Cyberethics, Cybersafety, and Cybersecurity (C3): Implications for the Classroom Teacher

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Overview

- Introductions
- Cyber Awareness Overview and & Resources
- Cybersafety
- Cyberethics
- Cybersecurity
- Questions/Closure

Maryland Teacher Technology Standards

SEVEN STANDARDS AND OUTCOMES	INDICATORS
I. Information Access, Evaluation, Processing and Application Access, evaluate, process and apply information efficiently and effectively.	1. Identify, locate, retrieve and differentiate among a variety of electronic sources of information using technology. 2. Evaluate information critically and competently for a specific purpose. 3. Organize, categorize and store information for efficient retrieval. 4. Apply information accurately in order to solve a problem or answer a question.
II. Communication A. Use technology effectively and appropriately to interact electronically.	1. Use telecommunications to collaborate with peers, parents, colleagues, administrators and/or experts in the field.
B. Use technology to communicate information in a variety of formats.	1. Select appropriate technologies for a particular communication goal. 2. Use productivity tools to publish information. 3. Use multiple digital sources to communicate information online.
III. Legal, Social and Ethical Issues Demonstrate an understanding of the legal, social and ethical issues related to technology use.	1. Identify ethical and legal issues using technology. 2. Analyze issues related to the uses of technology in educational settings. 3. Establish classroom policies and procedures that ensure compliance with copyright law, *Fair Use* guidelines, security, privacy and student online protection. 4. Use classroom procedures to manage an equitable, safe and healthy environment for students.
IV. Assessment for Administration and Instruction Use technology to analyze problems and develop data-driven solutions for instructional and school improvement.	1. Research and analyze data related to student and school performance. 2. Apply findings and solutions to establish instructional and school improvement goals. 3. Use appropriate technology to share results and solutions with others, such as parents and the larger community.
V. Integrating Technology into the Curriculum and Instruction	1. Assess students' learning/ instructional needs to identify the appropriate technology for instruction.

III. Legal, Social and Ethical Issues

What is your Interpretation?

- **Demonstrate an understanding of the legal, social and ethical issues related to technology use**

1. Identify ethical and legal issues using technology.
2. Analyze issues related to the uses of technology in educational settings.
3. Establish classroom policies and procedures that ensure compliance with copyright law, *Fair Use* guidelines, security, privacy and student online protection.
4. Use classroom procedures to manage an equitable, safe and healthy environment for students.

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III. Legal, Social and Ethical Issues

What is your Interpretation?

- Demonstrate an understanding of the legal, social and ethical issues related to technology use

1. **Identify ethical and legal issues using technology.**
   - **Digital and Urban Divide**
   - **Access Issues**
   - **Cultural Differences in Multimedia**
   - **AT and 508/Comar Regulations**

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III. Legal, Social and Ethical Issues

What is your Interpretation?

- **Demonstrate an understanding of the legal, social and ethical issues related to technology use**

2. **Analyze issues related to the uses of technology in educational settings.**

- **Evaluation of Content**
- **Goal of Technology Use**

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III. Legal, Social and Ethical Issues

What is your Interpretation?

- **Demonstrate an understanding of the legal, social and ethical issues related to technology use**

3. **Establish classroom policies and procedures that ensure compliance with copyright law, *Fair Use* guidelines, security, privacy and student online protection.**

- **Expectations and Procedures**
- **Disability Statement**
- **Proper Citation**
- **Copyright Law**
- **Fair Use**
- **FERPA/ Teach Act**
- **Acceptable Use Policies**
- **Privacy and Netiquette**

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III. Legal, Social and Ethical Issues

What is your Interpretation?

- **Demonstrate an understanding of the legal, social and ethical issues related to technology use**

4. **Use classroom procedures to manage an equitable, safe and healthy environment for students.**

- **Ergonomics**
- **Assistive Technology**
- **Equitable Access**
- **Cybersafety**
- **Filters**

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Past Focus

- **Copyright and Intellectual Property Issues in the Digital Environment**
- **Internet Citizenship**
- **Fair Use Checklist**
- **Safety and Security**
- **Online Safety for Kids**
- **What Do You Know?/What Have You Done?!**
- **Hoax Emails**
- **Plagiarism in the 21st Century: Paper Mills, Cybercheating, and Internet Detectives in the Electronic Age**
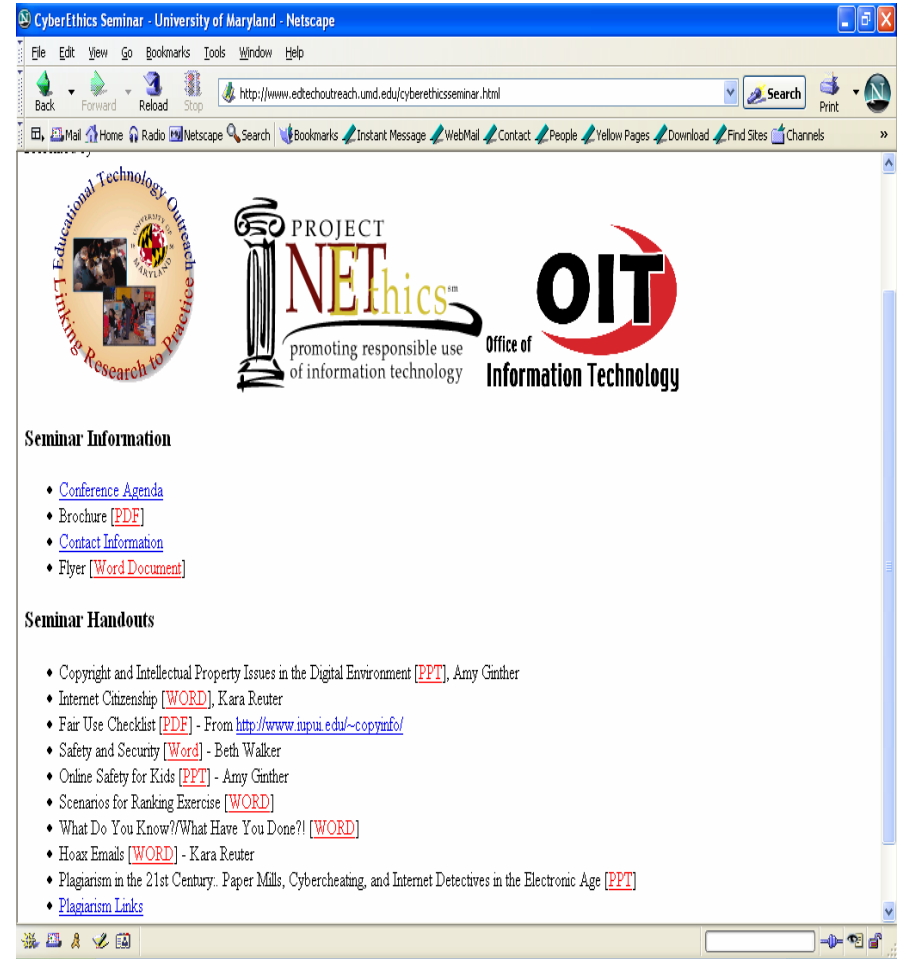
Performance Assessment Outline

