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Abstract

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Abstract:

In recent years, social networks have become popular among Internet users, and various studies have been performed on analysis of such networks. One of the important issues in analyzing social networks is information diffusion analysis. In this context, users' behavior is assumed to be influenced by other social network users. Several models have been designed to simulate and analyze how information is disseminated in social networks. In this paper, we study the problem of learning the diffusion probabilities for the independent cascade model. We first outline the importance of the subject, and then we propose a method to estimate diffusion probabilities. In this method, we assign a weight to each individual diffusion sample of each link in the network based on its parameters. We propose two weighting schemes to consider the different effects of diffusion samples. Then, we evaluate our method for learning diffusion probabilities with the help of several datasets and present the results. Also, the method presented in this paper is compared with other methods in terms of mean absolute error and training time.

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Contents

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