

Summary on From Speech to Knowledge

Contributions

This paper presents some uses of assumptive logic programming for speech-driven database creation and consultation. It's up to quite detailed-level.

Among the all, the most interesting part to me is the usage of Semantic Types. According to the author's claim, Semantic Type is useful for carrying out logic inference on implicit meaning on utterance interpretation, i.e. If A likes Type B, and C is of Type B, it is inferred that A likes C; at the same time it is useful to be used in parsing process, as clue to prune out anomalous input or interpretation. Lastly, it is useful for response generation as we can refer something in term of set instead of enumeration.

The method called Event is also mentioned in the paper. It helps to "group" related information together.

Besides that, the methodology of timeless-assumption is well applied in co-specification detection. It is a technique for pronoun resolving using discourse contextual information.

Limitation

However it is a bit too hard if the pronoun and the noun are far-separated, it is expensive in terms of processing time and space.