



# International Journal of Innovative Research in Computer and Communication Engineering

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## The Phenomenal Strategy for Recommending Digital TV Channels Using Cloud

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**ABSTRACT:** Previously users were using Remote Control to switch between TV channels. At that time there were channels less than 100. Nowadays lot of channels and programs are available for customers. Due to these paradigm changes it has become difficult and time consuming to find an interesting channel and program via the remote control. To refine the channel selecting processes and to satisfy the consumer's requirements, we propose a recommender system that will help track users' references and aid users in choosing channels. We develop a system which observes users' viewing behaviors in the background, updates users' profiles continuously and autonomously, and then filters and recommends programs for different users according to their respective preference information. To refine the channel selecting processes and to satisfy the consumer's requirements, we propose "The phenomenal strategy for recommend in digital tv channels using cloud".

**KEYWORDS:** DTV(Digital TV channels)

### I. INTRODUCTION

A wide deployment of Internet Protocol Television (IPTV), Cable Television (CATV), Internet, User Created Contents (UCC), and Digital Television (DTV) enabled the rapid increase of channels and programs which can be selected by consumers. This was not expected when we consider the conventional television program technologies and policies. Due to these paradigm changes, hundreds of channels and programs are now available to consumers. It has become difficult and time consuming to find an interesting channel and program via the remote control or channel guide map. To refine the channel selecting processes and to satisfy the consumer's requirements, we propose the Personalized DTV Program Recommendation (PDPR) system under a cloud computing environment. The proposed PDPR system analyzes and uses the viewing pattern of consumers to personalize the program recommendations, and to efficiently use computing resources.

A phenomenal stratagem for digital TV channels proposition using cloud. In this system uses consumer oriented customization factors, when the consumer accesses the digital broadcasting contents of the media storage cloud, such as weblog history information at the consumer's device, to create the personalized user profile at the private computing cloud. The consumer's previous viewing history profile is also used. To make an appropriate and optimal channel recommendation for upcoming contents, statistical information from other overall consumer's viewing patterns for media contents are applied with a weighting factor.

### II. LITERATURE SURVEY

**Kaushal Kurapati, Jacquelyn Martino, John Zimmerman:** A Multi-Agent TV Recommender, , personal Television is here via the advent of devices called personal video recorders (PVRs). These recorders change the user task from (a) selecting a specific channel to watch from the 100+ available channels to (b) finding something "good" to record from the 10,000+ shows broadcast each week. Recommender systems, such as the one described in this paper, will help track users' preferences and aid users in choosing shows to record. In this paper we advance a multi-agent TV recommender system that encapsulates three user information streams--implicit view history, explicit preferences, and feedback information on specific shows--into adaptive agents and generates program recommendations for a TV viewer. We have tested the system in various agent combinations with real users drawn from a wide variety of living conditions.

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**RobinBurke:** Hybrid Recommender Systems Survey and Experiments Recommender systems represent user preferences for the purpose of suggesting items to purchase or examine. They have become fundamental applications in electronic commerce and information access, providing suggestions that effectively prune large information spaces so that users are directed toward those items that best meet their needs and preferences. A variety of techniques have been proposed for performing recommendation, including content-based, collaborative, knowledge-based and other techniques. To improve performance, these methods have sometimes been combined in hybrid recommenders. This paper surveys the landscape of actual and possible hybrid recommenders, and introduces a novel hybrid, EntreeC, Further, we show that semantic ratings obtained from the knowledge-based part of the system enhance the effectiveness of collaborative filtering.

### III. PROPOSED SYSTEM

The proposed method collects and analyzes the viewing patterns, such as: the target users' basic interests and their viewing patterns, a user's private profile or preference information through the analysis of a user's computing environment etc. A content-based recommendations system recommends the most likely matched item, then compares the recommendation list to a user's previous input data or compared to preference items. A content-based recommendations system is based on information searching and generally uses a rating method which is used in the information searching. The rating method calculates a user's preference information and items in a recommendation list. This method has the advantage with easily adopt in recommendation result and enable more quickly recommendation.

### IV. SYSTEM ARCHITECTURE

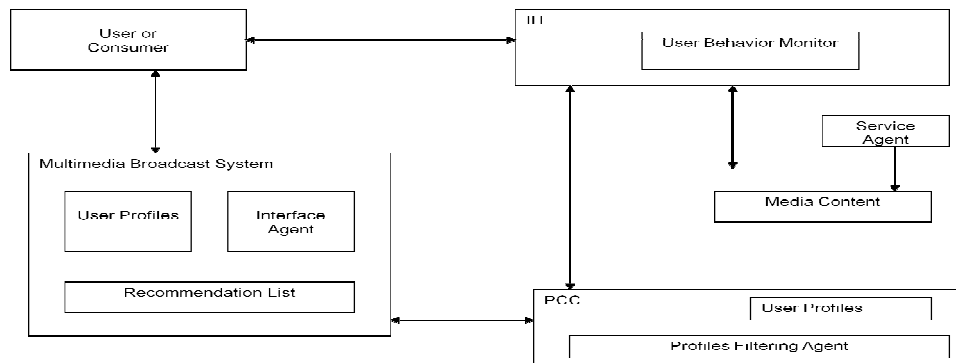


Fig1.1 Architecture of DTV

The analyst creates the user case diagram. The designer creates the class diagram. But the designer can do this only after the analyst creates the use case diagram. Once the design is over, it is essential to decide which software is suitable for the application.