See Handout

Case Study And Questions

Answers

- Can be found at Maryland PT3 Performance Task site

- http://www.smcm.edu/msde-pt3/TaskIII.htm

Top Ten Educator Awareness Problems

- Passwords
- Backing Ups Files
- Patches
- Anti-Virus Protection
- Copyright

- Hoaxes
- Attachments
- 508 knowledge
- Modeling (including plagiarism)
- Equity Issues

C3™:New Directions

- **Cybersecurity**
- **Cybersafety**
- **Cyberethics**

UMCP Efforts

- C3™ Institute

- Electronic Portal

- Workshops

- PT3 pre-service module (part of undergraduate course)

- Online 3 credit graduate course

- **April is Cyber- Awareness Month!**

- **October is Cyber Security Awareness Month!**

- **C3 Conference (October 4 & 5, 2007)**

Cybersafety

Curricula

- [iKeepSafe](#)
- [NetSmartZ](#)
- [iSAFE](#)
- [CyberSmart](#)
- [StaySafeOnline](#)
- [MANY others](#)
- [ToolKit](#)

See Handouts

Social Networking Sites & Activities

- FTC http://onguardonline.gov/socialnetworking.html

- NetSmartZ http://www.netsmartz.org/netteens.htm

- StaySafeOnline.org
  http://www.staysafeonline.org/basics/family.html#

- Social Networking Sites
  http://www.edtechoutreach.umd.edu/mindtools.html#networkingenviron

- More http://www.edtechoutreach.umd.edu/civics.html

Internet Filtering

- **Children's Internet Protection Act**. (CIPA)
- **Child Online Protection Act** (COPA).
  - Any school or library that receives discounted rates for telecommunications services under the E-Rate program, or receives funding through the Library Services & Technology Act or Title III, in order to purchase computers used to access the Internet, or to pay for direct costs associated with accessing the Internet, must comply with federal mandate.

COPA? CIPA?

- The **U.S. Federal Trade Commission** (FTC) has the responsibility for enforcing COPA and the **Federal Communications Commission** (FCC) regulates CIPA

- **COPA** requires U.S.-based Web-sites that **collect personal information** from people under the age of 13 to obtain permission from parents or guardians before asking for such **data**.

- **CIPA** requires schools and libraries prove that Internet access to objectionable material is **not available** to any user under 17 years of age.

Cyber bullying

- Take the Cyber bullying Quiz @ http://www.wiredkids.org/ktt_universal/games/javascript/cyberbullying_quiz_1/index.html

- Cyber bullying Poll @ http://www.internetsuperheroes.org/cyberbullying/

- Other savvy Resources http://www.kn.sbc.com/wired/fil/pages/listinternetmr63.html

Cyberethics

Copyright and Intellectual Property Issues in the Digital Environment

University of Maryland
Guidelines for the Acceptable Use of Computing Resources

The Educator's Guide to Copyright and Fair Use
Copyright Quiz

See Handout

Hall Davidson's
http://www.techlearning.com/db_area/archives/TL/2002/10/copyright_quiz.html

