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Module 2

Cyber ethics

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Learning objectives

Through this module students will understand:

- What ethics are.
- Why ethics are important.
- How to act ethically.
- The responsibility that comes with knowing cyber security principles.
- How to apply ethics in the real world.

Principles of cyber ethics

Introduction

- The principles of cyber ethics listed on the following slide have been adapted and adopted by CyberTaipan as the ethical guidelines for competition.

- These principles recognise that as part of CyberTaipan, you may be given access to tools and skills that others are not given.

- This responsibility carries with it increased ethical weight and these principles can help you better navigate the choices you may be asked to make.

- It should also be noted that these principles, or code of ethics, is an application of general ethics to the cyber realm.

Principles of cyber ethics

Do

- Do think about the social consequences of the program you are writing or the system you are designing.

- Do always use a computer in ways that ensure consideration and respect for your fellow humans.

Do not

- Do not use a computer to harm other people.

- Do not interfere with other people's computer work.

- Do not snoop around in other people's computer files.

- Do not use a computer to steal.

- Do not use a computer to bear false witness.

- Do not copy or use proprietary software for which you have not paid.

- Do not use other people's computer resources without authorisation.

- Do not appropriate other people's intellectual output.

Introduction

- The designation of actions as *right* or *wrong* is a key consideration of ethics.

- Almost as important is how we differentiate between actions that are right and wrong.

- Ethics is about right and wrong.

- What is right?

- What is wrong?

- How do we know?

Making ethical decisions

- Each day we are faced with decisions that could change the outcome of our lives or the lives of others.

  Should we lie to our parents or our friends?

  Should we answer just one text message while we're driving?

  Should we cross the street against a red light?

  Should we help that stranger in need?

- Having a set of written ethics can help us more effectively make good decisions. The goal is to identify what we should do before we're placed in the situation so that we can be prepared to make the right choice.

- We all need ethics because they help us determine what is right and wrong.

- Ethics help us determine how to act in a given situation and can help us identify unethical behaviour.

- What are some examples of unwritten rules?

  Motorcyclists, for instance, will often acknowledge the presence of other passing motorcyclists with hand gestures. Many of these gestures transmit important information about upcoming road conditions, dangers, or are simply a way to say 'hello'.

Why ethics?

- Promotes a sense of fairness.
- Creates a set of rules or acceptable behaviours.
- Ethical practices help us identify and what unacceptable behaviour 'looks' and 'feels' like.

What are ethics?

- Standards for right and wrong.
  What we should do in different situations.
  Can be both written and unwritten.
- Written
  Company mission statements, school policies on academic dishonesty.
- Unwritten
  Don't 'cut' in a line, holding doors or elevators for people.

Sources of ethics

- Laws
- Feelings
- Societal norms
- Religion
- Philosophy
- Family values

Ethical behaviour

- Do people make good decisions?
- Do people **always** make good decisions?
- Do YOU make good decisions?
- Do YOU **always** make good decisions?
- Does a bad decision mean you're an unethical person?

There are many factors that inform our personal ethical judgments.
While these factors are central in determining ethical actions, they are not the sole determinant of ethical behavior.
We can all think of things that may be legal but are unethical.
While there isn't a law against being mean to a sibling or friend, it certainly isn't the right thing to do.

Do the right thing

- Doing the right thing is often harder than knowing what the right thing is.
- The goal of a code of ethics is to help inform our actions.
- But ultimately it takes more than knowledge to do the right thing.
- Doing the right thing in **all** situations means that we have **practice** doing the right thing in **every** situation.
- Ethical behavior doesn't just happen because we know what is ethical.
- Behaving ethically requires us to demonstrate courage.
- It requires that we speak up when we see unethical behavior.
  It requires that we stand up to bullies as well as friends. Doing this requires courage and that is not something that can be taught, it can only be practiced.
- Behaving ethically also requires humility.
  That is, we must be able to look at ourselves as imperfect people and, in each decision, strive to make the right, ethical choice.
- Just because we want to act ethically doesn't mean we will.
  In many cases, acting ethically will require us to go against what a friend or family member wants us to do.
- It requires courage to stand up to those people for what we believe is right.

Overconfidence bias

- Overconfidence bias occurs when we believe that we always act ethically.

  This overconfidence can lead us to make decisions without seriously reflecting on the ethics of the situation.

