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RESEARCH ARTICLE

MULTIMEDIA COLLABORATIVE FILTERING AND RECOMMENDATION BASED ON CLOUD

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Abstract: Due to the rapid growth of internet broadband access and proliferation of modern mobile devices, various types of multimedia (e.g. text, images, audios and videos) have become ubiquitously available anytime. We argue that evaluating the user experience of are commander requires a broader set of measures than have been commonly used, and suggest additional measures that have proven effective. Based on our analysis of the state of the field, we identify the most important open research problems, and outline key challenges slowing the advance of the state of the art, and in some cases limiting the relevance of research to real-world applications. In this survey paper, we examine the importance of mobile multimedia recommendation systems from the perspective of three smart communities, namely, mobile social learning, mobile event guide and context-aware services. Collaborative filtering (CF) is the process of filtering or evaluating items through the opinions of other people. CF technology brings together the opinions of large interconnected communities on the web, supporting filtering of substantial quantities of data. In this chapter we introduce the core concepts of collaborative filtering, its primary uses for users of the adaptive web, the theory and practice of CF algorithms, and design decisions regarding rating systems and acquisition of ratings. A cautious analysis of existing research reveals that the implementation of proactive, sensor-based and hybrid recommender systems can improve mobile multimedia recommendations.

Index Terms— Collaborative Filtering, Recommender systems Collecting, trading, Consumer behaviour

1. INTRODUCTION:

Their expectations are high and the need for a high quality service problem handling is more than ever. At the same time, digital video is the most demanding and complex data structure, due to its large amounts of spatiotemporal interrelations. Internet is worldwide and reaches almost all over the globe. Most of the internet traffic is video multimedia sharing is common in online services and data's are retrieved and watched. Social network such as, Face book, twitter , you tube and other social sites flooded by videos. User find hard time in finding their required media. Clearly, mobile social networks of tomorrow require stronger privacy properties than the open-to-all policies available today.

Consuming information on the Internet becomes harder and harder as the number of information sources explodes. Several services, commercial or science based, try to support users right information. Recommender systems became an important research area since the appearance of the first papers on collaborative filtering since the mid-1990s [45, 86, 97]. There has been much work done both in the industry and academia on developing new approaches to recommender systems over the last decade.

