Inverse Reinforcement Learning for Dialogue Management

The goal of this research is to extract a dialogue management policy from example dialogues generated by people using Inverse Reinforcement Learning.

Background

In the robotics, learning from human demonstrations has been demonstrated to significantly reduce the number of interactions necessary for a RL agent to achieve reasonable performance. Recently, a novel task-oriented dialog dataset has been released. This dataset may be used to learn a dialogue policy from human examples.

Research Goal

To develop a methodology for learning task-oriented dialog from demonstrations.

Possible Approaches

Various task-oriented dialog frameworks and datasets are available. Recently, a novel dataset named MultiWOZ has been released with human-human dialogs. With dialogs on an unprecedented scale, it may be feasible to apply IRL approaches and learn from example behavior.