PRODUCT RATING SYSTEM

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Abstract

Recommender system is one of inseparable components in e-commerce websites. Recommender system means the system which recommends products for the user who wish to buy products .One of the major challenges that largely remains in recommender system is the cold-start problem(inactive products) which can be viewed as a barrier that keeps the cold-start items away from the existing products. In this paper, we aim to break through this barrier for cold-start users/items by the assistance of existing products. It is achieved by using Elo Rating system. The Elo system is widely adopted in chess tournaments; we propose a novel rating comparison strategy to learn the profiles of cold-start products. The center-piece of our Strategy is to provide a fine-grained View on the hidden profiles of cold-start users/items by exploring the differences between cold-start products and existing Products . To reveal the capability of strategy, we instantiate our strategy on two prevalent methods in recomender systems, i.e., the matrix factorization based and neighborhood based collaborative filtering. Experimental evaluations on five real data sets validate the superiority of our approach over the existing methods in cold-start scenario.

Keywords: Recommendations, cold-start, rating, eloalgorithm .

1. INTRODUCTION

The main aim of this project is to eliminate or minimize the cold (inactive) products from the system with the help of the existing active products and by using Designing the strategy by using Elo rating system. The existing recommendation system only recommend the active products to the user ,with the help of our proposed strategy we eliminate the inactive products and make sure the recommendation system recommends every products available. products are eliminated with the help of existing Users ,products by studying the characteristics of existing products and inactive products. Now the products are recommended uniformly to the users which make the flow of products to recommend uniformly

2. LITERATURE SURVEY.

In the existing system the recommendation engine only recommend products for the user which are active products,the users will follow the recommendation products and buy those products. There are many underlying probability that those inactive products will never be recommended and unsold. In thisProject the strategyis proposed which eliminates the The cold start problem. The cold start will make the system halt by making the cold products list go high and the active product no longer available . The inactive The proposed system is aimed at eliminating the inactive products from recommendation system and make every product active with the help of proposed strategy.The strategy overcomes the inactive products by proposing the ELO rating system. If a product is cold product the admin will rate the product by giving a review ,now

the product will activated and it will flow into the recommendation system ,If a user buys the particular product and reviews the product Now the average of his and previous review of admin will calculated.The average will get updated in the review to the product.(figure 3) Our goal is to break through the barrier between cold-startusers and existing users by the assistance of existing users.Specifically, we achieve this goal by borrowing the idea

of rating comparison from Elo Rating System. That is, we use the difference between the expected result and the actual result from the rating comparison strategy to calibrate the latent profiles of cold-start users. To start the calibration, we need to first create a competition between a cold-start user and a selected existing user over a given item. Suppose that u is a coldstart user who has just rated item i, and v is an existing user who rated item i in the past. Then, user u and user v have a competition in terms of item, there could be multiple existing users who have rated the same item. We then need to create multiple competitions/comparisons and update the latent profiles of the cold-start user multiple times. Item i. Next, we need to compare the expected result and the actual result of the competition.

3. MODULES DESCRIPTION

Uploading Products: In this Module the admin user will create categories in which the product is to be get uploaded.In the respective category the admin user will add the products which will get displayed in users window.

Browsing & ordering Products: In this Module the user after gets registered in our site will began to browse the available products which are categorized respectively.If an user wish to purchase a product he will enter the details of address in which the product needs to get delivered.

Cart Management: In this Module the products which the user choose d are visible in cart and the user will be asked to enter to the payment transaction details for paying the amount of the product.

Order Management: In this module the orders will get managed in both the user side and admin side. In the admin side the product the user added are made visible and get handled by the admin.

Feed-Back Module: In this module the user will be asked to review the products which they purchase and gets delivered to the user.the user will asked to post the ratings and reviews.

Cold Product Management: In this module admin will manage to eliminate the inactive users from the system and made all the products in the system to remain active. .

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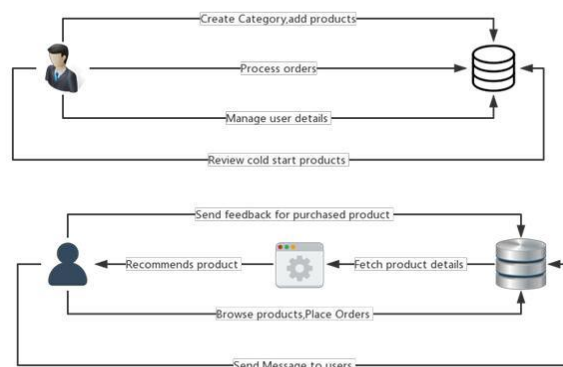
FUTURE WORK

The Recommender System (RS) is an efficient tool for decision makers that assists in the selection of appropriate items according to their preferences and interests. This system has been applied to various domains to personalize applications by recommending items such as books, movies, songs, restaurants, news articles and jokes, among others. An important issue for the RS that has greatly captured the attention of researchers is the new user cold-start problem, which occurs when there is a new user that has been registered to the system and no prior rating of this user is found in the rating table. In this paper, we first present a classification that divides the relevant studies addressing the new user cold-start problem into three major groups and summarize their advantages and disadvantages in a tabular format. Next, some typical algorithms of these groups, such as MIPFGWC-CS, NHSM, FARAMS and HU–FCF, are described. Finally, these algorithms are implemented and validated on some benchmark RS datasets under various settings of the new user cold start. The experimental results indicate that NHSM achieves better accuracy and computational time than the relevant methods.

CONCLUSION

Comparison strategy (RAPARE) to make proper recommendndations for cold-start problem. In particular, the strategy provides a special, fine-grained treatment for cold-start users and cold-start items. This generic strategy can be instantiated to many existing methods for recommender systems. We proposed the RAPARE-MF (instantiating with matrix factorization method) and RAPARE-KNN (instantiating withnearest neighborhood method) models as well as algorithms to solve them. Experimental evaluations on five real data sets show that our approach outperforms several benchmark collaborative filtering and online updating methods in terms of prediction accuracy, and RAPARE-MF can provide fast recommendations with linear scalability.

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