

# A Personalized System for Conversational Recommendations

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## *Abstract*

Increased computing power and the Web have made information widely accessible. In turn, this has encouraged the development of recommendation systems that help users find items of interest, such as books or restaurants. Such systems are more useful when they personalize themselves to each user's preferences, thus making the recommendation process more efficient and effective. In this paper, we present a new type of recommendation system that carries out a personalized dialogue with the user. This system – the Adaptive Place Advisor – treats item selection as an interactive, conversational process, with the program inquiring about item attributes and the user responding. The system incorporates a user model that contains item, attribute, and value preferences, which it updates during each conversation and maintains across sessions. The Place Advisor uses both the conversational context and the user model to retrieve candidate items from a case base. The system then continues to ask questions, using personalized heuristics to select which attribute to ask about next, presenting complete items to the user only when a few remain. We report experimental results demonstrating the effectiveness of user modeling in reducing the time and number of interactions required to find a satisfactory item.