# A Conversational Search Transcription Protocol and Analysis

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## Motivation

➢ Spoken conversational search strategies and interactions differ from conventional text search strategies and interactions
  ➢ Which **conversational strategies** are used to communicate the found information via a speech-only channel?
  ➢ How to **identify and classify** search interactions that differ from conventional text search?
  ➢ These will eventually be used to **design computational operations** for more effectively presenting search results over speech
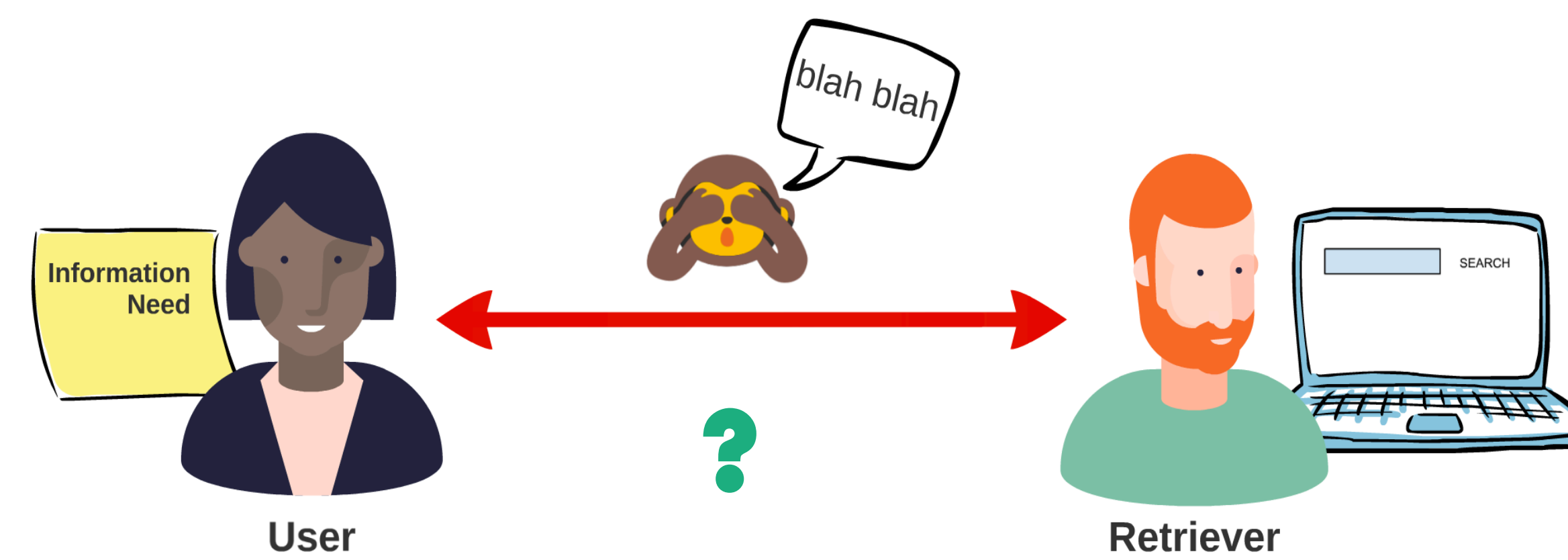
## Structure of Search Conversation via Audio

### Methodology

➢ Observe how people communicate when they solve an information need and cannot see the search results
  ○ **Users** are given three search tasks based on different cognitive complexity (Remember, Understand, Analyse)
  ○ Search results are read out by **Retriever** who has access to a search engine
  ○ Thematic analysis

J. R. Trippas, D. Spina, L. Cavedon, and M. Sanderson. How Do People Interact in Conversational Speech-Only Search Tasks: A Preliminary Analysis. In Proceedings of CHIIR'17, 2017.

## Thematic Analysis



blah blah

Information Need — User — ? — Retriever

1) Familiarizing with the data
  • *Transcribing*
2) Generating initial codes
3) Searching for themes
4) Reviewing themes
5) Defining and naming themes
6) Producing report

## Outcomes

### 1) Familiarizing with the data



Sample screenshot of ELAN transcription and analysis tool (anonymized). Annotations indicate (a) User, (b) Retriever, (1) Controlled vocabulary User, (2) Transcription, (3) Query.