- In 1988, Ola Svenson conducted a survey of drivers' perceptions of their own driving in the US and Sweden.

  In the survey, Svenson asked each driver if they thought they were a safer driver than the average driver.

  88% of drivers answered that they believed they were safer than the average driver. This is not possible.

- Typically we all believe that we are better in comparison to others.

- This type of overconfidence can lead us to feel satisfied with ourselves and not seek to be the best possible version of ourselves.

Understanding vs. behaviour

- Knowing right from wrong doesn't automatically mean we DO the right thing.

Ethical behaviour requires

- Courage

  See something, say something.

  Be willing to go against your friends/peers.

  Stand up to bullies.

- Humility

  Accept that even you can make a wrong decision.

  Are you a better than the average driver?

  Are you more ethical than the average person?

Questions

There are situations and conditions that can make acting ethically more or less difficult. If we can identify the situations that test our ethics, we can be more aware of our actions in those situations.

When situations involve our friends or peers, we can feel forced to choose between loyalty to our friends or behaving ethically. We should understand that such situations are difficult and make the choice to act ethically before we find ourselves in those situations.

- *Does the internet make it easier or harder to act ethically?*

- *Is it easier or harder to do the right thing when others are watching?*

- *Is it easier or harder to do the right thing when it means that you have to choose between friends?*

Case study 1 — Cyber Ethics

As told by former San Francisco Mayor Gavin Newsom to Slate Magazine

Read and complete the questions in the student workbook.

Terry Childs

- Should Terry Childs have been arrested?

- Explain your reasoning.

- Which principle(s) of cyber ethics did Terry Childs violate, if any?

Case study 2 — Personal ethics

Desmond Hague
Former CEO of Centerplate

Read and complete the questions in the student workbook.

Desmond Hague

- Should Desmond Hague have been forced to resign?
- Explain your reasoning.

Ethics activities

Read and complete the questions in the student workbook.

Scenario 1

To hack, or not to hack?

Scenario 1 — *To hack, or not to hack?*

Emily posted a picture of your friend Jayden on Instagram. The picture makes it look as if Jayden is consuming alcohol, but you know that he wasn't. Your friend Jayden is very upset and Emily refuses to take the picture down. Jayden asks for your help in getting into Emily's Instagram account to remove the picture.

What should you do?

Scenario 1 — *To hack, or not to hack?*

A. You do not want Jayden to get into trouble. So you tell him that you're only going to help this once. Then you use a tool that you found on the Internet to help Jayden get into Emily's Instagram account and remove the picture.

B. You let Jayden know that Instagram allows people to report images that violate their rules. You help Jayden contact Instagram to have them remove the picture and you let him know that it may take a few days to get an answer.

C. You do not want to be a bad friend, so you help Jayden remove the picture. Then, you change the Emily's password so she can't repost the picture. Later, you borrow Emily's phone and delete the picture from there too so that this situation will be over.

D. You explain to Jayden that it is his fault for being in the picture in the first place and Emily should not have to take down the picture. You also explain how things can stay on the internet forever and that you do not want to be friends with people who do not make good decisions.

Scenario 2

How to deal with a bully?

Scenario 2 — *How to deal with a bully?*

You and your friends are playing an online game and a classmate, Alex, is logging on and breaking the rules. Alex's obnoxious behaviour is making it very difficult for you and your friends to enjoy the game. You have reported him to the game publisher, but he keeps creating new accounts and harassing you.

You recently found a tool on the internet that allows you to remove a person's computer from the game temporarily. The website where you found the tool says that it does not cause any long term damage.

What should you do?

Scenario 2 — *How to deal with a bully?*

A. You should use the tool you found just this once so you can enjoy your game in peace.

B. You and your friends have paid for this game like everyone else and you deserve to play it without being harassed. You should use the tool anytime Alex comes on and starts harassing you.

C. You look up the standards of conduct and complaint procedures for the game. You tell your parents, or another adult, about Alex's harassment and ask them to help you report the behaviour appropriately.

D. All the things that Alex is doing to you, you should do back to him. He should treat people the way he wants to be treated.

Scenario 3
Am I still responsible?

Scenario 3 — *Am I still responsible?*

It is Sophia's first day as an intern in a computer security firm and she and her supervisor, Christopher, walk by another intern's computer workstation. The workstation has not been locked down and they notice that the browser is currently opened to the user's banking website.

