OpinionConv: Conversational Product Search with Grounded Opinions

Motivation

- When searching for products, subjective experiences of others play a crucial role in making informed decisions. This is also true in sales conversation.

Grounded Product Opinion Generation

- We adapted the “CraigslistBargain” setting [5] and devise 14 conversation templates with different combinations of the 7 generated question-answer and opinion-opinion pairs.
- Product category: Cell Phones and Accessories
- Total number of conversations generated by OpinionConv: 195,614

Study 1: Importance of Product Opinions

- We showed participants two variants of generated sales conversation:
  - Variant 1 is focused on the customer’s preferences and requirements.
  - Variant 2 starts similarly, but then continues with an opinionated discussion.
- Q: Which of the two variants would you as a customer hold with the sales assistant while searching for a smartphone?
- 83% of the participants of study 1 preferred variant 2 over the variant 1.

Study 2: Perceptions of Dialog Realism

- For each of the 14 conversation templates, 10 examples
- For each example 3 participants were asked
- First, we inform participants, they are reading a transcript of a real conversation.
- Then, we reveal the truth and declare that the conversation they just read, was not a real but an automatically generated one.

Human Evaluation

- We introduced OpinionConv, a new conversation generation pipeline that generates opinionated multi-turn conversations for product search.
- OpinionConv was mainly designed to incorporate subjective narratives into conversational product search and to control both the dialog coherence and the information to be mentioned in the utterances.
- We also observed three key concerns raised in the human evaluation:
  1. Some features are of no interest to be discussed:
     e.g., “Why would the person ask the sales assistant about colours? That seems out of the ordinary.”
  2. Some participants judge the conversations based on their personal experiences with real sales assistants:
     e.g., “I always in marketing strategies, he [the sales assistant] was just trying to sell a phone not what he [the customer] wanted.”
  3. A stronger argumentation is expected by some participants:
     e.g., “Stating that it’s ‘bright and good quality’ would not be convincing enough for me to buy the product.”

Conclusion & Future Work

- REFERENCES