Response Generation for Grounding in Communication at NTCIR-13 STC Japanese Subtask

How to share mutual information?

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Background

The start point is that we cannot see eye to eye. We still cannot even understand Minions. The reasons are...

1. Comment text has ambiguity of vocabulary.
2. Comment text has ambiguity of domain knowledge.
3. Intent types of the comment text are untrusted.
4. Lack of knowledge in the responder.

Grounding in Communication

Approach

Our approach intends to make sure of grounding in communication with an initiator in Yahoo! News comments data. The method of auto-responder consists of three steps, labeling, finding, and generating.

Step 1: Labeling five intent types to a comment text.
Step 2: Finding associated information.
Step 3: Generating responses based on rules.

0.1 Grounding in Communication

Our strategies are on the presupposition that there is not enough information regarding the first comment text in the auto-responder. The following cases need to ground by an appropriate response:

Case 1: Comment text has ambiguity of vocabulary.
Case 2: Comment text has ambiguity of domain knowledge.
Case 3: Intent types of the comment text are untrusted.
Case 4: Lack of knowledge in the responder.
Case 5: Response generation with five response rules are pretty good at Rule-1. However, those responses are extremely bad at Rule-2.

0.2 Labeling with Support Vector Machine

At the first step, every comment text of the target training data is parsed to segmented terms by MeCab [5] with the ipadic [1], and filtered by the part of speech shown in Table 2.

0.3 Generating Responses

Generating responses with candidate words and five response rules, which are based on grounding strategies.

Results

Generating responses with five response rules are pretty good at Rule-1. However, those responses are extremely bad at Rule-2.

Conclusions

- Our approach can make sure of grounding in communication to Yahoo! News comments data. The method of auto-responder system has to acquire a function of sophisticated revelation information retrieval.
- The result was not enough in Rule-2 due to not to extend the dialogue, because the response result showed that it’s important to be a good listener.
- If the response is not related to the comment and the response is not informative to continue and extend the dialogue, the response is evaluated by fluent and coherent.

References


Figures

Figure 1: Flow chart of the approach. Minions try to communicate each other in Banana Language.

Figure 2: Comparison between Rule-1 and Rule-2.