# SCSD1513
# Information Systems
# and
# Information Technology

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# SCSD1513
# Information Systems
# and
# Information Technology

## Chapter 02
## The Internet, the Web, and Electronic Commerce

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The Internet, the Web, and Electronic Commerce

# Competencies (1 of 2)

- Discuss the origins of the Internet and the Web
- Describe how to access the Web using providers and browsers
- Discuss Internet communications, including e-mail, instant messaging, social networking, blogs, microblogs, and wikis.

- Describe search tools, including search engines, metasearch engines, and specialized search engines.

- Evaluate the accuracy of information on the Web.

- Discuss electronic commerce, including B2C, C2C, B2B, and security issues.

- Describe cloud computing, including the three-way interaction of clients, Internet, and service providers.

- Describe Web utilities including plug-ins, filters, file transfer utilities , and Internet security suites.

# Introduction

- The Internet is often referred to as the *Information Superhighway* because it connects millions of people across the globe.

- Unlike a typical highway, the Internet moves ideas, data, and information through networks.

- The Web provides an easy-to-use, intuitive multimedia interface to connect to the Internet.

- Competent end users need to be aware of the resources available on the Internet and the Web.

# The Internet and the Web

- **The Internet is the largest global network, connecting smaller networks worldwide**

- **The Internet was launched in 1969**
  - **National computer network**
  - **US funded project called ARPANET**

- **The World Wide Web or WWW was introduced in 1991 at CERN**

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# Common Internet Uses

- **Communicating**
  - **Exchange** **e-mail**
  - **Discussion groups**
- **Online Shopping**
- **Searching**
  - **Virtual libraries**
- **Entertainment**
- **Education or** **e-learning**

# Access

**The Internet, the Web, and Electronic Commerce**

- **Common way to access the Internet is through a Commercial Internet Service Providers (ISP)**
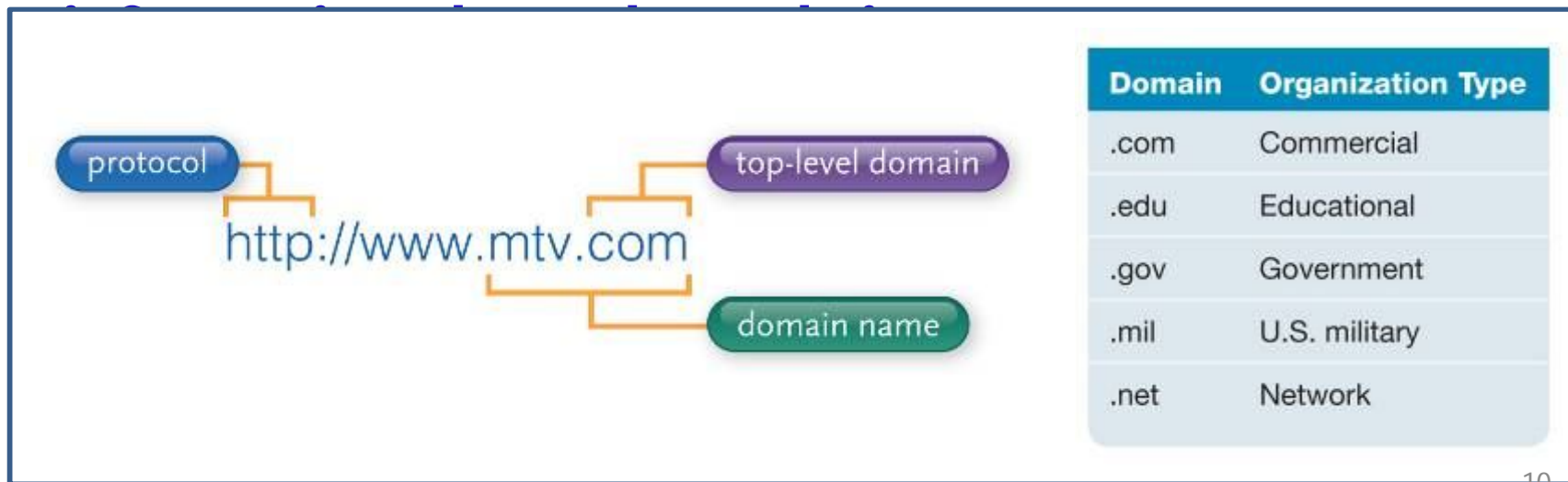  - **National Service Providers**
  - **Wireless service providers**

