Week 6
- Lecture notes
- Web posted lecture

Viruses

- A computer virus is not usually a "complete" program.
- A computer virus relies on a "host" to transmit it; with traditional viruses this host is a program that runs in your computer.
- Biological viruses can be compared to Computer viruses because they rely on a host to replicate.
- The computer virus instructions must be executed in order to have any effect.

Types of Viruses

- **Traditional Viruses**
  Uses other programs to replicate itself. A traditional computer virus will attach itself to another program. It copies the virus instructions to the file containing the program instructions.

- **Trojan horses**
  A Trojan horse is a very different kind of virus. It is actually a complete computer program that appears to do something but may actually be doing other things behind the scenes. For example, you may visit a web site that lets you play games but instead the web site may be executing code to do something malicious to your computer. Trojan horses have no way to replicate automatically; they rely on human psychology to replicate. If a game, website, or any kind of computer program sounds exciting enough you may risk or even neglect to consider that you may actually be looking at a malicious program.

- **E-mail viruses**
  An e-mail virus uses e-mail to replicate itself, by accessing e-mail address books or available user-name, user-accounts or any e-mail lists. E-mail is electronic mail sent over the internet. An e-mail virus, categorically will only replicate by e-mail. It does not necessarily need to append its instructions to another program to be effective.

- **Worms**
  A worm uses holes in operating systems to replicate itself. It relies on computer networks to provide access to other computers. A worm does not necessarily need to append its instructions to another program to be effective.
How Internet Sites Can Invade Your Privacy

- **Cookies**
  Cookies are pieces of information generated by a Web server and stored in the user's computer. Cookies are used:
  - to personalize Web search engines
  - to allow users to participate in WWW-wide contests
  - to store shopping lists of items

- **Web Bugs**
  Web bugs are electronic tags that help Web sites and advertisers track visitors' whereabouts in cyberspace. Web bugs are invisible on the page and are much smaller than cookies, about the size of the period at the end of this sentence.

- **Spyware**
  A spyware can be any software that covertly gathers user information through the user's Internet connection without his or her knowledge, usually for advertising purposes. Spyware monitors user activity on the Internet and transmits that information in the background to someone else. Spyware can also gather information about e-mail addresses and even passwords and credit card numbers.