

**CSE487: Cybersecurity, Law and Ethics**

**[Summer 2022] Section: 03**

**Ethical Decision Making in the field of IT/CSE and criticism and justification of actions/stance as per ethical frameworks**

**Project Report**

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**Our Scenario**

there is a fire outbreak in a house. Now, to rescue from the scene, a CFS2H robot (AI-controlled robot used in the fire rescue team) is sent to get victims out of danger. The robot enters a stage where at any moment can be a blast; the robot sees two possible victims that need to be recused: a child and an old man. Suddenly a cat enters the scene. The robot can carry out at a time only two victims.

**Ethical Dilemma**

Now, if the robot saves the children and the old man, the cat will die. If it chooses to save the old man and the cat, the child will die; similarly, if it chooses to save the child and the cat, the old man will die. What would be the decision of the Rescue robot?

**Brainstorming Phase**

In this scenario, we have four stakeholders directly affected by our ethical dilemma. They are the Rescue Robot, the child, the old man and the cat. A few stakeholders have indirectly affected: the robot’s programmer, the fire force, and the victim’s families.

**Analysis Phase**

**Responsibilities of the decision maker**: The autonomous rescue robot in our scenario is the decision-maker. In reality, the person who programmed this system to operate autonomously is the one who ultimately makes decisions. The programmer must make judgments regarding the system, such as whom to save first, what to do in the event of a fire, how to evacuate people safely, and many more.

Must act consistently in the public interest.

Be trustworthy, fair, and unable to discriminate against anyone.

Must create and put into place a system that is both reliable and secure.

**The rights of stakeholders**: every stakeholder has the right to be alive. It is their negative right. Sometimes we can think that the robot can ignore the cat and save the two humans, but we cannot do that because it is an innocent animal with little intelligence. We cannot take them as a minority. Also, we cannot kill other humans by following the rules of saving whom the robot saw first. So, if anyone is killed, it is a violation of their negative rights.

**Consequences, risks, benefits, harms, and costs for each action**: Three risks arise in our scenario. The first risk will be if the robot chooses to save whom it saw first, here the cat and the old man, the consequence of the action would be that the child will die. So, the harm in this action will be one child’s life, and the cost of this action will be more than any other action as the child is expected to add more utility to society. The second risk will be if the robot chooses to save the cat and the children; the consequence of this action would be the old man dying. So, the harm in this action will be that an old man will die. Hence, one old man’s death will be less costly than a child’s death if we consider adding the utility to society, so the cost of this action will be less than the previous action. The last risk will be that if the robot chooses to prioritize human life, the consequence of this action will be that the cat will die. So, the harm in this action will be that an innocent animal will die with some emotional value. We must agree that animal lives are essential, but one animal’s death will be less costly than one human’s death because human lives are more valuable than animal lives, so the cost of this action will be less than previous actions.

#############RAFSAN BHAI

**Kant’s, Mill’s, and Rawls’ Approaches**

**Immanuel Kant’s “Categorical Imperative” theory**: In this theory, Kant says that one should always respect the humanity of others and that one should only act following rules that could hold for everyone. This theory does not allow killing someone to save others. The reason is that the decision to kill another rational being is always immoral in the eyes of Kantian ethicists. According to Kant’s theory, no decision can be made; in our scenario, at least one life will be lost.

**Mill’s “Utilitarian Theory” theory**: In this theory, Mill focuses on the results or consequences of our actions which produces the greatest good for the most significant number. According to this theory, the robot will save two human lives and left out the cat. Because, we know utilitarianism would favor whatever option in which the more significant numbers of lives are saved. Saving two human gives us the most utility than saving the animal.

**John Rawls’s “Theory of Justice”**: In this theory, Rawls says everyone in the society holds equal fundamental rights whether someone is from a minority group, it does not matter. They also have equal rights, and no one should deprive them. Here we could have made any decision as everyone’s life matters. But as this theory emphasize on minority, we found that cat and old man are minor than child. So this decision have made that to save cat and old man.

**Decision Phase**

In the given dilemma, we have only three cases to choose. But none of the options is acceptable from the ethics perspective. However, we must choose one out of them as the robot must need to save life. In this case, we will prefer the third option, where the cat will die. Because if the robot saves the cat and the old man, the child will die, although the child has the highest potential to gain more utility for society.

On the other hand, if the robot saves the cat and the child, the old man will die and, in the last case, the cat will die. As per Kant’s theory, the robot must save everyone, but this is impossible in our scenario because our scenario does not have other options.

Also, the Theory of Justice by Rawls is not practical for our case. Because anyone innocent or minor cannot be deprived of justice and cannot be a victim of a situation. So, we have a chance to choose an option by following “Utilitarian theory”. Because here we choose an option which is less harmful than others. If the robot saves the cat, the old man or the child will die, whose life is more valuable than the cat. On the other hand, if the robot decides to save two humans’ lives instead of a cat’s, it will damage less than any other case. So as per our consideration of all the possible incidents, deciding to save two human life instead of an animal’s life is a better option for the robot than any other option.