CS #5: Ethical Frameworks Reflections

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Question 1 (a) Answer:

The consequentialist ethical framework regards whether the consequence (or outcome) of an action (or behavior) is ethically correct or not as the most important factor when making a decision. People holding the consequentialist ethical framework tend to make decisions which could eventually yield ethically appropriate (or correct) results. The financial and ethical effects of the intermediate processes after such decisions and before the finally ethical consequences, however, might not be significantly emphasized.

Question 1 (b) Answer:

The virtue-based ethical framework concentrates more on people. If good people with good virtue believe it is appropriate (or correct) to do one thing, then the action of doing this thing is being evaluated by the virtue-based ethical framework. Therefore, this framework judges whether an act is correct or incorrect based on what people with good virtue are thinking.

Question 1 (c) Answer:

The deontological ethical framework concentrates more about the responsibilities we have for ourselves and for other people. If we take the responsibility of fulfilling our duties, then our action is appropriate (or correct). It should be noted that some correct actions judged by the deontological ethical framework could not be virtuous, because the obligations of taking such actions might be making profits, instead of addressing public concerns.

Question 2 (a) Answer:

From the perspective of a consequentialist framework for ethical reasoning, I think the technical accuracy and reliability of the software is important. Firstly, if the software cannot achieve good technical accuracy, then no customer would purchase it, which is a bad result. Secondly, if the software does not have good product reliability, then there will be public concerns or criticism, which is another very bad consequence.

Question 2 (b) Answer:

From the perspective of a consequentialist framework for ethical reasoning, I think the motivations of the company's leadership matter. To explain why, the executives of leadership drive the direction of the company. Therefore, the motivations of the company's leadership would always significantly affect the outcome of a publishing software. The consequences will be heavily influenced by the motivations of the company's leadership.

Question 2 (c) Answer:

From the perspective of a consequentialist framework for ethical reasoning, I think the openness and algorithmic transparency matter. The openness and algorithmic transparency can help the public to check whether bias is embedded within the algorithm. Whether the algorithm has bias or not will definitely influence the consequence.

Question 3 (a) Answer:

From the perspective of virtue-ethics framework for ethical reasoning, the technical accuracy and reliability of the software is not important. To explain why, I think the software accuracy and reliability are more about technological cost concerns instead of virtuous concerns. If a software product has low technical accuracy, we can say it has bad quality, but we should not say this product, or the developer does not have good virtue.

Question 3 (b) Answer:

From the perspective of virtue-ethics framework for ethical reasoning, I think the motivations of the company's leadership matter. The motivations of the company's leadership will influence how engineers will work to solve problems or to make products. If the motivations of the company's leadership are all about making profits, then we should indeed have ethical (virtuous) concerns.

Question 3 (c) Answer:

From the perspective of virtue-ethics framework for ethical reasoning, I think the openness and algorithmic transparency matter. Firstly, I think the algorithmic transparency itself belongs to good virtue. Secondly, the algorithmic transparency helps the public with virtue to evaluate whether some actions are virtuous or not.

Question 4 (a) Answer:

From the perspective of a deontological framework for ethical reasoning, I think the technical accuracy and reliability of the software is important. Firstly, it is the engineers' responsibility to get their work done when building this software with certain accuracy and reliability requirements. Secondly, the company has duties to provide high quality software in terms of high technical accuracy and good reliability to potential customers.

Question 4 (b) Answer:

From the perspective of a deontological framework for ethical reasoning, I think the motivations of the company's leadership matter. Firstly, it is the leadership's responsibility to make more profits for the company, and the executives' motivations should reflect that. Secondly, it is the leadership's job to determine one direction for the company and all employees, so I think motivations of the company's leadership are not just motivations. These motivations should also be regarded as the leadership's duties or obligations.

Question 4 (c) Answer:

From the perspective of a deontological framework for ethical reasoning, I think the openness and algorithmic transparency do not matter. Firstly, if there is no law enforcement about publishing all codes for a software product, then no one in the company has responsibility to achieve algorithmic transparency. Secondly, even if the algorithm is transparent, as long as the software product meets all legal requirements, the public might not have the obligations to scrutinize whether there are some problems within the algorithm.

Question 5 (a) Answer:

I think the consequentialist ethics framework aligns most closely with the critics' perspective that always returning the top five matches contributes to biased outcomes. To explain why, I think always returning the top five matches can be regarded as a very important consequence. Clearly it is this consequence that contributes to the biased outcomes.

Question 5 (b) Answer:

I think the virtue ethics framework aligns most closely with the critics' perspective that individuals with prior arrests are more likely to be arrested for future crimes. To explain why, I think the virtue is that we tend to believe people who committed a crime are more likely to be arrested by committing crimes in the future. Clearly it is this virtue that contributes to the biased analysis.

Question 5 (c) Answer:

I think the deontological ethics framework aligns most closely with the critics' perspective that women and people of color are at disproportionate risk of being identified as suspects by the system. To explain why, we know that the data for training the model (system) is embedded with bias. After model training is complete, such bias actually belongs to the system's responsibilities/duties/obligations. I think these biased obligations induce the situation that women and people of color are at disproportionate risk of being identified as suspects by the system.