The Educator's Guide to Copyright and Fair Use
Copyright Primer

http://www.halldavidson.net/quiz1.pdf
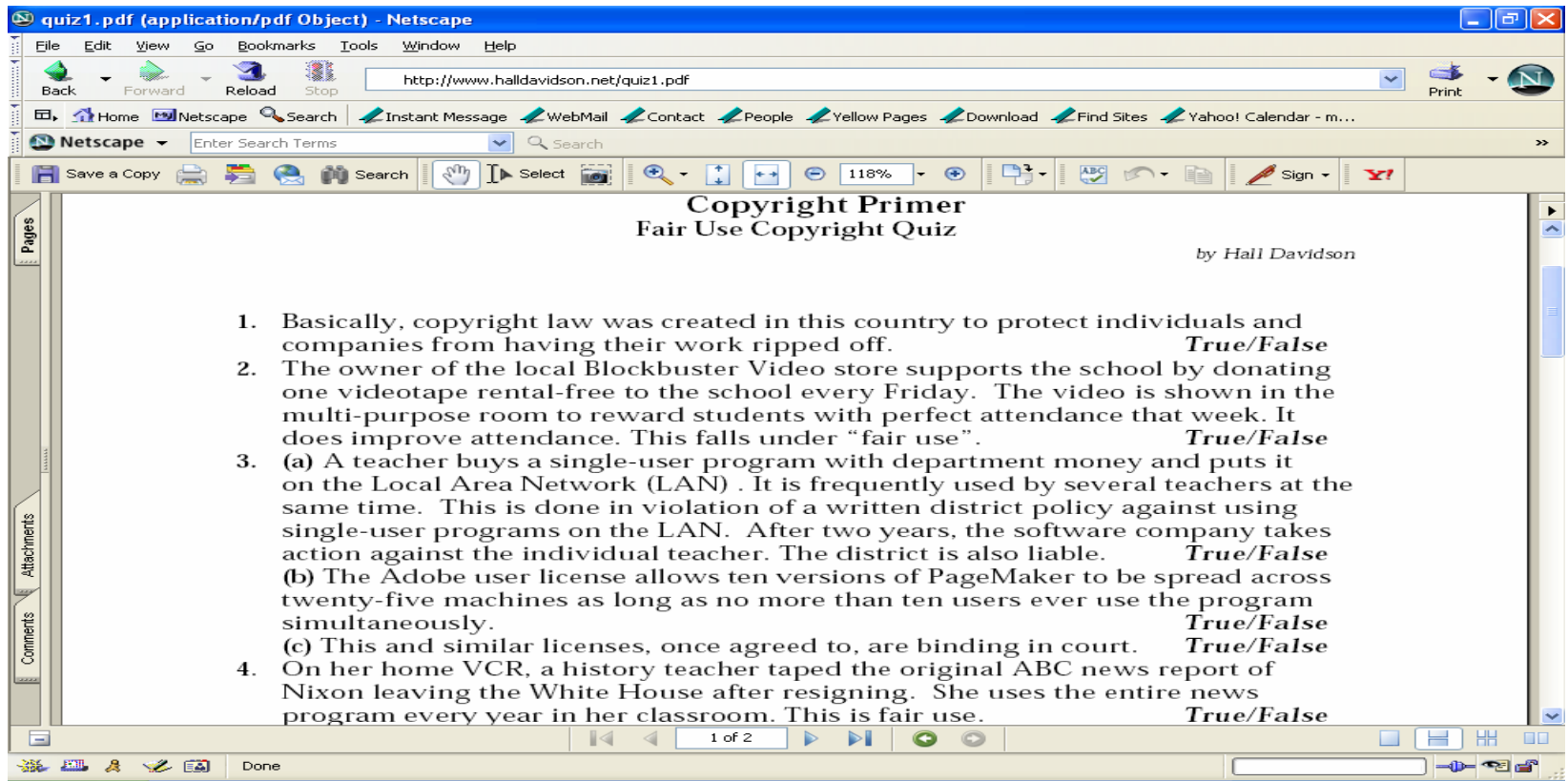
Maryland Technology Performance Task III

See Handout

Source: http://www.smcm.edu/msde-pt3/TaskSummaries.htm

Tutorials

10 Big Myths About Copyright Explained

Brad Templeton
http://www.templetons.com/brad/copymyths.html

©Primer

UMUC http://www-apps.umuc.edu/primer/enter.php

Getting Started

Copyright Tutorial cont.

Fair Use of Copyrighted Materials - Microsoft Internet Explorer provided by AT&T WorldNet Service

File   Edit   View   Favorites   Tools   Help

Back   Search   Favorites   Media

Address   http://www.utsystem.edu/ogc/IntellectualProperty/copypol2.htm#test   Go   Links

- Make a judgment about the final balance. overall does the balance tip in favor of fair use or in favor of getting permission?

The four fair use factors:

1. **What is the character of the use?**

2. **What is the nature of the work to be used?**

3. **How much of the work will you use?**

4. **What effect would this use have on the market for the original or for permissions if the use were widespread?**

FACTOR 1: What is the character of the use?

- Nonprofit
- Educational
- Personal

- Criticism
- Commentary
- Newsreporting
- Parody
- Otherwise "transformative" use

- Commercial

Uses on the left tend to tip the balance in favor of fair use. The use on the right tends to tip the balance in favor of the copyright owner - in favor of seeking permission. The uses in

Internet

Source: deep link-
http://www.utsystem.edu/ogc/IntellectualProperty/copy
pol2.htm#test

Bruin Success with Less Stress

UCLA
http://www.library.ucla.edu/bruinsuccess/

Purdue Copyright Management Center

http://www.copyright.iupui.edu/

A Visit to Copyright Bay: Fair Use Harbor

http://www.stfrancis.edu/cid/copyrightbay/fairuse.htm
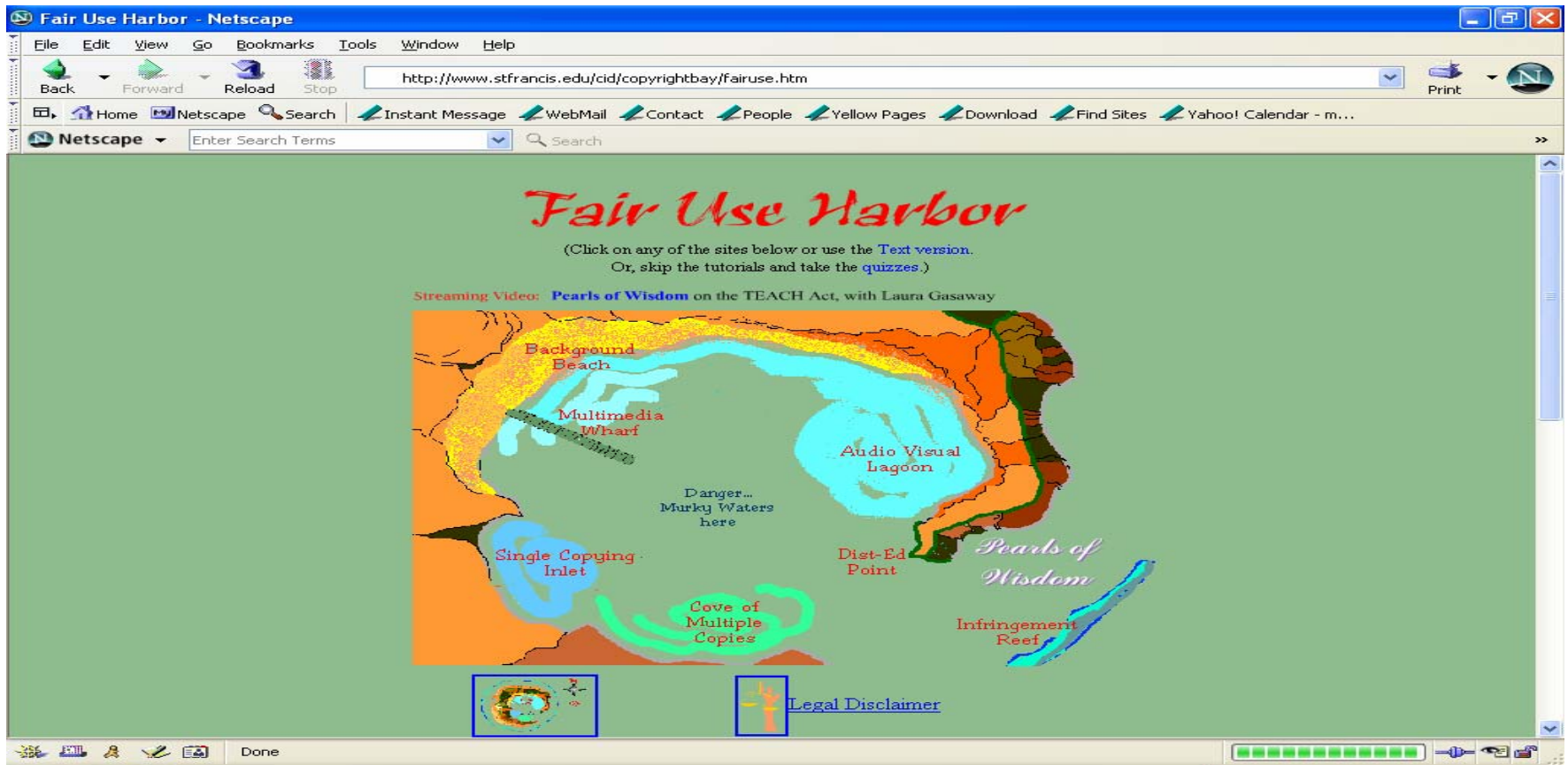
Laura Gasaway ,

