

Alhijawi B., Awajan, A., Fraihat S., 2023. Survey on the Objectives of Recommender System: Measures, Solutions, Evaluation Methodology, and New Perspectives. ACM Computing Surveys (CSUR), Just Accepted March 2022, <https://doi.org/10.1145/3527449>. (ISI, Scopus).

Abstract

Recently, recommender systems have played an increasingly important role in a wide variety of commercial applications to help users find favourite products. Research in the recommender system field has traditionally focused on the accuracy of predictions and the relevance of recommendations. However, other recommendation quality measures may have a significant impact on the overall performance of a recommender system and the satisfaction of users. Hence, researchers' attention in this field has recently shifted to include other recommender system objectives. This article aims to provide a comprehensive review of recent research efforts on recommender systems based on the objectives achieved: relevance, diversity, novelty, coverage, and serendipity. In addition, the definitions and measures associated with these objectives are reviewed. Furthermore, the article surveys the evaluation methodology used to measure the impact of the main challenges on performance and the new applications of the recommender system. Finally, new perspectives, open issues, and future directions are provided to develop the field.