



Survey on Recommendation System Techniques

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ABSTRACT: Recommender systems are integral part of any ecommerce store in order to sustain and compete with other growing businesses. There are various recommendation techniques which are used to appropriately recommend a product to the active user. This paper provides different ways/ techniques to evaluate the data from an online retailer for the efficiency, scalability, and accuracy thereby providing appropriate recommended product by a recommender system. In this paper we define and describe techniques like content-based recommendation system, collaborative recommendation system, context aware recommendation system, knowledge based recommendation, hybrid systems and so on. This paper also describes various challenges faced by each of the recommendation systems which can be overcome by using the hybrid systems.

KEYWORDS: Recommender system; Content based recommendation; Collaborative filtering; Hybrid approach

I. INTRODUCTION

Recommender systems are a broad area of research due to large number of applications which provide various kinds of recommendations. The recommendations provided can be of two types namely, personalized recommendations and non-personalized recommendations. Examples of personalized recommendations are the 'People you may know' section based on mutual friends in Facebook or the 'Recommended videos' section based on the previous browsing history in Youtube. Examples of non-personalized recommendations are the hotel recommendations, movie recommendations which are based on other similar users' interest.

Recommendation systems uses the features of information retrieval and using data mining techniques they carry out the recommendation in three steps: data pre-processing, data analysis and result interpretation.[1] Recommendation systems are part of information filtering system which recommends information items, social objects based on the user's interest. These systems have changed the way the user look for information and product. [2] It is a matter of personalized, interesting and usefulness that isolates the recommendation systems from information filtering system or search engines. [3]

Recommendation systems are referred as system which recommends the products to particular user by considering the user's interest and recommending items on prediction based on items, users and item user interaction. The main objective of such systems is to lower the information overload issue by providing user needed information from large data. [4]

From the definition of recommendation system it says something called user profile i.e. the basic unit of each and every recommendation system which takes user preferences and by evaluating it helps in predicting the products to the user. [5] One common problem with recommendation systems is to combine different recommendation systems in order to obtain high performance. Each and every recommendation systems have advantages and disadvantages in which disadvantages can be reduced by combining features of different systems [3]

This paper presents an overview of some of the recommendation system techniques which can be used in various applications for the purpose of appropriate recommendations. The paper focuses on how these recommendation techniques can be used for product recommendation from an online retailer.