University of St. Francis

The Educator's Guide to Copyright and Fair Use: A five-part series

http://www.educationworld.com/a_curr/curr280.shtml

http://www.educationworld.com/a_curr/curr280b.shtml

Copyright Snippets: Warm-ups

- Article in an Internet-only newsletter

(1998, July).

- Place in Order

Workplace.html

http://www.telehealth.net/subscribe/newslettr4a.html1

Monitor/oct00

2(2).

Retrieved from

http://

Glueckauf, R. L., Whitton, J., Baxter, J., Kain, J., Vogelgesang, S., Hudson, M., et al.

www.apa.org/

Telehealth News,

Videocounseling for families of rural teens with epilepsy -- Project update.

Article in an Internet-only newsletter

- Glueckauf, R. L., Whitton, J., Baxter, J., Kain, J., Vogelgesang, S., Hudson, M., et al. (1998, July). Videocounseling for families of rural teens with epilepsy -- Project update. *Telehealth News,2*(2). Retrieved from http://www.telehealth.net/subscribe/newslettr4a.html1

APA style format

Components of URL

Protocol   Host name   Path to document

http://www.apa.org/monitor/oct00/workplace.html

File name of specific document
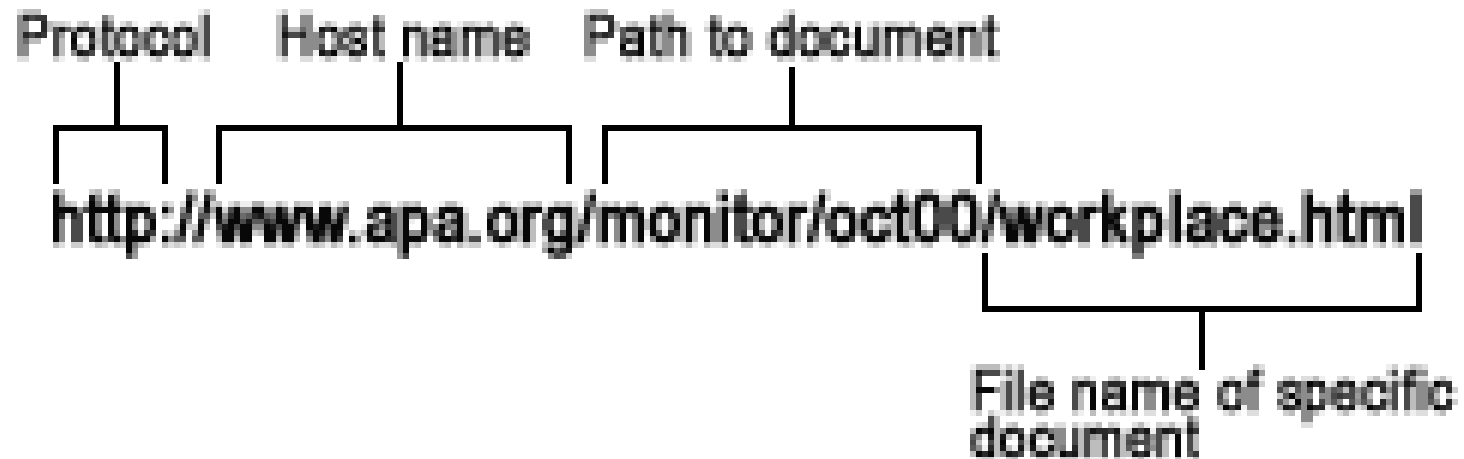
Internet Citizenship

