

## **A Study of the Performance Parameter for Recommendation Algorithm Evaluation**

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**Abstract :** The enormous amount of Web data has challenged its usage in efficient manner in the past few years. As such, a range of techniques are applied to tackle this problem; prominent among them is personalization and recommender system. In fact, these are the tools that assist user in finding relevant information of web. Most of the e-commerce websites are applying such tools in one way or the other. In the past decade, a large number of recommendation algorithms have been proposed to tackle such problems. However, there have not been much research in the evaluation criteria for these algorithms. As such, the traditional accuracy and classification metrics are still used for the evaluation purpose that provides a static view. This paper studies how the evolution of user preference over a period of time can be mapped in a recommender system using a new evaluation methodology that explicitly using time dimension. We have also presented different types of experimental set up that are generally used for recommender system evaluation. Furthermore, an overview of major accuracy metrics and metrics that go beyond the scope of accuracy as researched in the past few years is also discussed in detail.

**Keywords :** collaborative filtering, data mining, evolutionary, clustering, algorithm, recommender systems

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