### 2-3) Generating initial codes and searching for themes

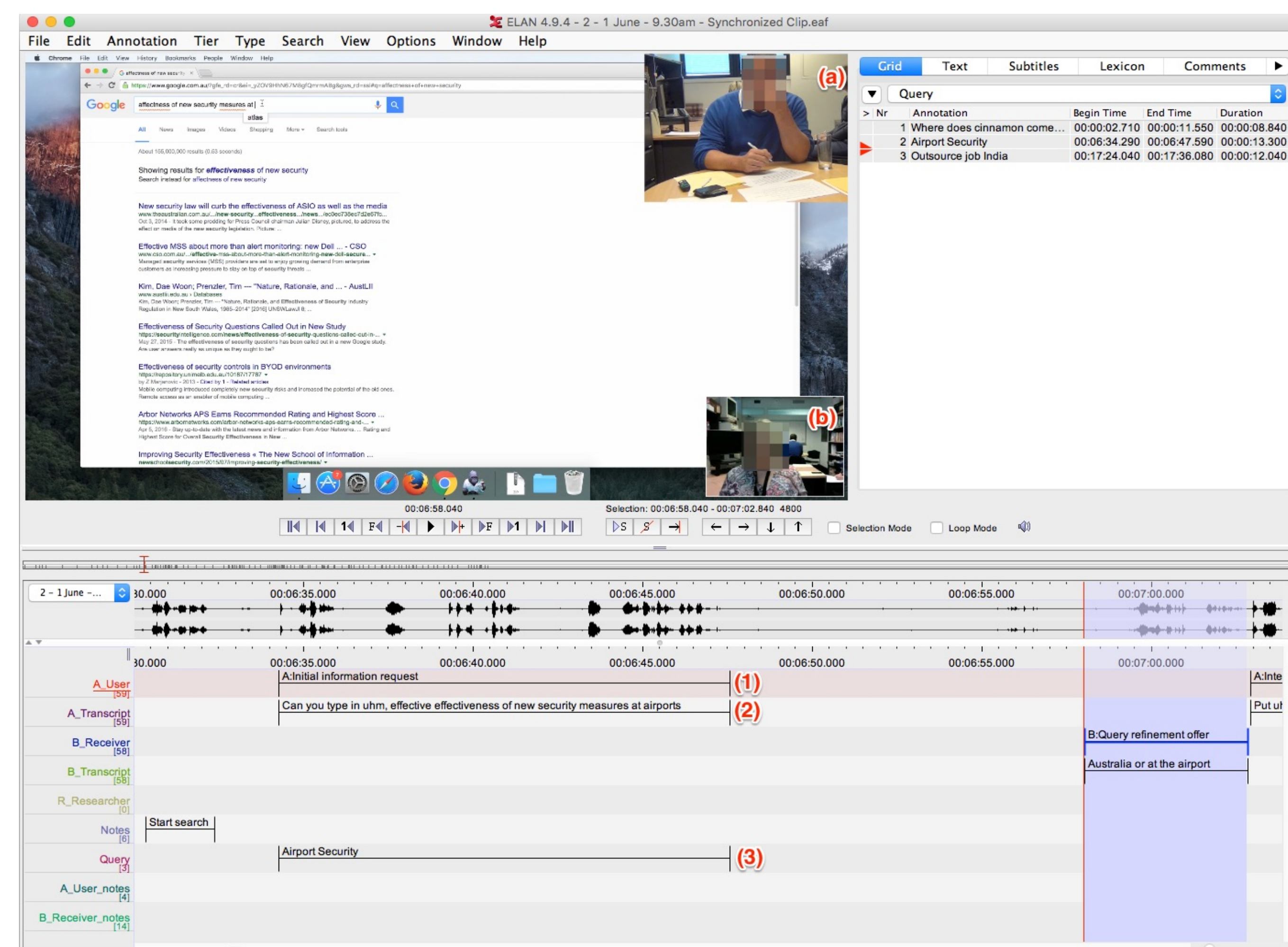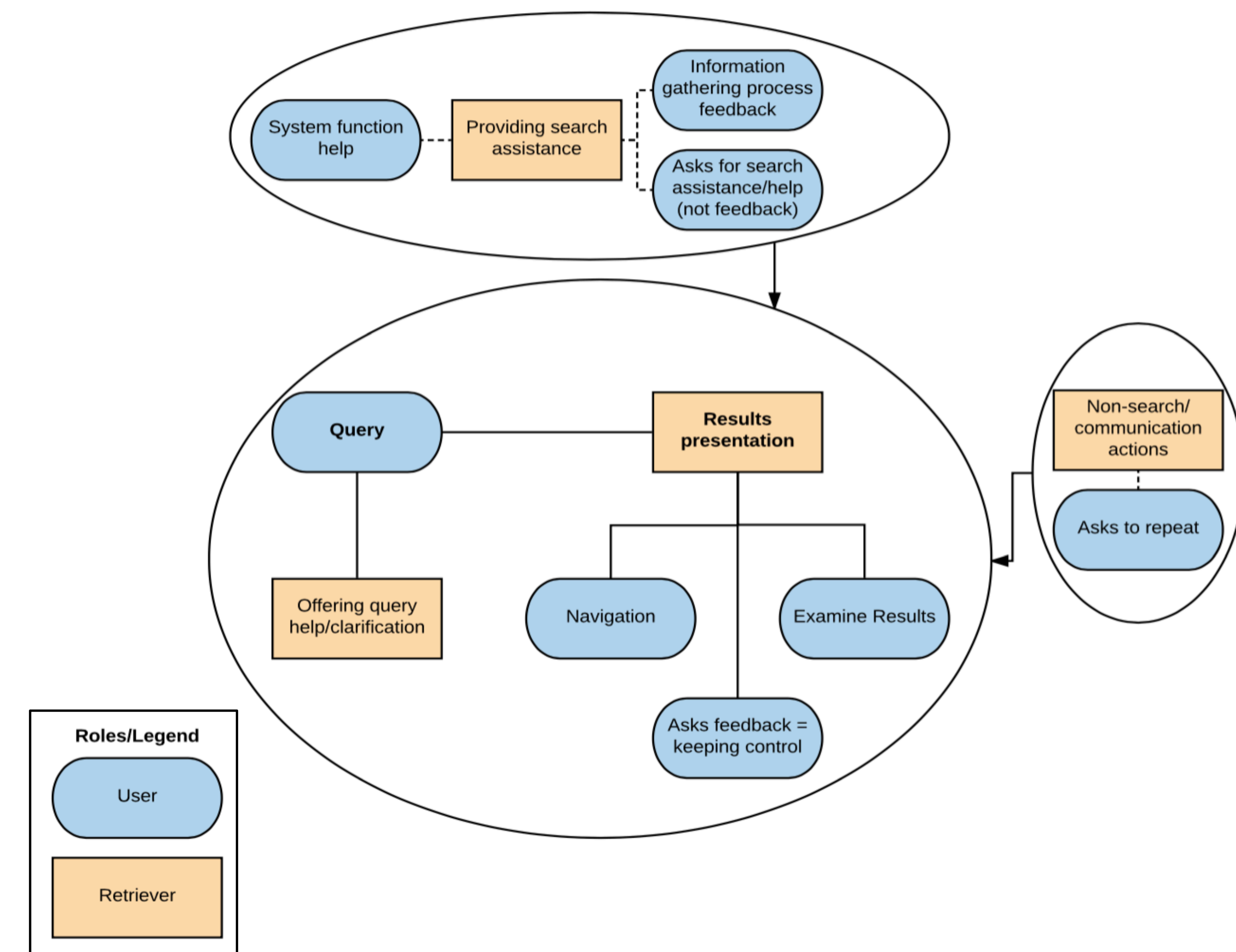| Turn | Transcription | Code | Theme |
|---|---|---|---|
| User | What we are looking for is to compare alcohol consumption in the Australian states | Initial information request | Query |
| Retriever | So the Australian Bureau of Statistics | Scanning document | Results presentation |
| User | Yeah that could be… that could be good | Performance feedback | Information gathering process feedback |
| Retriever | So in summary… we have one eighty-three point seven million of pure alcohol | Search engine result page | Results presentation |
| User | Is that all what it says or | Is there more information | Navigation |
| Retriever | Uhm it says based on the drinks and the year but it doesn't say anything about the state | Scanning document | Results |

### Data Set

bit.ly/SpokenConvSearchSIGIR

### 4) Reviewing possible themes – identifying Spoken Conversational Search Interactions



**Roles/Legend**
- User
- Retriever