Bibliographic Network Representation Based Personalized Citation Recommendation

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Abstract— With the increasing number of scientific papers, researchers find it more and more difficult to obtain relevant and appropriate papers to cite. Citation recommendation aims to overcome this problem by providing a reference paper list for a given manuscript. In this paper, we propose a bibliographic network representation (BNR) model, which simultaneously incorporates bibliographic network structure and content of different kinds of objects (authors, papers, and venues) for efficient recommendation. The proposed model also makes personalized citation recommendation possible, which is a new issue that a few papers addressed in the past. When conducting experiments on the ACL Anthology Network and DBLP datasets, the results demonstrate that the proposed BNR-based citation recommendation approach is able to achieve considerable improvement over other network representation-based citation recommendation approaches. The performance of the personalized recommendation approach is also competitive with the non-personalized recommendation approach.

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http://dx.doi.org/10.1109/ACCESS.2018.2885507