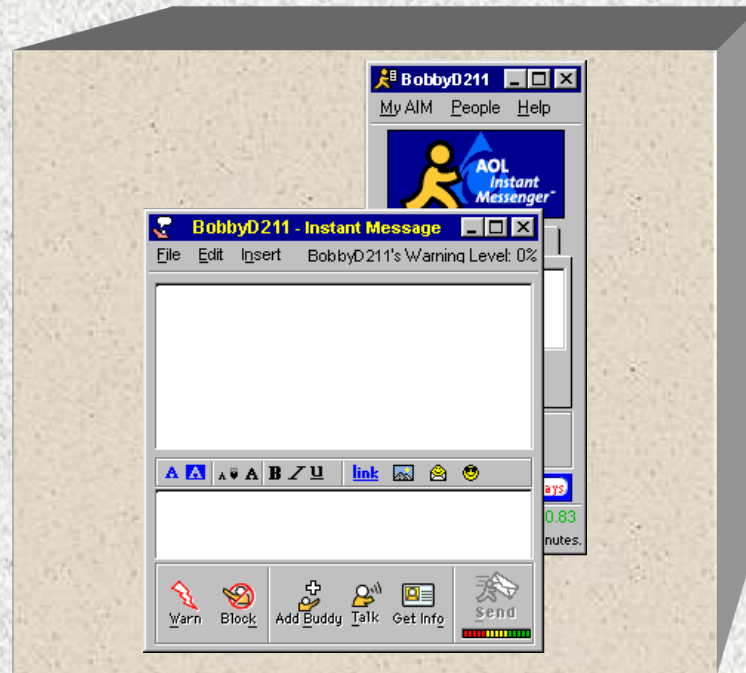


## Spam: Can It Be Stopped?

- ✓ Spam – unsolicited e-mail advertising
  - With Spam the recipient pays the postage
  - To avoid spam
    - Avoid posting your e-mail address
    - Use spam protectors
    - Don't reply to spam
- ✓ Spam (officially trademarked as SPAM; derived from Spiced Ham) is a canned precooked meat product made by the Hormel Foods Corporation



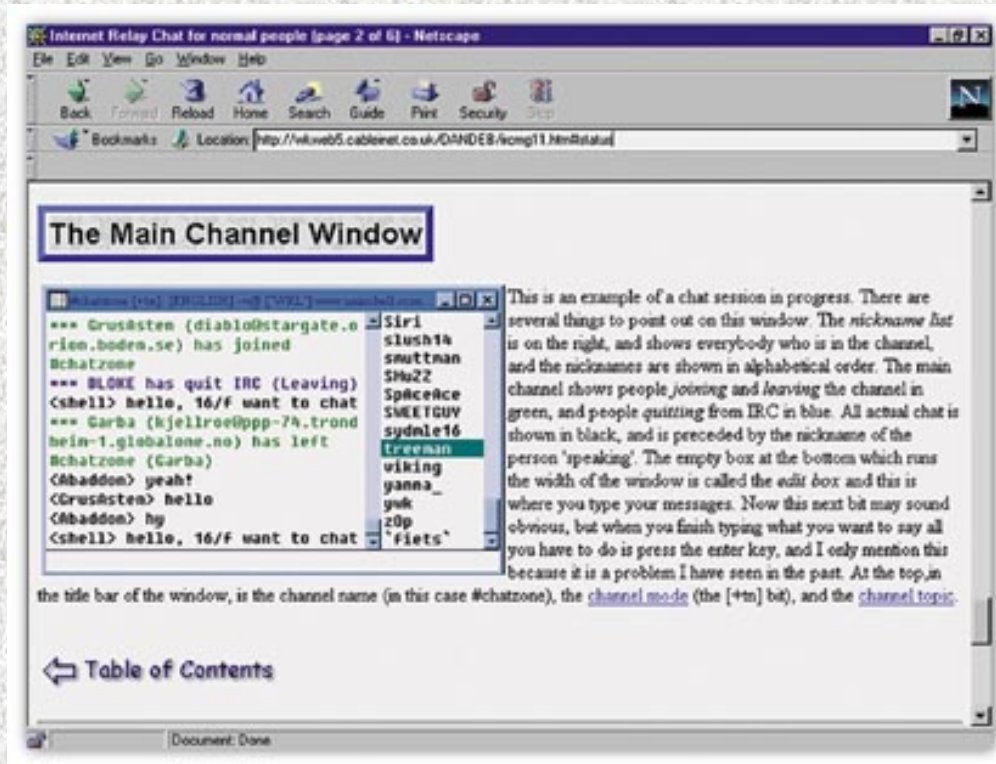
# Instant Messaging: E-Mailing Made Faster



- ✓ Instant messaging systems let a user know when a friend or business associate is online
- ✓ It provides a means of communicating through real-time, text-based conversations
- ✓ Skype, MSN, iChat, Google Messenger



# IRC: Text Chatting in Real Time



- ✓ Internet relay chat consists of real-time, text-based conversations
- ✓ Chat groups are divided into channels that cover a specific topic





