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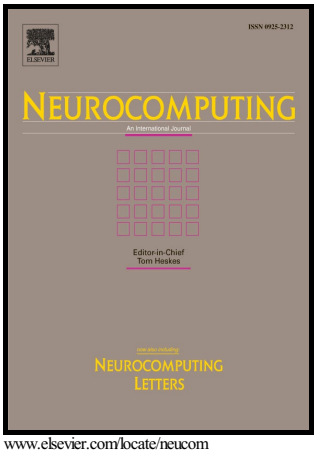

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PII: S0925-2312(16)31397-2
DOI: http://dx.doi.org/10.1016/j.neucom.2016.08.114
Reference: NEUCOM17763

To appear in: *Neurocomputing*

Received date: 15 March 2016
Revised date: 14 July 2016
Accepted date: 25 August 2016

Cite this article as: Lifang Wu, Dan Wang, Xiuzhen Zhang, Shuang Liu, Le Zhang and Chang Wen Chen, MLLDA: Multi-level LDA for Modelling Users or Content Curation Social Networks, *Neurocomputing* http://dx.doi.org/10.1016/j.neucom.2016.08.114

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MLLDA: Multi-level LDA for Modelling Users on Content Curation Social Networks

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Abstract

User analysis is an important part of social network analysis. Most existing studies model users separately using either user-generated contents or social links among users. In this paper we propose to model users on the Content Curation Social Network (CCSN) in a unified framework by mining user-generated contents as well as social links. We propose a latent Bayesian model Multi-level LDA (MLLDA) that represents users with latent user interests discovered from user-contributed textual description and social links formed by information sharing. We demonstrate that MLLDA can produce accurate user models for community discovery and recommendation on the CCSN.

Keywords: User profiling, Multi-Level Latent Dirichlet Allocation (MLLDA), Jensen-Shannon Divergence

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