

Weekly Report (June 1st - June 7th)

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1 DONE THIS WEEK

I have read 3 papers this week and written one part of related works. According to these papers, I can conclude some useful ideas that will be used during my thesis.

- Definition of spammers. There are some different definitions of spammers. Spammers can be the fake accounts who are generated to boost the Pagerank of some users (according to Yi Zhang's work), or can be the user accounts who send spam tweets, especially advertising tweets, to others (according to [1, 3, 2]). I think in my thesis, spammers should be defined as the latter one.
- How to collect spammers. In [2], they used same method as we used, which is to collect suspended users from old dataset. To use this method we not only need one large dataset (this is easy because there exists some), and the dataset should also contain tweets that users posted in order to indicate that the user is suspended because of spam activities. [3] provided one website - twitspam.org. But this website have already been changed and useless now.
- Methodology. [1] and [3] used Machine Learning algorithms to detect spammers, while [2] used Link Analysis method (A Pagerank-like algorithm) to do so. I think in my thesis we can combine these two methods together to improve the accuracy of classification.
- Feature Selection. All these 3 papers suggest that graph properties act very important role in classification. Other important features are the ones that are related to whether the tweet contains URLs. All of these features should be taken into consideration during my thesis.
- Weka and libsvm should be useful in this project.

2 PLAN NEXT WEEK

I plan to read other papers next week and finish writing related works. I will also start writing data description and proposal slides.

REFERENCES

- [1] BENEVENUTO, F., MAGNO, G., RODRIGUES, T., AND ALMEIDA, V. Detecting spammers on twitter. In *Collaboration, electronic messaging, anti-abuse and spam conference (CEAS)* (2010), vol. 6, p. 12.
- [2] GHOSH, S., VISWANATH, B., KOOTI, F., SHARMA, N. K., KORLAM, G., BENEVENUTO, F., GANGULY, N., AND GUMMADI, K. P. Understanding and combating link farming in the twitter social network. In *Proceedings of the 21st international conference on World Wide Web* (2012), ACM, pp. 61–70.
- [3] MOH, T.-S., AND MURMANN, A. J. Can you judge a man by his friends?-enhancing spammer detection on the twitter microblogging platform using friends and followers. In *Information Systems, Technology and Management*. Springer, 2010, pp. 210–220.