Cyberethics, Cybersafety, and Cybersecurity (C3): Implications for the Classroom Teacher (Part 1)

University of Maryland
Educational Technology Policy, Research and Outreach
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Enduring Understanding:

- The efficient and effective use of information is essential for understanding and communicating ideas.
Essential Question:

• How can library and technology support information literacy?

Teaching for Understanding TfU
http://learnweb.harvard.edu/alps/tfu/index.cfm
Desired Outcomes:

By the end of the session, participants will:

• Define the **cooperative role** of the library and technology specialists in the school environment.

• Examine the **overlapping** library and technology **standards** in grades K-8

• **Identify means** by which these **standards** can be met
Overview

• Introduction
• Cyberawareness overview
• Plagiarism:
  – Case Study Scenario
  – Copyright and Intellectual Property Rights
  – Judicial Process
Maryland Teacher Technology Standards

Developed from Maryland’s Preparing Tomorrow’s Teachers to Use Technology (PT3), USDOE Catalyst Grant, May 2002. Performance assessment materials to be available for each standard on the PT3 website: www.smcm.edu/msde-pt3/. Any use of these materials should credit Maryland’s PT3 Catalyst Grant P342A990201.

<table>
<thead>
<tr>
<th>SEVEN STANDARDS AND OUTCOMES</th>
<th>INDICATORS</th>
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<tbody>
<tr>
<td>I. Information Access, Evaluation, Processing and Application</td>
<td>1. Identify, locate, retrieve and differentiate among a variety of electronic sources of information using technology.</td>
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<td>2. Evaluate information critically and competently for a specific purpose.</td>
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<td>3. Organize, categorize and store information for efficient retrieval.</td>
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<td>4. Apply information accurately in order to solve a problem or answer a question.</td>
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<td>II. Communication</td>
<td>1. Use telecommunications to collaborate with peers, parents, colleagues, administrators and/or experts in the field.</td>
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<td>2. Use productivity tools to publish information.</td>
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<td></td>
<td>3. Use multiple digital sources to communicate information online.</td>
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<tr>
<td>III. Legal, Social and Ethical Issues</td>
<td>1. Identify ethical and legal issues using technology.</td>
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<tr>
<td></td>
<td>2. Analyze issues related to the uses of technology in educational settings.</td>
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<td>3. Establish classroom policies and procedures that ensure compliance with copyright law, Fair Use guidelines, security, privacy and student online protection.</td>
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<td>4. Use classroom procedures to manage an equitable, safe and healthy environment for students.</td>
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<tr>
<td>IV. Assessment for Administration and Instruction</td>
<td>1. Research and analyze data related to student and school performance.</td>
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<td>2. Apply findings and solutions to establish instructional and school improvement goals.</td>
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<tr>
<td></td>
<td>3. Use appropriate technology to share results and solutions with others, such as parents and the larger community.</td>
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</table>
| V. Integrating Technology into the Curriculum and instruction | 1. Assess students’ learning/instructional needs to identify the appropriate technology for...
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.

MTTS
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III. Legal, Social and Ethical Issues

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

What is your Interpretation?

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

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III. Legal, Social and Ethical Issues

2. Analyze issues related to the uses of technology in educational settings.
   - Evaluation of Content
   - Goal of Technology Use

What is your Interpretation?

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

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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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### Performance Assessment Outline

**Technology Standard III: Legal, Social and Ethical Issues**

<table>
<thead>
<tr>
<th>Technology Standard</th>
<th>In Technology Standard III, <em>Legal, Social and Ethical Issues</em>, each teacher candidate will demonstrate an understanding of the legal, social and ethical issues related to technology use.</th>
</tr>
</thead>
</table>
| Technology Indicators | The assessment task product will be examined in terms of four proficiency indicators. The teacher candidate will:  
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.  
4. Plan guidelines, security, privacy and student online use. |

See Handout
Technology Standard III: Legal, Social and Ethical Issues

Case Study and Questions

Case Study

You are a student teacher at Greater Maryland Middle School. Today you are observing Mrs. Jones teaching her social studies class in the computer lab. Her first period is her planning period. She has asked you to assist her with setting up the lab for her lesson plan. She is installing the school’s only copy of an atlas software program for a single user license on the 22 computers in the lab. She explains that her lesson will require students to download information about the country that they have been assigned from the atlas program and to also search the Internet for more information for a PowerPoint presentation. Mrs. Jones encourages students to freely use any information from the Internet for their presentation.

