BuzyBeeNewz: Android Application for News Recommendation

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ABSTRACT

Now a days people generally use Android system like in smartphones, tablets etc. in their daily routine. In smartphones people use various applications like whatsapp, facebook, instagram, etc. But today online news reading has become very popular as the web provides access to news articles from millions of sources around the world. A main challenge of news websites is to help users to provide the articles that are interested to read. There has been a lots of demand for development of web search applications for gaining information related to user's choice. This paper presents the state of ideas, interests and other issues in this context, to provide the need for an improved personalized system. Recommender Systems used for the 'information overload' problem by identifying the users interest by creating user profiles, maintaining those profiles to keep assisting the changes in user interests and presenting a set of recent news articles formed as recommendations based on those user profiles.

Keyword: - *News Recommendation, Android, User Profile, User Interest, Offline News.*

1. INTRODUCTION

Android operating system is used to develop lots of the applications. It is one of the versatile operating system. It is one most popular open source platform that offers the developer full access to the framework API's so as to develop an innovative application. Due to more use of internet services, numbers of applications are being developed. News access has evolved with the advancements in the technology and the way technology is used to read news online [1]. It has evolved from the traditional model of news consumption via newspaper subscription to access to thousands of sources, websites, via the internet. News aggregation websites, like Google News and Yahoo! News, collect news from various sources and provide an aggregate view of news from around the world [2]. A critical problem with news service websites is that the volumes of articles can be overwhelming to the users. News reading has changed with the advance of the World Wide Web, from the traditional model of news consumption via physical newspaper subscription to access to thousands of sources via the internet.

Information filtering and Recommender Systems based on it have emerged in response to the above challenge, providing users with recommendations of content suited to their needs. Information filtering has been applied in various domains, such as email, news, and web search, Based on a profile of user interests and preferences, systems recommend items that may be of interest or value to the user [3]. But, this advancement has brought forward a serious issue with online news sources presenting a huge number of news articles to the users. The challenge is to help users find news articles that are interesting to read. The nature of news reading and its access patterns makes news information filtering distinctive from information filtering in other domains. When visiting a news website, the user is looking for new information, information that he did not know before, that may even surprise him. Since user profiles are inferred from past user activity, it is important to know how users' news interests change over time and how effective it would be to use the past user activities to predict their future behavior [4].

As already stated, Recommender Systems have emerged as a solution to the above challenges. Recommender Systems form a specific type of information filtering technique that attempts to present information items (movies, music, books, news, images, web pages) that are likely of interest to the user. Recommender Systems use a number of different techniques. We can classify these systems into three broad groups: content based systems, collaborative filtering systems and hybrid systems [5]. We just need to have internet connectivity on a smart device like mobile phones, tablets etc.

2. LITERATURE SURVEY

Online news reading has become popular as the web provides access to news articles from millions of sources. The main challenge of news source is to help the user to find the interesting articles to read. To solve the problem many news recommendation applications have and are being made [6].

Google news is one of the popular application to help users find interesting articles i.e. personalized news [7]. Google news is computer-generated news website that aggregates headlines from news sources worldwide. It classifies news articles into different categories (e.g. business, sports, entertainment, world, etc.) and displays them in corresponding sections, as news websites do. If the user is logged in to Google Account then the system will record the click history, search logs and generates a personalized section which contains the news stories recommended based on his history which is to be displayed in his profile section as news websites do [8].

Dailyhunt is another popular application which offer more relevant news experience according to users' interest. Dailyhunt recommend only the professional news for individual using the user interest. It also links Twitter and Facebook to make more personalized news experience. NewsDog is also another app which is similar to Dailyhunt.

This project builds on the wealth of prior research on recommendation and sentiment analysis techniques. This system uses newspapers like, Times of Maharashtra, Indian Express and keep record of individual activity for the sentiment analysis and keyword extraction which is used for recommendation of the news [9].

Most traditional recommender system are either based on content mining approaches or Collaborative Filtering approach. This model is clearly different than traditional methods that is developed for a user model based on features of simplification and diversity examined by research on social media. Keyword matching technique for news recommendation has been implanted, keywords were extracted from the application account of the users and it is then matched with the news keyword [10]. The news which matches with the users is then displayed into the news section of the user's dashboard.

