

Conversational Recommender System Tempat Makan di Bandung Menggunakan Pendekatan Natural Language Processing Berbasis Vektor Space Model

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Abstract

There are many restaurants in Bandung that offer a variety of foods and drinks to visit. It resulted that people use recommender system to help them finding suitable restaurants. Conversational Recommender System (CRS) is a type of recommender system that allows dialogue between users and systems so it can increase user interest to the system. CRS can guide users by displaying suggestions and generating user feedback. Research on CRS to recommend other products has been done before. However, the use of CRS to recommend restaurants using Natural Language Processing (NLP) has not been done. Therefore, this study uses Natural Language Processing (NLP) approach to help users finding restaurant more flexibly. User can describes the restaurant that they want to visit using daily conversation. In this study, the system looks for a restaurant category that matches by using the cosine similarity formula. Cosine similarity is used to calculate the similarity value between user query and dictionary which is built into the system. System evaluation is done by calculating the accuracy of the recommender system and user satisfaction. User studies involving 80 users show that the NLP approach succeeded in increasing positive experience using the system. In addition, this approach has a quite high accuracy value of 75,83%.

Keywords: conversational recommender system, knowledge-based, natural language processing, vector space model