

Abstrak

Sistem Rekomendasi banyak menerapkan metode Collaborative Filtering klasik (CF). Tetapi, metode CF tidak mampu menyelesaikan masalah sparsity dan cold-start user. Masalah tersebut dapat ditangani bila memadukan CF dengan konsep Social Network (SN). Beberapa metode CF dipadukan dengan SN, seperti: Fusing ESR, Social Regularization, dan Trust-Aware. Namun, ketiga metode tersebut tidak mampu bila dikembangkan dengan memadukan jenis hubungan implisit/eksplisit lainnya. Pemilihan bobot parameter tidak begitu optimal ketika akan menggabungkan kemiripan selera antar user dari kedua jenis hubungan menjadi satu. Metode Social-Union (SU) diajukan untuk menutupi kelemahan dari sejumlah metode tersebut.

Social-Union memiliki persamaan dalam menggabungkan kemiripan selera antar user yang dinamis sehingga memungkinkan terjadi pengolahan jenis hubungan implisit/eksplisit di dalamnya. Penerapan konsep kemiripan selera antar user ini akan meningkatkan akurasi dari hasil prediksi karena biasanya sekelompok orang yang berteman akan memiliki kemiripan dari segi minat dan selera terhadap suatu item. Pemilihan bobot parameter dapat dilakukan secara manual maupun auto melalui perhitungan koefisien densitas global dan lokal sehingga penentuan nilai bobot parameter seoptimal mungkin.

Hasil dari penelitian ini adalah sebuah website rekomendasi perpustakaan film yang menerapkan metode Social-Union. Proses pengujian yang dilakukan, tidak semua data film yang di-rating oleh user, namun user dapat memperoleh rekomendasi yang bergantung pada nilai dari parameter α .

Kata kunci: Sistem Rekomendasi, film, metode Collaborative Filtering, Social-Network, rating, pertemanan, Social-Union

Abstract

The Recommendation System applies many of the classic Collaborative Filtering (CF) methods. However, the CF method is unable to solve the problem of sparsity and cold-start users. This problem can be handled when combining CF with the concept of Social Network (SN). Some CF methods are combined with SN, such as: Fusing ESR, Social Regularization, and Trust-Aware. However, these three methods are not able to be developed if they are integrated with other types of implicit / explicit relationships. The selection of parameter weights is not so optimal when it will combine tastes between users from the two types of relationships into one. The Social-Union (SU) method was proposed to cover the weaknesses of a number of these methods.

Social-Union has sameness in combining appetite similarities between dynamic users so as to allow processing of implicit / explicit types of relationships in them. The application of the concept of appetitesimilarities between users will increase the accuracy of the prediction results because usually a group of people who are friends will have similarities in terms of interest and taste for an item. The selection of parameter weights can be done manually or auto through the calculation of global and local density coefficients so that the determination of parameter weights is as optimal as possible.

The results of this study are a website of a film library recommendation that applies the Social-Union method. The testing process is carried out, not all film data is rated by the user, but the user can obtain recommendations that depend on the value of the parameters α .

Keywords: Recommendation System, film, Collaborative Filtering method, Social-Network, rating, friendship, Social-Union.