# Browsers

- **Programs that provide access to Web resources**
- **Allow you to surf the Internet**
- **Popular Web browsers include:**
  - **Mozilla Firefox**
  - **Apple Safari**
  - **Microsoft Internet Explorer**
  - **Google Chrome**
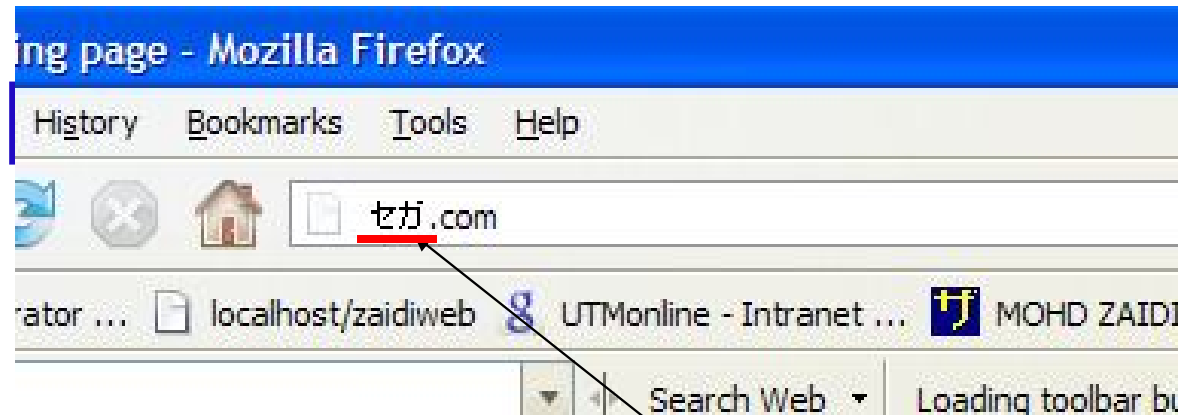- **Address or location of the resource must be specified**
  - **URL**

# URLs

**The Internet, the Web, and Electronic Commerce**

- ## Uniform Resource Locators
  - ### All URLs have at least two parts
    - #### Protocol
    - #### Domain name
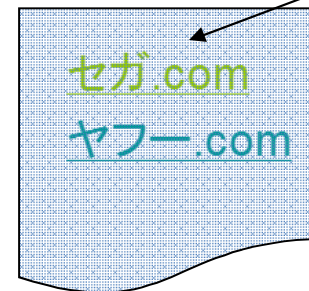
- ## Top-level domains (TLDs) provide further



| Domain | Organization Type |
|--------|-------------------|
| .com | Commercial |
| .edu | Educational |
| .gov | Government |
| .mil | U.S. military |
| .net | Network |

