"Overview" of the Internet

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Internet composed of 5 major components

- Web
- Email
- FTP
- On-line Chat/Internet Messaging
- Usenet News Groups

The Internet

- A huge collection of computers around the world, connected by high speed telephone/data lines.
- Incepted in the late 60s, early 70s by US military, initially intended to share strategic data between military bases

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The Internet

- Late 70's, early 80s, educational institutions get involved, begin using the embryonic Internet to share academic information. Internet essentially restricted to educational institutions
- Early 90's, the educational institutions begin to give over their responsibilities for managing the Internet to commercial companies. The Internet begins its explosive expansion.

Internet Geek-Speak

- Every computer connected to the Internet <u>must</u> speak a specific language, called TCP/IP (Transmission Control Protocol - Internet Protocol)
- Every computer/computing device connected to the Internet has an IP (Internet Protocol) number that uniquely identifies that computer

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World Wide Web

- First conceived of in 1989 by Tim Berners-Lee, a Swiss scientist, as a way of sharing scientific information. (see http://www.zeltser.com/WWW/ for more information)
- Special computers connected to the internet set up to "host" World Wide Web "pages", files that could be universally read by "web page browsers". Each web page consists of content and hypertext/hyperlinks linking it to other web pages elsewhere on the internet.

World Wide Web GeekSpeak

- Web Pages are written in HTML (HyperText Markup Language)
- All web browsers speak the same language used to read web pages, HTTP (HyperText Transfer Protocol)

World Wide Web

- A living bibliography….
- A huge, ever-changing learning resource…
     Or, MY personal favorite….

- The world's biggest answer, looking for a question….

Surfing the Web

- Every web browser has the same five buttons:
    - Back, Forward, Stop, Refresh
- Every web page has an address, known as a URL (Universal Resource Locator)
    - http://www.saskmug.org/classdesc2.html

⇧	⇧
The computer the web page lives on	The name of the web page

Searching the Web

- To search the Web, you use a search engine
    - Google - http://www.google.com
    - MetaCrawler - http://www.metacrawler.com
- Once you have found a page, you should keep the URL (address) for it.
    - Add it to Bookmarks/Favorites list
    - Copy and Paste it somewhere
    - Write it down!!!

Taking Resources from the Web

- Print it out - Easiest way to get both text and pictures.
- Select and copy text, paste it into a word processor.
- Hold mouse button down over top of pictures, select Save Image As… to save a picture to your hard drive.

REMEMBER - Copyright applies to the WEB too!!!

Email

- E-mail Clients
- Problems Sending E-mail
- E-mail Address Books
- Sending Attachments

Email Clients

- What types of email clients?
  - POP, IMAP, Web-Based
- What does this mean to you?
  - Each type of client has advantages and disadvantages.

Email Clients

- POP - Post Office Protocol
  - Older Eudora, older Netscape Mail are POP clients
  - Advantages
    - Easy to Use
  - Disadvantages
    - Stores email right on the machine you are working on, which means you may have trouble receiving mail in more than 1 location

Email Clients

- IMAP - Internet Mail Access Protocol
  - Netscape Communicator, Mail.app, Entourage
  - Advantages
    - Stores mail on mail server, enables you to check mail in multiple locations.
  - Disadvantages
    - Somewhat more complicated to set up and use.
    - Mail is stored on server, takes up space.

Email Clients

- Web Based Mail Client
  - HotMail, YahooMail, SaskTel/Shaw webmail
  - Advantages
    - Mail is accessible from anywhere you can use a web browser.
    - Usually Free
  - Disadvantages (for free providers)
    - Privacy?
    - Service provision (You get what you pay for)
    - Mail Storage Space/Attachment problems/Speed

Problems Sending E-mail

- Why did my email not go?
  - Incorrect email address
    - Will usually receive mail back from a computer saying that there was a problem. Problem can be of two types:
      - problem with username (abc123)
      - Problem with hostname (@mail.usask.ca)
  - User no longer exists or their address has changed.

Problems Sending E-mail (cont'd)

- How do I know if my email DID go?
  - No News is good news

Problems Sending E-mail (cont'd)

- How do I find out someone's email address?
    1. For On-campus, use the Campus Email directory. (http://www.usask.ca/search)
    2. For off campus, use the LDAP server (not sure how) .
    3. Access an email directory at the institution where they work/go to school
    4. Phone them.
    5. Put it in your address book!!!!!!!

Sending Attachments

- What is it?
    – Method of sending files via email over the Internet.

Sending Attachments

- How does it work?
    – Converts any file you send into a text format (encoding)
    – Email program at the other end must decode the file in order for it to be useful.

Sending Attachments

- Not every email client uses the same method of encoding.
- This poses a problem if your client cannot understand an attachment sent to you.

Methods of Encoding

- BinHex   -
    – Used by Eudora, Macs
    – Binhex utilities are available for PC
- Base64 -
    – Used by Netscape Mail
- Mime
    – Used by many email programs
- Uuencode -
    – General, older encoding program

Attachment Do's

- If you are not sure if recipient can deal with attachments, send text in the body of the email.
- When you do send an attachment, make sure you tell recipient:
    – what email program
    – what encoding method
    – what application/file format the document was created with.

Attachment Don'ts

- Don't send large attachments
  - Can cause problems for recipients
  - Many institutions are beginning to restrict the size of files that can be received via email
- Use some other method of getting information to someone.
  - World Wide Web
  - FTP

Multiple addressees

- Generally, can send an email to multiple people by separating addresses by commas.

File Transfer Protocol (FTP)

- A way of moving files between computers
- First used to share files via internet
- Largely supplanted by email attachments (small files)/hidden by the WWW (big files)
- Still used by web designers for moving web pages to web servers.
- Fetch is an FTP client

Internet Messaging/Chat

- IRC (Internet Relay Chat)
- ICQ (I Seek You)
- MSN Messenger (Microsoft)
- AOL Instant Messenger
- Yahoo Messenger
- iChat