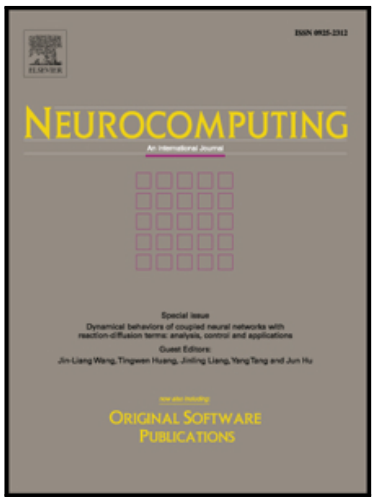

Multimodal Learning for Topic Sentiment Analysis in Microblogging

Faliang Huang , Shichao Zhang , Jilian Zhang , Ge Yu

PII: S0925-2312(17)30439-3
DOI: 10.1016/j.neucom.2016.10.086
Reference: NEUCOM 18189

To appear in: *Neurocomputing*

Received date: 15 May 2016
Revised date: 6 October 2016
Accepted date: 15 October 2016

Please cite this article as: Faliang Huang , Shichao Zhang , Jilian Zhang , Ge Yu , Multimodal Learning for Topic Sentiment Analysis in Microblogging, *Neurocomputing* (2017), doi: 10.1016/j.neucom.2016.10.086

Multimodal Learning for Topic Sentiment Analysis in Microblogging

Faliang Huang[a,*], Shichao Zhang[b], Jilian Zhang[c] and Ge Yu[d]

[a] Faculty of Software, Fujian Normal University, Fuzhou 350007, China

faliang.huang@gmail.com

[b] College of Computer Science and IT, Guangxi Normal University, PR China

zhangsc@it.uts.edu.au

[c] School of Information and Statistics, Guangxi University of Finance and Economics, PR China.

Jilian.z.2007@phdis.smu.edu.sg

[d] School of Computer Science and Engineering, Northeastern University, PR China.

yuge@mail.neu.edu.cn

Abstract

Microblogging has become a widely-spread platform of human communication. The massive amount of opinion-rich data in microblogging is helpful to analyze and manage public opinion and social emotion. Different from traditional texts, microblogging data are multimodal, containing multifarious data such as emoticons, image, etc. Most existing sentiment and topic detection approaches treat the unique microblogging data as noise. However, this may lead to unsatisfactoriness in sentiment classification and topic identification. In order to address the issue, we propose a multimodal joint sentiment topic model(MJST) for weakly supervised sentiment analysis in microblogging, which applies latent Dirichlet allocation (LDA) to simultaneously

* Corresponding author. Tel.: +86 13405985600; fax: +86591 22868468. E-mail address: faliang.huang@gmail.com