

Intention-based ranking for surface realization in dialogue systems.

ABSTRACT

A new intention-based ranking is proposed to cater for intentionality in ranking dialogue utterances, as opposed to surface-based ranking using surface linguistic features in utterances. This is because utterances may be in the form of a sentence, a phrase, or just a word; hence basis for ranking must be on assessment of intentions, regardless of length of utterance and grammar rules. Intention-based ranking model is tested and compared with surface-based models on 15 response classes in theater domain. The results from comparative experiments show consistent accuracy distribution in intention-based ranking across all response classes with average of 91%. On the contrary, ranking accuracy for surface-based ranking is not uniform across the response classes, showing the dependency on surface representation of utterances in individual response class.

Keyword: Overgeneration-and-ranking; Ranking; Classification; Intention; Dialogue systems.