### PRIVATE CLOUD FORMATION

The most important task is to develop a cloud environment where the users must login to view channels. The main objective of the cloud is to provide a platform for broadcasting companies to provide channels and users to view one among the several channels. User Login and Media Storage tasks are implemented as applications. All the channels will be available online and users have to just pick a channel to view it.



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## USER LOGIN AND MEDIA STORAGE

Initially users have to register themselves in the cloud with a unique username and password. Once they create a profile a weblog history is created for each user. The log consists of all the personal information about the user. On the other hand, Channel providers have to store their media contents in the cloud which can be viewed by the users once they login.

## RECOMMENDER SYSTEM

As we have told previously once the user registers in the cloud, automatically user weblog history is created for the user. The cloud will continuously monitor users' behavior pattern and manages pattern information. Each and every time when the user enters, the cloud will recommend corresponding channels based on the viewing pattern of the user that was recorded previously.

## V. RESULTS

The cloud could be a Virtual OS or simply a Web Operating System. We use one such Web Operating System called **eyeOS** which is an open source web desktop following the cloud computing concept. It is mainly written in PHP, XML, and JavaScript. We developed a application called DTV in this Cloud.

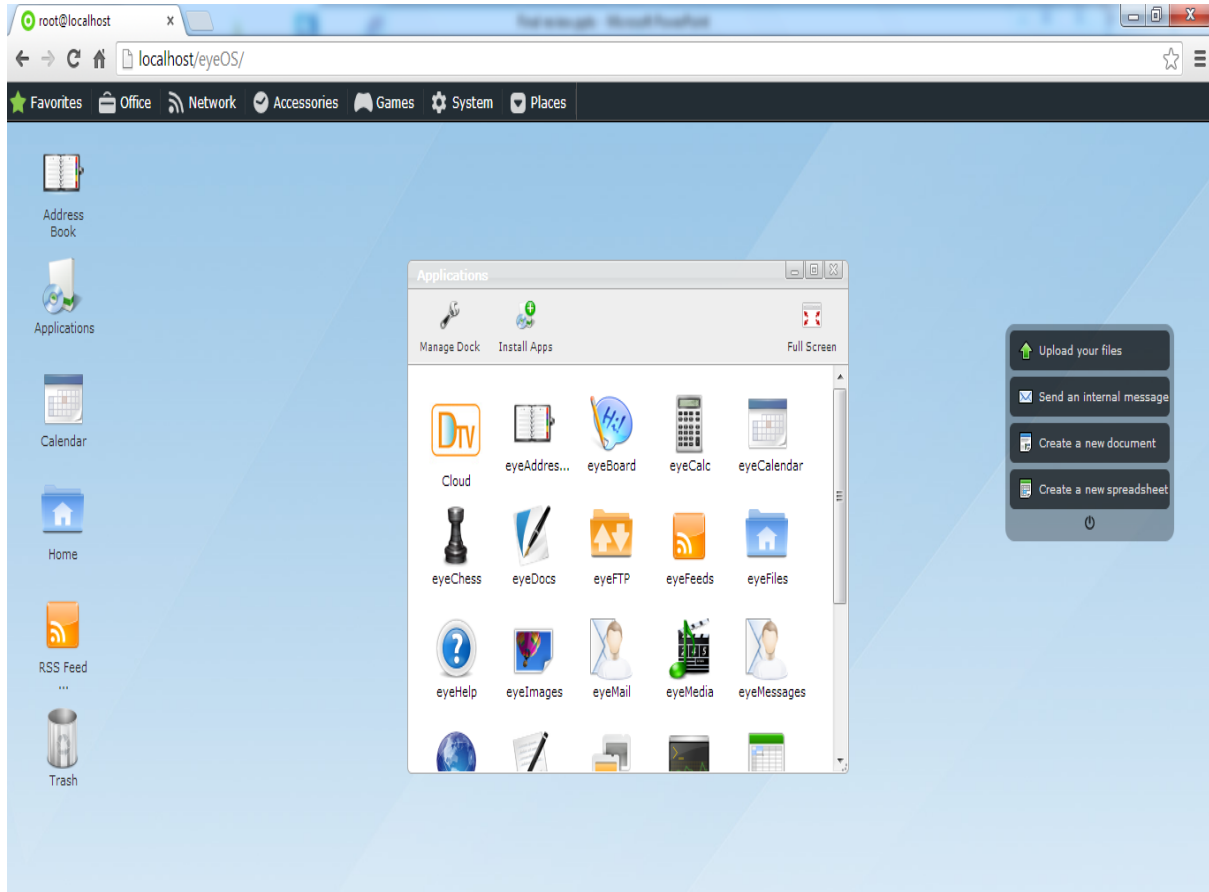


Fig.2.1: Cloud formation



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This is the user login page where the existing user can login with their username and password with token that is generated to them. If the username and password doesn't match the user will not be authorized

