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A Survey on Micro Video Recommendation System for Content Writer

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Abstract: *With the development of the Internet and social networking service, the micro-video is becoming more popular, especially for youngsters. However, for many users, they spend a lot of time to get their favorite micro-videos from amounts videos on the Internet; for the micro-video producers, they do not know what kinds of viewers like their products. Recommendation systems play an important role in helping Micro Video system. Micro-videos afford many potential opportunities ranging from network content caching to online advertising. Micro-videos are created by individuals and contain some unique characteristics, including egocentric and self-facing views. Micro Video Recommendation System for Content writer.*

I. INTRODUCTION

Video is a new form of information media. With the development of the Internet, 3G (the 3rd Generation mobile communication technology), [4] and 4G (the 4th Generation mobile communication technology) network, the bandwidth and speed of network become faster and faster. These technologies provide

Conditions for dissemination of information media. Video is a short time video, which lasts for 30 seconds to 300 seconds. The short time micro-videos are popular with young people, because the teenagers prefer to watch the micro-video [1][4][6] on their comfortable time through mobile devices. For micro-video producers, the problem is they do not know how many people like their products, and do not know how many times their video have been watched.

Therefore, this paper proposes a video recommendation system (MRS) [4]. One of the purposes is an overview of videos for the producer. In this way the producer knows how many users love their video, and how many times their videos are on -demand. In order to enhance the MRS accuracy, we need to collect large volume data sets about who and when watched the micro-video, how many times the micro- video on demanded, and how many people love the micro-video. Therefore, the MRS, proposing in this paper, use technology to process the collected data sets.

II. LITERATURE SURVEY

Collaborative Filtering Recommendation Systems [3][4] Using Tag Information Recommendation systems have been used in numerous domains to support both users in handling information overload and finding adequate items to cover their needs and providers in identifying user needs and increasing the amount and diversity of the items they sell. Recently, recommendation systems have become an important part of various applications. A novel case-based recommendation approach aims to overcome the current limitations while providing more insight into user preferences and item selection patterns.

Hybrid Recommendation Systems [2]: Content-Boosted Collaborative Filtering for Improved Recommendations

The proposed hybrid filtering transparently creates and maintains user preferences. It assists users by providing both collaborative filtering and content-based filtering, which are updated in real time whenever the user changes his/her current page using any navigation technique. The WebBot uses the URLs provided in the restaurant dataset to download restaurant database content from database. WebBot keeps track of each individual user and provides that a user online assistance. WebBot updates the list each time the user changes his/her Current page. Content-based filtering is based on the correlation between the content of the pages and the user preferences. The collaborative filtering is based on a comparison between the user path of navigation and the access patterns of past users. Hybrid filtering may eliminate the shortcomings in each approach.

Songtao Shang et al. [4] provide a micro-video recommendation system based on MapReduce and Hadoop framework which is a high performance parallel computing platform. The system can collect the reactions and give some suggestions for microvideo producers with how many viewers like the micro-video.

Ting-Chia Hsu et al.[5] provide a recommendation system for video clips based on the ID3 algorithm using the Python programming language.

Peiguang Jing et al.[1] presents a transductive low-rank multi-view regression (TLRMVR) framework for micro-video popularity prediction. By taking advantages of low-rank representation and multi-view learning all heterogeneous features extracted from different views into a common feature subspace and achieved enhanced robust feature representation for regression analysis by using an effective optimization algorithm.

Dongdong Jiang et al.[6] introduces micro video topic recommendation system, including data layer, interface layer, core layer, service layer, business layer. Including data layer, interface layer, core layer, service layer, business layer. Regression analysis algorithm is used here.

Lina Li et al.[7] studied the SimRank algorithms in which similarities among nodes are required to compute and come to know that the computing cost of SimRank can be very high develop new parallel solutions that can offer improved processing power to compute SimRank on large data set. Propose parallel algorithms for SimRank computation on the Map-Reduce framework, and more specifically its open source implementation, Hadoop. Two different parallel methods are proposed and their performances are evaluated and compared. Furthermore, we employ the proposed methods to do the similarity computation in order to recommend appropriate products to users in social recommender systems.

Huizhi Liang et al.[3] gives a Recommender system (RSs) have been used in numerous domains to support both users in handling information overload and finding adequate items to cover their needs and providers in identifying user needs and increasing the amount and diversity of the items they sell. Recently, recommender systems have become an important part of various applications. A novel case-based recommendation approach aims to overcome the current limitations while providing more insight into user preferences and item selection patterns.

III. PROBLEM FORMULATION AND PROPOSED WORK

A. Existing System

Many users, they spend a lot of time to get their favorite videos from amounts videos on the Internet; for the video producers, they do not know what kinds of viewers like their products. In the existing system YouTube is a huge video-sharing service with hundreds of millions of users and hundreds of videos being uploaded every day. YouTube generates a recommendation based on users watch history. Recommendation is a user specific.

B. Proposed System

The proposed system to give recommendation for the content writer. We are going to take the data set of complete users, all the activities of the users like watching time of a video, User Browser Profiling, Particular video playing time, genres of videos. Based on mentioned factors, factor table will be generated. Using collaborative filtering techniques like user-user and item-item filtering, recommendation will be generated for content writer. This recommendation going to help to content writer for uploading videos.

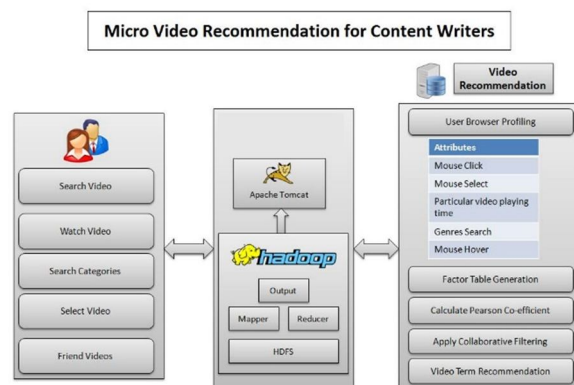


Fig: 1 System Architecture

1) Advantages of Proposed System

- a) Real time recommendation will be generated.
- b) User can easily find or get popular video

C. Mathematical Model

Let S be the system,

$$S = \{I, O, F\}$$

Let I be the input to the system, (Dataset created based on below parameter)

$$I = \{I1, I2, I3, I4, I5\}$$

I1 = Mouse Click

I2 = Mouse Select

I3 = Particular video playing time

I4 = Mouse Hover

I5 = Genres Search

O = Output of the Filtering Function that Gives Video Recommendation

Let F be the functionality

$$F = \{F1, F2, F3\}$$

F1 = Generation of Factor Table

F2 = Calculation of Pearson Co-efficient

F3 = Apply Collaborative Filtering

F2 is the Calculation of Pearson Co-efficient,

$$F2 \leftarrow F1$$

F3 is Applying collaborative filtering On Parameter getting from Pearson Co-efficient

$$F3 \leftarrow F2$$

F3 is dependent on F2.

$$F3 = O$$

O is the output of Function F3 i.e. Result matching to provide video recommendation.

IV. CONCLUSION

This paper proposes a video suggestion structure. As per the watcher's looking at or watching history, genres of videos, mouse movements, recommendation will be generated. With the help of big data, we are going to handle huge amount of video data set. This structure collects the above mentioned data and gives suggestions to the video maker.

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