Supplementary Results for Named Entity Recognition on Chinese Social Media with an Updated Dataset

Nanyun Peng and **Mark Dredze**
Human Language Technology Center of Excellence
Center for Language and Speech Processing
Johns Hopkins University, Baltimore, MD, 21218
npeng1@jhu.edu, mdredze@cs.jhu.edu

Our paper Peng and Dredze (2015) introduced the task of Named Entity Recognition (NER) on Chinese Social Media with an accompanying dataset. We further improved the NER system by multi-task learning with Chinese Word Segmentation (Peng and Dredze, 2016).

Our NER annotations on Weibo messages was constructed using Amazon Mechanical Turk[1], and the final annotations were generated by merging labels from multiple different Turkers using heuristics. This inevitably lead to inconsistencies and errors in the dataset.

He and Sun (2017a) manually corrected the annotations which resulted in a much cleaner dataset. This corrected dataset is available on Github along with code from our original paper.[2]

This paper provides updated results for this corrected dataset using the method described in Peng and Dredze (2015) and Peng and Dredze (2016). This will allow future work to compare to our results and use the cleaner dataset.

We tuned the hyper-parameters as discussed in Peng and Dredze (2015) and Peng and Dredze (2016). We only show the best results obtained from the best model proposed in Peng and Dredze (2015) and Peng and Dredze (2016). Table 1 shows that we get much better results and outperformed both He and Sun (2017a) and He and Sun (2017b).

To facilitate comparison with He and Sun (2017a), we report results using their format.

Acknowledgements

Models	Named Entity			Nominal Mention			Overall
	Prec	Recall	F1	Prec	Recall	F1	
He and Sun (2017a)	66.93	40.67	50.60	66.46	53.57	59.32	54.82
He and Sun (2017b)	61.68	48.82	54.50	74.13	53.54	62.17	58.23
Peng and Dredze (2015)	74.78	39.81	51.96	71.92	53.03	61.05	56.05
Peng and Dredze (2016)	66.67	47.22	55.28	74.48	54.55	62.97	58.99

Table 1: Test results for Peng and Dredze (2015) and Peng and Dredze (2016) on the updated Chinese Social Media NER dataset. We got much better results than the originally reported number. We also listed the results in He and Sun (2017a) and He and Sun (2017b) for comparison purposes.

References

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[1] https://www.mturk.com/mturk/welcome
[2] https://github.com/hltcoe/golden-horse