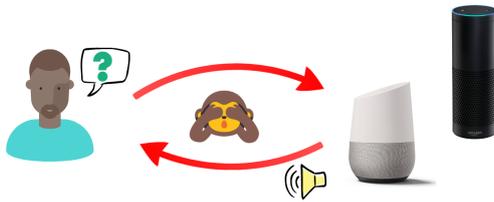


How Do People Interact in Conversational Speech-Only Search Tasks: A Preliminary Analysis

Johanne R. Trippas, Damiano Spina, Lawrence Cavedon, and Mark Sanderson

{johanne.trippas, damiano.spina, lawrence.cavedon, mark.sanderson}@rmit.edu.au
School of Science, RMIT University, Melbourne, Australia

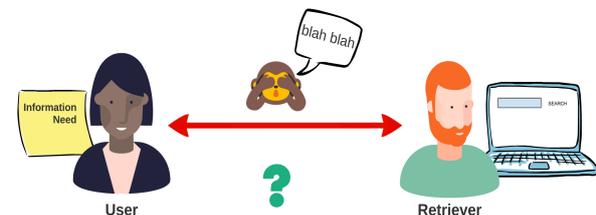


Speech-only Search Interactions

- What conversational strategies are used to communicate the found information via a speech-only channel?
 - Are there **conversational search patterns**
- Which **differences in search and interaction behaviours** exist depending on the search task complexity?

Methodology

- Observed 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



Annotation and Analysis

- Observations were recorded, transcribed, and annotated
- Recordings were analyzed using Thematic analysis
 - Each turn received a data-derived code
 - Designed codes were aggregated, creating themes

Turn 1: USER (Information Request)	Effectiveness of new security measures at airports
Turn 2: RETRIEVER (Query Refinement Offer)	Australia or at the airport
Turn 3: USER (Intent Clarification)	Put uhm... put international airports

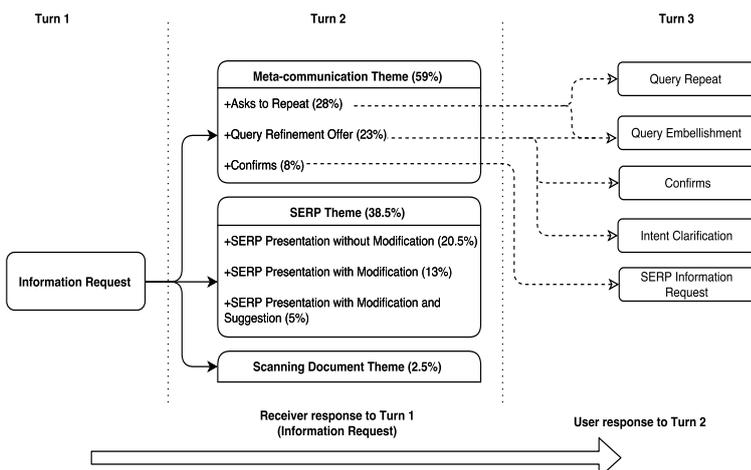
Preliminary Results

Conversational Patterns

- The speech-only search interactions are coded into conversational patterns and classified into three themes: *Meta-communication*, *SERP*, and *Scanning Document*
- Information Request
 - Users talk about their information need and do not formulate explicit queries
 - Users submitted very detailed and carefully crafted queries

Interaction Behaviours

- No clear signs that differences exist in search and interaction behaviours depending on the search task complexity
 - Remember tasks received enough information to satisfy the information need in a much shorter time frame
 - Meta-communication theme usage grew as task complexity increased



Ongoing Work

- Further coding and analysis of complete data set
 - Hypotheses generation from observations such as response generating techniques
 - Validate generated hypotheses with
 - Crowdsourcing
 - Wizard of Oz

Data Set

bit.ly/SpokenConvSearchCHIIR

