



American International University- Bangladesh
(AIUB)
Faculty of Engineering (EEE)
Subject: Engineering Ethics and Environmental Protection

Semester:	Summer 21-22	Final Term:	Case study
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CASE STUDY 1:

A company is the design subcontractor for an airframe manufacturer about to start building and delivering a new, wide-bodied plane. Despite the fact that the plane is about to be certified by the Federal Aviation Administration (FAA), Ron Swartz, an engineer, is convinced that a design defect, if not corrected, will sooner or later result in serious accidents. Ron has made known his concerns to his supervisors from the earliest stages. As a result, the company's management urged the manufacturer to correct the problem. This urging was rebuffed, but later an accident happened while a prototype of the plane was being tested on the ground. This event led to some modifications, but Swartz considers them inadequate, possibly even worsening the problem.

Question:

1. Identify and discuss the ethical concern for Ron Swartz as an engineering.
2. Discuss the possible actions Ron Swartz may take (Hint: Discuss if Whistleblowing is appropriate for this case)

1. In the case study for Ron Swartz as an engineering, here the main ethical concern of this case study is Ron Swartz; an engineer is convinced that a design defect; if not corrected; but there is a possibility for a big accident. Ron made concern to his supervisors about this problem. The company management urged the manufacturer to correct the problem. The urging was rebuffed but later an accident happened seriously. But Swartz considers them inadequate, possibly even worsening the problem. Here is the ethical concern. Because of this reason the ethical concern. Because the ethical concern that the for engineer; Ron must inform the more higher authority for this problem. Then Swartz considers them inadequate possibly worsening the problem. This is totally unethical for an engineer. Because if we look about the ethics of engineering.

CASE STUDY 2:

Bart Matthews, a robot operator at Cybernetics, Inc., has been killed by an out-of-control robot named Robbie. The creator of the robot, Silicon Technologies, is also in a tight financial position and had hoped that the robot would put the company back on its feet.

It has been determined that several situations contributed to the death of Matthews:

1. Improper methodology was used in developing the software.
2. Testing of the software was faked.
3. The company pressured Robbie's creators to by-pass testing.
4. Part of the software used in the robot was stolen from another vendor's application.
5. The programmer did not understand or know the code which he used.
6. Security measures used were illegal, and therefore all information gathered regarding the case might not be permissible in court.
7. The project leader did not understand or use proper design methodologies.
8. The end-user interface was designed improperly.

Questions:

1. Explain the situations that are unethical with regards to engineering responsibility towards commitments to safety?
2. Identify the situation that is the major contributor to the death of Bart Matthews?

1. The situation is totally unethical because robot operator at Cybernetics, Inc. has been killed by an out of control robot named Robbie. The situation is unethical with regards to engineering responsibility towards commitments to safety. A moral is the code of conduct that you develop over time and set yourself to follow; just like being good to everyone, speaking the truth, going against what you know is wrong, having honesty, avoid cheating, being a nice human. In this case, for the robot would put the company back on its feet by cheating this is totally unfair situation. This is the situation that are unethical with regards to engineering responsibility towards commitments to safety, which we know the moral of a code of conduct for engineering responsibility.