

## CS 4001 Homework 3: Professional Ethical Dilemmas

<b>Due:</b>	February 23, 2017
<b>Format</b>	Approximately 3 pages, single spaced, 12 point font
<b>Logistics</b>	Submit as a PDF (preferred) or as a Word document on TSquare
<b>Grading criteria</b>	Completeness Writing Insight into any ethical theory or code used for justification Quality of reasoning, or ethical analysis Late policy applies
<b>Grade</b>	60 points (6% of your overall grade)

**Question 1 (30 points):** Edward Snowden, an American computer professional, former Central Intelligence Agency (CIA) employee, and former contractor for the United States government, in 2013, copied and leaked classified information from the National Security Agency (NSA) without prior authorization. His disclosures revealed numerous global surveillance programs, many run by the NSA and the Five Eyes Intelligence Alliance, with the cooperation of telecommunication companies and European governments.

- 1) Would you consider Snowden a whistle blower? Provide justification behind your answer.
- 2) Refer to the Software Engineering Code of Ethics and Professional Practice (Quinn chapter 9) and examine which clauses may legitimize Snowden's actions. Additionally, find the clauses that his actions may have violated. Provide your rationale behind your choice of the clauses.

**Question 2 (20 points):** Tony, a data analyst for a major casino, is working after normal business hours to finish an important project. He realizes that he is missing data that had been sent to his coworker Robert. Tony had inadvertently observed Robert typing his password several days ago and decides to log into Robert's computer and resend the data to himself. Upon doing so, Tony sees an open email regarding gambling bets Robert placed over the last several days with a local sports book. All employees of the casino are forbidden to engage in gambling activities to avoid any hint of conflict of interest.

Tony knows he should report this but would have to admit to violating the company's information technology regulations by logging into Robert's computer. If he warns Robert to stop his betting, he would also have to reveal the source of his information. What does Tony do in this situation? Explain your answer based on the eight fundamental principles of professional ethics (Quinn chapter 9), that alternatively state

the eight categories within the Software Engineering Code of Ethics and Professional Practice.

**Question 3 (10 points):** The Department of Homeland Security is interested in using computers to identify suspected terrorists operating within the United States. It would like to mine databases containing information about purchases and travel to detect patterns that may identify individuals who are engaged in, or at least planning, terrorist activity. It asks a panel of computer scientists to determine the feasibility of this project. A panel member says the most difficult problem will be determining what patterns of transactions to look for. He suggests it might be possible to construct a computer program that uses artificial intelligence to mimic a terrorist organization. The program would determine the actions needed to execute a terrorist act. Once these actions were determined, it would be possible to search database records to find evidence of these actions.

Discuss the morality of developing a computer program capable of planning the steps needed to execute an act of terror.