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I'm packing my suitcase.

LT2216 Dialogue Systems

- Course Project

The Game

 System and user take turns in adding objects to a suitcase, reciting all objects that have already been added I'm packing a suitcase and I'm bringing toothpaste.

I'm packing a suitcase and I'm bringing toothpaste and tissues

That's right. I'm packing a suitcase and I'm bringing toothpaste, tissues, and a phone charger.

- You lose if you make a mistake in the reciting or try to add something that is already in the suitcase

Technicalities

RASA custom Actions

- ActionSetUpGame
- ActionExtractInput
- ActionPlay

Error Handling

FallbackPolicy: action_restart utters: "Let's start over."

Interactive Learning

```
class ActionExtractInput(Action):
def name(self):
    return "action_extract_input"

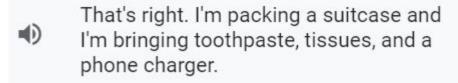
def run(self, dispatcher, tracker, domain):
    message = tracker.latest_message.get('text')
    return [SlotSet('user_words', message)]
```

Challenges

 Highly dependant on Google's Speech Recognition

Separating input into units

 User can make many unexpected mistakes



I'm packing a suitcase and I'm bringing toothpaste issues a phone charger and a computer

You did not say tissues. You lost. Do you want to start over?

Relation to Course Contents

- Grounding
 - used_words = common ground

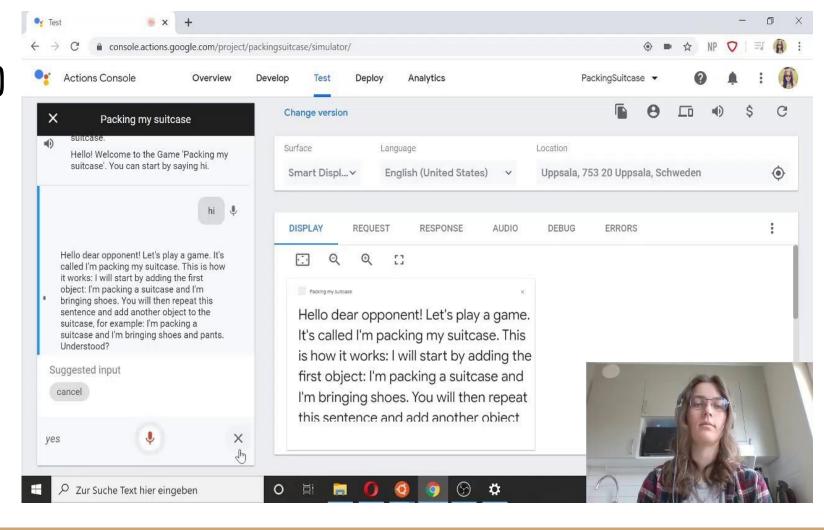
- Incrementality
 - User and System incrementally add to common ground
 - User utterance processed incrementally

- Spoken Dialogue is different from written text
 - Tried to allow as much variance in the user input as possible

Future Work

- Limit user input
 - to actual words
 - to the domain
 - → Lower error rate
- Implement another way to make the system lose
 - e.g. 5% chance of making a mistake

Demo



Discussion

Do you see any issues with how I read in the user input?
(as a hard string, no entity extraction or similar)

Is there a way the user could win or lose the game that I missed?

Thank you for your attention!