# File Transfer Protocol (FTP)

**Your Computer**



**UPLOAD**

**FTP Server**



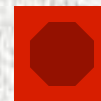
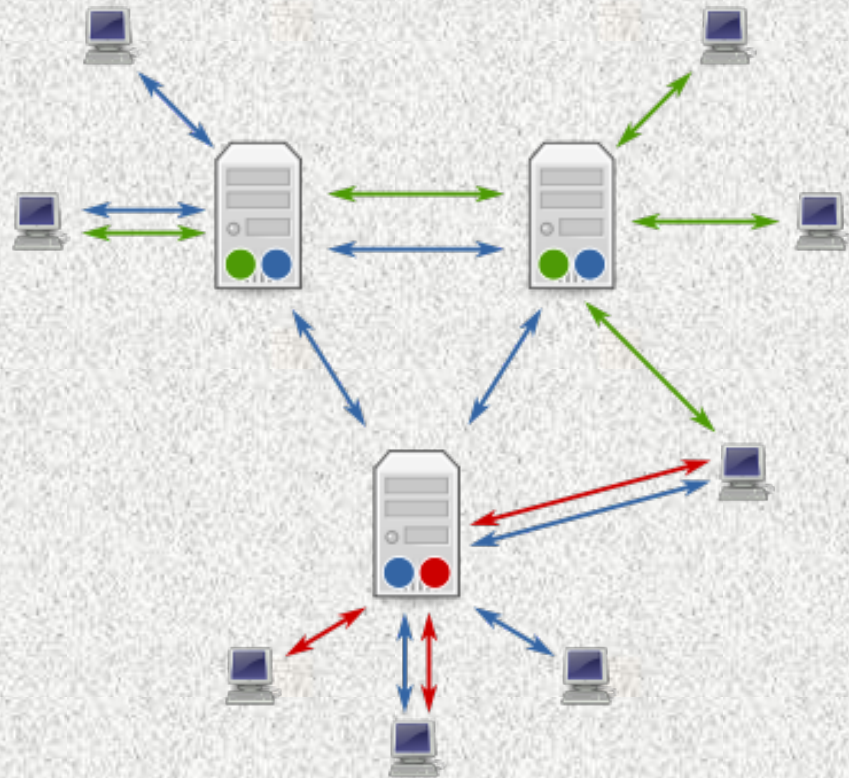
**DOWNLOAD**

- ✓ **FTP** is a part of the Internet that enables client computers to transfer files
- ✓ Transferring files from an FTP site to the client is known as **downloading**
- ✓ Transferring files from the client to an FTP site is known as **uploading**
- ✓ Clients may store files on an FTP site's server



## Usenet

- ✓ **Usenet** is the part of the Internet which enables users to participate in discussions and newsgroups
- ✓ Usenet is a worldwide distributed Internet discussion system. It developed from the general purpose UUCP architecture of the same name.
- ✓ Usenet newsgroups are organized into hierarchies (categories) and subcategories
- ✓ Subcategories include Standard, Alt, Biz, and Local newsgroups



## Standard Newsgroup Subcategories

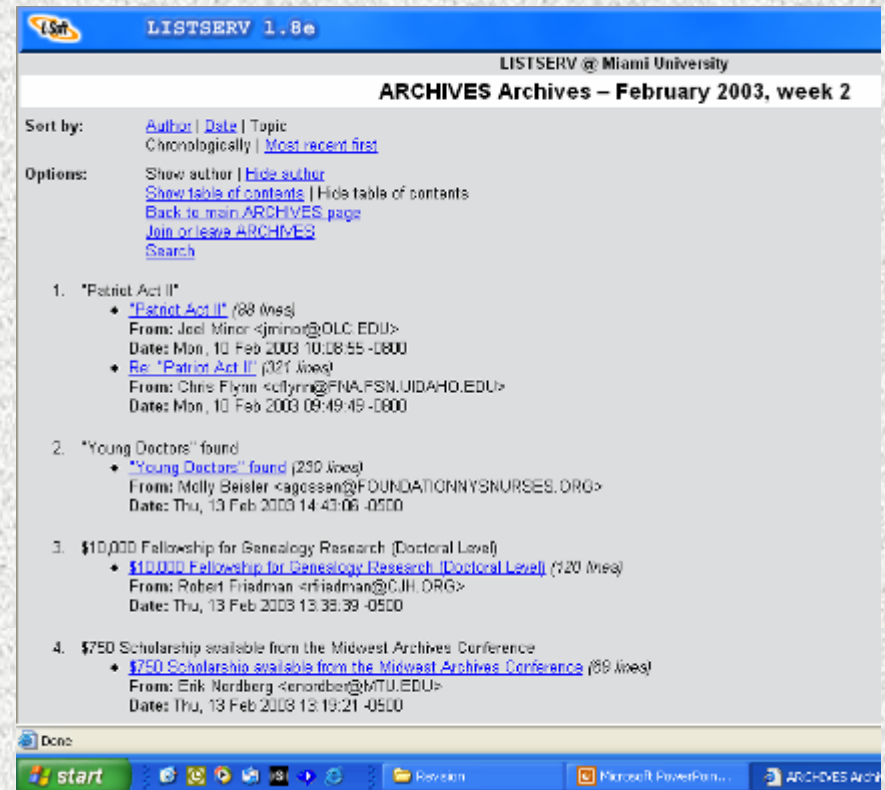
comp	computer applications, databases, multimedia
misc	activism, books, business, health
sci	chemistry, archeology, math
soc	human rights, world cultures
talk	Euthanasia, gun control, religion
news	Usenet announcements
rec	sports, gardening, bicycles





# Listservs: Electronic Mail Lists

- ✓ A **listserv** is an automatic list server
- ✓ Mail is sent to everyone on the list when e-mail is generated.
- ✓ It is similar to a newsgroup or a forum



## Chapter 2 Summary

- The Internet is the network of networks
- The Internet is accessed by way of an ISP
- World Wide Web is a global system with billions of hypertext document
- Related information is linked using hypertext
- A Web browser is a program that displays Web pages
- URL consists of a protocol, a server, a path, and a resource name
- Search engines enable you to search huge databases of Web documents



## Chapter 2 Summary (continued)

- You can improve search results using operators
- You should always evaluate information you receive from the Web
- Popular Internet services
  - E-mail
  - Instant messaging
  - Internet Relay Chat
  - File Transfer Protocol
  - Discussion groups
  - Listservs

