From Paper Clips to Software: Understanding the Importance of Cyber Ethics

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Overview:

The paper clip game serves as a good device for discussing the need for and importance of rules in society and on the Internet. It acts as a springboard for discussing the Computer Ethics Institute's (CEI) Ten Commandments of Cyber Ethics and relevant case studies which exemplify ethical issues of technology use.

Objectives:

After participating in this lesson, the students will be able to:

1. Explain the importance of rules in society, school, and technology use.
2. Recognize the need for good rules to achieve order, protect property, and ensure privacy.
3. Identify the CEI's Ten Commandments of Computer Ethics.
4. Analyze case studies for ethical importance and dilemmas.
5. Evaluate the best practice for each individual case study.

Time Line:

Part A	Paper Clip Activity	15 minutes
Part B	10 Commandments of Computer Ethics	15-25 minutes
Part C	Using Case Studies for Discussion	15-50 minutes

Part A: Paper Clip Activity

This activity is used courtesy of: AskEric Lesson Plan Archive. Modifications have been made to better fit the unit. The full lesson activity available:
http://ericir.syr.edu/Virtual/Lessons/Social_Studies/Civics/CIV0023.html

Resources/Materials:
- Paper clips
- Chalkboard, whiteboard, flip chart, or Power Point.

Activities and Procedures:

Step #1. Divide the class into rows; making sure that one row has more students.

Step #2. Give each student in the front row five paper clips. Then tell them to begin. (Students will exhibit confusion, not knowing what to do. Eventually someone will start doing something.)

Step #3. After a brief period, stop the game. Tell them they may only pass one clip at a time. The object is to pass the clips backward and then forward and the first row to finish wins. Write this rule on the board (or display using Power Point.) Start them over again.

Step #4. After a brief period, stop the game. Tell them the clips must be passed back over the left shoulder and passed forward over the right. Write this rule on the board (or display using Power Point.) Start them over again.

Step #5. After a brief period, stop the game. Explain that there are too many people in one row and they should have equal numbers of students. If there is an unequal number, the larger group gets 6 clips; the smaller 4 clips. Write this rule on the board (or display using Power Point.) After making these adjustments, start the game over again.

Step #6. Allow the game to now proceed to the end and debrief the students on their feelings and observations. List the student generated responses on the board.

Student Discussion/Debrief:

- Subsequent discussion of student responses should be related to society's need for rules of conduct, their purpose, their consistency and their fair application in order to avoid confusion and frustration and achieve goals.

- Specific examples or rules and laws may be used to further illustrate the points made.   What would our roads be like if we had no traffic laws? What would our school be like? What would society be like?

- Relate these concepts to technology. Why are rules/guidelines important relating to technology? Do we have these types of technical guidelines?

- Transition into Part B.
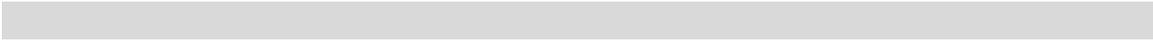
Part B: Computer Ethics Institute---10 Commandments of Computer Ethics

This resource is used courtesy of: Computer Ethics Institute. The full document is available:
http://www.brook.edu/its/cei/overview/Ten_Commandments_of_Computer_Ethics.htm

Resources/Materials:

- Handout: "Ten Commandments of Computer Ethics"

Activities and Procedures:

Step 1: Pass out the handout to each student. Read each principle aloud and debrief on its meaning.

Step 2: Begin the discussion by asking,

- Why were these principles written?
- Why did experts in the field take the time to compose these?
- What purpose do these guidelines serve?
- Are there any that you disagree with? Why/why not?

Step 3: Transition into Case Analysis

Part C: Using Case Studies as a Method to Discuss Cyber Ethics

Resources/Materials:

Case Studies are included in the appendix section of this resource.

Activities and Procedures:

Step 1: Using the case studies provided, select one case to read aloud with the class. Brainstorm ideas to answer the discussion questions. Write all opinions on the chalkboard/whiteboard. Underline the view of the majority.

Step 2: Compare the case with the Ten Commandments of Computer Ethics.

- Which code does the case deal with?
- Using this code as a guide, which response is the most appropriate?

Step 3: As time/age appropriateness permits, repeat steps 1-3 using different case studies.

Alternative Strategy: Divide students into groups. Ask each group to present their case to the class following the format for steps 1-3 listed above. Follow each with a whole-group discussion.

