CSE 101: Introduction to Computer Studies
The Internet and the World Wide Web

Muhammad Abul Hasan, Ph.D.

Department of Computer Science and Engineering
University of Liberal Arts Bangladesh (ULAB)

October 4, 2019

- 1969 ARPANET
  - Developed by the Department of Defense
  - Connected universities and defense bases

- 1973 ARPANET connects to Europe
- Mid-1980s - NSFNet
  - Network between supercomputers
  - Internet was the link to ARPANET
  - No commercial traffic allowed

- 1990s
  - ARPANET shut down
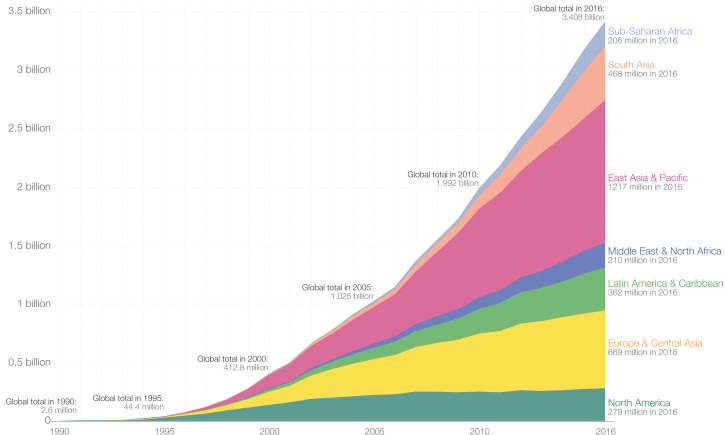 - NSFNet abandoned
  - Commercial networks take over

- 100,000 new web sites per month
- Access is available throughout the world

Growth of Internet Users since 1990

Internet users by world region since 1990

- The World Wide Web (WWW)
  - Developed in 1993 by Tim-Berners Lee
  - Allowed connection of documents
  - Required a browser to read documents
- Electronic Mail (Email)
  - Instantaneous transmission of documents

- News
  - Often called newsgroups
  - Electronic discussions on several topics
- File Transfer Protocol (FTP)
  - Sends and receives files

- Chat
  - Public real time conversation
- Instant Messaging
  - Private real time conversation
- Peer-to-peer services
  - Allows sharing of files among users
  - Napster and Kazaa are examples
  - Illegal to share copyrighted material

- Internet Service Provider (ISP)
  - Company that provides Internet access
- Dialup
  - Connects to Internet through phone line
  - Modem connects to the phone line
  - Slow connection
- High-speed access
  - Connect through a special line
  - 2 25 times faster than dialup
  - DSL, Cable, T1 are common

- The Internet allows accessing resources
- The Web simplifies the Internet
- The Web connects documents
  - Hypertext creates links between documents
  - Documents are stored on a web server
  - HTTP delivers documents
- Web site is a collection of documents
  - Document is a web page
  - Pages are published to the web
- Hypertext Markup Language
  - Creates web pages
  - Describes how pages should look Content enclosed in tags

- Browsers
  - Read and translate the HTML
  - Display web content
- Uniform Resource Locator (URL)
  - Address of a web page
  - example: www.ulab.edu.bd
- Helper applications
  - Plug-ins
  - Enhance a browsers functionality
- Streaming audio and video
  - Sends the file in small chunks
  - Chunks downloaded while others play

- Browser starts on the home page
- Navigating the web
  - Enter a URL in the browser
  - Click a link
  - Links are typically blue underlined words
  - Image maps are picture links
- When finished, close the browser

- The Web is unorganized
- Directories
    - Categorize the Internet
- Search Engines
    - Find sites by keyword
- Site searches
    - Large sites have an internal search
- Metasearch sites
    - Search several web sites at once
- Sponsored Links
    - Sites pay for better search results

- Quote the exact phrase
- Use the keyword AND
- Use the keyword NEAR Avoid common words
- Use the site's advanced tools

Thank You!