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# More on Browsers

- **Browsers interpret HTML commands**
  - **Hypertext Markup Language**
  - **Contained in a document**
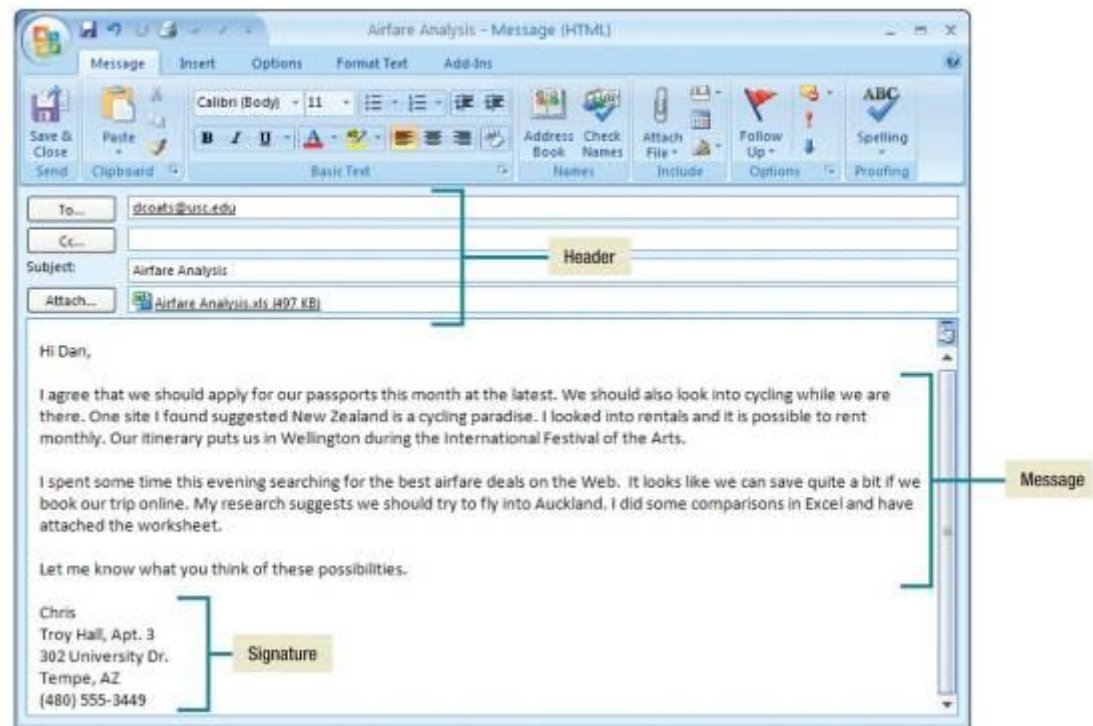- **Display document as a Web page**

# Communication

- **Most popular Internet activity**
- **Types of communication**
  - **Electronic Mail (E-Mail)**
  - **Instant Messaging**
  - **Social Networking**

# E-Mail

- **Transmission of electronic messages over the Internet**
- **Basic parts**
  - **Header**
    - **Address**
    - **Subject**
    - **Attachment**
  - **Message**
  - **Signature Line**



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# E-Mail Address Example

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# Spam

- **Junk and/or unwanted e-mail**
- **Computer viruses** or destructive programs are often attached to unsolicited email
  - CAN-SPAM Act
- **Spam blockers** use a variety of approaches to identify and control spam
- Spam blockers are also referred to as:
  - Junk mail filters
  - Anti-spam programs

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# Instant Messaging

- **Extension of email that provides direct, live communication between two or more people**

- **Instant messaging programs also include:**
  - **Video conferencing features**
  - **File sharing**
  - **Remote assistance**

- **Most widely used instant messaging services:**
  - **AOL's Instant Messenger**
  - **Microsoft's MSN Messenger**
  - **Yahoo Messenger**

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# Social Networking

- **One of the fastest growing uses of the Internet**
- **Three basic categories:**
  - **Reuniting sites**
  - **Friend-of-a-friend sites**
  - **Common interest sites**

| Site | Description |
|---|---|
| Classmates.com | Reuniting, primarily for school, work, military |
| Facebook.com | Reuniting, primarily for college and high school students |
| Flickr.com | Common interest, image sharing |
| Friendster.com | Friend-of-a-friend, general |
| MySpace.com | Friend-of-a-friend, general |
| YouTube | Common interest, image sharing |

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# Blogs, Microblogs, and Wikis

- **Web logs or blogs – postings that are date- and time-stamped and then arranged with the most recent items shown first**

