

ABSTRAK

Peningkatan kebutuhan publikasi karya ilmiah pada jurnal terindeks Scopus menjadi tantangan tersendiri bagi peneliti, terutama dalam memilih jurnal yang relevan dengan topik penelitian. Banyaknya artikel beserta jurnal yang bertebaran di internet juga semakin membuat peneliti kesulitan memilahnya. Penelitian ini mengusulkan sistem rekomendasi jurnal berbasis metode Content-Based Filtering dengan model Sentence Bidirectional Encoder Representations Transformers (S-BERT) untuk menghasilkan rekomendasi yang akurat. Dataset yang digunakan berasal dari jurnal bidang Computer Science yang terindeks Scopus, dengan atribut utama Focus and Scope untuk mencocokkan abstrak penelitian pengguna. Proses rekomendasi melibatkan preprocessing teks, representasi vektor menggunakan S-BERT, serta penghitungan tingkat kemiripan menggunakan Cosine Similarity. Sistem ini dirancang untuk menampilkan Top 15 jurnal yang relevan berdasarkan skor kemiripan, dengan opsi pengurutan tambahan berdasarkan Cite Score (skor sitasi), Quantile (indeksasi Scopus), Impact Factor (pengaruh jurnal berdasarkan sitasi) maupun APC (biaya publikasi). Evaluasi menggunakan Hit Rate@15, MRR (Mean Reciprocal Rank), dan NDCG@15 menunjukkan bahwa metode berbasis S-BERT mencapai performa terbaik dengan rata-rata Hit Rate sebesar 93,33%, MRR sebesar 0,33 dan NDCG sebesar 0,461, mengungguli metode tradisional seperti TF-IDF. Temuan ini membuktikan bahwa pendekatan berbasis pembelajaran representasi semantik lebih cocok dalam merekomendasikan jurnal yang relevan dengan abstrak dan focus and scope dibandingkan metode berbasis frekuensi kata.

Kata kunci : Sistem Rekomendasi, *Content Based Filtering*, *S-BERT*, *Cosine Similarity*, Jurnal Scopus

ABSTRACT

The increasing demand for scientific publications in Scopus-indexed journals poses a unique challenge for researchers, particularly in selecting journals relevant to their research topics. The abundance of articles and journals available online further complicates the process of filtering them. This study proposes a journal recommendation system based on the Content-Based Filtering method with the Sentence Bidirectional Encoder Representations Transformers (S-BERT) model to generate accurate recommendations. The dataset used consists of Scopus-indexed journals in the field of Computer Science, with the primary attributes of Focus and Scope to match the user's research abstract. The recommendation process involves text preprocessing, vector representation using S-BERT, and similarity calculation using Cosine Similarity. The system is designed to display the top 15 relevant journals based on similarity scores, with additional sorting options based on Cite Score (citation score), Quantile (Scopus indexation), Impact Factor (journal influence based on citations), and APC (publication costs). Evaluation using Hit Rate@15, MRR (Mean Reciprocal Rank), and NDCG@15 shows that the S-BERT-based method achieves the best performance with an average Hit Rate of 93.33%, MRR of 0.33, and NDCG of 0.461, outperforming traditional methods such as TF-IDF. These findings demonstrate that a semantic representation learning-based approach is more suitable for recommending journals relevant to abstracts and focus and scope compared to word frequency-based methods.

Keywords: Recommendation System, *Content Based Filtering*, *S-BERT*, *Cosine Similarity*, Scopus Journal