Question 6 (a) Answer:

I think the potential good net result is that current implementations of facial recognition can help save manual workload, because the system can automatically identify the top five matches instead of manual search and comparison. However, since the bias is still embedded, I think the potential bad net result is that more harms (more wrong cases) will be imposed on women and people of color, because they are more likely to be identified as suspects by the facial recognition system. All in all, I think we have more potential harms than potential good.

Question 6 (b) Answer:

In the case study we learn that some cities banned the use of facial recognition system, so I think the potential good net result is that the bias imposed on women and people of color can be alleviated to some extent. The potential bad net result is that more manual workload is needed. However, if the bias embedded in the training data and the trained model can not be eliminated, then I think more and more misjudged harms will be imposed on women and people of color in the future. Therefore, if we do not work hard to eliminate the bias, I still think we have more potential harms than potential good in the future.

Question 7 (a) Answer:

For the first principle, the developers are employees at Fluvian, which means they have the obligations to complete the work instructed by their employers, even though the bias is embedded within their work. For the second principle, the developers also mention that they can improve the facial recognition system by using a better (or less biased) training database. The software developers have made a promise to the entire team, and therefore they have the obligations to improve the system by reducing bias.

Question 7 (b) Answer:

For the first principle, the programmer is employed by the police department, which means he should take the police officers' habits into consideration. I think this principle helps the programmer to determine that he has the obligations to always display the top five matches. For the second principle, the programmer might want to save some efforts teach the police officers about understanding the match-confidence percentage, or the programmer might simply want to design a simpler user interface. I think the second principle helps the programmer to determine that he has the obligations not to show the match-confidence percentage number.

Question 8 Answer:

I think the CTO of GeniusMail has the vice of ignorance because he ignores public concerns and criticism. I think the lead engineer of GeniusMail has the vice of disagreeableness because he simply claims that users who disagree with product design ideas should not use the product. I think the CEO of GeniusMail has the virtue of generosity and truthfulness, because she cares about public concerns, and she also thinks keeping their product competitive is very important. For the first particular role, I think the CTO should learn to care more about public concerns and criticism to develop more virtuous character. For the second particular role, I think the lead engineer should learn to respect other people's ideas and suggestions to develop more virtuous character.

Question 9 (a) Answer:

Based on the consequentialist framework for ethical reasoning, I would seriously consider whether my next step action will lead to virtuous results or not. If my next step action will lead to results with good virtue, then I think this is the correct thing to do. If my next step action will not lead to virtuous consequences, then I think this is not a correct thing to do, and I will not take the next step action.

Question 9 (b) Answer:

Holding the virtue-based framework for ethical reasoning in mind, I would seriously consider whether my next step action is virtuous or not. If my next step action has good virtue, then I think this is a correct thing to do. If my next step action is not virtuous, then I will not take the next step action.

Question 9 (c) Answer:

Based on the deontological framework for ethical reasoning, I would seriously consider whether I have the responsibilities/duties/obligations to take the next step action or not. If the next step action belongs to my duties, then I think this is a correct thing to do. If I do not have the responsibility to take the next step action, then I will not make the decision to take the next step action.

Question 10 Answer:

I choose the CTO of GeniusMail as the first character. I think the CTO puts more weights on the consequentialist and deontological frameworks than the virtue-based framework, because he wants to keep their own product competitive in the business market (consequentialist) and he has the obligations to make more profits for GeniusMail (deontological). Although the CTO has the vice of ignorance (ignoring public concerns and criticism), the above analysis based on consequentialist and deontological frameworks demonstrate that he has the virtue of courage and truthfulness to achieve his motivations.

I choose the CEO of GeniusMail as the second character. I think the CEO puts more weights on the virtue-based framework than the deontological and consequentialist frameworks, because she seriously cares about public criticism and privacy concerns (virtue-based), instead of simply focusing on making profits (deontological) or keeping their product competitive (consequentialist). Therefore, I think the CEO has the virtue of generosity, because we can explicitly realize that she thinks the virtue-based framework is more important.

Question 11 Answer:

After reflecting on and discussing the four case studies with classmates, now I can analyze or interpret things in a more comprehensive way. In specific, I would evaluate whether my decision (or next step action) is reasonable (or correct) from different perspectives, and these perspectives will be based on different ethical frameworks I have learned. With the help and guidance of a combination of consequentialist, virtue-based, and deontological ethical frameworks, I believe that I can manage my decisions and actions in a more appropriate way.

Question 12 (a) Answer:

When I evaluate complex situations in the future, I will first divide the complicated situations into several relatively simple tasks. For each task, I will evaluate which ethical framework should I use or put the most significant weights. After evaluating all tasks with probably different ethical frameworks, then I will combine all intermediate decisions I made to provide a final solution for the complex situations.

Question 12 (b) Answer:

When facing values conflicts in a work or class environment, I will have a clear ordering when drawing on my "decision-making toolbox". In specific, I will put the most weights on the virtue-based ethical framework because I want to make sure all my decisions and actions still have good virtue. I will put the second most weights on the deontological ethical framework because I also want to fulfill all my responsibilities and duties. I will finally consider the consequentialist ethical framework and try to achieve correct or appropriate results after all my decisions and actions. I think the above analysis would be how I envision myself drawing on my own "decision-making toolbox" when facing values conflicts in a work or class environment.