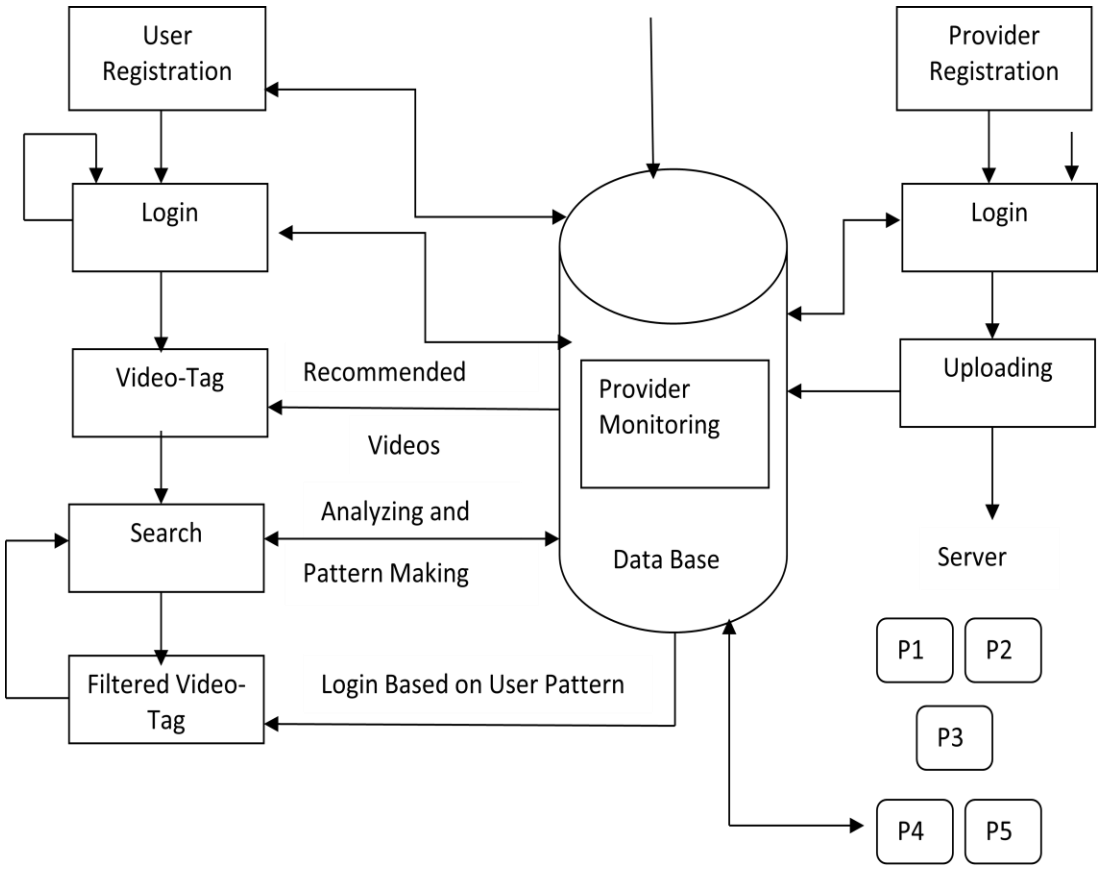
The interest in this area still remains high because it constitutes a problem rich research area and because of the abundance of practical applications that help users to deal with information overload and provide personalized recommendations, content and services to them. As recommender use expanded rapidly among online retailers and online content providers, applications of recommenders grew more diverse but the underlying algorithms converged to a few particularly useful ones. The classic recommender algorithm describe above, known as user-user collaborative filtering because the correlation is measured between pairs of users, was widely recognized as providing high-quality predictions and recommendationsSome site provide recommendation based on classification, tags or watching history.

This process is huge, high overhead and lead to complex computation Generally cluster approaches can help in to reduce overhead. To obtain a accurate search in online video sharing systems, via you tube.

To provide features that allow users to post a video as a response to search. To increase the likelihood of the search being made To find ease the content required instead rely on search

history Thus Online Video Recommendation is proposed using clustering concept. Many personalization systems that deal with unrestricted text use a technique to create a structured representation that originated with text search systems. In this formalism, rather than using words, the root forms of words are typically created through a process called stemming. The goal of stemming is to create a term that reflects the common meaning behind words such as "compute," "computation," "computer" "computes" and "computers." The value of a variable associated with a term is a real number that represents the importance or relevance.

2. **ARCHITECTURE:**



3. RELATED WORK:

Extensive research have been conducted in the field of recommendation,

(a)Title : Cloud based Mobile Multimedia recommendation System with User behaviour Information.

Authors : Yijun Mo, Jianwen Chen, Changqing Luo.

Published on : March,2014.

In this paper they suggest a cloud - based mobile multimedia recommendation system which an reduce overhead and delay.

(b) Title :I Tube, You Tube, Everybody Tubes: Analyzing the World's Largest User Generated Content Video System

Authors : Meeyoung cha, Haewoon Kwak

Published on : 2009

They propose very interesting properties regarding the distribution of requests across videos, the evolution of viewer's focus, and the shifts in popularity. This reveals key results regarding the level of piracy and the level of content duplication in such systems.

(c) Title : Feature weighting in content based recommendation syste using social network

Authors : Niloy ganguly,Paitra Mitra

Published on : 2008,(April)

Attributes used in recommendation, assigns weights depend on their importance. With social network graph analysis to attain human judgement.

(d) Title : Video suggestion and discovery for youtube Taking Random Walks Through the View Graph

Authors : Shumeet baluja,Rohan Seth

Published on : 2008

The given discovery in the size of the video repository and growth of videos makes the discovery a daunting task. They suggest to analysis user-video graph, to provide personalized video suggestion.

