

# Situational Analysis: Intention and Ethical Dilemma

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## The Situation

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Eric is a fresh graduate from a Catholic university and was a brilliant student and has great potential as a computer engineer. He was hired by ProTech Inc., a technology company that engineers and manufactures electronic control systems for vehicles. Working with a team under their team Lead John, Eric quickly got along with his peers and superiors. Their team is working on an advanced "cruise control" system that adapts to the speed of the lead vehicle and learns its braking and acceleration pattern. This new technology will have a potential for the company as its "hit" product for next year as it this will have a huge impact on fuel economy. During the testing and evaluation, the team evaluated the data and found out that the fuel economy decreased by 30% and the vehicle tends to have sudden acceleration and deceleration. The problem was that the system was not able to correctly predict the braking and acceleration pattern. That part of the system was developed by Eric and was forced to review his work. John gave him one month to fix the problem or he could possibly lose his job.

After a month of troubleshooting, Eric could not fix the problem and has to accept that there are certain parameters of the system that can lead to such failures, and he has no control of it. Facing with tremendous pressure from his supervisor and even his teammates, Eric called a meeting and discuss his findings as well as suggest a solution. He suggested that instead of actively accelerating and decelerating, the system will just adapt to the distance of the lead vehicle and develop an acceleration or deceleration profile which will ease of sudden acceleration and deceleration thus improving fuel economy. He is also explained that the solution was safer since the vehicle reacts only to the distance. However, the team and John rejected the idea as it was too simple a solution and slammed Eric for not doing his job very well. Facing losing his job and a bad employment reference, Eric went to research some scientific papers and found a research paper from a professor from a university outside of the country. The paper was about an intelligent model for predicting acceleration and deceleration of a lead vehicle and the researchers managed to have a very high stability rate. So, Eric contacted the author but found out that the technology will cost ProTech 2 million dollars licensing fee.

Asking the money from the company to pay for the license fee would expose him as an incompetent engineer not able to do his job. Eric is running out of option and contemplating to use the technology published in the paper without doing any licensing to save his job and prestige.

## **Situational Analysis Report**

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### **Analyze the situation and identify the ethical dilemma.**

Analyzing the situation using the ethical decision model, the ethical dilemma in this situation is whether Eric should use the technology from the research paper without doing any licensing or not. On one hand, Eric needs to fix the problem in the system to protect his reputation as an excellent engineer. Eric is facing tremendous pressure from his supervisor and teammates to fix the problem. He has been given a deadline of one month, or he could lose his job. On the other hand, using the technology without licensing it would be a violation of intellectual property rights and could lead to legal and ethical consequences for Eric and the company.

### **What is Eric's intentionality?**

Eric's intentionality seems to be focused on finding a solution to the problem and saving his job and reputation as an engineer by finding a solution to the problem with the cruise control system. He wants to use the technology from the research paper to fix the problem, but he is aware that using it without licensing could have consequences for safety and reliability. His actions need to be evaluated against ethical principles to determine whether they are morally acceptable or not.

### **Analyze his course of actions.**

Eric initially attempted to fix the problem with the cruise control system but was unsuccessful. Eric's course of actions has been to review his work and suggest a solution to the problem, which was rejected by his team and supervisor. He then researched and found a scientific paper that offered a solution to the problem and contacted the author but found out that it would cost the company a licensing fee of 2 million dollars. He is considering using the technology without licensing, which would violate ethical standards for engineers.

### **Reflect on the actions.**

Reflecting on his actions, Eric needs to consider the ethical implications of his decisions. Eric's actions show a lack of understanding of the importance of risk mitigation, reliability, and safety in engineering. He needs to weigh the potential benefits of using the technology without licensing it against the potential harm to the author's intellectual property rights. Using unlicensed technology could lead to significant safety risks for the

users of the cruise control system and could compromise the reputation of ProTech as a company. Eric should consider informing his superiors about the issue and working with them to find a solution that meets ethical standards. He also needs to consider the impact on his own reputation and professional integrity. Eric's actions could undermine the trust and confidence of his colleagues and supervisors in his ability to do his job properly.

### **What is the effect of the actions to him and other people?**

The effect of Eric's actions on himself and other people could be significant. Using the technology without licensing it could lead to legal and ethical consequences for Eric and the company, as well as damage their reputation in the industry. It could also harm the author's intellectual property rights and reputation as a researcher. Eric could potentially lose his job and reputation as an engineer if he is caught using the technology without licensing. On its impact on other people, Eric is putting the safety of the public at risk by using unlicensed technology that has not been tested and verified for safety.

### **What are Eric's future actions?**

Eric's future actions should be guided by ethical principles and a consideration of the potential consequences of his decisions. He should present the research paper to the team and John, explaining the potential benefits of using the technology and the cost of licensing it, and also emphasizing the importance of safety and reliability in the development of electronic control systems for vehicles, especially on its impact on the public masses. Moreover, he must communicate with his team and supervisor about the ethical implications of using the technology without licensing it and seek their input and guidance. He could also consider other options, such as seeking funding from the company or finding alternative solutions to the problem. Eric should prioritize the safety and reliability of the system, even if it means risking his job. If the team and John reject the idea, Eric should consider reporting the situation to the appropriate authorities and protecting himself from legal and ethical consequences. Ultimately, Eric needs to act in a way that upholds ethical principles, protects his reputation and the reputation of his company, and respects the rights and safety of others.