

Group Recommendation of Multimedia Content

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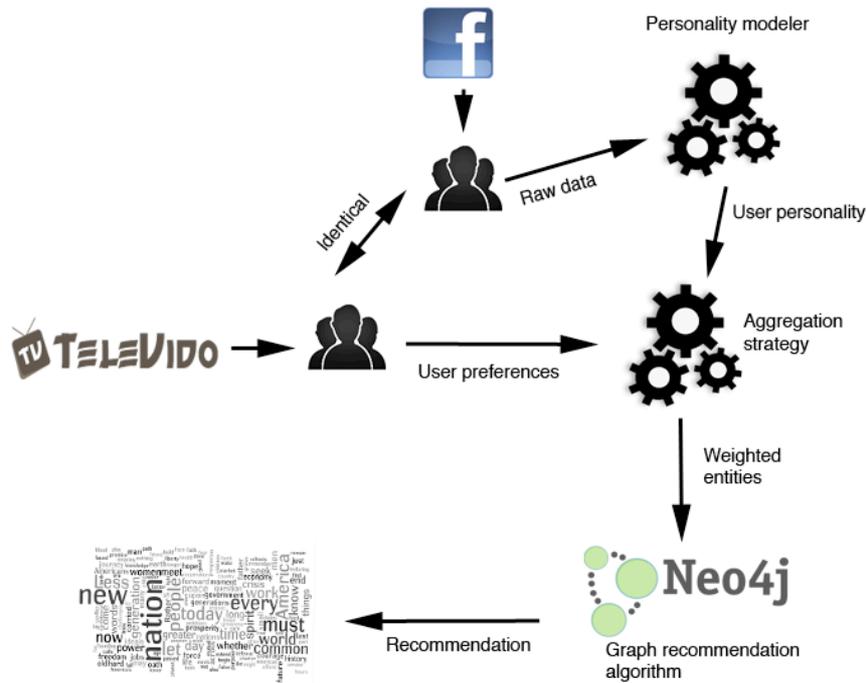
Because of the growth of the world wild web, the amount of information which is stored in online space has increased. Nowadays we are literally overwhelmed with the amount of information available. To solve the problem of this information burst, recommendation technics and methods were invented, but as the world changes, the access to the internet also changed. People collaborate more often with each other. In times where the most visited pages in the world are social network pages the recommendation technics have to adept these new trends. Which is mainly collaboration between users. The answer to this need is group recommendation.

To create accurate recommendations we need data that describe the users interest and taste in the given domain. As we said earlier nowadays the most information about users are stored in social networks applications. Therefore the aim of our proposed method is to enhance group recommendation with personality awareness and the power of graph traversal algorithms. In our method we will build a group recommendation that uses personality models created by using data extracted from social networks. Social networks offer a great opportunity for user information extraction. People willingly provide information about their taste and interest [2].

To correctly be able to model a users personality we need several dimension that describes a users personality in a social crowd. Therefore we have chosen the use of the Big Five personality model in our method because of its popularity and wide scale of usage. Our method consists of 4 basic steps which you can see on figure 1. The first step of the method is data extraction. We need to extract information from social networks to be able to create a personality model of a user. After this we can proceed to the next one, which is building to Big Five personality model of a user. When proposing the method of the personality model creation we used the discovered personality patterns of Facebook users from the article [1]. After we have created the personality models needed to create our personality aware group recommendation we apply our proposed aggregation strategy. The strategy modifies the weights of the starting nodes in our recommendation algorithm, which is based on a traversal energy spreading algorithm with the use of the users personalities.

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The proposed personality model generation and group recommendation method was implemented and tested in the movie recommender application Televido. The results of the experiments shown that with the use of the proposed method we can reach higher precision than with aggregation strategies that do not include personality awareness.



Picture 1. Scheme of the group recommendation method

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References

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