Appendix:

The resources outlined in the above lesson are contained in the following pages.
Duplication is permissible for use within educational environments only.
Publication, distribution outside of education is forbidden.

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Ten Commandments of Technology Use

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Available: http://www.brook.edu/its/cei/overview/Ten_Commanments_of_Computer_Ethics.htm

1. **Thou shalt not use a computer to harm other people.**

2. **Thou shalt not interfere with other people's computer work.**

3. **Thou shalt not snoop around in other people's files.**

4. **Thou shalt not use a computer to steal.**

5. **Thou shalt not use a computer to bear false witness.**

6. **Thou shalt not use or copy software for which you have not paid.**

7. **Thou shalt not use other people's computer resources without authorization.**

8. **Thou shalt not appropriate other people's intellectual output.**

9. **Thou shalt think about the social consequences of the program you write.**

10. **Thou shalt use a computer in ways that show consideration and respect.**

Test Preparation

Cindy's stomach turned as she thought about taking her literature test. She had studied quite a bit, but still wished she had more time to review her notes. As she was worrying about the test, she almost ran into her friend Jose. "Hey—watch out! You almost ran into me, Cindy!"

"Sorry about that," Cindy said. "I was just thinking about the literature test this afternoon."

"I know what you mean," commented Jose. "I just can't get that stuff."

As he said this, another friend of theirs, Ryan, joined the discussion. "Are you guys talking about the Lit test this afternoon?"

"Yeah…on top of the test, we also have to suffer through history class right before it. I heard we have a heavy in-class assignment. Mrs. O'Leary is supposed to do a computer presentation in there today," Jose added.

Cindy grumbled, "Too bad the network isn't down today. It always seems to go down when we want to use the computers. Just this once, it'd be nice for the teachers to be out of luck."

Ryan thought about this for a minute, "Well, it turns out that I know a way to change Mrs. O'Leary's password. We could change it just before fourth period. Then, she wouldn't be able to do the presentation. That would give us just enough time to study for the Lit test."

"I don't know about that," says Cindy. "I like Mrs. O'Leary. I don't want to mess with her computer."

Jose jumped in, "Well, it would only be temporary. She could get a new password at the end of the day. And she wouldn't be losing any files. Can you do it, Ryan?"

"No, I don't have access to a computer before fourth period. But you do, Cindy! You could do it from the library during your study hall. I could give you step-by-step directions on how to do it. It'd only take a couple of minutes."

Cindy responded quickly, "Oh…I don't know."

"You'd be helping us all, Cindy" Jose added. "Everyone would be grateful!"

The bell for first period was about to ring. Ryan finished scribbling the directions down and thrust them into Cindy's hand. "Here they are. Thanks for doing this!"

Cindy stared down at the directions as she walked toward the library. She didn't know what to do.

Discussion Questions:

- What should Cindy do? Why?

- What is the issue in this case?

- If Cindy changed the password, would that be wrong? Why/Why not?

- If Cindy changed the password, would that be trespassing? Why / Why not?

Saving Software

"Ok, class…we've only got about 5 minutes left before the end of the period. At this point, you need to save your work on your network space and make a back-up onto your floppy disk. Be sure to turn this project in before you get on the school bus." As Mrs. Varkian gave these instructions, she walked around the lab and noticed that Molly was upset.

Molly looked up at her teacher and said, "Mrs. Varkian, I missed most of the class today because I had to take the vision test. I barely got to use the graphics program. Will we be coming back in here this week?"

Mrs. Varkian shook her head. "No, Molly, I am afraid we won't be using this package for quite some time. We can create an alternate assignment for you tomorrow."

Molly responded quickly, "But, I really wanted to finish drawing my dog. I really like the program---I don't want to do a different assignment. That doesn't seem very fair. We just got a new computer, but it doesn't have this program on it. Could I take the disk home and work on it tonight? I could bring it back in the morning. What do you think?"

Mrs. Varkian thought about it for a minute, and picked up the disk. She read the license agreement. "Well, I think we could do that. This individual disk has a separate site license. I'll uninstall from this machine and let you take it home. But, you have to promise me that you'll uninstall the program before coming back to school. I'll send the details home in a note to your Mom."

Molly smiled. She couldn't wait to get home.

Once she got home, she found her brother Rich doing his homework and her mother was at the grocery store. She told her brother about her note for mom and wondered if he would install it for her. He was glad to help her. He installed the software and let her do her assignment. When she was done, she reminded her brother to uninstall the software with her teacher's instructions and he promised he would after he finished the problem he was doing.

