Malware

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Malware Topics

☐ What is malware?

☐ What does it look like?

☐ How can you stop it?

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Types of Malware

- 7 types:
  - Viruses
  - Worms
  - Trojans
  - Rootkits
  - Spyware
  - Adware
  - Ransomware

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Types of Malware

- Virus
  - Attaches itself to existing files and runs the virus code whenever the host file is accessed/run

- Worm
  - A standalone program that deliberately tries to exploit vulnerabilities in order to spread copies of itself to more machines

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Types of Malware

- Trojans
  - A malware program used to infect a computer by misleading users of it's true intent
  - Usually used to gain access to sensitive information

- Rootkit
  - Designed to enable access to unauthorized data while masking it's existence (hiding itself)
  - Might work with a trojan in order to help disguise itself and spread

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Types of Malware

- Spyware
  - Software that hides on your computer in order to 'spy' on you. Possibly monitor keystrokes, record websites, etc.

- Adware
  - Similar to spyware but designed to redirect you to certain websites (advertising) or display popups

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Types of Malware

◻ Ransomware
  ◻ Installed covertly on a computer and locks/encrypts user data making it unavailable
  ◻ Demands a ransom payment to restore access

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What do they do?

◻ Copy themselves into other files

◻ Execute various 'payloads'

◻ Delete files

◻ Do something on a particular day

◻ Spread themselves (worm, or email virus)
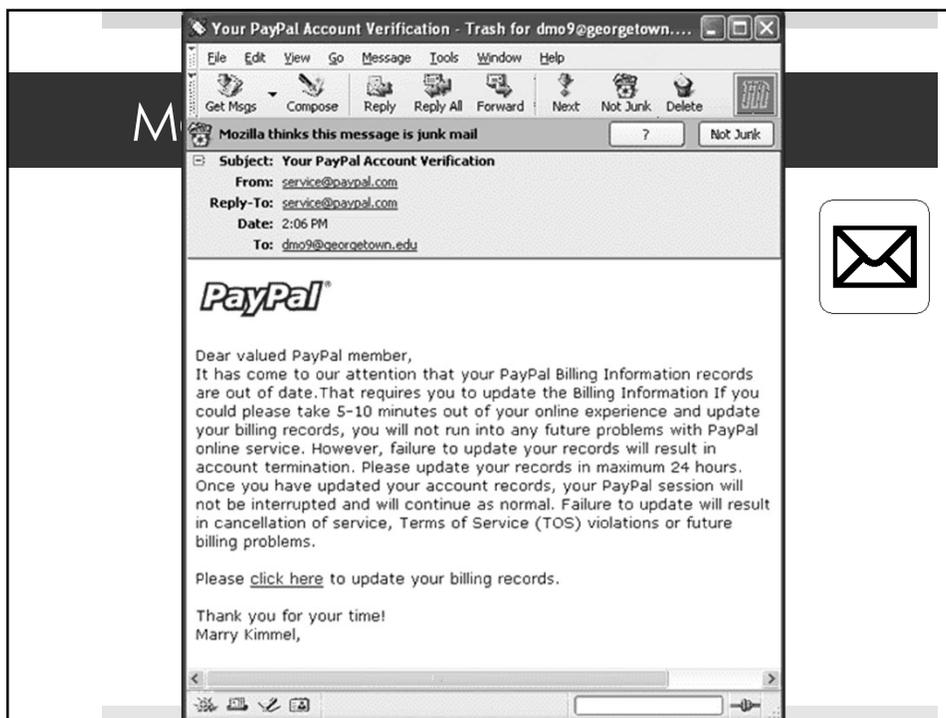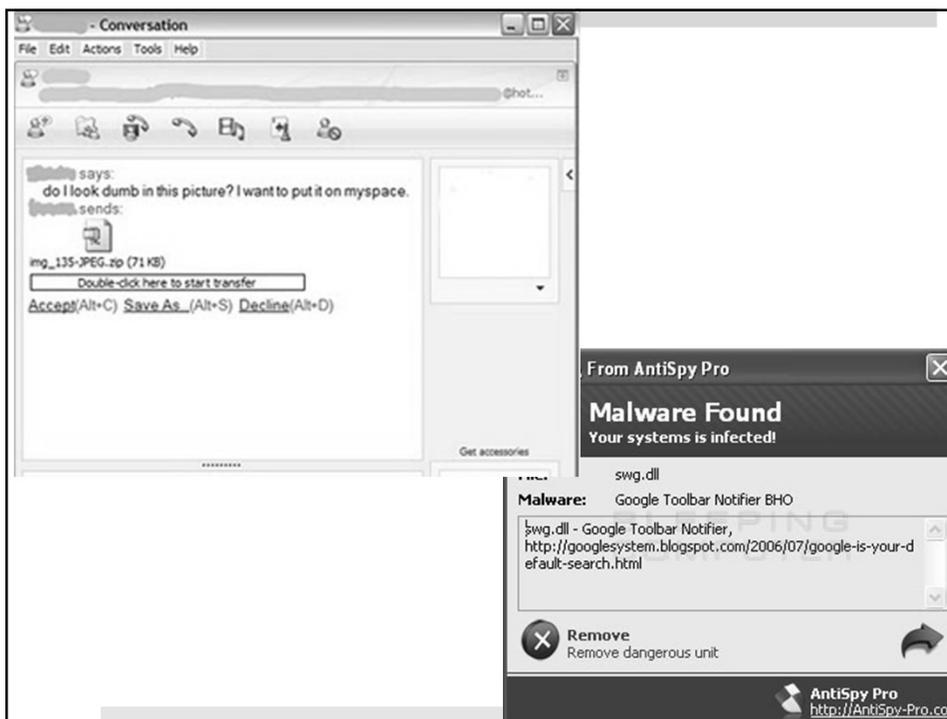
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Prevent Malware

