

TABLE A3. Difference Between Paper's Naïve Bayes Classification Results and Attempts to Reproduce

	Bug			Feature			UserExperience			Rating		
	Paper Results	Original Data	Sampled Dataset (our data)	Paper Results	Original Data	Sampled Dataset (our data)	Paper Results	Original Data	Sampled Dataset (our data)	Paper Results	Original Data	Sampled Dataset (our data)
<b>01_bow</b>												
Diff. in Precision		-0.04	-0.11		-0.02	-0.01		0.02	0.09		0.00	-0.09
Diff. in Recall		0.02	-0.32		-0.01	-0.12		0.04	0.15		0.00	-0.05
Diff. in F1		0.00	-0.27		-0.01	-0.09		0.04	0.14		0.00	-0.07
<b>02_bigram</b>												
Diff. in Precision		-0.11	-0.12		-0.08	-0.15		-0.06	-0.13		-0.06	-0.14
Diff. in Recall		0.00	-0.10		-0.01	-0.11		0.00	-0.02		-0.25	-0.27
Diff. in F1		-0.08	-0.12		-0.06	-0.15		-0.04	-0.10		-0.21	-0.25
<b>03_bow-bigram</b>												
Diff. in Precision		-0.09	-0.17		-0.12	-0.25		-0.08	-0.02		-0.09	-0.18
Diff. in Recall		-0.06	-0.42		-0.09	-0.34		0.01	-0.04		-0.10	-0.17
Diff. in F1		-0.07	-0.30		-0.10	-0.29		-0.04	-0.03		-0.10	-0.17
<b>04_bow-lemmatize</b>												
Diff. in Precision		-0.10	-0.15		-0.10	-0.15		-0.06	-0.02		-0.07	-0.13
Diff. in Recall		-0.10	-0.33		-0.09	-0.25		-0.05	0.10		-0.08	-0.09
Diff. in F1		-0.10	-0.27		-0.10	-0.23		-0.06	0.05		-0.08	-0.12
<b>05_bow-remove_stopwords</b>												
Diff. in Precision		-0.04	-0.18		-0.04	-0.13		-0.06	-0.05		-0.05	-0.18
Diff. in Recall		-0.03	-0.47		-0.17	-0.39		-0.10	-0.18		-0.04	0.00
Diff. in F1		-0.03	-0.42		-0.14	-0.36		-0.09	-0.15		-0.04	-0.12
<b>06_bow-lemmatize-remove_stopwords</b>												
Diff. in Precision		-0.03	-0.17		-0.10	-0.07		-0.05	-0.04		-0.07	-0.19
Diff. in Recall		-0.04	-0.49		-0.16	-0.39		-0.07	-0.13		-0.04	-0.01
Diff. in F1		-0.03	-0.43		-0.15	-0.35		-0.07	-0.10		-0.06	-0.13
<b>07_bow-bigram-lemmatize-remove_stopwords</b>												
Diff. in Precision		-0.06	-0.11		-0.09	-0.19		-0.08	0.01		-0.12	-0.27
Diff. in Recall		-0.09	-0.57		-0.15	-0.50		-0.04	-0.27		-0.08	-0.04
Diff. in F1		-0.08	-0.41		-0.13	-0.41		-0.06	-0.15		-0.10	-0.17
<b>08_bow-lemmatize-rating</b>												
Diff. in Precision		-0.05	-0.13		-0.14	-0.17		-0.07	0.00		-0.04	-0.12
Diff. in Recall		-0.06	-0.37		-0.09	-0.22		-0.04	0.05		-0.05	-0.06
Diff. in F1		-0.05	-0.30		-0.11	-0.21		-0.06	0.03		-0.04	-0.10
<b>09_bow-rating-sentiment1</b>												
Diff. in Precision		-0.08	-0.15		-0.12	-0.16		-0.11	-0.03		-0.07	-0.15
Diff. in Recall		-0.04	-0.43		-0.05	-0.16		-0.07	-0.11		-0.06	-0.11
Diff. in F1		-0.05	-0.37		-0.07	-0.16		-0.08	-0.08		-0.07	-0.14
<b>10_bow-rating-tense-sentiment1</b>												
Diff. in Precision		-0.08	-0.17		-0.10	-0.14		-0.09	-0.05		-0.06	-0.13
Diff. in Recall		-0.02	-0.43		-0.02	-0.16		-0.01	-0.15		-0.05	-0.12
Diff. in F1		-0.04	-0.38		-0.04	-0.15		-0.04	-0.12		-0.06	-0.13
<b>11_bigram-rating-sentiment1</b>												
Diff. in Precision		-0.11	-0.12		-0.13	-0.17		-0.04	0.00		-0.07	0.00
Diff. in Recall		-0.02	-0.27		0.00	-0.17		-0.01	-0.14		-0.19	-0.15
Diff. in F1		-0.07	-0.17		-0.08	-0.17		-0.03	-0.05		-0.16	-0.11
<b>12_bigram-lemmatize-remove_stopwords-rating-tense-sentiment2</b>												
Diff. in Precision		-0.04	-0.19		-0.10	-0.14		0.00	0.25		-0.11	-0.17
Diff. in Recall		-0.10	-0.80		-0.05	-0.31		-0.08	-0.85		-0.19	-0.12
Diff. in F1		-0.06	-0.56		-0.09	-0.21		-0.03	-0.62		-0.17	-0.14
<b>13_bow-bigram-tense-sentiment1</b>												
Diff. in Precision		-0.11	-0.22		-0.09	-0.24		-0.07	-0.02		-0.06	-0.13
Diff. in Recall		-0.04	-0.47		-0.05	-0.32		-0.03	-0.12		-0.08	-0.15
Diff. in F1		-0.07	-0.36		-0.06	-0.27		-0.05	-0.07		-0.07	-0.14
<b>14_bow-bigram-lemmatize-rating-tense</b>												
Diff. in Precision		-0.12	-0.26		-0.12	-0.26		-0.10	-0.02		-0.08	-0.12
Diff. in Recall		-0.02	-0.35		-0.06	-0.33		-0.03	-0.04		-0.13	-0.18
Diff. in F1		-0.07	-0.31		-0.08	-0.29		-0.07	-0.03		-0.11	-0.15
<b>15_bow-bigram-remove_stopwords-rating-tense-sentiment1</b>												
Diff. in Precision		-0.10	-0.19		-0.09	-0.15		-0.07	0.00		-0.08	-0.24
Diff. in Recall		-0.10	-0.70		-0.14	-0.49		-0.04	-0.60		-0.08	-0.06
Diff. in F1		-0.09	-0.58		-0.12	-0.38		-0.06	-0.42		-0.08	-0.17
<b>16_bow-lemmatize-remove_stopwords-rating-tense-sentiment1</b>												
Diff. in Precision		-0.07	-0.24		-0.10	-0.12		-0.04	-0.11		-0.04	-0.14
Diff. in Recall		-0.03	-0.55		-0.08	-0.36		0.00	-0.51		-0.04	-0.04
Diff. in F1		-0.05	-0.54		-0.09	-0.33		-0.01	-0.47		-0.03	-0.10
<b>17_bow-lemmatize-remove_stopwords-rating-tense-sentiment2</b>												
Diff. in Precision		-0.01	-0.23		-0.08	-0.11		-0.04	-0.05		-0.04	-0.16
Diff. in Recall		-0.02	-0.59		-0.10	-0.40		-0.02	-0.58		-0.03	-0.04
Diff. in F1		-0.02	-0.58		-0.09	-0.35		-0.03	-0.55		-0.03	-0.12