Presentation by Karen Reuter

- http://www.edtechoutreach.umd.edu/cyberethicsseminar.html

Other Netiquette Snippets: Warm-ups

- Take the Core Rules Netiquette Quiz
  - http://www.albion.com/netiquette/corerules.html
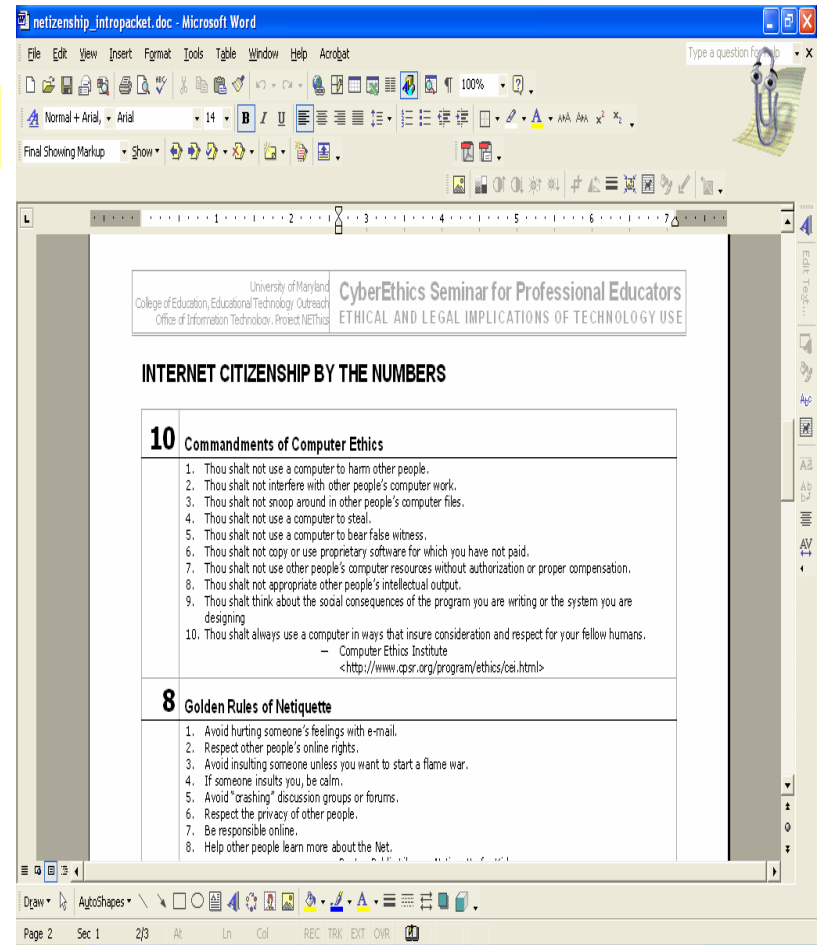
Emoticons and Jargon

- Go to
  http://www.computeruser.com/resources/dictionary/emoticons.html
- Online Lingo
  http://www.edtechoutreach.umd.edu/ArchivedWebsites/USMilw/onlinelingo.pdf
  - **Which ones are you familiar with?**
  - **Which ones have you used?**
  - **Reflect on why it is important to understand the jargon (or at least where to go to find out) as a parent?**
  - **As an educator?**

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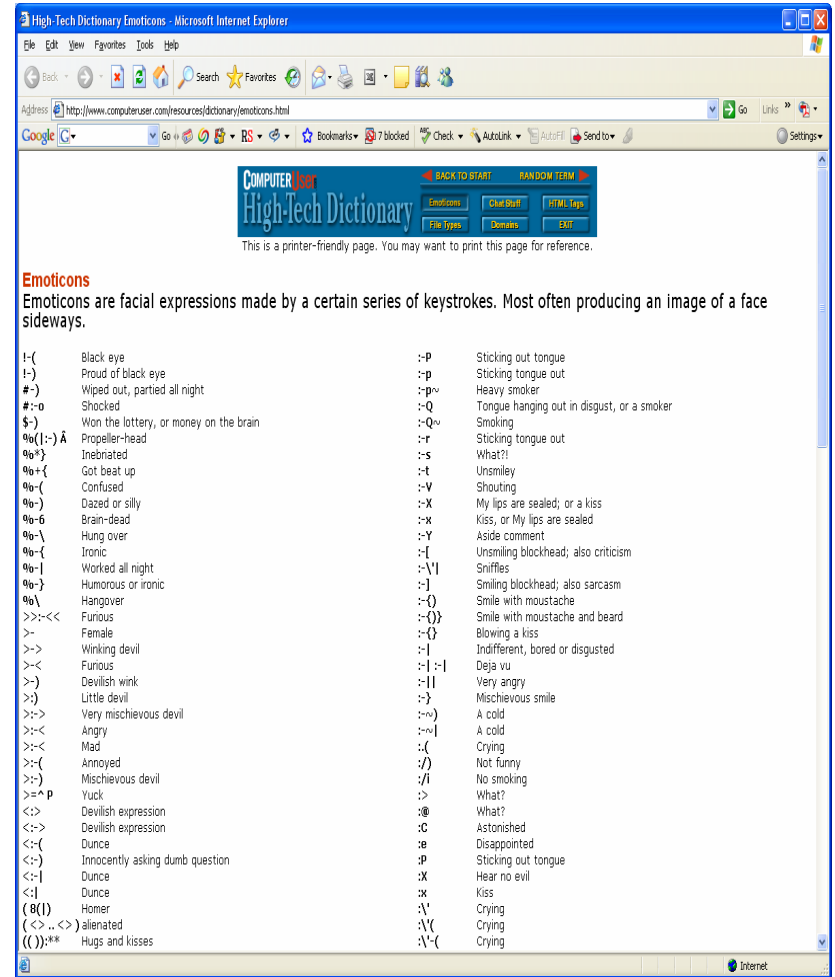
Online Translator

emoticons, jargon, slang and leet.

- Using an online slang translator http://www.noslang.com/about.php (talks about what it is) http://www.noslang.com/ translate the following message

  – John: gg.wth were they thinking?

  – Steve: Tnx. imho we pwned them.

  – John: I agree – rotflmao.

  – Steve: They need to rtfm.

