

An insight into automated cars and ethics

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1. Issues

The question of self-driving cars and ethics stems from a simple analogy:

Human drivers have ethics. In a fully automated self-driving car, there is no human driver. Therefore, self-driving cars must have ethics.
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Is the above conclusion correct?

In recent years, there has been significant progress in artificial intelligence, and it is possible that the analogy that it can be replaced by machine intelligence is working. There, ethics is also included in intelligence.

However, still, two questions remain.

[Q1] What is the ethics that drivers have (or should have)? [Q2] What does it mean for an automated driving car to make decisions?

2. Method

Examine various ethical documents. In particular, we are focusing on AI, which has been attracting attention in recent years. The survey is not exhaustive but includes an paper that was extensively surveyed several years ago.

Next, we focus on ethics in road traffic. Specifically, we consider the case of stopping in front of a pedestrian crossing and passing through a community road, which is related to safety.

3. Conclusion

A survey of documents such as guidelines shows that transparency and accountability are required. On the other hand, when ethics are defined in detail, conflicting cases arise between items.

The following two things were found from the examination limited to the scene.

From the crosswalk case, the rule may not be followed, which changes the behavior of drivers and pedestrians, who are collision incompatible.

The case of community roads shows that existing rules may lack information when autonomous vehicles make decisions. Therefore, in detail, we found that adding rules for autonomous vehicles is necessary.