

# TUNKU ABDUL RAHMAN UNIVERSITY COLLEGE

## FACULTY OF COMPUTING AND INFORMATION TECHNOLOGY

BACS3033 Social and Professional Issues

# TUTORIAL 4

### Answer all the questions:

**Tutorial 4: Ethics and Professionalism of IT**

**Part 1**

1. Naoki is a game developer. Three years ago, he produces a computer simulation game that was moderately well-received. Naoki’s company is directing him to develop the second edition of this game based on gamer and market feedback which indicates that the game would gain popularity with improved 3D graphics and increased violent content. With the latest gaming technology, the game would be able to simulate violence to a level of realism that would provide players with an exciting immersive experience which guaranteeing its success. This achievement would benefit Naoki both financially and career-wise. Naoki refused to comply with his company’s directive because producing violent games conflicted with his ethical philosophy. He was willing to resign from the company rather than compromised on his stand.
   1. State which philosophy ethic Naoki subscribes to and explain how it influences his actions.

* Kantianism

Naoki refuses to fulfill the gamer and market feedback by increasing the violent content, even though this achievement would benefit himself. He knows that violence might lead to negative consequences that cause our humanity to become aggressive behaviors.

* 1. Consider the same scenario from a different philosophy ethic viewpoint. State which ethical stances you have selected and explain how a person with this stance might respond and why.
* Subjective Relativism
  + Based on the scenario, Naoki decided to resign from the company rather than compromise on his stand because he thinks that violent games are wrong for his ethical philosophy. However, his company’s directive thinks that it is right to develop violent games.
  + Actually both can be right, just Naoki thinks it is wrong as it violates his ethical philosophy.

1. Michelle works for a medical insurance company. She supervises the claims department and her main task is to improve efficiency there – each unit must process a minimum number of claims per day. In order to achieve this goal, she installs a software system which monitors:

* The number of claims processed by each clerk
* Number of keystrokes done by each clerk
* Log information on when each clerk is on or off his/her post

The system is being installed with the consent given by the insurance firm’s management and the claims department staffs were being informed and aware of such system. The system allows Michelle to watch all the above information in real-time on her screen. Michelle can also see all e-mails sent by each clerk regardless of whether the e-mail is business-related or not. With the aid of the software, Michelle manages to improve the overall claims department work performance and operation efficiency. As a result, Michelle got a job promotion and salary increment as the boss likes her work very much.

* 1. Justify Michelle’s action according to Ethical Egoism.

According to Michelle's Ethical Egoism, she thinks that the actions are morally right and will provide herself with maximum long-term benefits. She monitors the staff activities so that she is able to supervise them and will be able to let her fulfill her responsibilities as supervisor with long-term benefits to her.

* 1. Justify Michelle’s action according to Subjective Relativism.

According to Michelle’s Subjective Relativism, Michelle’s doing these actions is due to the fact that she thinks her job is to supervise the claims department and improve the staff efficiency. She thinks that she has the responsibility to manage her department to produce a colorful result for her manager. So she needs to monitor every second what the staff is doing. What daily tasks they perform.

**Part 2**

1. Jennifer and her husband are both senior software engineers. Recently they have a baby boy. Jennifer decided to hire a maid to help them in cleaning the house and take care of the baby since both of them are working. In order to ensure the safety, the couple have installed a surveillance system at their home. The surveillance system provides online monitoring of the house through cameras recording function. The maid was informed and agreed with the surveillance system with a condition that certain areas such as the maid's room and washroom are exempted from the surveillance.
2. Discuss whether Jennifer and her husband have violated the maid’s privacy. Where should you draw the line between privacy and surveillance in this case?

* Jennifer and her husband did not violate the maid’s privacy as the maid had been notified and agreed with the surveillance system installation, also the surveillance system coverage.
* For my opinion, I think the line between privacy and surveillance in this case should be drawn between the public area (housing area, or the area where the baby always stays such as the baby’s bedroom and the playroom) and the privacy area (toilet and maid’s room). To avoid any intrusion in privacy, the line between privacy and surveillance in this case should be drawn clearly.

1. Explain Act Utilitarianism and analyse the act of Jennifer by using Act Utilitarianism and justify whether she is ethical or unethical.