  – John: ttyl

- **What was the message? Was this online slang translator helpful? Why or why not?**
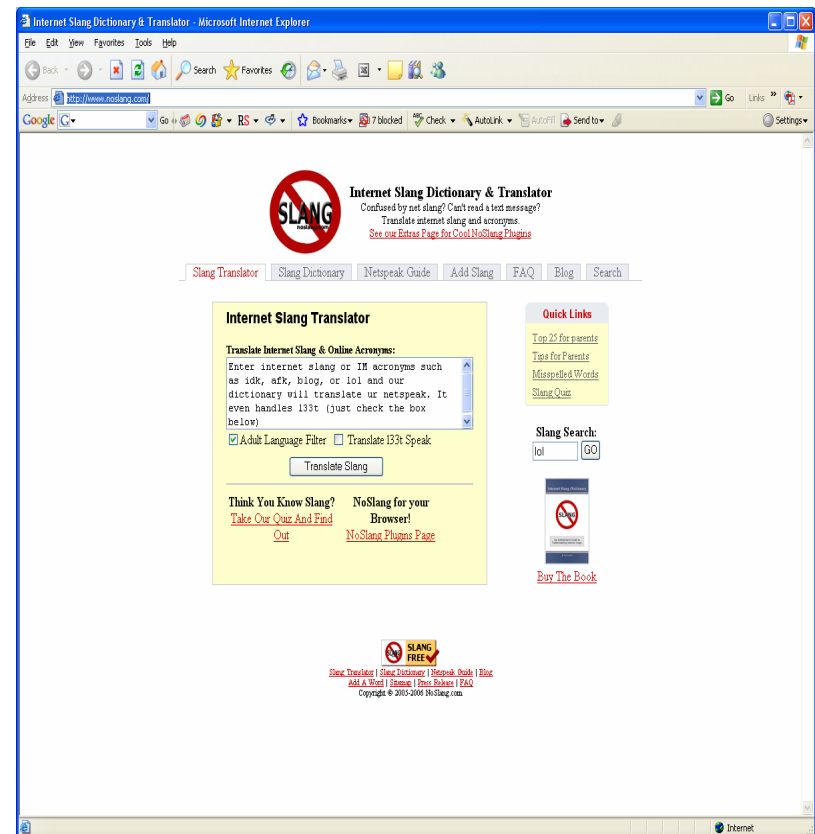
Plagiarism

Plagiarism in the 21st Century: Paper Mills, Cyber-cheating, and Internet Detectives in the Electronic Age

- **http://www.edtechoutreach.umd.edu/cyberethicsseminar.html**

Plagiarism Snippets: Warm-ups

- **Examine paper-mill sites - some of them are listed below (you do not have to look at them all)**
  - **A-1 Term Papers - http://www.a1-termpaper.com/index.shtml**
  - **Academic Term papers - http://www.academictermpapers.com/**
  - **Top 100 Essay sites - http://www.freeessay.com/top100/**
  - **Pink Monkey - http://www.pinkmonkey.com/**
  - **School Sucks - http://www.schoolsucks.com/**
  - **Cheat House - http://www.cheathouse.com/**
- **Discuss the quality of a few of the sites above and the materials gained. How easy were the sites to navigate? What levels were the sites targeting? Were you able to find papers/materials that met your specific needs? Rate the quality of the materials located. How easy would it be for a student to access the materials?**

Plagiarism Snippets: Warm-ups
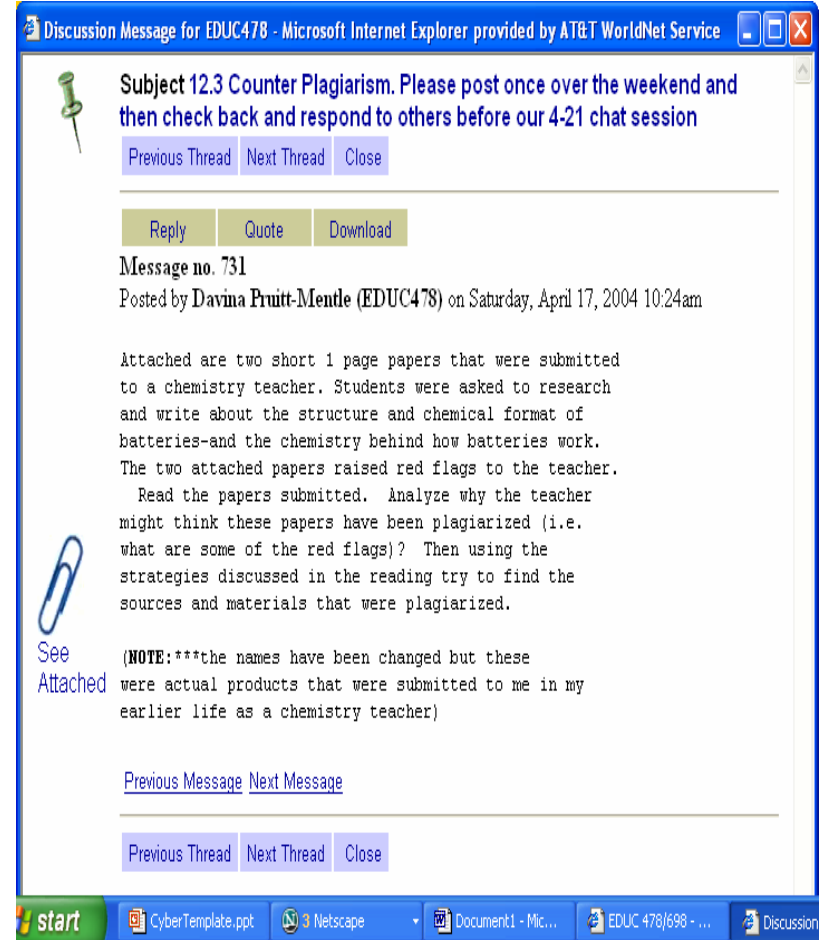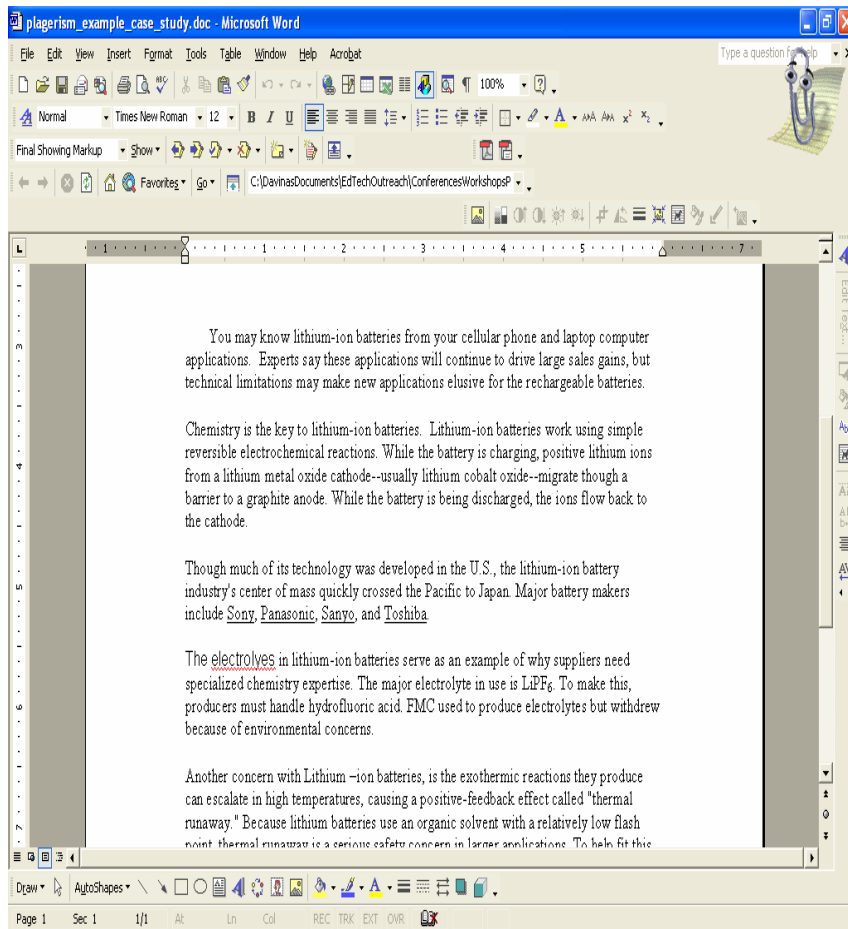
See Handouts

