Abstract

The advancement in technology accelerated and opened availability of various alternatives to make a choice in every domain. In the era of big data it is a tedious and time consuming task to evaluate the features of a large amount of information provided to make a choice. One solution to ease this overload problem is building recommender system that can process a large amount of data and support users’ decision making ability. In this paper different traditional recommendation techniques, deep learning approaches for recommender system and survey of deep learning techniques on recommender system are presented. A variety of techniques have been proposed to perform recommendation, including content based, collaborative and hybrid recommenders. Due to the limitation of the traditional recommendation methods in obtaining accurate result a deep learning approach is introduced both for collaborative and content based
approaches that will enable the model to learn different features of users and items automatically to improve accuracy of recommendation. Even though deep learning poses a great impact in various areas, applying the model to a recommender systems have not been fully exploited. With the help of the advantage of deep learning in modeling different types of data, deep recommender systems can better understand users’ demand to further improve quality of recommendation.

References

41. Poonam B. Thorat, R. M. Goudar, Sunita Barve. 2015. Survey on Collaborative Filtering,

42. R. Salakhutdinov and A. Mnih. 2007. Probabilistic matrix factorization. In NIPS.
43. Recommender systems A Computer Science Comprehensive Exercise Carleton College, Northfield, MN. http://www.cs.carleton.edu

Index Terms

Computer Science

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Keywords

Recommender system, deep learning, big data, decision making, collaborative filtering, hybrid
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