3. PROPOSED SYSTEM

In our proposed system, we developed model for Advance Personalized News Recommendation System has been developed in the Android platform Operating System. This application helps the user to view the news as per his/her interests or helps user to find only that news which user want to see. In this application, if there is a new user then the user have to create new account profile for the application or user have to insert his basic information such as Name address, Mobile number, email id, etc. After creation of account they got user ID. Then the user have to login to use this application and they also have to enter password. The password will be given by the user. In order to obtain all those information from the user profile of Application, API must be used to interconnect system to user profile.

For the user there is a news categories option available in the application, user have to give his/her interest from this option such as politics, Entertainment, Business, Govt. Jobs, Sports, etc. for that checkboxes are provided to the user. After selecting the checkboxes the news are seen as per the interest given by the user, after the rank wise news are displayed to the user.

In this we are providing one new option i.e. Offline News option which are saved by the user when the user have internet connection. In case if user like any of the news and the user wants that news after some days then user can save that news as offline news. After saving that news the user is able to see that news when he/she wants at any time and for that it is not necessary to the user to have internet connectivity at that time.

4. ALGORITHM

Algorithm for Registration process:

1. Start.
2. Open the App.
3. If already registered then sign in else goto next step.
4. Enter the Registration Details like Name, Address, Email, Mobile Number and Password.
5. If all details are filled and Email-id is valid then user gets UserID via Email else goto previous step.
6. Registration successful.
7. Stop.

Algorithm for Working of Services:

1. Start.
2. Home screen Popup.
3. Select the required categories news else select from the last 10 histories.
4. Click on to the OK button.
5. Display the news.
6. User wants to Like, Share and Save the news.
7. Logout if required.
8. Stop.