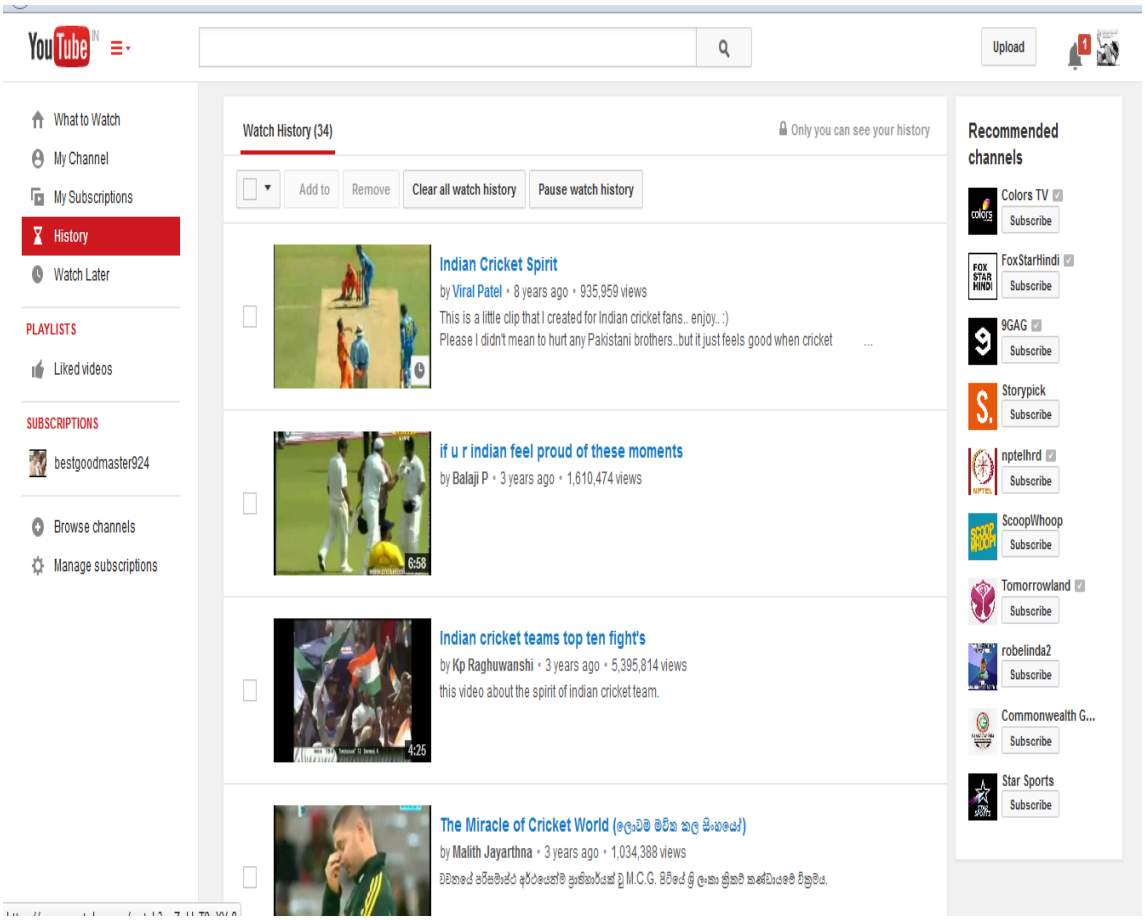
In this framework, our work targets the provision of enhanced content and statistics to provide a friendly, easily assimilated interface, as well as dynamic, personalized interactive content and advertisements to enable the user to interact with the content, thus enhancing the user experience by providing further information on the specific movie, Moreover, motion pictures (movies) continue to attract interest and are among the most popular media attractions in the world today.

Consequently, multimedia applications developed for them have a huge potential market impact. Among these applications are the provision of enhanced content, statistics, dynamic interactive content and optionally advertisements. Business applications also brought a new vocabulary and new metrics for evaluation.