At the beginning of each class, the students enter and sit where they choose, occasionally arguing over seats. For the four classes with more than 22 students, Mrs. Jones pairs a boy and a girl, assigning the boy to operate the computer and the girl to take notes. Mrs. Jones starts the class by sharing a model of a final product, a PowerPoint presentation. Without guidance, she encourages the students to freely copy any graphics and text from the Internet to brighten up their slides. She explains that they will have one day in the computer lab to complete the assignment and that, if they do not finish in class, they must complete the work at home within two days. She directs them to use the atlas software and to search the web for sites about the country assigned to them. At the completion of class, she gives them time to save their work to the class

See Handout/Read Through
Answers

• Can be found at Maryland PT3 Performance Task site

• http://www.smcm.edu/msde-pt3/TaskIII.htm
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
Copyright and Intellectual Property Issues

Copyright and Intellectual Property Issues in the Digital Environment

University of Maryland Guidelines for the Acceptable Use of Computing Resources
Internet Citizenship

Presentation by Karen Reuter

- Try the Copyright Quiz
Other Netiquette Snippets: Warm-ups

- Take the **Core Rules Netiquette Quiz**
Plagiarism in the 21st Century: Paper Mills, Cyber-cheating, and Internet Detectives in the Electronic Age
You may know lithium-ion batteries from your cellular phone and laptop computer applications.Experts say these applications will continue to drive large sales gains, but technical limitations may make new applications elusive for the rechargeable batteries.

Chemistry is the key to lithium-ion batteries. Lithium-ion batteries work using simple reversible electrochemical reactions. While the battery is charging, positive lithium ions from a lithium metal oxide cathode—which contains lithium cobalt oxide—migrate though a barrier to a graphite anode. While the battery is being discharged, the ions flow back to the cathode.

Though much of the technology was developed in the U.S., the lithium-ion battery industry’s center of mass quickly crossed the Pacific to Japan. Major battery makers include Sony, Panasonic, SonyEricsson, and Toshiba.

The electrolyte in lithium-ion batteries serves as an example of why engineers need specialized chemistry expertise. The major electrolyte in use is LiPF₆. To make this, producers must handle hydrofluoric acid. FMO used to produce electrolytes but withdrew because of environmental concerns.

Another concern is that Lithium-ion batteries, the anode, undergo a reaction that can escalate in high temperatures, causing a positive-feedback effect called “thermal runaway.” Because lithium batteries use an organic solvent with a relatively low flash point, thermal runaway is a serious safety concern in laptop batteries. To help with this...
Copyright Snippets: Warm-ups

- Article in an Internet-only newsletter (1998, July).

- Place in Order Workplace.html
  Monitor/oct00
  http://
  www.apa.org/

- Retrieved from
  http://www.telehealth.net/subscribe/newsletter4a.html
  2(2).


Telehealth News, Videocounseling for families of rural teens with epilepsy -- Project update.
Components of URL

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

Protocol  Host name  Path to document

File name of specific document
C3: New Directions

- Cybersecurity
- Cybersafety
- Cyberethics
Top Ten Educator Awareness Problems

- Passwords
- Backing Up Files
- Patches
- Anti-Virus Protection
- Hoaxes
- Attachments
- Outside disks
- Access
- Modeling
- Equity Issues
UMCP Efforts

- Electronic Portal
- Workshops
- PT3 pre-service module (part of undergraduate course)
- Online 3 credit graduate course
- **April is Cyber-Awareness Month!**
- **C3 Conference (July 13-15)**