5. SNAPSHOTS

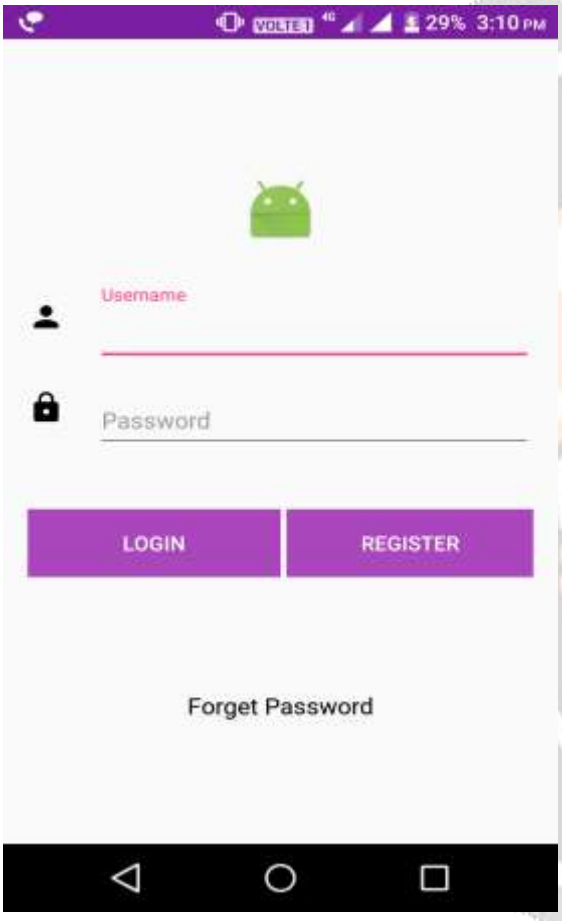

Fig-1: Login Screen

Fig-2: Registration Screen

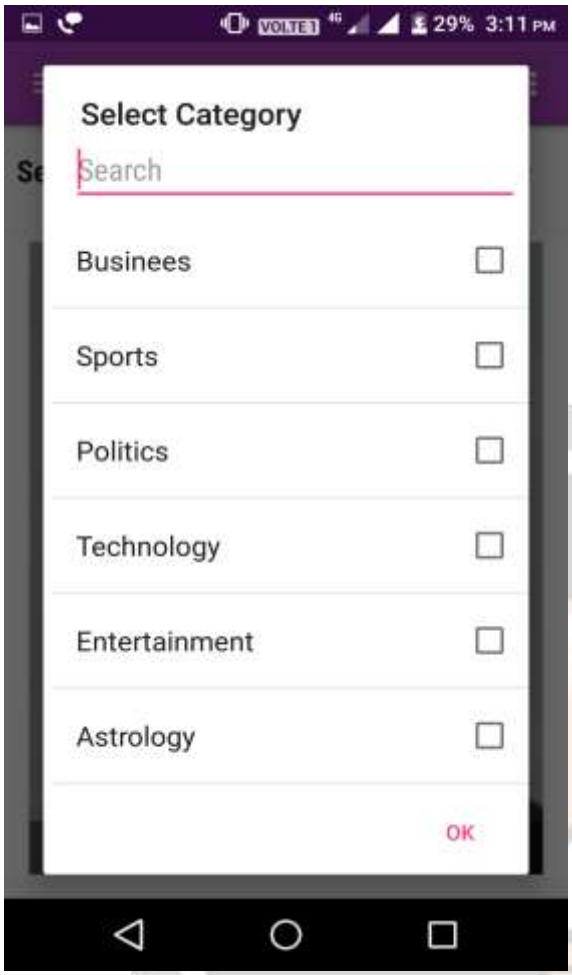

Fig-3: Categories Selection Screen

Fig-4: News Section with Health Tip

6. CONCLUSION

This system is a completely integrated system which includes three modules. This is a compact system that can be used by the any person in any situation. This developed system is user friendly and easy to handle. This system is simple & gives fast response to the user. On a selection of interest categories user gets the recommended news. In this system user can shares the news through WhatsApp, Hike, etc. because it uses both online services. This system is based on Internet service which gets the exact only that news required by the user and provides recommended news to the user. So, this system is having mainly time consuming function which is important in today's world.

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6. REFERENCES

[1] Prof. Priyanka S. Aher, Kalpesh M. Waghulde, Priyanka P. Yendait, Ashwini R. Saindane, Deepali A. Khandagale, Personalized News Recommendation System," Vol-2 Issue-1 2016 IJARIIE-ISSN(O)-2395-4396.

[2] Mansi Sood, Harmeet Kaur, "Preference Based Personalized News Recommender System," International Journal of Advanced Computer Research, Volume-4 Number-2 Issue-15 June-2014.

[3] Michael A. Beam1, "Automating the News: How Personalized News Recommender System Design Choices Impact News Reception," Communication Research 2014, Vol. 41(8) 1019–1041, 2013.

[4] Prerana Khurana, Shabnam Parveen, "Approaches of Recommender System: A Survey," International Journal of Computer Trends and Technology (IJCTT) – Volume 34 Number 3 - April 2016

[5] Janet Rajeswari, Shanmugasundaram Hariharan, "Personalized Search Recommender System State of Art, Experimental Results and Investigations", I.J. Education and Management Engineering, 2016, 3, 1-8 Published Online May 2016 in MECS.

[6] Kaustubh Kulkarni, Keshav Wagh, Swapnil Badgujar, Jijnasa Patil, "A Study Of Recommender Systems With Hybrid Collaborative Filtering," International Research Journal of Engineering and Technology (IRJET),Volume: 03 Issue: 04 | Apr-2015

[7] Pan Hua-li and Zhang Zhi-Jun, "Research on the Application Ontology-Based Personalized Tourist Recommendation System," Journal of Chemical and Pharmaceutical Research, 2016, 8(4):547-553.

[8] Saranya.K.G, G.Sudha Sadhasivam, "A Personalized Online News Recommendation System," International Journal of Computer Applications (0975 – 8887) Volume 57– No.18, November 2012.

[9] Fikadu Gemechu, Zhang Yu, Liu Ting, "A Framework for Personalized Information Retrieval Model," Proc. of IEEE transaction, 2010.

[10] C. Zeng, C. Xing, and L. Zhou, "A Personalized Search Algorithm by Using Content-Based Filtering," Journal of Software, 2013,14 (5), pp. 999-1004.

[11] Harpreet Kaur Virk, Er.Maninder Singh, "Analysis and Design of Hybrid Online Movie Recommender System," International Journal of Innovations in Engineering and Technology (IJIET), Volume 5, Issue 2, April 2015.