

## Ethics in Engineering

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Like other engineering fields, Computer Engineers have a clear Code of Ethics, from IEEE, that must be followed. This list of ethics consists of rules such as maintaining the health and safety of the public, avoiding any possible conflicts of interest, and educating yourself and others about the technologies you maintain. The purpose of this Code of Ethics is to give a set of guidelines that can help engineers be morally confident in the decisions they are making and help ensure the future is great and ethical. For me, knowing the Code helps to make ethical decisions much easier. It leads me through a series of questions such as who could be affected by this, does this choice seem immoral, and are there any conflicts of interest that I have.

We were also given the opportunity to see other people's thought processes by looking at a few different situations that were generally morally grey. The main ethical issue we talked about had to do with police trying to get Amazon Echo information without a warrant because the echo may have heard important information about a possible murder. As a small group, we mostly agreed that Amazon should not hand over the data without a warrant because a dangerous precedent, and conflict of interest, could be made if the data was just handed over. We also discussed how an improved knowledge base of these "always listening" devices is very important because of how many Echo devices only save information when a hardcoded wake-word is heard by the hardware. If the police knew this, they may have been less likely to try to get the information because the Echo isn't always recording making the chances of viable data slim. Overall, our group had a common consensus on Amazon only giving the data with proper warrants, to protect end-users, and the need for people to understand the kind of information corporations, such as Amazon, have stored and available to prevent useless and wasteful requests.

Aside from discussing how the Code of Ethics applies to this case, we also looked at how the six virtues of ethics relate to the case. We decided that the three most relatable to this case were the virtues of courage, wisdom, and justice. We chose the virtue of courage as a relevant virtue because of the courage it takes to make moral decisions when faced with a request from an entity that holds a lot of power. In this case specifically, Amazon decided to tell the investigators to get a warrant to get the data protecting the expected privacy rights of Amazon's consumers. We decided that wisdom was a virtue that related to this case due to the different impacts that Amazon's decision has. Some possible impacts that Amazon just handing the data over could have had included a loss of consumer trust for Amazon, a precedent that could cause other companies to be expected to hand over data if asked, whereas the Amazon not handing over the data helped create a sense of trust between consumer and Amazon and showed the investigators that they need proper requests to get the data. Finally, we found that the virtue of justice pertained to this case. We discussed how Amazon just handing over the data without a warrant would not be just for the accused because the current evidence for the case was lacking enough that a warrant wasn't the first course of action. We also discussed the other three virtues but found that they were not as relevant as these three.

Overall, we had a great discussion about the purpose of the Code of Ethics and the different decision processes people go through when faced with possibly immoral decisions. We also got to apply this knowledge of the Code of ethics and their virtues to the case of Amazon not handing personal data over to police without a warrant. This all gave me a great base point to start from in order to be ethical and left me thinking more deeply about the Code of Ethics and its application.