Molly said, "OK. Thanks for your help." She put the disk and her assignment in her book bag and went upstairs to play.

Rich finished his homework and remembered about uninstalling the software, but when he saw the assignment his sister had left open on the monitor, he got interested in what this software could do.

He played around with it for a while and thought to himself that it would not really be hurting anyone to leave the software on the computer. He could put it in his personal folder and no one would know that he didn't uninstall it.

Rich started moving the program and hesitated. "This was ok wasn't it?" he wondered to himself.

Discussion Questions:

- Is it ok for Rich to install the software and keep it? Why / Why not?
- Is it ok for Molly to use the software for one night, uninstall it, and return it? Why / Why not?
- Is keeping the software the same as stealing? Why / Why not?
- Is Rich lying by not telling anyone that he has installed the software? Why / Why not?

Writing in a Rush

Jose glanced at the clock in the library and said to himself, "Finished! With ten minutes to spare." He smiled at his accomplishment and began putting his finished essay into his history folder. The last thing he wanted to do was mess it up before getting to class. Just as Jose was about to pack up completely, Michael came running into the library and slammed his backpack down next to Jose.

"Hey!" Jose said, "Watch out! You almost ran right into me. What's the big rush?"

Michael ripped open his backpack and said, "Man, I didn't get my essay done for history class. If I don't get it finished, I'll be in deep trouble. I've only got ten minutes. I need to get on the Internet and find some stuff on the American Revolution. Do you know any sites?"

Jose opened his folder and handed Michael a paper. "Here is a list of sites I found last night. They have some good stuff and a lot of cool pictures."

"Great!" Michael exclaimed. "I can definitely get this done in time for class."

This statement puzzled Jose. "What do you mean, Michael? It took me a couple of hours to read the information on the sites and write my essay. How are you planning on doing all of that before class?"

"Easy. Just watch." And with that, Jose watched as Michael opened a new word processing document, typed in his name, and the first line of his essay: "I think the American Revolution was important for many reasons. For example…." Next, Michael quickly linked to several sites, copied the text, and pasted it onto his document. In a matter of minutes, he had several strong reasons that completed his essay. He fixed some of the grammatical errors, saved, and printed his essay.

As the printer began, Michael grinned at Jose and said, "That's how you get it done. See, I didn't have to waste all of my time doing it last night."

Jose couldn't believe it. "Michael, you can't do that. That's the same as copying someone else's paper. We were supposed to write our own opinions in this essay."

Michael stopped smiling and quickly replied, "What's the difference between what you did and what I did? We both used the Internet."

"The difference," replied Jose, "is that I read the sites, took notes, and then wrote my open opinion. I even listed the sites as resources at the end of my essay. I learned from the sites, but I didn't copy them directly."

"What I did was fine." Michael argued. "It just so happened that I agreed with the opinions I put in. That makes it all ok."

"No, it doesn't, Michael." Just as Jose said this, the bell rang.

Michael grabbed his paper out of the printer and said, "Hurry up! Let's get to history class. I have a feeling that I am going to get a good grade on this one."

Discussion Questions:

- What is the issue involved in this case?
- Which student is correct? Why / Why not?
- Would you consider what Michael did to be stealing? Why / Why not?
- Would you consider what Michael did to be lying? Why / Why not?

Brotherly Love

Latoya had just about finished the e-mail to her boyfriend Jeff. They had had a fight the previous day and she wanted to apologize. She had been crabby.

She heard the phone ringing, and Marcus, her younger brother, came into the family room to tell her that the phone was for her. Latoya ran out, eager to talk to her friend.

Marcus walked past the computer and glanced at the screen. The half-finished e-mail to Jeff was still open. He read the message quickly and couldn't believe his sister wanted to continue hanging out with that jerk.

Suddenly, an idea came to him. He could re-write the e-mail using his sister's account and get rid of this kid forever. He sat down at the keyboard and began typing.

"Jeff. You're a jerk. I am now convinced that I never want to see or hear from you again. Never call me or e-mail me. You stink. Latoya."

Marcus was proud of himself. He re-read the message. Suddenly, he heard the sound of feet heading up the stairway. He was just about to send the message, but hesitated.

Discussion Questions:

- Why did Marcus hesitate in sending the message?

- By using his sister's account, did Marcus steal from her? Why / Why not?

- Why is privacy important? Does it seem to be important to Marcus?

- Does Marcus believe in "Treat others as you would like to be treated"?