

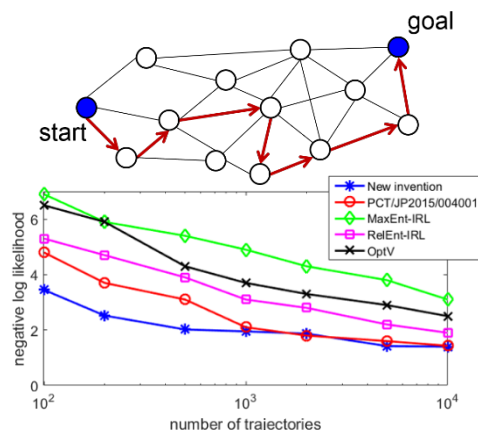
Efficient Goal Estimation for Intelligent Systems

The Problem

To build intelligent systems/robots or understand the behaviour of decision makers, it is important to estimate the goal of human or animal subject behaviours by observation.

The Solution

This technology is a model-free algorithm to estimate the goal of decision makers from their behavioural data with less memory usage and computational cost. In addition, the action selection policies can be recovered more effectively than other known methods.



Top: decision tree showing choice of path from start to goal in a 2-dimensional space. The path from the start to the goal is determined by the objective function. Bottom: comparison of known methods and this technology (shown in blue) to recover the observed policy.

Applications

- Interpretation of human behavior
- Analysis of web experience
- Robot control by imitation

Benefits

- Small datasets for analysis
- Reduced memory usage
- Reduced computational cost

Keywords

Objective function, goal estimation, intelligent systems, robotics, robot control, inverse reinforcement learning

Opportunity

- Licensing

Patent Status

This technology is protected by US Provisional Patent Application 62/308,722.

For more information

Technology Licensing Section at bdtl@oist.jp or +81-(0)98-966-8937