* Whenever we are deciding what to do, we should perform the action that will create the greatest net utility.
* Jennifer’s act is to make sure the safety of the baby and their house.
* The maid hired is informed that she and the house will be survillianced and she accepts it.
* Personal space is given to the maid without surveillance and the safety of the house can be secured.
* Jennifer is ethical.

[Sample answer]

In this case, the benefits of monitoring Jennifer’s maid:

* Jennifer will have peace of mind even when she’s away.
* If so maid did some harm to the house or baby, the system can be a proof.
* If accident happen in the house and the maid is unconscious, Jennifer can call for help from her office without any delay and the baby will not be in danger.
* If the baby has accident, Jennifer can be informed immediately through the surveillance system.
* If the maid is careless, Jennifer can call back from office to remind her.

The harms of monitoring Jennifer’s maid:

* The maid ‘lose’ her privacy.
* The maid feels stress because of the monitoring and might quit the job.
* The maid might pretend to be good in front of camera.

Benefits appear greater than harms, so we conclude action was ethical.

1. The software engineers that developed the surveillance system should practice the Software Engineering Code of Ethics in order to concern for the public interest. Explain how the software engineers can act consistently with the public interest.

* Approve software only if they have a well-founded belief that it is safe, meets standards, passes tests and does not diminish quality of life, privacy or harm the environment.
* Disclose any actual or potential danger to the user.
* Be fair and avoid deception in all statements concerning software.

1. Jason works for a large automotive supplies company in the software quality assurance division. The company is developing the software for an anti-lock brake system (ABS) and vehicle stability system (VSS). He feels that the testing is not sufficient, but his boss disagrees and makes no changes to the testing system. Frustrated, Jason takes his concerns to the media who publish the allegations. Work is delayed on the project while extra testing is put in place, causing the company to lose their contract. No extra defects were ever found with the extra testing.

Based on the above statement, explain how whistleblowing occurs in the above situation and suggest a solution for the mentioned case.

The whistleblowing occurs because of the lack of communication and conflict circumstances between Jason and his boss. They are having different opinions and having conflict about the opinion for conducting the testing, but they do not have a good communication or discussion about their opinion and reason. Each of them also thinks themselves to be the correct one.

Solution:

Employers should welcome whistleblowing and look to protect those employees who report a problem. It should be known amongst staff that people can discuss issues without any unfair recrimination, and it is the responsibility of the employer to create an open culture where communications channels flow both ways.

1. You have been newly appointed as the IT manager to a local famous insurance firm to upgrade its customer health record system. The insurance firm’s management stress that the new upgraded customer health record system should be secure, efficient and able to support the business’s future growth. List and explain **FIVE (5)** actions that you should take to establish your due diligence practice to defend yourself from a claim that you have allowed a fraud to occur.

* You had appropriate training in computer system development and network security to set up such a system.
* You had documented the choice of software/hardware/algorithm/technology to use, including a cost–benefit analysis and a threat–risk analysis for various options.
* Documented the choice of software use
* Properly installed the system, including following regulatory and internal security procedures for remote access.
* Allocated suitable time to testing the security of the system
* Not revealed confidential information to unauthorized persons about the system
* Ensure logs of usage are appropriate and those logs were checked regularly to ensure sequential attacks were identified.

​​Q6) Harry, a cybersecurity engineer, decided to hack into the WiFi of the hotel he was staying in while attending a conference in Malaysia. Harry was curious to find any vulnerabilities in the WiFi server of the hotel.

He successfully hacked into hotel’s WiFi server. He documented his hacking steps on his blog and published the administrator password of the hotel’s WiFi server in his blog post and also shared the URL link of his blog post in a WhatsApp group chat. He was hoping that, by doing this, he can show off his skills and will become more famous.

a) Analyse Harry’s action according to Social Contract Theory. (5 marks)

Q7) You are working as a software quality assurance engineer. As part of your responsibilities, you oversee the installation of software packages for large orders. A recent order of laptops for a university requires webcam software to be loaded. You know that this software allows for remote activation of the webcam.

a) Explain the risk that may raised upon of the installation of the above mentioned webcam software. (4 marks)

b) Does your company responsible for informing your customers about the risks of a product it sells? Justify by relating it to the Software Engineering Code of Ethics. (4 marks)

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