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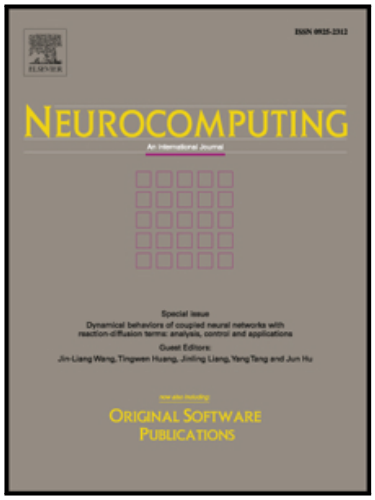

Exploiting Cross-source Knowledge for Warming up Community Question Answering Services

Yao Wan, Guandong Xu, Liang Chen, Zhou Zhao, Jian Wu

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Exploiting Cross-source Knowledge for Warming up Community Question Answering Services

Yao Wan[a,b], Guandong Xu[c,*], Liang Chen[d], Zhou Zhao[a], Jian Wu[a,b]

[a] *College of Computer Science and Technology, Zhejiang University, Hangzhou, China*
[b] *Realdoctor Artificial Intelligence Research Center of Zhejiang University, Hangzhou, China*
[c] *Advanced Analytics Institute, University of Technology, Sydney, Australia*
[d] *School of Data and Computer Science, Sun Yat-Sen University, Guangzhou, China*

Abstract

Community Question Answering (CQA) services such as Yahoo! Answers, Quora and StackOverflow are collaborative platforms where users can share and exchange their knowledge explicitly by asking and answering questions. One essential task in CQA is learning topical expertise of users, which may benefit many applications such as question routing and best answers identification. One limitation of existing related works is that they only consider the warm-start users who have posted many questions or answers, while ignoring cold-start users who have few posts. In this paper, we aim to exploit knowledge from cross sources such as GitHub and StackOverflow to build up the richer views of expertise for better CQA. Inspired by the idea of Bayesian co-training, we propose a topical expertise model from the perspective of multi-view learning. Specifically, we incorporate the consistency existing among multiple views into a unified probabilistic graphic model. Comprehensive experiments on two real-world datasets demonstrate the performance of our proposed model with the comparison of some state-of-the-art ones.

Keywords: CQA, cross-source, cold-start, multi-view learning.

*Corresponding author
Email address: guandong.xu@uts.edu.au (Guandong Xu)

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