◘ How can you catch one?
  ◘ Which way?
    ◘ USB Drive
    ◘ Downloaded from Internet
    ◘ From network (school or work)
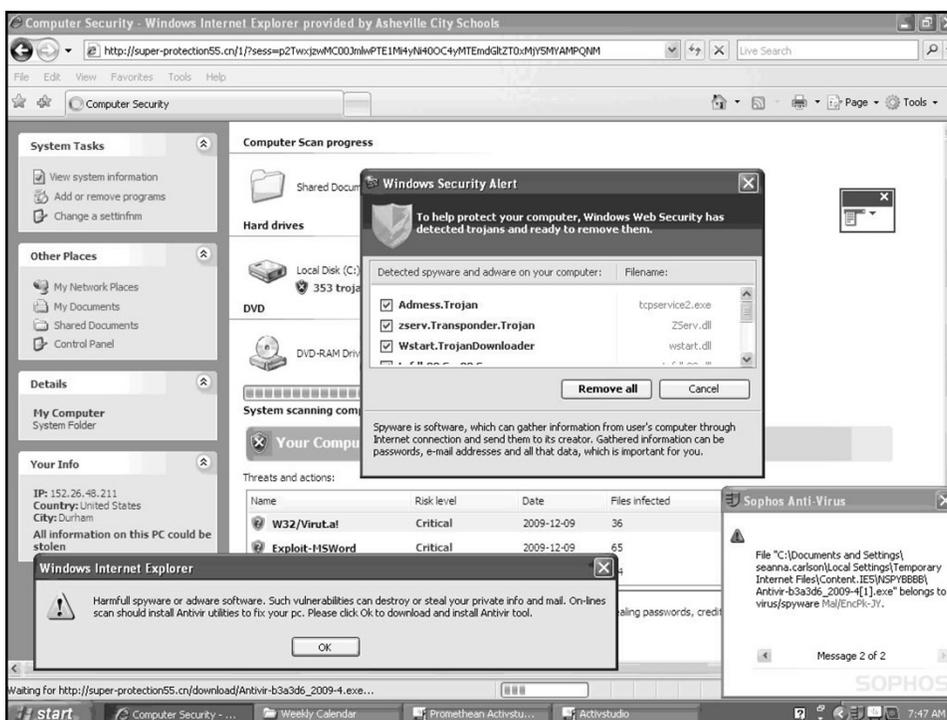   ◘ In an email
    ◘ In an instant message

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Prevent Malware

◻ Avoid downloading every little installer
  ◻ Consider what you are installing

◻ Avoid programs downloaded via P2P networks
  (kazaa, bearshare, **torrents**, etc)

◻ Install anti-virus, such as AVG or Avast

◻ Install anti-malware software
  such as MalwareBytes or Spybot

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Cyber Security Lab

◻ Google "pbs cybersecurity lab"

◻ Click first link

◻ Click "Play Game"

◻ Click "Guest Pass"

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Research Assignment

◻ Create a document that gives the following information for each virus listed to the right
  ◻ Description of the virus
  ◻ Type of virus
  ◻ Date released
  ◻ Source (if known)
  ◻ Number of computers affected
  ◻ Fallout (did anything change as a result)

◻ Morris Worm

◻ Code Red

◻ Melissa

◻ WannaCry

◻ Zeus

◻ ILOVEYOU

◻ Conficker

◻ Stuxnet

◻ Flashback

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