

Search Assistant: Effect of Chatbot on User's Collaborative Search Behavior

SearchX



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1. Background

Collaborative Search

- Multiple parties work towards a common goal
- Involve information lookup, sharing, synthesizing, and decision making

Collaborative search system

- Extra features to facilitate collaboration
- Shared query, bookmarks, notepad and chat

ChatBot

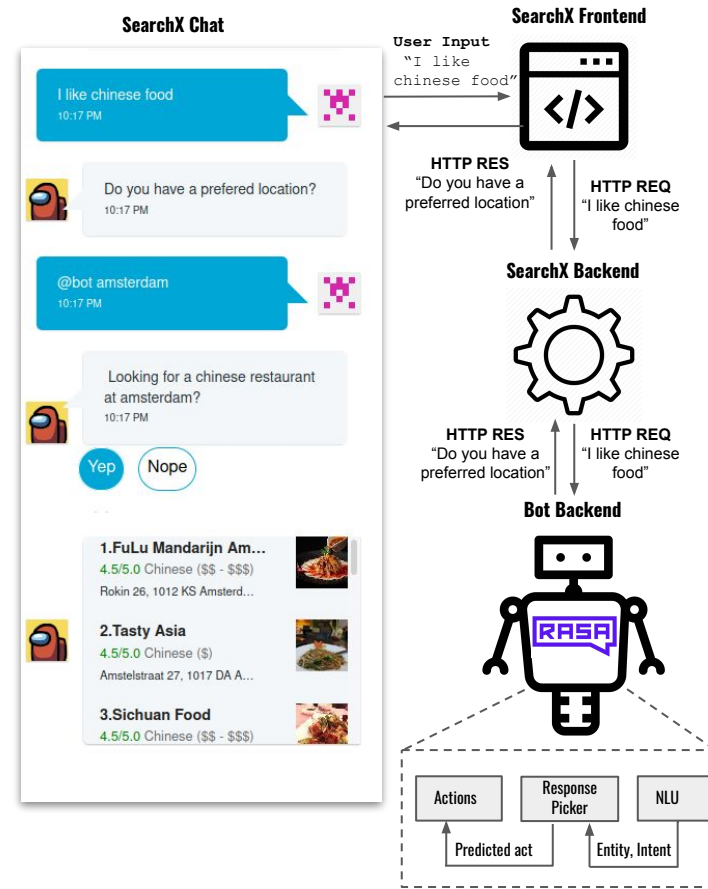
- A program designed to counterfeit a smart communication
- Improves collaborative search experience when used with single-user search engine and messaging platform

2. Question

What is the effects of a chatbot on users' collaborative search experience on a dedicated collaborative search system?

- How does it affect uses' collaborative experience
- Will it reduce the need to search independently

3. Chatbot High Level Structure



4. User Study

Setup

- Participants divide into groups
- Only allow using SearchX
- Each group conducts search tasks in random order with/without a chatbot
- Measure task completion time, query count, message count, average message length
- Post-task questionnaire

Results

- **Objective measurements**
 - Lower mean effort
 - Not significant enough
- **Users' impression**
 - Significantly improved sharing, coordinating, communicating, and reaching consensus
 - Non-significant effect on rising awareness, and enjoyment
 - Most users found chatbot helpful

5. Conclusion

- Chatbot improves the collaborative experience
- It does not significantly reduce the need to search independently
- Future work could investigate the effect of chatbot with collaborative search features turned off

Recent queries

- How to evaluate the chatbot
- How to implement a chatbot

Saved documents

- How to build a chatbot | IBM
<https://www.ibm.com/watson/how-to-build-a-chatbot>

Search X Chat

Hi, I'm your search assistant. Prefix your message with '@bot' to talk to me!

@bot hi

Hi! I'm your search assistant. What are you searching for today?

Write a reply...