4. OBJECTIVES:

To obtain a accurate preparation of user data in online file sharing systems. Give unified solution of cloud services to satisfied of hole services life cycle. User friendly recommendation on the composition solution. To provide features that allows users to post a file as a response to search. To increase the likelihood of the search being made

To find ease the content required instead rely on search history, Thus Online Video Recommendation is proposed using clustering concept.

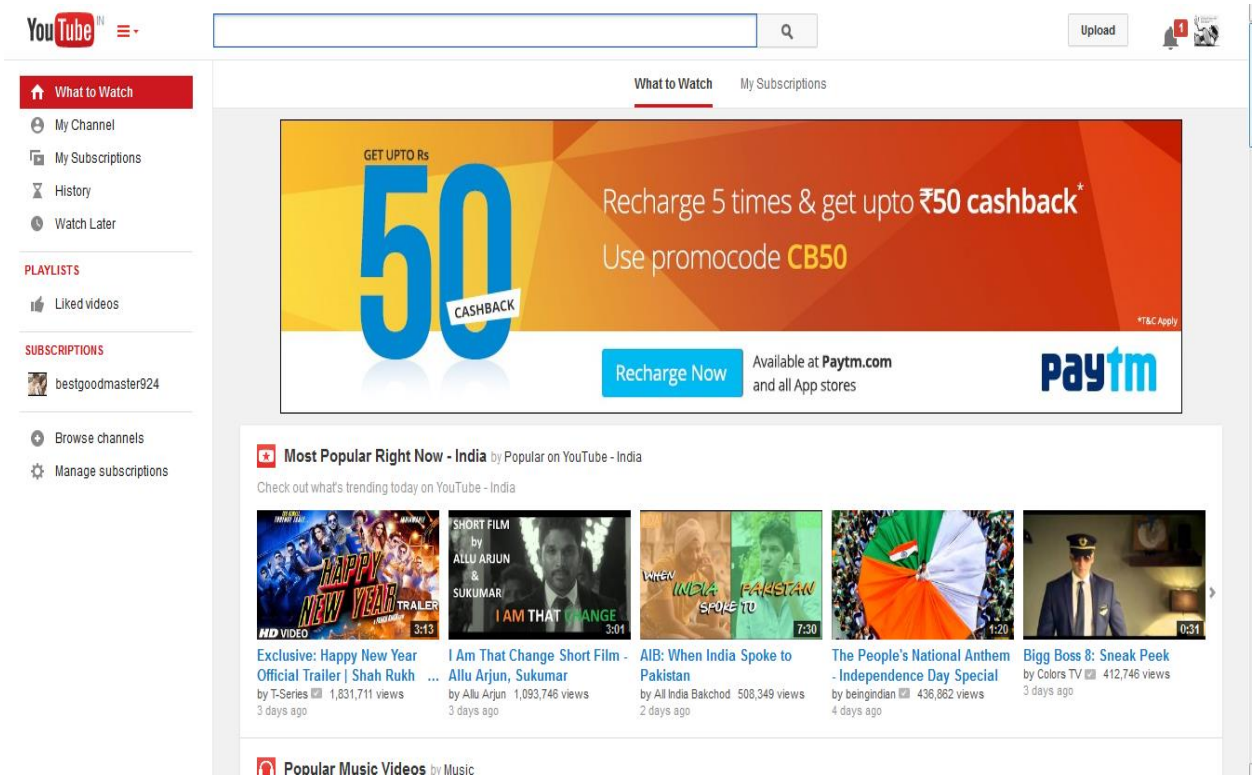


5. EXISTING SYSTEM :

There are several existing approaches that are capable of dealing with incompatible services. However, many of them only focused on compatibility of Input and Output (I/O) of services and did not considering compatibilities that are caused by regulations and other Factors that are not related to service functionalities. The cloud services website shares millions of files The files content may be duplicate, similar, related, or quite different. The recommendation are not accurate and consistent Even though search engine helps in retrieval users have hard time in finding the files

When users click on an item from a list of music video, the system will play the music video and display lyrics (sentence by sentence, each sentence has a unique timestamp for the reference of music playing program). The music playing process will be paused when a collocation word-pair

appears in a lyric sentence; the user will need to choose one the answers and then the system will give feedback to the user before the music resumes.



