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Enhancing Travel Planning with AI: A Chatbot-Based Recommender System for Tourism Management

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Abstract: *The growing scope of the travel and tourism industry has fueled the need for advanced systems that simplify trip planning and enhance user experiences. Traditional methods of organizing travel can be overwhelming due to the abundance of options for destinations, accommodations, and activities. This study introduces an AI-powered chatbot-based recommendation system designed to help travelers by providing personalized and efficient travel suggestions. By harnessing Natural Language Processing (NLP) and machine learning techniques, the system examines user preferences, financial constraints, and past travel experiences to provide personalized recommendations. Additionally, the chatbot leverages real-time data and user feedback to continuously improve its suggestions, ensuring greater relevance and accuracy over time. Through an interactive conversational interface, the system streamlines decision-making, making the planning process more engaging and easier to access. The chatbot's effectiveness is evaluated using metrics such as recommendation accuracy, user satisfaction, and engagement. Findings show that AI-powered chatbots improve the travel planning process by shortening decision-making time, increasing convenience, and providing more personalized experiences. This study highlights the potential of AI to transform tourism management, illustrating how chatbot-driven recommender systems can make trip planning more seamless, efficient, and focused on user needs*

Keywords: trip planning

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