- **Microblogs – short status updates or sentences that answer the question:**
  - *What are you doing now?*

- **Wiki – a specially designed Web site that allows visitors to edit the contents (e.g., fill in missing information)**

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# Search Tools

- **Search engines**

- **Metasearch engines**

- **Specialized search engines**

- **Content Evaluation**

| Search Service | Site |
|---|---|
| AOL Search | search.aol.com |
| Ask | www.ask.com |
| Bing | www.bing.com |
| Google | www.google.com |
| Yahoo! | www.yahoo.com |

| Metasearch Service | Site |
|---|---|
| Dogpile | www.dogpile.com |
| Ixquick | www.ixquick.com |
| MetaCrawler | www.metacrawler.com |
| Search | www.search.com |
| Clusty | www.clusty.com |

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# Search Engines

- **Specialized programs to assist in locating information**

- **Types of searches**
  - **Keyword search**
  - **Directory search**



Keyword search

Directory search

# Metasearch Engines

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# Specialized Search Engines

| Topic | Site |
|---|---|
| Environment | www.eco-web.com |
| Fashion | www.infomat.com |
| History | www.historynet.com |
| Law | www.lawcrawler.com |
| Medicine | www.medscape.com |

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# Content Evaluation

- **Not all information on the web is accurate**

- **Ways to evaluate accuracy of Web information include:**
  - **Authority**
  - **Accuracy**
  - **Objectivity**
  - **Currency**

# Electronic Commerce

- **Also known as e-commerce**
- **Buying and selling of goods over the Internet**
  - Business-to-consumer (B2C)
  - Consumer-to-consumer (C2C)
    - Web auctions
  - Business-to-business (B2B)

# Business to Business

**The Internet, the Web, and Electronic Commerce**
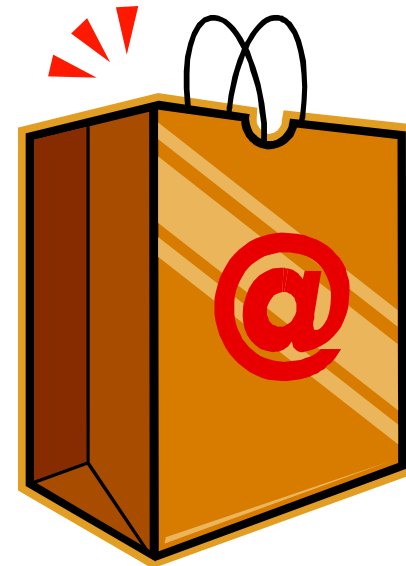
- **Involves the sale of a product or service from one business to another (B2B)**
- **Primarily a manufacturer supplier relationship**

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# Business to Consumer

- **Fastest growing type of e-commerce**
- **Three most widely used B2C applications:**
  - **Online banking**
  - **Financial trading**
  - **Shopping**

| Support | Site |
|---|---|
| Product comparisons | www.shopping.com |
| Locating closeouts | www.overstock.com |
| Finding coupons | www.ebates.com |

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**The Internet, the Web, and Electronic Commerce**

- ## Consumer-to-consumer e-commerce (C2C)
- ## Similar to traditional auctions
- ## Types
  - – Auction house sites
  - – Person-to-person auction sites

| Organization | Site |
|---|---|
| Amazon | www.auctions.amazon.com |
| WeBidz | www.webidz.com |
| eBay | www.ebay.com |
| Overstock | auctions.overstock.com |

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# Security

- **Payment methods must be fast, reliable, and secure**
- **Three basic options**
  - **Checks**
  - **Credit card**
  - **Digital cash**



| Organization | Site |
| --- | --- |
| ECash | www.ecash.com |
| Google | checkout.google.com |
| Internet Cash | www.internetcash.com |
| PayPal | www.paypal.com |

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# Cloud Computing

- **Shifts computing activities from users' desktops to computers on the Internet**

- **Frees end-users from owning, maintaining, and storing software programs and data**

