

## Ethics Assignment #1: Autonomous Vehicles

**Due: Tuesday, 9.20.22, by 1:00 pm**

### Background

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The lecture on Tuesday is the first of two lectures on the use of ethical theories to reason over and guide decision making in engineering scenarios. The development of autonomous vehicles will serve as a case study for our initial exploration.

### Learning Goals

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By the end of the lecture, you should:

- Understand the difference between morality and ethics
- Understand the key features of consequence-based, duty-based, contract-based, and character-based ethical theories
- Be able to apply act utilitarianism to an engineering scenario by constructing a stakeholder's table

### Assignment

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1. Go to <http://moralmachine.mit.edu>.
  - a. Watch the 45-second introductory video in the middle of the page.
  - b. Click on the "Start Judging" button to begin judging different scenarios. You'll be taken through a sequence of 13 different scenarios where you'll choose between two different outcomes. Click on the description button for a description of the scenario. If you look at a few of these, you'll see that sometimes the pedestrians are "flouting the law" by ignoring the traffic signals.
  - c. When you've finished judging, you'll be presented with a page providing a summary of your judgments and how they compare to those of others. Take a screenshot of as much of your results as you can (with the results still readable).
2. Read the article by Ackerman, and write short answers to the following questions based on this article. Your answers shouldn't be too long, e.g., no longer than two short paragraphs.
  - a. What does it mean for a self-driving car to follow a "utilitarian" approach?
  - b. The article states that people fear that autonomous vehicles could make decisions that harm their passengers. Why do the researchers interviewed in the article believe that this fear is overblown and may lead to less safety on the roads?
  - c. One of the researchers interviewed in the article states that "people may...expect more from [autonomous vehicles]" than they do from human drivers. Why is this the case?
  - d. How would you personally feel about riding in an autonomous vehicle? If faced with the decision to (a) save you (the passenger) and kill a pedestrian or (b) save the pedestrian and kill you, how do you feel the autonomous vehicle should decide? Why?
  - e. Combine your screenshot from item 1 together with your answers to item 2, and save them as a PDF file.

Submit your PDF file via Canvas by 1:00 pm, Tuesday, 9.20.22.

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