6. DISADVANTAGES:

- Lack of scalability.
- Difficult to find the required media.
- User behavior, content collection is tedious.
- Data scarcity is high.
- Video content pollution and similarities.

7. PROPOSED SYSTEM:

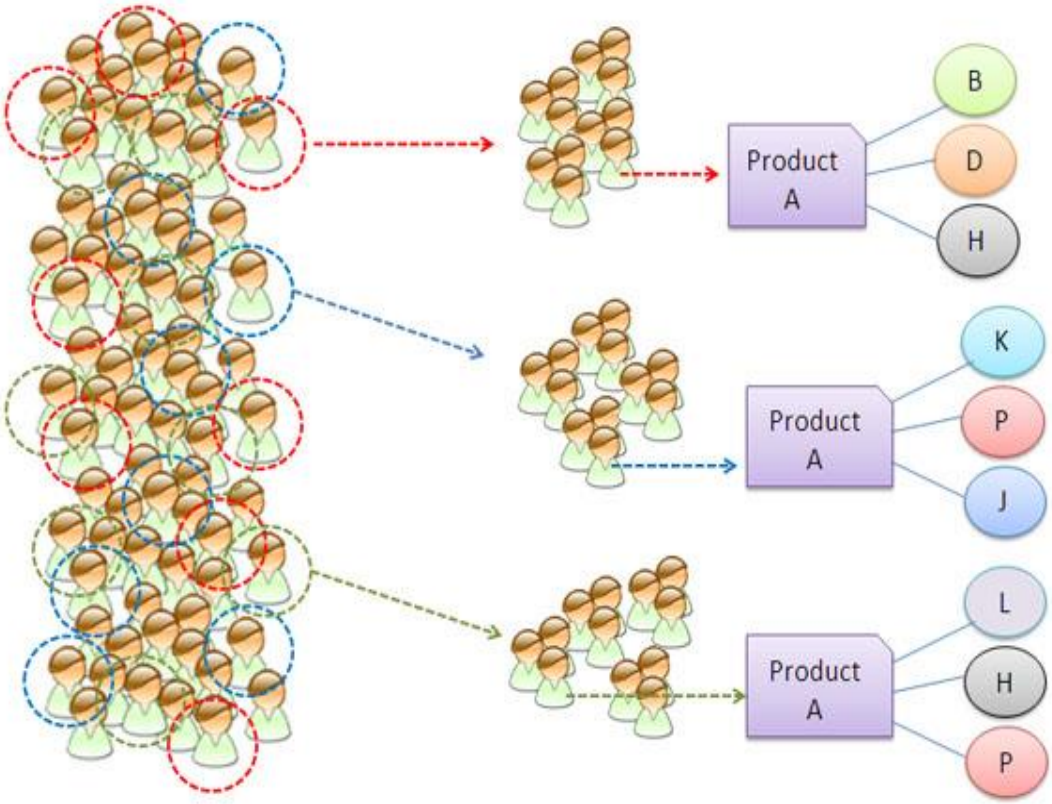
In the proposed system, Proposed a tag-cloud recommendation approaches. A computing platform distributed in large-scale data center. User clusters are collected instead of detailed user profiles. User-behavior-based clustering is performed first, and the collectors calculate user clusters. The classification process succeeds in separating promoters video.

Computing and storage resources. In order to curb multimedia information overload and to allow users to have access to relevant multimedia contents in their mobile devices, today's main focus and challenges of researchers is on how to develop multimedia recommender systems for mobile devices. Furthermore, users of mobile devices in smart communities have different interest, preferences, tastes and demography and would usually like to store multimedia contents that are only relevant to them. Here we are going to considering four modules in this proposed system, they are given below:

1 : User behavior collecting.
2 : Private storage Formation.
3 : Cloud Media Storage.
4 : User Recommender system.

