

Sistem Rekomendasi Berbasis Ontologi untuk Latihan Fisik yang Dipersonalisasi dalam Manajemen Obesitas

Widi Sayyid Fadhil Muhammad¹, Z. K. A Baizal², Ramanti Dharayani³

^{1,2,3}Fakultas Informatika, Universitas Telkom, Bandung

⁴Divisi Digital Service PT Telekomunikasi Indonesia

widisfadhilm@students.telkomuniversity.ac.id, baizal@telkomuniversity.ac.id,

dharayani@telkomuniversity.ac.id.

Abstract

In Indonesia, obesity is a serious health issue, and rates have risen recently because of sedentary lifestyles and poor eating practices. We suggest a proactive self-care suggestion system specifically created for Indonesians who are dealing with obesity to address this problem. Our recommender system attempts to give customers individualized suggestions for healthy lifestyle modifications that will make it easier for them to manage their weight. Because social media is so widely used in Indonesia, we created our system as a Telegram Chatbot. Our system may provide personalized suggestions based on a particular gender, activity level, fat mass, and difficulty of exercise that are relevant to Indonesians by fusing the user's ontological profile with generic clinical guidelines and standards for the management of obesity. Ontologies with Semantic Web Rule Language were used in the development of our system since SWRL ontologies are thought to perform better. Evaluations carried out using case studies and expert verification illustrate the usefulness of our suggested method, and the validated result of 88.8 percent demonstrates that our system can deliver good suggestion results for the user.

Keywords: Chatbot; Obesity; Ontology; Recommender System; Semantic Web Rule Language
