



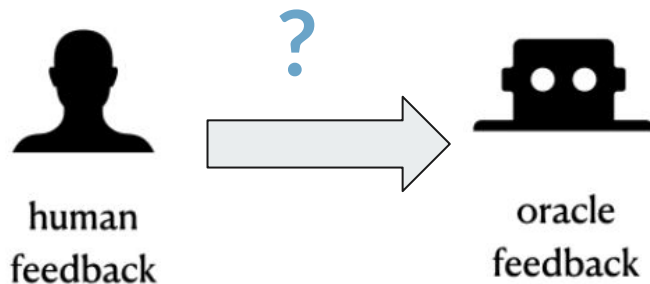
A more human-like oracle?

A simulated human feedback provider considering task difficulty and human capability

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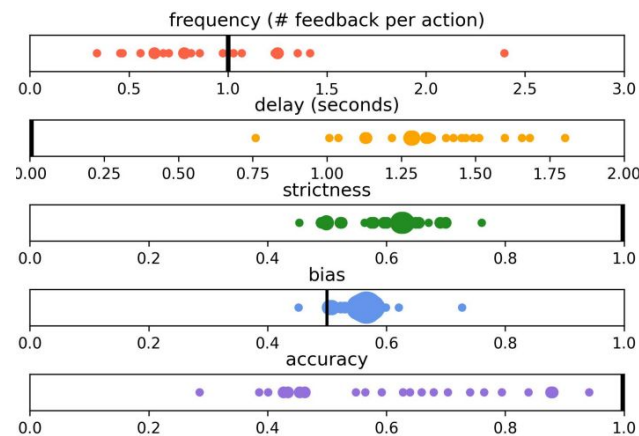
Human-like oracle is important

- Interactive RL (IntRL) is a common approach for effective learning
- To quickly design and evaluate IntRL, researchers often use oracle to provide human feedback instead of human
- Question: Can oracle feedback effectively model features of human feedback?



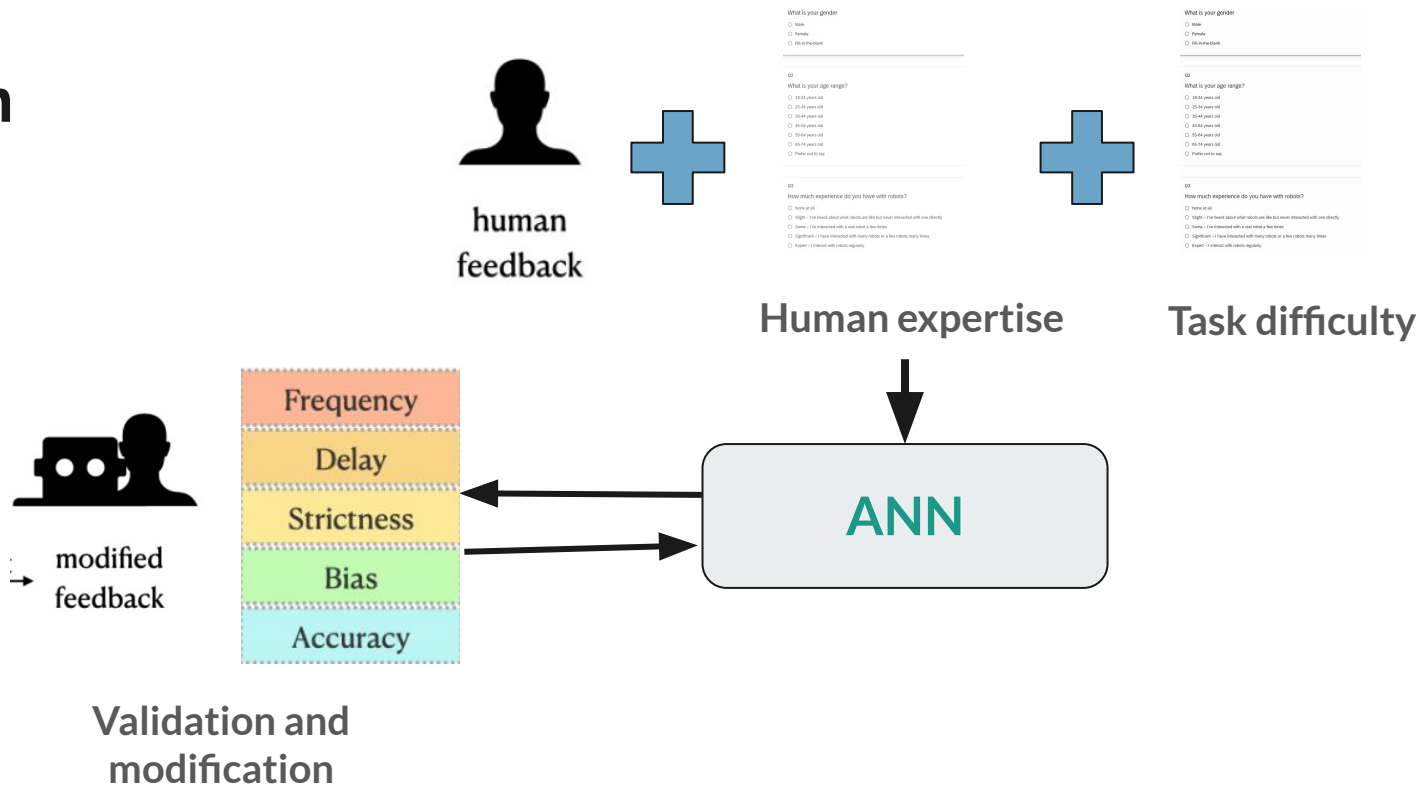
Common oracles are very different from human

- Recent research gives a negative answer
- Common oracle feedbacks are generally very different from human feedback
- Existing oracles generally don't consider difference of human expertise and task difficulty, which can greatly influence the feedback



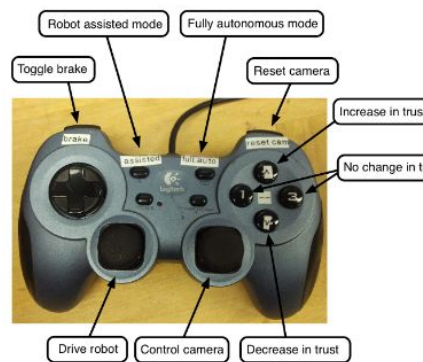
(a) Extracted feedback attribute values

Our plan



Our plan

- We will run a public study to collect data and train our model using Kinova robot from AABL lab



What is your gender

- ☐ Male
- ☐ Female
- ☐ Fill-in-the-blank

Q2

What is your age range?

- ☐ 18-24 years old
- ☐ 25-34 years old
- ☐ 35-44 years old
- ☐ 45-54 years old
- ☐ 55-64 years old
- ☐ 65-74 years old
- ☐ Prefer not to say

Q3

How much experience do you have with robots?

- ☐ None at all
- ☐ Slight – I've heard about what robots are like but never interacted with one directly
- ☐ Some – I've interacted with a real robot a few times
- ☐ Significant – I have interacted with many robots or a few robots many times
- ☐ Expert – I interact with robots regularly



Thank you!