

Week 14 - Friday

COMP 4290

Last time

- What did we talk about last time?
- Computer crime
- Ethics

Questions?

Project 3

Assignment 5

Ahmed Mohamed Presents

Case Studies of Ethics

Case I: Use of Computer Services

- Dave works as a programmer by day
- His company does batch processing at night
- He discovers that he could program at night without affecting the batch processing
- He comes in at night to code software to manage his stock portfolio
- Issues:
 - Ownership of resources
 - Effect on others
 - Utilitarianism principle
 - Possibility of punishment

How would it change if ...

- Dave began a business managing other people's portfolios for profit
- Dave's salary was below average for his background
 - Perhaps computer use is a reasonable perk
- Dave's employer knew of other employees doing the same thing and did not stop them
- Dave worked for a government office and reasoned that the computer are owned "by the people"

Case II: Privacy Rights

- Donald keeps computer records for the county
- Ethel has been granted access to numerical records without identifying information for research purposes
- Ethel finds some interesting data, but needs to follow up by contacting the individuals
- Should Donald release the data?
- Issues:
 - Job responsibility
 - Authorized use of data
 - Possible misuse
 - Confidentiality
 - Tacit permission
 - Propriety

Extensions

- Donald was the person who decided allowable access to the files
- If Ethel gets the data, is it ethical for her to contact the people?
- What if Ethel contacts the people to get their permission to use their data
 - One third give permission
 - One third deny permission
 - One third do not respond
 - What if one half of the people are needed to have a valid study?

Case III: Denial of Service

- Charlie is working on an assignment which, because of a bug in the system that is not his fault, crashes the campus computer system
- He reports the problem to campus IT and tries to change his program so that it works without crashing the system
- The system crashes 10 more times, sometimes when his program is running and sometimes not
- Carol is discovered to have had a program running 8 out of those 10 times, exploiting the same weakness as Charlie's original code
- The IT director suspends Carol's account; she gets a D in the course and drops out of school

Analysis

- Do you need any additional information to make a judgment?
- Who has rights in this case and what are they? Who has a responsibility to protect those rights?
- Has Charlie acted ethically?
- Has Carol acted ethically?
- Has the director of IT acted ethically?
- How could anyone have acted differently?

Case IV: Ownership of Programs

- Greg is a programmer at Star Computers, an aerospace company that works on government contracts
- He writes some utility programs that he was not assigned to write but help make his job easier
- He decides to market them
- Greg's manager Cathy has to tell him not to market them, even though she thinks he has the right to
- Cathy quits Star and gets a job at their competitor Purple Computers
- She brings copies of Greg's programs and gives them to her coworkers
- Because of the software, Purple has increased productivity and gives Cathy a bonus
- Greg hears about this and contacts Cathy
- Cathy claims that the software belongs to the public domain because Star worked mostly from government contracts

Analysis

- What are the rights of Greg, Cathy, Star, and Purple?
- Where do these rights come from?
- Which rights take precedence?
- What additional information is needed to make a judgment?
- What could Greg have done differently?
- What could Cathy have done differently?
- What could Purple have done differently after learning it had Star programs?
- What could Star have done differently?

Upcoming

Next time...

- Finish ethics
- AI and security
- Review up to Exam 1
- Ahmed Mohamed presents

Reminders

- **Finish Assignment 5**
 - **Due Monday!**
- **Work on Project 3**
 - Try to attack the other projects