

ABSTRACT

The academic information services at Telkom University still face limitations in answering various student inquiries quickly and accurately. According to data, Telkom University has approximately 34,549 students, while the number of Academic Administration Service (LAA) staff is only around 6–8 people per faculty. This condition has the potential to cause response delays and an accumulation of information requests.

To address this issue, this study developed a WhatsApp Chatbot based on Retrieval-Augmented Generation (RAG), specifically designed to provide academic information services automatically, quickly, and accurately. The system is integrated with the WhatsApp API and is divided into three main roles: BSLA Telkom super admin, faculty LAA admin, and Telkom University student users. The implementation of RAG enables the chatbot to access and process academic data contextually, ensuring that the responses provided are more accurate.

Based on testing using a Likert scale questionnaire involving respondents from seven faculties at Telkom University, the system achieved a user satisfaction rate of 92%. These results indicate that the developed system is capable of improving the effectiveness and efficiency of academic information services within Telkom University.

Keyword : Chatbot, Whatsapp API, Retrieval-Augmented Genneration (RAG)