- **Three basic components:**
  - **Clients (end-users)**
  - **Service providers**
  - **The Internet**



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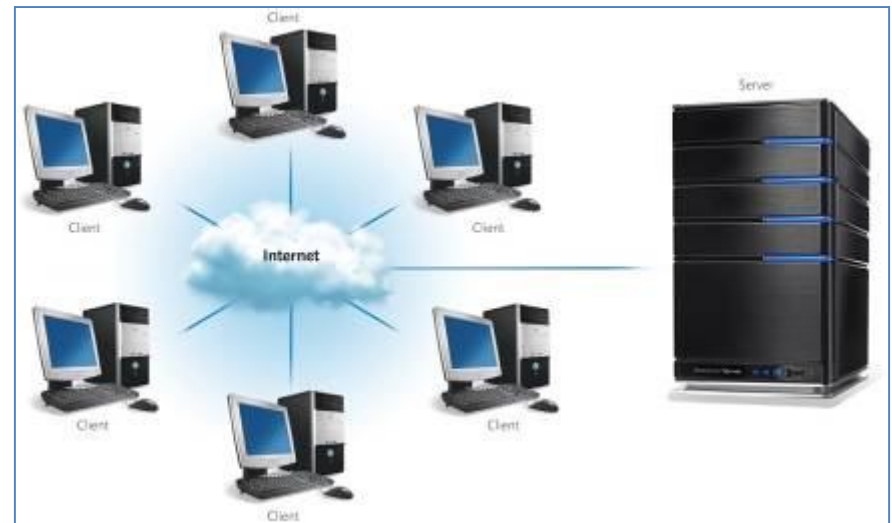
# Web Utilities

- **Specialized utility programs that make using the Internet & Web safer and easier**
  - **Plug-Ins**
  - **Filters**
  - **File Transfer Utilities**
  - **Internet Security Suites**



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# Plug-Ins

- **Programs that provide an enhanced browsing experience by enabling special file formats and multimedia elements**

| Plug-in | Source |
|---|---|
| Acrobat Reader | www.adobe.com |
| Media Player | www.microsoft.com |
| QuickTime | www.apple.com |
| RealPlayer | www.service.real.com |
| Shockwave | www.adobe.com |

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# Filters

- **Programs that block access to selected sites**

| Filter | Site |
|---|---|
| CyberPatrol | www.cyberpatrol.com |
| Cybersitter | www.cybersitter.com |
| iProtectYou Pro Web Filter | www.softforyou.com |
| Net Nanny | www.netnanny.com |
| Safe Eyes Platinum | www.safeeyes.com |

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# File Transfer Utilities

- **Programs that help you upload and download files to and from the Internet**

- **Three popular types of programs:**
  - **File transfer protocol (FTP & SFTP)**
  - **Web-based file transfer services**
  - **BitTorrent**

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# Internet Security Suites

- **Programs designed to maintain your security and privacy while on the web**

# Careers In IT - Webmasters

- **Develop, maintain, and back-up websites**
- **Acquire, development, and maintain information resources**
- **Work with the marketing department to increase site traffic and monitor the flow of customer interactions**

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- "Smart" appliances in homes will have their own Web page
- Refrigerators know what food they contain
- Appliance could send an e-mail list to the grocery store for restocking
- Downsides?

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**The Internet, the Web, and Electronic Commerce**

- **Discuss the Internet, including its origins and most common uses. What activities have you participated in? Which one do you think is the most popular?**

- **Discuss Internet communications, including e-mail, instant messaging, social networking, blogs, microblogs, and wikis.**

- **Describe the different types of search engines. Give an example of the type of search that each search engine is best for.**

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**The Internet, the Web, and Electronic Commerce**

- **Describe electronic commerce, including business-to-consumer, consumer-to-consumer, and business-to-business e-commerce.**

- **What is cloud computing? Describe the three basic components of cloud computing.**

**~~END~~**

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