

ABSTRAK

Perkembangan industri video game menyebabkan jumlah video game yang tersedia semakin banyak sehingga pengguna sering mengalami kesulitan dalam menemukan video game yang sesuai dengan preferensinya. Penelitian ini bertujuan mengembangkan sistem rekomendasi video game menggunakan metode *Content-Based Filtering*. Sistem menghasilkan rekomendasi berdasarkan kemiripan karakteristik video game yang dipilih pengguna, yaitu name, genre, tag, platform, dan description. Sebelum proses rekomendasi dilakukan, data teks diproses menggunakan *Term Frequency-Inverse Document Frequency* (TF-IDF), kemudian tingkat kemiripan dihitung menggunakan *Cosine Similarity*. Pengujian dilakukan terhadap lima pengguna menggunakan metrik *Precision@10*, *Mean Average Precision* (MAP)*@10*, dan *Normalized Discounted Cumulative Gain* (NDCG)*@10*. Hasil evaluasi menunjukkan nilai Rata-rata *Precision@10* sebesar 0,780, MAP*@10* sebesar 0,981, dan NDCG*@10* sebesar 0,978, yang menunjukkan bahwa sistem mampu menghasilkan rekomendasi yang relevan dengan kualitas pemeringkatan yang sangat baik. Pengujian *System Usability Scale* (SUS) memperoleh skor 80 yang termasuk kategori *Good*, sehingga sistem dinilai mudah digunakan oleh pengguna.

Kata Kunci: Sistem Rekomendasi, Video Game, *Content-Based Filtering*, *TF-IDF*, *Cosine Similarity*

ABSTRACT

The rapid growth of the video game industry has led to an increasing number of available games, making it difficult for users to find games that match their preferences. This study aims to develop a video game recommendation system using the Content-Based Filtering method. The system generates recommendations based on the similarity of the selected game's characteristics, including name, genre, tags, platform, and description. Before the recommendation process, textual data are preprocessed and weighted using the Term Frequency-Inverse Document Frequency (TF-IDF) method. The similarity between games is then calculated using Cosine Similarity. The system was evaluated by five users using Precision@10, Mean Average Precision (MAP)@10, and Normalized Discounted Cumulative Gain (NDCG)@10 metrics. The evaluation results achieved an average Precision@10 of 0.780, MAP@10 of 0.981, and NDCG@10 of 0.978, indicating that the system is capable of generating relevant recommendations with excellent ranking quality. In addition, the System Usability Scale (SUS) evaluation obtained a score of 80, which falls into the Good category, indicating that the system is easy to use.

Keywords: Recommendation System, Video Game, Content-Based Filtering, TF-IDF, Cosine Similarity.