

Abstract

The development of the smartphone industry is growing very rapidly, as well as information about this product. Nowadays, smartphones have become a necessity for everyone. With so many smartphone products on the market, people need a tool to assist in buying a smartphone. Many Conversational recommender systems (CRS) have been developed to recommend smartphones. However, most of those CRS still interact in technical features. Meanwhile, most people still do not understand about the technical features. In this study, we develop CRS using the CRS framework based on high-level requirements that is proposed by previous works. In this study, we call this high-level requirements as functional requirements. An example of a functional requirement is, “a user wants a smartphone to play ultra-mode games without having to know the required specifications”. The CRS framework consists of ontology and the agent for generating interaction. Ontology acts as the knowledge that maps functional requirements to technical specifications of the product. In this study, we propose the CRS for smartphone domain based on functional requirements with updated knowledge. Attributes taken from the smartphone domain contain *network technology*, *display type*, *display size*, *display resolution*, etc. For evaluation, we measure the system performance and user satisfaction. Based on the evaluation results, the system performance score is 88.87% and the user satisfaction score reaches 0.88. So that our proposed CRS recommend the product accurately and satisfying the users.