

Web Personalization and Recommender Systems: An Overview

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ABSTRACT

Information overload is the major problem of today's Internet use. User frequently gets much more information than needed. Also much of the information which the user gets is less relevant and very few links, items, or contents are really useful. To get rid of this problem, Web Personalization or Recommender System is widely used now. It aims at fulfilling the user needs more appropriately. By analyzing and mining Web content data, structure data, usage data and user profile data, system achieves the goal of user satisfaction. In this paper, we focus on existing methods, their mechanism, limitations and possible extensions which may improve the capabilities. In our proposed work, we will improve the accuracy of recommender system. For this purpose, we will make use of various classification and clustering methods. Presently we are concentrating on density based, hierarchical and message passing algorithms to achieve the desired goal of accuracy. More specifically, our aim is to show that graph based message passing algorithms may outperform than K-means algorithm which makes use of partition method. The methodology used for recommendation purpose will be based on collaborative filtering approach. Presently we are working on log file of our engineering colleges' web site namely www.rcpit.ac.in. Our aim is to analyze user behaviour in terms of navigational paths and to recommend them the future navigations to help achieve the necessary data in less time. Since the present log file is not much larger and also the navigational patterns are also less or alike, we are trying to get the dataset of North Maharashtra University, Jalgaon web site, namely www.nmu.ac.in. Also, we will make use of some standard datasets like CTI, MSNBC, Grouplens or Netflix for our experiment and evaluation purpose. We will use above mentioned clustering and classification techniques to improve browsing experience of user.

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Keywords- Web personalization; Recommender system; Web content data; Web structure data, Web usage data.

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