

Neighbor Answers Matter: Sequence Information Gives a Hand to Answer Selection in Community Question Answering

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Abstract

Community question answering fora allow people to get answers to their questions from a wide on-line community. The diversity and openness of these communities allow for quick comments interaction which includes both accurate and inaccurate answers to the questions. In this paper we explore the automatic detection of good answers within a thread of comments to a given questions. Our experiments, comparable to the state of the art in the topic, show that considering the relationships among the comments of the whole thread—either in the form of features or in the machine learning model— allows for improving the results by blablabla

1 Introduction

2 Experiments

Acknowledgments

References

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Table 1: Multiclass setting. All includes all the features, but n -grams; sub includes all the features available in the pipeline, except for LSA; noc is like sub, without context features).

	Good			Potential			Bad			Overall			
	P	R	F	P	R	F	P	R	F	P	R	F	A
NOC													
SVM	73.33	67.30	70.19	6.56	7.19	6.86	64.69	69.65	67.22	48.19	48.15	48.09	63.31
SUB													
SVM	73.18	75.83	74.48	13.41	13.17	13.29	73.17	70.20	71.65	53.26	53.07	53.14	68.22
OrdReg	71.10	72.32	71.71	10.17	21.56	13.82	74.34	55.67	63.66	51.87	49.85	49.73	69.18
ALL													
SVM	74.59	73.02	73.80	15.62	17.96	16.71	71.78	71.43	71.60	54.00	54.14	54.04	67.71

Table 2: Binary setting. All includes all the features, but n -grams; sub includes all the features available in the pipeline, except for LSA; noc is like sub, without context features). Sub-indexes in CRF denote the order.

	Good			Bad			Overall			
	P	R	F	P	R	F	P	R	F	A
NOC										
SVM	71.11	72.82	71.95	71.62	69.87	70.73	71.36	71.34	71.34	71.36
Shafiq: please confirm if these CRFs were trained with the "NOC" set										
CRF ₁	69.95	77.53	73.55	74.28	66.09	69.95	72.12	71.81	71.75	71.86
CRF ₂	71.28	75.43	73.29	73.40	69.05	71.16	72.34	72.24	72.23	72.27
LogReg	63.00	86.76	73.00	78.11	48.11	59.54	70.56	67.44	66.27	67.61
SUB										
SVM	72.53	78.94	75.60	76.43	69.56	72.83	74.48	74.25	74.22	74.29
CRF	72.15	83.65	77.47	80.12	67.11	73.04	76.13	75.38	75.26	75.46
CRF ₂	73.08	83.05	77.75	79.95	68.85	73.98	75.52	75.95	75.87	76.01
CRF ₃	72.94	80.84	76.69	78.07	69.46	73.51	75.51	75.15	75.10	75.20
LogReg	69.10	86.36	76.77	81.37	60.67	69.51	75.24	73.52	73.14	73.63
ALL										
SVM	72.29	77.73	74.92	75.44	69.66	72.44	73.87	73.70	73.68	73.73
CRF	72.48	81.34	79.65	78.30	68.54	73.09	75.39	74.94	74.87	75.00
LogReg	71.80	80.44	75.88	77.30	67.82	72.25	74.55	74.13	74.06	74.19