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**

**Outcomes**

1) Familiarizing with the data

2-3) Generating initial codes and searching for themes

<table>
<thead>
<tr>
<th>Turn</th>
<th>Transcription</th>
<th>Code</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>User</td>
<td>What are we looking for is to compare alcohol consumption in the Australian states</td>
<td>Initial information request</td>
<td>Query</td>
</tr>
<tr>
<td>Retriever</td>
<td>So the Australian Bureau of Statistics</td>
<td>Scanning document</td>
<td>Results presentation</td>
</tr>
<tr>
<td>User</td>
<td>Yeah that sounds... that could be good</td>
<td>Performance feedback</td>
<td>Results presentation</td>
</tr>
<tr>
<td>Retriever</td>
<td>So in summary... we have one eighty-three point seven million of pure alcohol</td>
<td>Search engine result page</td>
<td>Information presentation</td>
</tr>
<tr>
<td>User</td>
<td>Is that all what it says or</td>
<td>Is there more information</td>
<td>Results presentation</td>
</tr>
<tr>
<td>Retriever</td>
<td>Uh it says based on the drinks and the year but it doesn’t say anything about the state</td>
<td>Scanning document</td>
<td>Results presentation</td>
</tr>
</tbody>
</table>

**Thematic Analysis**

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

**Data Set**

bit.ly/SpokenConvSearchSIGIR

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