

Predicting the Click-Through-Rate of Advertisements for Sponsored Search

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Abstract:

The primary source of revenue for major search engines is through advertising. In the popular auction model used by search engines, advertisers bid on queries or phrases that users may type in when looking for a product or information related to the advertisement's content. When a user types a query, advertisements that have bidden-phrases associated with the user's query are shown. The advertiser pays the search engine an amount determined by the second-price auction model if and only if the user clicks on the ad. This model allows advertisers to target ads to interested users only. Search engines popularly rank ads by a combination of bid and relevance in the hope of maximizing revenue. In this talk we will focus on the problem of determining relevance of an ad to a user query using click through data. The method builds on a collaborative filtering approach to discover new documents related to a query on a click graph. The proposed method is compared to three different state-of-the-art baselines. Evaluations on editorial data as well as online traffic indicate that the model discovers several new ads not retrieved by the baseline methods and that are on average of better quality than the baselines. We will then discuss the difference between methods that learn from clicks and those that learn from editorial data and also present a relevance model based approach for advertising.