Christopher is a well-respected person in the firm, but a bit of a practical joker, and decides to play a joke on this person's unsecured computer. He logs out of the banking website to protect the user and then proceeds to change the computer desktop background to kitten images.

Scenario 3 — *Am I still responsible?*

Sophia feels uncomfortable about what Christopher is doing and asks if his actions are a good idea. He states, 'nah, it's not a big deal. Besides it'll teach him a lesson'. She laughs and says, 'okay, then we should make the background My Little Ponies'.

Christopher locks down the station, and he and Sophia step aside and wait to see what happens.

Scenario 3 — *Am I still responsible?*

Have Sophia and Christopher acted ethically? Why or why not?

The intern returns, unlocks his station, and becomes visibly upset. He logs back into his banking site and furiously begins looking at his transaction history. Sophia notices that he looks upset, approaches the intern, and apologises for what happened. She assures him that nothing malicious happened. The intern is initially irritated but then tells her it is okay. He was initially just scared and was worried about someone stealing his banking information.

Does the intern's acceptance of the joke exonerate Christopher and Sophia's actions ethically? Why or why not?

Scenario 3

Am I still responsible?

Scenario 4 — *Good intentions*

Ashley recently took a computer security class where she learned about Wi-Fi. She learned that some Wi-Fi passwords can be easily broken. Ashley, who is excited about what she has learned in class, shares what she learned with her aunt.
Her aunt states that the store where she works has Wi-Fi with one of these easily broken passwords, but doesn't disclose to Ashley what that password is.

Ashley tells her aunt that is a problem but her aunt tells her that they have very good IT people who will keep them protected. Ashley really wants to help the store where her aunt works, so she breaks the password to prove to her aunt that the system really is broken.

Scenario 4 — *Good intentions*

Has Ashley acted ethically? Why or why not?

Assume Ashley did not use the password to access the Wi-Fi or any other systems connected to the Wi-Fi. She only showed her aunt the password to help make the store more secure. Does this change your answer?

Does acting with good intentions excuse unethical behaviour?

Explain your reasoning.

Scenario 5

Privileged information

Scenario 5 — *Privileged information*

Jessica has a group project due tomorrow, and she and her friends have been working hard on it. Yesterday, her group gave the final copy to Derek so that he could print it out and turn it in. Unfortunately, Derek is out sick today and not answering his phone. The group is at risk of getting a lower grade if the project is turned in late. Jessica has seen Derek type in his password multiple times and knows that she can get into his email account where their project is stored.

What should she do?

Scenario 5 — *Privileged information*

A. She should use the password just this once to retrieve and print the assignment so that the group doesn't get a bad grade. It would be unfair if the group were punished because one person was sick. Derek certainly wouldn't want them to get a bad grade.

B. She should use the password to get and print the assignment. When Derek gets back, she should tell him what happened and help him choose a new password. That way it's not a big deal because she told him what happened, and her friends won't get mad that she didn't use what she knew to help them get a good grade.

C. She should tell the teacher the situation and ask the teacher to make an exception just this once and allow the group to turn in the project late. In the future, she should always make sure that multiple people in the group have access to the final project to avoid this type of situation.

D. She should log into Derek's account to get and print the assignment. Then she should immediately change the password and let Derek know the new password when he gets back. She should also show him how to avoid other people learning his password by watching him type it in.

Scenario 6

Responsible actions

Scenario 6 — *Responsible actions*

Joel is a competitor in the CyberTaipan National Finals competition. During the competition he overhears a member of another team talking from across the partition. He is not actively trying to hear the conversation, but it is a little louder than the others, and his voice projects rather well.

Joel overhears the member of the other team suggest checking a port number that he did not think about, and it inspires him to check the same port for vulnerability. The CyberTaipan Rulebook states that competitors should receive no outside assistance which includes direct and indirect advice.

Scenario 6 — *Responsible actions*

Is Joel obligated to report what he has overheard? Why or why not?

What if Joel tells the other competitor to quiet down and that he can hear him talking? Does that exonerate Joel from what he has overheard?

Summary

After completing this module, you should:

- Understand what ethics are and why they are important.
- Understand how to act ethically.
- Understand the responsibility that comes with knowing and using cyber security principles.
- Understand how to apply ethics to real world situations.