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## **Link Prediction in Social Networks: Recommender System**

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Social networks analysis and mining has many applications in both industry and academia. A branch of researches in this field is predicting future links in the networks. The problem of recommendation system is special class of the link prediction problem, in which appropriate items are recommended to the target users. In recommender systems, there are a number of rating (or purchase) history from each user to a number of items, and the task is to find a group of items for each user such that if rated (or purchased) by the users, he/she would like it. In this talk, I will first introduce the recommendation problem, and then overview some well-known algorithms. I will then focus on the challenges one may have in designing efficient recommendation syetsms, and will focus on the diversity-accuracy dilemma in recommender systems.