

# Additional material for the paper “A Semantic Similarity-Based Perspective of Affect Lexicons for Sentiment Analysis”

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Dataset	SemEval13	SemEval14	Vader	STS	IMDB	PL04	PL05
W2V/D2V	84.54	84.11	88.19	83.74	88.55	88.65	76.43
Liu	58.01	52.57	73.13	62.93	72.53	69.44	55.54
Liu + W2V/D2V	84.55	83.23	88.78	83.02	88.53	88.89	76.09
SentiWordNet	69.41	62.80	72.24	62.82	71.69	71.70	54.18
SentiWordNet + W2V/D2V	85.09	84.13	88.55	83.48	88.60	88.56	76.09
ANEW	64.19	59.24	69.95	60.41	70.71	67.65	52.81
ANEW + W2V/D2V	84.38	83.81	88.12	82.99	88.52	88.54	75.92
AFINN	65.04	56.48	75.84	66.44	72.22	69.49	52.92
AFINN + W2V/D2V	84.71	83.07	88.90	83.98	88.63	88.86	76.15

Table 1: Evaluation on all datasets using the **Path** similarity method.

Dataset	SemEval13	SemEval14	Vader	STS	IMDB	PL04	PL05
W2V/D2V	84.64	84.11	88.19	83.75	88.55	85.75	76.25
Liu	45.93	41.25	68.94	59.35	72.31	67.65	56.34
Liu + W2V/D2V	85.03	83.91	88.71	82.86	88.62	88.49	76.09
SentiWordNet	65.59	61.46	71.82	63.16	70.75	69.01	55.46
SentiWordNet + W2V/D2V	84.90	83.75	88.50	83.77	88.66	88.08	76.25
ANEW	60.44	52.95	71.18	59.01	69.13	66.87	54.88
ANEW + W2V/D2V	84.81	83.76	88.06	82.66	88.61	88.58	76.01
AFINN	61.03	55.72	75.05	64.30	71.92	68.74	55.98
AFINN + W2V/D2V	85.44	83.37	88.59	83.18	88.63	88.79	75.95

Table 2: Evaluation on all datasets using the **Lin** similarity method.

Dataset	SemEval13	SemEval14	Vader	STS	IMDB	PL04	PL05
W2V/D2V	84.64	84.11	88.19	83.75	88.55	88.75	76.25
Liu	45.93	41.25	68.94	59.35	72.31	67.65	56.34
Liu + W2V/D2V	85.03	83.91	88.71	82.86	88.62	88.49	76.09
SentiWordNet	65.59	61.46	71.82	63.16	70.75	69.01	55.46
SentiWordNet + W2V/D2V	84.90	83.75	88.50	83.77	88.66	88.08	76.25
ANEW	60.44	52.95	71.18	59.01	69.13	66.87	54.88
ANEW + W2V/D2V	84.81	83.76	88.06	82.66	88.61	88.58	76.01
AFINN	61.03	55.72	75.05	64.30	71.92	68.74	55.98
AFINN + W2V/D2V	85.44	83.37	88.59	83.18	88.63	88.79	75.95

Table 3: Evaluation on all datasets using the **Wu & Palmer** similarity method.

Dataset	SemEval13	SemEval14	Vader	STS	IMDB	PL04	PL05
W2V/D2V	84.64	84.11	88.19	83.75	88.55	88.75	76.25
Liu	47.53	43.92	55.67	63.28	72.65	69.42	58.00
Liu + W2V/D2V	78.17	76.13	84.07	84.33	88.55	88.49	75.84
SentiWordNet	68.14	65.63	69.29	64.43	71.36	69.79	58.39
SentiWordNet + W2V/D2V	82.00	80.24	85.85	84.32	88.70	87.85	76.13
ANEW	36.49	30.28	53.75	60.35	70.08	66.23	56.78
ANEW + W2V/D2V	74.03	72.17	82.14	82.98	88.59	88.05	76.25
AFINN	72.17	67.24	77.19	62.40	72.48	70.27	57.67
AFINN + W2V/D2V	80.81	78.59	85.89	83.55	88.62	88.47	76.10

Table 4: Evaluation on all datasets using the **Resnik** similarity method.

Dataset	SemEval13	SemEval14	Vader	STS	IMDB	PL04	PL05
W2V/D2V	84.64	84.11	88.19	83.75	88.55	88.75	76.25
Liu	57.25	53.41	76.15	66.35	75.76	71.53	58.62
Liu + W2V/D2V	84.79	83.14	88.64	83.54	88.58	88.82	76.43
SentiWordNet	76.29	72.78	77.53	65.05	74.57	72.30	60.06
SentiWordNet + W2V/D2V	85.52	84.14	88.26	84.05	88.71	88.50	76.57
ANEW	70.19	67.50	76.05	60.50	70.97	68.86	56.43
ANEW + W2V/D2V	85.52	83.52	88.42	83.63	88.52	88.67	76.22
AFINN	64.50	61.44	79.98	67.00	76.07	72.13	60.49
AFINN + W2V/D2V	84.78	83.25	89.13	84.39	88.65	88.90	76.67

Table 5: Evaluation on all datasets using the **Jiang & Conrad** similarity method.