The role of sentiment analysis in a recommender system: a systematic survey

Jitali Patel*

Nirma University – Institute of Technology,
Gujarat, India
Email: jitali.patel@nirmauni.ac.in
*Corresponding author

Hitesh Chhinkaniwala

Adani Institute of Infrastructure (AII),
Ahmedabad, Gujarat, India
Email: drhiteshrc1@gmail.com

Abstract: Currently, fields like e-commerce, education, social media, tourism, and the entertainment industry rely on recommender systems to provide personalised services to their clients. The most common and widely accepted technique – collaborative filtering, creates recommendations by examining the users' past rating patterns. Collaborative filtering assumes that a users' past rating data accurately reflects their actual preferences. However, different study found that the ratings may not accurately reflect user preferences in the real-world circumstances. Therefore, to deal with this problem, sentiment analysis of user-generated text is started to be used. It helps to improve the performance of recommender systems, as it provides more specific and trustworthy user preferences than ratings. A sentiment-aware recommender system captures sentiment from the user-generated content and provides most suited personalised services to the user. We have classified sentiment enhanced recommender systems according to the level of sentiment analysis and presented technical aspects such as datasets, methodologies and results.

Keywords: recommender system; sentiment analysis; user-generated text; collaborative filtering; sentiment-aware recommender system.

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Biographical notes: Jitali Patel is working as an Assistant Professor in Computer Science and Engineering Department at Institute of Technology, Nirma University. She has obtained her post-graduation degree ME(CE) from Dharmsinh Desai University in 2010. She has an experience of more than ten years in the field of teaching. Her area of interest and research are machine learning and its applications. She has published more than ten peer review research articles.

Hitesh Chhinkaniwala is an Associate Professor and the Head at the Department of Information and Communication Technology, Adani Institute of Infrastructure Engineering, India. His area of interest are data mining and knowledge discovery, privacy-preserving, text mining, text summarisation,