Cybersafety

Phishing For Worms!
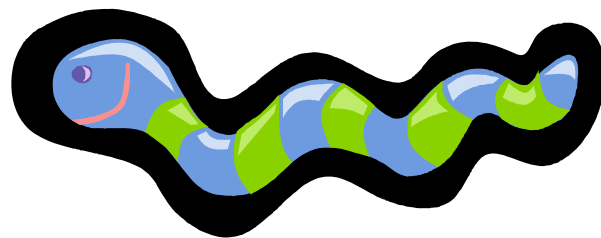
Just What Are Worms, Adware, Spyware, and Phishing Expeditions?
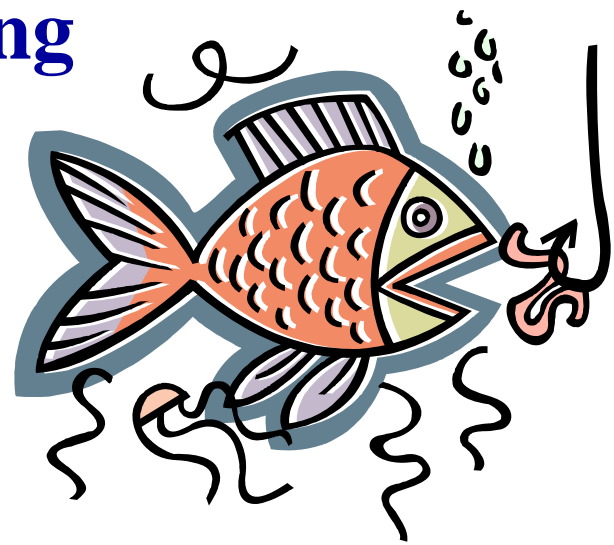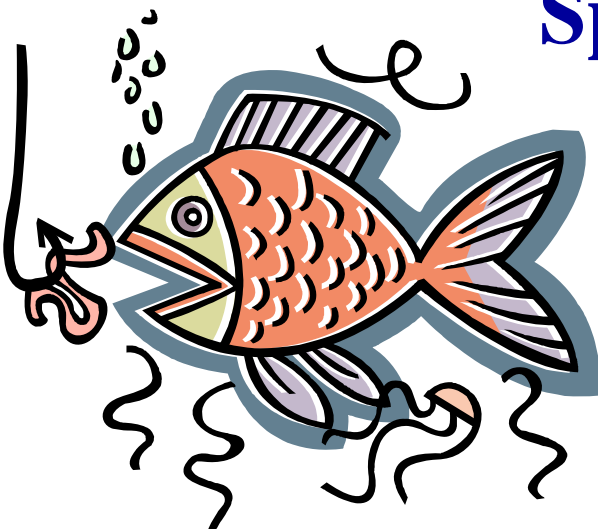
Definitions

- **Worm**: a self-replicating computer program, similar to a computer virus. It is self-contained and does not need to be part of another program to propagate itself.
  - Example: Sobig and Mydoom.
- **Virus:** attaches itself to, and becomes part of, another executable program;
  - Macro viruses are written in the scripting languages for Microsoft programs such as Word and Excel.
- In general, a virus cannot propagate by itself whereas worms can. A worm uses a network to send copies of itself to other systems and it does so without any intervention. In general, worms harm the network and consume bandwidth, whereas viruses infect or corrupt files on a targeted computer. Viruses generally do not affect network performance, as their malicious activities are mostly confined within the target computer itself.

