

Advertisement Recommendation System Based On Artificial Intelligence

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Abstract: The concept of digital advertising is based on targeting users based on their behavior on the internet. However, most ads displayed are often irrelevant to the user, resulting in a negative impact. Content-based advertising is a more efficient way to convey messages and optimize conversion rates. To achieve this, platforms use various parameters such as search history, interests, and age to target specific audiences. In our proposed system, we utilize a categorization technique to systematically group keywords into pre-defined semantic categories based on the text, likes, or visited ads metadata. We then apply a fuzzy categorical data clustering technique to group the best-suited advertisement for each category. Additionally, we train a Convolutional Neural Network to identify the user's search topic and compare its performance with a pre-trained model. This ensures that the user is shown relevant ads, increasing the likelihood of them visiting the client's website. Our proposed system incorporates two collaborative algorithms to recommend the right ads to the right users, benefitting both users and advertisers.

Keywords: Advertising Recommendation, K-means, Filtering, Advertisement

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