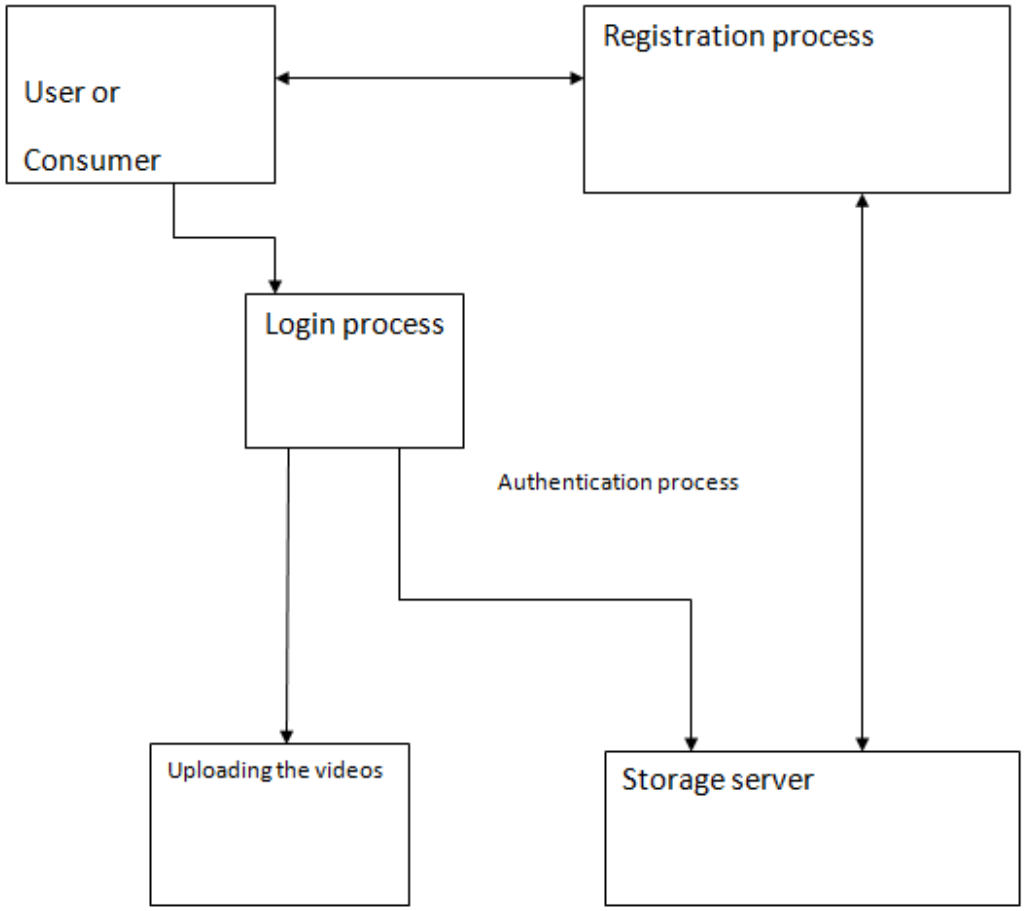
7.1 USER BEHAVIOUR COLLECTING:

It is the collection user history and user behavior There are three kind of user behavior: access preference, social activities and reading history User generally watch video with specific type keyword. Clusters are formed with certain rules. These keywords are searched and cluster based information is merged. In either case, these metrics were applied to a part of the rated data (withheld from the recommender) to assess accuracy. We discuss some of the weaknesses of this quality metric below, but should point out one significant one here—the mismatch between user need and the metric. Error and correlation scores do a good job testing recommenders as an approach to recovering missing data, but do much less well at assessing whether they can recommend valuable items previously to the unknown user.



