

ABSTRACT

Conversational recommender system is recommender system that provide dialogue as user guide to obtain information from the user, in order to obtain preference for products needed. There have been many studies that apply this method. This final project implements conversational recommender system with the knowledge-based in the smartphone domain with an explanation features. Knowledge is built with ontology model. Explanation facility is generated by reusing the structure of the ontology models, based on a user model that obtained. Explanation facility is implemented by explanation templates. There are two filtering methods that is applied to obtain the appropriate product that user preferences, semantic reasoning with the Multi-Attribute Utility Theory (MAUT) and the combination of MAUT with inference methodology. From the research conducted, the performance of combination of MAUT and inference methodology in terms of accuracy and efficiency, better than the pure MAUT method . While based on the number of iterations from the change of user preferences, conversational recommender system with explanations facility more efficiently than without explanation facility.

Keywords: recommender system, knowledge-based, ontology, semantic reasoning, MAUT, inference methodology