Module 4: Critical Thinking

Social Contract Theory—Rawls' Theory

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Social Contract Theory “is the view that persons’ moral and/or political obligations are dependent upon a contract or agreement among them to form the society in which they live” (Friend, n.d., para. 1). In Rawls theory, he uses the original position as a scenario to determine fairness in society. we must use a veil of ignorance to determine if something is fair. The original position “is a hypothetical scenario where individuals devise the contract by which they agree to form a society and to be bound by its laws” (Douglas, 2015, para. 10). In the original position, the individuals are under a veil of ignorance, where they do not know the individual circumstances that they are in or the advantages or disadvantages they would individually have (Douglas, 2015). In this paper, we will explore the relationships between Rawl’s social contract theory and software engineering ethics.

When developing algorithms, we can design the program it to take Rawl’s Social Contract Theory in mind. For example, we can program self-driving cars to make decisions others would make if they were in the original position under a veil of ignorance. “This veil would, for example, conceal whether the person is a passenger or a pedestrian in a given accident, leading them to choose the maximin solution–that is, the decision that minimizes how bad the worse-case outcome is” (Rahwan, 2018, pg. 7). So, in the case where one individual is in a self-driving car, and the car is in about to be in an unavoidable accident, where it needs to decide to drive into a telephone pole, harming the one individual in the car, or run over a family of four, the self-driving car would see the person in the car, as well as the four individuals as equals. Instead of keeping the priority of the individual in the car’s safety over the pedestrians, it would view all the individuals as equals, and make the decision that would create the lesser impact. Unfortunately for the individual in the car, in this hypothetical scenario, the car would run into the telephone pole, which would spare the lives of the four pedestrians. This would also be the same decision a rational human would make if we told them that they did not know whether they were one of the pedestrians or the rider of the self-driving car in this situation.

In 2016, the FBI requested Apple to create a back door to unlock a phone from one of the shooters from a mass shooting (Isaac, 2016). If Apple complied with the FBI, it would help their investigation, however, it would also help the FBI’s justification to use the back door on any other individual. It would also compromise the security of the devices that the end users depend on and facilitate the invasion of privacy of the public by government agencies and hackers. Looking at this situation under the veil of ignorance, we wouldn’t know if we were going to be one of the individuals leading the investigation, or the general public, so logically speaking, it would be better to help the privacy of the public by not creating a back door.

I think that Rawl’s social contract theory is important to keep in mind when it comes to software engineering. When developing artificial intelligence solutions, it is important to prioritize the masses over the individual. In a situation where an artificial intelligent solution needs to decide whose safety to prioritize, it should go with the maximin solution, creating the least amount of harm. If Apple decided to help facilitate the FBI’s investigation, it would have benefited the FBI investigators, and by doing so, sacrificing the privacy of the public who uses Apple products. In both cases, when we think with a veil of ignorance, we would logically choose to benefit the many over the few since with a veil of ignorance, we would not know the individual circumstances that we would have if we were in the situation. We should only make code design decisions only after carefully analyzing the potential impacts that our software would create to ensure that we are making decisions that would do the least amount of harm to the least amount of individuals to help keep a just society.

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