Reading 5 - Bayesian Inference for HRI

Discussion on Probabilistic Inference for HRI

Subscribed

- Toward real-collaborative interaction between humans and robots

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Discussion on Probabilistic Inference for HRI

by Bo Cao - Sunday, February 19, 2017, 11:51 PM

“Human–robot communication for collaborative decision making — A probabilistic approach”

Question:

“Operators either submit information passively (human-push) “, not quite understand why this is “passively” since pushing is a positively action. But as mentioned, this paper is robot-centric, in which case robot passively receives messages from human-push.

This probabilistic approach mentioned is great, but In terms of the 6.5 hypotheses, to be honest I don’t think these proved hypotheses could contribute much novice knowledge, such as “Experts will perform better than novices” did not make such a surprise to our knowledge.

Also in 2.4. Adjustable autonomy, this paper mentioned the level of full human control and autonomy, I put the paper “Toward a Framework for Levels of Robot Autonomy in Human-Robot Interaction” for reference.

"Approaching the symbol grounding problem with probabilistic graphical models."

Not quite understand equation (8).

In 4 Lesson learned, one way to learn from corpus would be from Department of Motor Vehicles handbooks since it concludes more accurate words with respect to navigation. When driving a car with Google Maps & Voice, the voice provides accurate enough language for drivers to navigate on the complicated road in real time.

"Gesture spotting and recognition for human–robot interaction."

In IV. Key Gesture Spotting A Gesture Model, not quite understand what does the “left-right” in left-right HMM mean.