From Wikipedia - http://en.wikipedia.org/wiki/Computer_worm

Definitions

- **Trojan Horse**: A malicious program that is disguised as legitimate software

  - These are often those attachments to email that entice you to open them

- **Malware**: Software designed to infiltrate or damage a computer system, without the owner's consent

  - Includes computer **viruses, Trojan horses, spyware and adware**

What to do

- Signs of infection
  - May seem sluggish or slow down significantly
  - Might 'lock up' more often than usual
  - Browser program may not work correctly
  - Pop-up ads
  - Unusual hard drive activity

- Ways to get rid of
  - Use your anti-virus software (you have one right!!!)
    - Scan all your drives
  - Use Microsoft Malicious Software Removal Tool
    - http://www.microsoft.com/security/malwareremove/default.mspx
  - McAfee: http://ts.mcafeehelp.com/?siteID=1&resolution=1280x1024&rurl=vrContactOptions.asp
  - Symantec: http://security.symantec.com/sscv6/default.asp?productid=symhome&langid=ie&venid=sym

Chain Letter Hoax

- **Definition: An email which urges the recipient to forward the email to other people**

- DEAR SIR,

  URGENT AND CONFIDENTIAL BUSINESS PROPOSAL

  I AM MARIAM ABACHA, WIDOW OF THE LATE NIGERIAN HEAD OF STATE, GEN. SANI ABACHA. AFTER HE DEATH OF MY HUSBAND WHO DIED MYSTERIOUSLY AS A RESULT OF CARDIAC ARREST, I WAS INFORMED BY OUR LAWYER, BELLO GAMBARI THAT, MY HUSBAND WHO AT THAT TIME WAS THE PRESIDENT OF NIGERIA, CALLED HIM AND CONDUCTED HIM ROUND HIS APARTMENT AND SHOWED HIM FOUR METAL BOXES CONTAINING MONEY ALL IN FOREIGN EXCHANGE AND HE EQUALLY MADE HIM BELIEVE THAT THOSE BOXES ARE FOR ONWARD TRANSFER TO HIS OVERSEAS COUNTERPART FOR PERSONAL INVESTMENT.

  ALONG THE LINE, MY HUSBAND DIED AND SINCE THEN THE NIGERIAN GOVERNMENT HAS BEEN AFTER US, MOLESTING, POLICING AND FREEZING OUR BANK ACCOUNTS AND EVEN MY ELDEST SON RIGHT NOW IS IN DETENTION. MY FAMILY ACCOUNT IN SWITZERLAND WORTH US$22,000,000.00 AND 120,000,000.00 DUTCH MARK HAS BEEN CONFISCATED BY THE GOVERNMENT. THE GOVERNMENT IS INTERROGATING HIM (MY SON MOHAMMED) ABOUT OUR ASSET AND SOME VITAL DOCUMENTS. IT WAS IN THE COURSE OF THESE, AFTER THE BURIAL RITE AND CUSTOMS, THAT OUR LAWYER SAW YOUR NAME AND ADDRESS FROM THE PUBLICATION OF THE NIGERIAN BUSINESS PROMOTION AGENCY. THIS IS WHY I AM USING THIS OPPORTUNITY TO SOLICIT FOR YOUR CO-OPERATION AND ASSISTANCE TO HELP ME AS A VERY SINCERE RESPONSIBLE PERSON. I HAVE ALL THE TRUST IN YOU AND I KNOW THAT YOU WILL NOT SIT ON THIS MONEY.

More Definitions

- **Adware**: Software package which automatically plays, displays, or downloads advertising material to a computer after the software is installed on it or while the application is being used.

- **Spyware**: designed to intercept or take partial control of a computer's operation without the informed consent of that machine's owner or legitimate user.

What to do

- Signs of infection
  - An affected computer can rapidly become infected with large numbers of spyware components.
  - Pop-up advertisements
  - Unwanted behavior and degradation of system performance.
  - Significant unwanted CPU activity, disk usage, and network traffic
    - Slows down other programs
    - Stability issues— application or system

- Ways to get rid of or protect
  - **Anti-spyware programs**
    - *OptOut*
    - *Ad-Aware SE*
    - *Spybot - Search & Destroy*

Definitions

- **Spamming**
  - Sending of unsolicited bulk unsolicited e-mail and received by multiple recipients
- **Solutions**
  - Source-based blocking solutions prevent receipt of spam
  - Content filtering solutions identify spam after it's been received
  - Disposable identities

- **Spoofing**
  - one person or program successfully pretends to be another by falsifying data and thereby gains an illegitimate advantage
  - "Webpage spoofing," : a legitimate web page such as a bank's site is reproduced in "look and feel" on another server under control of the attacker. They fool users into thinking they are connected to a trusted site, to gather user names and passwords.

Identity Theft

- **Phishing**
  - Phishing is a popular and growing method of identity theft, typically performed either through email or through the creation of a Web site that appears to represent a legitimate company. Victims are asked to provide personal information such as passwords and credit card numbers in a reply email or at the bogus Web site.

- **"Spear phishing"** the practice of targeting an attack to a specific group is gaining in sophistication and frequency.

- **Pharming**
  - A scamming practice in which malicious code is installed on a personal computer or server, misdirecting users to fraudulent Web sites without their knowledge or consent. Pharming has been called "phishing without a lure."

Identity Theft

http://www.ftc.gov/

- The Federal Trade Commission reports that identity theft now affects more than 10 million people every year representing an annual cost to the economy of $50 billion

Activities

- James Mason's Computer Security Awareness tutorial page

  - http://www.jmu.edu/computing/security/ -

- George Mason University's IT Security Quiz

  - http://itu.gmu.edu/security/quiz/

- STAYSAVEONLINE.org

  - http://staysafeonline.org/basics/quiz.html

- Carnegie Mellon's Home Computer Security tutorial site

- Microsoft Spyware Quiz part 1 and part 2 http://www.microsoft.com/athome/security/quiz/spywarebasics1.mspx

Activities

- Humorous video on Passwords at George Mason's Security Website http://itu.gmu.edu/security/practices/.

- The University of Arizona's Security Awareness Posters http://security.arizona.edu/posters.html and the http://www.itd.umich.edu/posters/ University of Michigan's posters (my favorite).

C3™ Institute

http://www.edtechoutreach.umd.edu/C3Institute/index.html

Electronic Portal

Cyberethics, Cybersafety, and Cybersecurity (C3)

- http://www.edtechoutreach.umd.edu/C3Institute/c3resources.html

C3™ Conference

April/October
Cyber- Awareness Month!

Questions

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