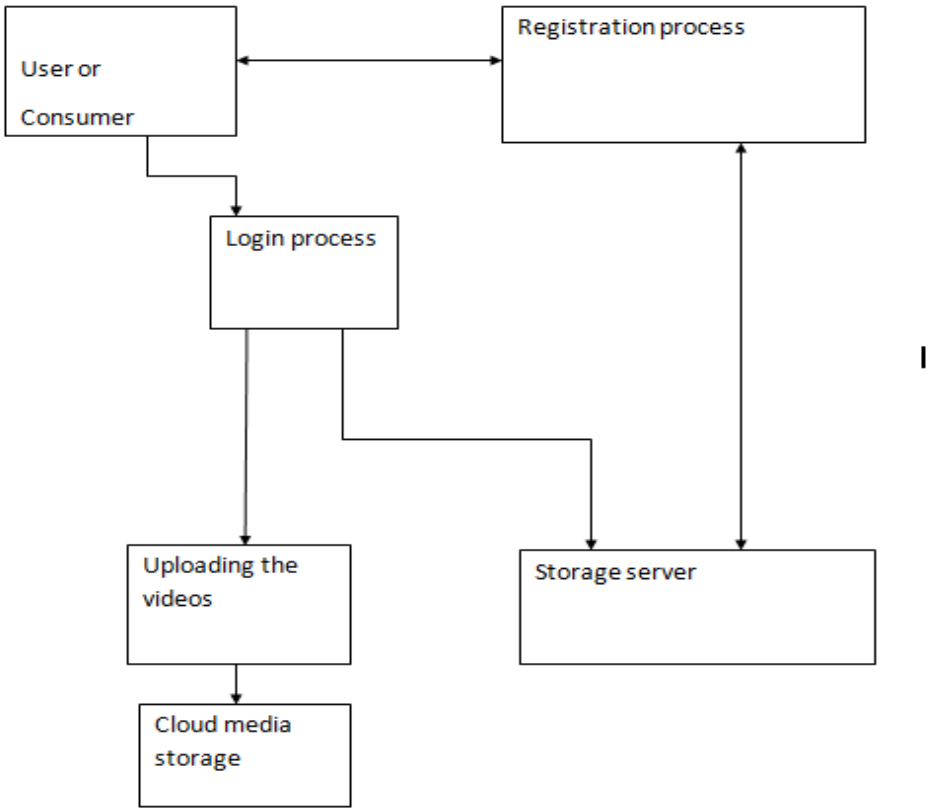
7.2 PRIVATE STORAGE FORMATION:

A Private Storage Space for every Providers in for media storage Server. Separate space for each provider at creating a provider account . The memory of the storage space is not a fixed, it can large-scale storage. The PSF supports management, scheduling, security, privacy control of the consumer profile, and the required resources. Instead of detailed user profiles user clusters are collected to overcome network overhead, user based clustering is performed at first and then the collectors collect and calculate user cluster according to the user cluster to the recommender only.



7.3 CLOUD MEDIA STORAGE:

The Media storage server is a web computing based storage for media contents. Content Vendors (CV) such as licensed broadcasting companies store their own media contents on the media storage server. These are broadcast over hundreds of broadcasting channels. MSC updates the user profiles at the Private Computing.



