Test Your Tech

Crackers and cookies are:
A. Bytes to share with friends.
B. The best minor league baseball team of all time and their cheerleaders.
C. Hackers who attempt to break a program (crackers) and data stored on your computer by a Web server (cookies).

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Security
Exploring the Dark Side of the Internet

Negative Issues

- Malware
  - Viruses, et al.
  - Spyware / Adware
- Privacy
  - Phishing
- Malicious
  - Cracking (not hacking)
  - Network service attacks

Different Types of Virii/Spyware

- Spyware
- Adware
- Embedded Programs
- Trojan Horse
- Browser Hijackers
- Dialers
- Woms

Why do people make Virii/Spyware?

- Profit
- Malice
- Boredom
- Business
- A challenge
- "Respect" from other virii writers
How do I know if I’ve got a Virus/Spyware?

- Virii
  - Programs will stop working correctly
  - Losing data (documents disappearing)
  - Computer is running slower than normal
- Spyware
  - Popups (on or off the internet)
  - New toolbars
  - Home page changes
  - Search results look different
  - Error messages when accessing the web

What does Spyware look like?

- Popups (on or off the internet)
- New toolbars
- Home page changes
- Search results look different
- Error messages when accessing the web
What does Spyware look like?

- Use a legitimate spyware removal program
How do I prevent Spyware?

• Be conscious of what you are clicking on/downloading
• Some pop-ups have what appears to be a close button, but will actually try to install spyware when you click on it. Always look for the topmost right red X.
• Remember that things on the internet are rarely free. “Free” screensavers etc. generally contain ads or worse that pay the programmer for their time.

How do I get rid of/prevent Virri?

• Run antivirus software
  * http://www.washington.edu/computing/security
  * Keep it up to date!
    * Virus definitions need to be updated regularly!

Phishing

• Most commonly an Email stating your account information needs updating
• Watch for URL’s that are numeric or different from the link you clicked on
• Best thing to do is to type in the URL and check your account directly without following any links in the Email
• Many legitimate emails no longer contain a link (Paypal)
Phishing Examples

How secure do you need to be?

- Be Prudent not Paranoid
- Did you initiate the action?
- Why is this free?
- Is the source trustworthy?
- When in doubt search for it!

Hackers

- White Hat
  - Very tech savvy and use powers for good
  - Security consulting, penetration testing, security audits, etc...
  - Goal is to help
- Grey Hat
  - Very tech savvy and use powers for good - sort of
  - Goal is often to help, but by doing mischievous things in the process
- Black Hat
  - Very tech savvy
  - The bad guy!
  - Goal is to “own you”

Cracking (Bad Hacking)

- Black Hats doing bad things
  - Defacing web sites
  - Stealing private information
  - Stealing money
  - Blackmail
  - Etc...
Cracking - What are their secrets?

- Social Engineering
  - Manipulating people to have them give you access
  - "Hello I am calling from tech support about the problem you submitted. Let me get your password and I will help you right away..."

- Buffer Overflow
  - Finding problems in programming code
  - Writing outside of memory location (Example - writing past the end of an array into a variable called: myPassword and saving your own password)

- Cross Site Scripting
  - Site or program is used to edit another site
  - See my example: https://faculty.washington.edu/samspade/secure/ (works in IE and Safari)

Denial of Service Attack

- Also known as a DoS attack
  - Attack on a computer system or network that causes a loss of service to users
  - Consuming the bandwidth of the victim network or overloading the computational resources of the victim system.
  - Sort of like someone constantly calling you over and over again. You wouldn't be able to use your phone.
  - If they don't affect you directly
    - May slow down your network service...
  - If they do affect you directly
    - May block your network service...

Questions

- If I wanted to update a group of co-workers about a project and solicit their feedback, would I want to use a synchronous or asynchronous system?
- What communication system would work well and why?

Questions

- If I were in marketing, and wanted to "put my finger on the pulse" of a particular group of people: say candy lovers, what social technologies could I use to find out what they are thinking?