National Institute of Technology Rourkela

Defence Seminar

Seminar Title	: Development of Efficient Movie Recommender System for a Group of Users based on Their Preferences
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Venue	: Convention Hall (CS-208), CSE Department
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Abstract	: Recommender Systems have recently gained popularity due to their ability to expedite user selection processes. Traditional recommender systems mainly focus on providing recommendations to a user. It is not suitable for recommending an item to groups of users. A group recommendation system (GRS) addresses this issue of recommendation. Group recommender systems are popular in a few domains such as parties, tourism, movies, etc. A movie group recommender system is a special kind of GRS designed for movie recommendations to a group of users. In contrast to traditional Recommender Systems (RS), movie GRS has gained prominence for its ability to cater to the collective preferences of groups. The task of GRS is divided into two tasks: group item preference prediction and group item recommendation. Nowadays, group satisfaction has become a major issue in the area of GRS. Group user satisfaction plays a vital role in collective decision-making in a group. Many researchers have developed various algorithms to address this issue. However, prior GRS techniques failed to address the important issue of group satisfaction. The efficacy of GRS relies heavily on understanding group preferences, encompassing factors like trust, influence, and likeness among group members. An ongoing challenge in the movie GRS pertains to member relationships and group satisfaction. However, none of the researchers provide good user satisfaction with a lower error rate. This thesis tries to address the issue of group user satisfaction of the movie GRS in three contributory chapters. The first contributory chapter uses the collaborative filtering approach and tries to enhance group satisfaction. It explores member inclination and item usefulness within a group to address this issue. The proposed methodology employs an aggregate prediction technique to calculate the final group score. It computes user inclination and item usefulness at both the individual and group levels. A novel aggregation strategy, Popularity and Likeness-based Aggregation (PLAS) is developed to aggregate individual predictions into a complete group score. Another collaborative filtering (CF) approach, revised slope one, is proposed to predict group member preferences. Existing average modelling combines the preference to get a final group preference. Experimental outcomes show the superiority of the proposed method