

Abstract

Technological developments have caused many electronic products to circulate in various circles of society, one of which is tablets. Tablets have various technical specifications which are often difficult to understand for the public, making it challenging for them to determine what they need based on those technical specifications. Therefore, a tablet conversational recommender system (CRS) based on product functional requirements is needed to educate users through conversational interaction. Some previous works have developed CRS framework based on functional requirements. In this paper, we utilize that framework and propose an ontology to build a CRS in tablet domain. The CRS interacts with users to gather their preferences regarding product functional requirements (e.g. a user needs a tablet to edit photos), then it recommends tablet products that meet those functional requirements. On the other hand, ontology is used to map functional requirements to the technical specifications of tablet products. This system is evaluated using accuracy metrics (performance-based evaluation) and user satisfaction evaluation. The evaluation results showed that the system achieves a recommendation accuracy of 95.36% with positive user satisfaction feedback. These results show that the system is effective in providing tablet product recommendations based on user functional requirements.

Keywords : conversational recommender system, recommender system, ontology, product functional requirements, tablet