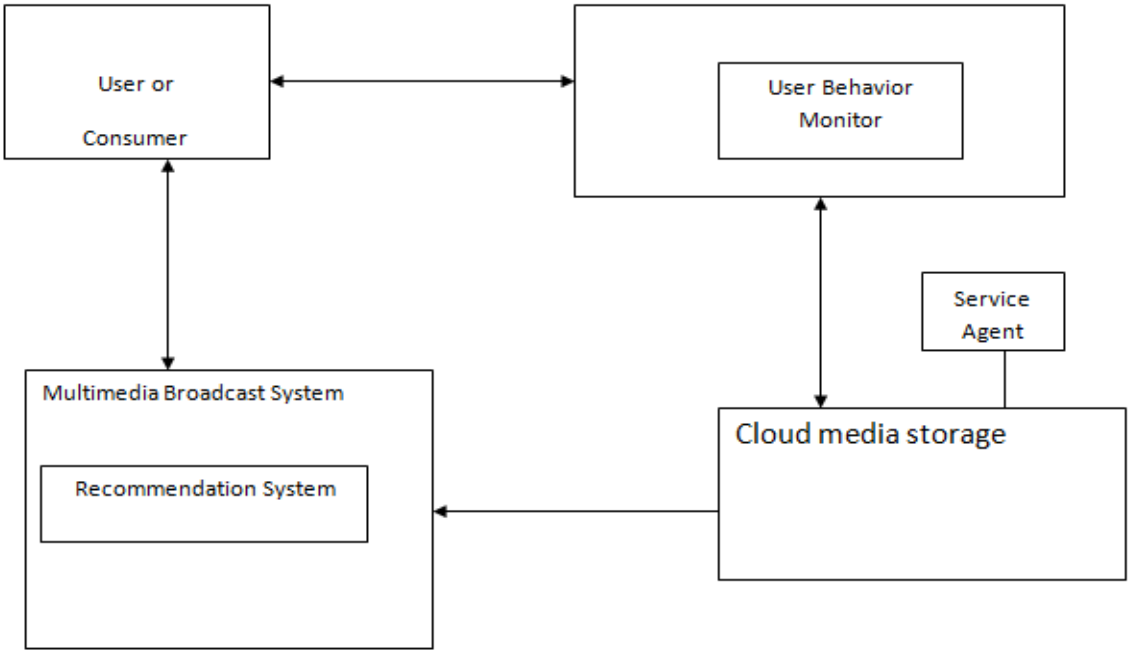
Cloud Storage has also been increasing in popularity recently due to many of the same reasons as Cloud Computing. Cloud Storage delivers virtualized storage on demand, over a network based on a request for a given quality of service (QoS). There is no need to purchase storage or in some cases even provision it before storing data. You only pay for the amount of storage your data is actually consuming.

When we came to recommending training components we have collect contexts user relationships and user profiles and then cluster and filter the behavior data on distributed platform to obtain recommendation rules and also will return the recommendation lists in accordance with respects to optimization rules

7.4: USER RECOMENDER SYSTEM:

A content-based recommendations system recommends the most likely matched item. User content is collected and clustering is applied to provide required search. Recommender

systems became an important research area since the appearance of the first papers on collaborative filtering since the mid-1990s [45, 86, 97]. There has been much work done both in the industry and academia on developing new approaches to recommender systems.To measures for computing the user similarity, namely tag cloud-based cosine and tag cloud similarity rank. The Recommended videos post to the client profile as video tag system.



Initial formulations for recommender systems were based on straightforward correlation statistics and predictive modeling, not engaging the wider range of practices in statistics and machine learning literature. The collaborative filtering problem was mapped to classification, which allowed dimensionality reduction techniques to be brought into play to improve the quality of the solutions.

8. ADVANTAGES :

(a).This involves in reduce this large context, and overhead.

(b). Private Storage space for each and every Provider.

(c).With high precision, high recall, and low response delay.

(d).Provide better scalability.

(e).Reusability and extensibility of this framework component.

(f). Provide better recommendation.

9. APPLICATIONS :

(a).A search system ranked lists of top videos.

(b).Is used in social websites.

(c). Screening can be used in media.

(d).Online trading and webhosting.

(e). Education ,business process, e-commerce and training.

(f).Microsoft incubation project focused on building a machine-learning-powered.

10.FUTURE ENHANCEMENT:

In future, The work can be extended further :

(a). To include spamming removal.

(b). To include distributed cache recommendation to improve hit rate.

(c). To reduce concurrent rule reordering and execution.

(d). Plan to reduce Data scarcity further.

(e). To avoid content collection further

For Future work still much more innovative Mobile Multimedia recommendation Paradigms such as Proactive, Sensor based, Accurate recommended systems can be built in Distributed architecture to reduce hit rate even More.

11.**CONCLUSION:**

In this paper we describes Proposed a tag-cloud recommendation approaches, and we must collect the User clusters instead of user profiles and then separating promoters videos, and then computing and storing in particular locations, This type of process will help the user for better multimedia recommendations.

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