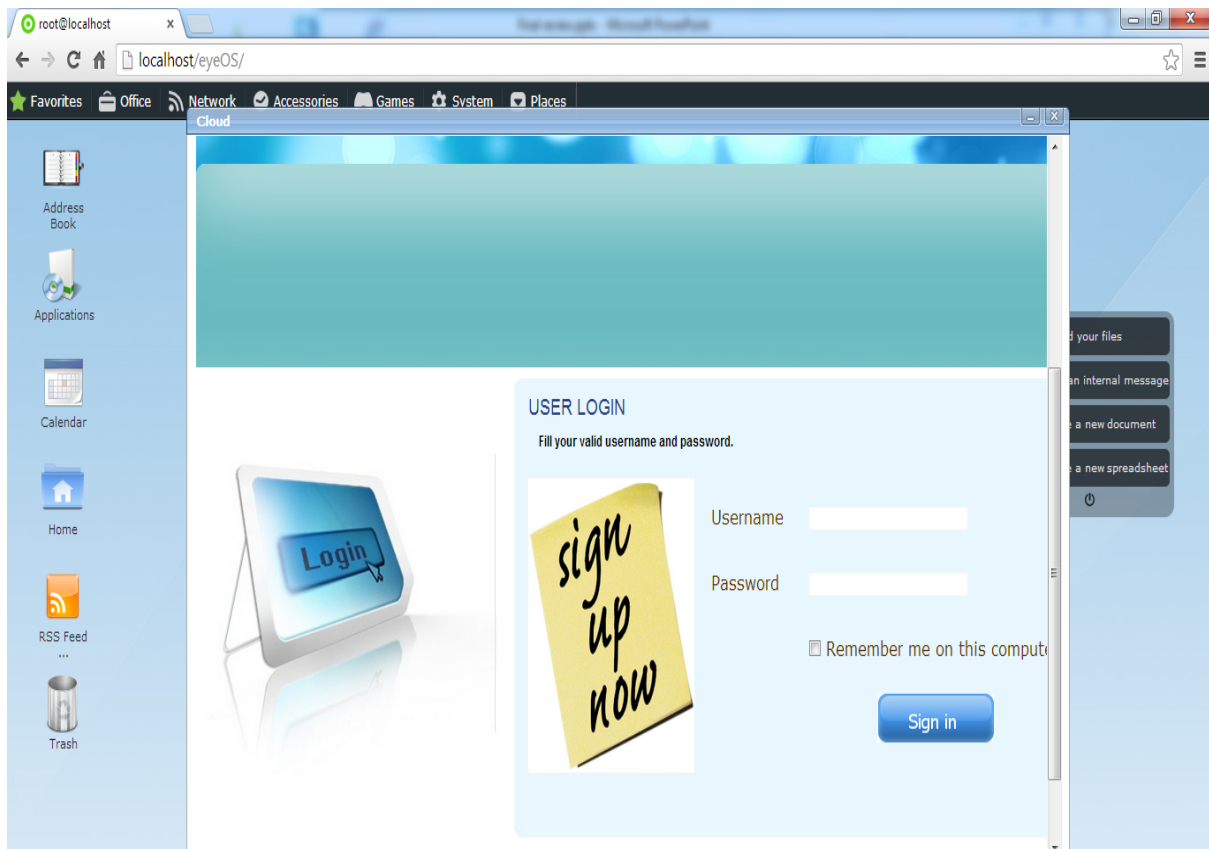


Fig.2.2: User Login



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Fig.2.3:HomePage

This is the homepage when the user logs in for the first time. In this page there will be a number of channels to watch and the username will be displayed at the topright section. From this there can view the channels.

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**Fig.2.4: Viewing of Channels**

In this the channel will be telecasted once they choose the channel to view. From their viewing patterns it recommends the channels to the user. For example first they watched SunTV for the first time. For the next time they login it shows SunTV in the first order by recommending channels.



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Fig.2.5: Recommending channels

In this it shows the SunTV in the first preference as they have mostly watched SunTV. Thus in this order of Viewing Patterns the channels will be recommended to the users.

## VI. CONCLUSION

Our system recommends channels based on their viewing pattern and interests.

The users just need to select the channel that they want to watch. In future research efforts, we will focus on those characteristics of upcoming intelligent devices such as iPhone, iPad etc.

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