Nathan Reff

CprE 394

08 October 2023

Ethics Essay

Ethics in engineering is a critical aspect that guides professionals in making decisions that impact society, the environment, and individuals. It refers to the set of moral principles and guidelines that govern the professional conduct of engineers in their products. In this essay, we will explore the fundamental principles of ethics in engineering, its role in shaping the profession, and its implications for society.

The "Code of Ethics" is a set of principles that professionals and engineers must follow. Following a Code of Ethics in Engineering is to ensure ethical and responsible conduct. It promotes safety and protection for everyone and provides a positive and sustainable environment. Specifically, following the IEEE Code of Ethics promotes trust in the profession and holds engineers accountable for their actions.

When confronted with an ethical situation, I keep it as professional as possible and use a structured approach to make informed decisions. First, I would identify the issue using the 5 P's of ethics (Pressure, Pleasure, Power, Pride, and Priorities) to fully understand what happened and why. Then, I would look towards peers or mentors for advice on an appropriate approach to the situation. Then, I would assess how the decision will impact clients, colleagues, or society. I would also weigh conflicting values, such as economic interests versus safety, and try to find a

balanced solution that follows the engineering ethical principles. Lastly, I would review everything that happened and consider the short-term and long-term effects of the decision.

Some ethical issues that we discussed in class were the Big Data issue, the Pinto issue, the VW issue, and the Amazon Echo issue. The one that I focused on was the Amazon Echo issue. This issue talks about police in Arkansas trying to extract data from an Amazon Echo device at the location of a murder to prove that the murder occurred. This issue concerns the unintended consequences of technology and the public's welfare.

The Amazon Echo issue I researched violated the IEEE Code of Ethics codes 1, 2, 5, and 9. The other issues discussed violated similar codes like 2 and 5 specifically, with some additional ones like codes 3 and 6. This showed how most of these issues presented similarly violated the conflict of interest and safety of the public codes. Some differences were that the Amazon echo issue violated the technology application code while the Volkswagon issue violated the stating claims based on data code. Our group agreed on most ethical violations and had similar opinions on what was wrong and what needed to be done.

The virtues of ethics are the qualities of nobility, such as Integrity, Honesty, Fidelity, Charity, Responsibility, and Self-Discipline. The three most important virtues related to the Amazon Echo issue are Honesty, Fidelity, and Responsibility. Honesty is crucial in this situation because it pertains to transparency in the use of data. Users trust that interactions with devices like the Echo are private, and any attempt to use that data in legal proceedings without their knowledge would breach trust. Fidelity is about being loyal and maintaining trustworthiness. The relationship between users and technology companies relies on the fidelity of these companies to protect user privacy. Using data collected without explicit Consent goes against this fidelity.

Responsibility is significant because it emphasizes accountability for one's actions. Technology companies and legal authorities are responsible for ensuring that the use of such data respects the rights and privacy of individuals.

The other Virtues are valuable in other ethical contexts, but in the case of the Amazon Echo situation, Honesty, Fidelity, and responsibility appear to be the most applicable virtues because they address concerns related to transparency, trust, and accountability in the use of collected data which is the central dilemma presented in this issue.

One ethical virtue that could apply to this issue that is not included in the virtue of Ethics is "Informed Consent." Informed Consent involves ensuring that individuals are fully informed about the collection and use of their data and giving them the choice to consent or withhold Consent based on this information. In the case of the Amazon Echo issue, users may not be aware that their interactions with the device are being recorded, and there may be a lack of explicit Consent for using this data in legal proceedings. Respecting informed Consent would mean that individuals are fully aware of the data collection practices and the potential consequences, allowing them to make an informed decision about using such devices.