TABLE 1

Results (mean±standard deviations) using Different Homogeneous Learning Algorithms on **os_vs_crypt**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	84.00±0.41	85.10±0.43	81.92±0.76	83.48±0.47	68.04±0.81
PAIO	86.25±0.31	87.04±0.44	84.75±0.43	85.88±0.32	72.52±0.62
HomOTL-I	89.44±0.30	89.33±0.50	89.27±0.51	89.30±0.30	78.88±0.60
HomOTL-II	88.62±0.46	88.12±0.68	88.94±0.54	88.52±0.44	77.25±0.91
HomOTLMS	**91.82±0.28**	**92.83±0.52**	**90.41±0.48**	**91.60±0.29**	**83.66±0.57**
Confidence Interval	[91.69, 91.95]	[92.59, 93.07]	[90.19, 90.63]	[91.47, 91.74]	[83.40, 83.93]

TABLE 2

Results (mean±standard deviations) using Different Homogeneous Learning Algorithms on **ibm_vs_electronics**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	75.57±0.82	75.91±0.84	74.74±1.04	75.32±0.86	51.15±1.64
PAIO	77.62±0.68	**77.71±0.79**	77.31±0.77	77.51±0.67	55.24±1.36
HomOTL-I	76.12±0.60	73.33±0.96	81.94±1.25	77.39±0.51	52.63±1.15
HomOTL-II	76.98±0.57	73.47±0.98	**84.33±1.03**	78.52±0.39	54.60±1.01
HomOTLMS	**79.84±0.65**	77.68±0.80	83.62±0.67	**80.53±0.59**	**59.87±1.29**
Confidence Interval	[79.53, 80.15]	[77.30, 78.05]	[83.30, 83.93]	[80.26, 80.81]	[59.26, 60.47]

TABLE 3

Results (mean±standard deviations) using Different Homogeneous Learning Algorithms on **mac_vs_med**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	84.40±0.41	84.80±0.68	83.27±0.80	84.02±0.43	68.81±0.82
PAIO	86.95±0.48	87.62±0.54	**85.61±0.77**	**86.60±0.52**	73.91±0.97
HomOTL-I	85.23±0.46	88.58±0.80	80.38±1.11	84.27±0.55	70.71±0.90
HomOTL-II	84.93±0.48	87.91±0.71	80.48±1.18	84.02±0.59	70.07±0.93
HomOTLMS	**87.14±0.67**	**89.80±0.73**	83.36±0.94	86.45±0.72	**74.43±1.33**
Confidence Interval	[86.82, 87.45]	[89.46, 90.14]	[82.91, 83.80]	[86.12, 86.79]	[73.81, 75.05]

TABLE 4

Results (mean±standard deviations) using Different Homogeneous Learning Algorithms on **x_vs_space**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	84.80±0.55	85.57±0.53	83.67±0.97	84.61±0.60	69.62±1.09
PAIO	86.72±0.52	87.59±0.62	85.52±0.53	86.54±0.52	73.46±1.05
HomOTL-I	85.51±0.68	89.43±1.17	80.51±1.49	84.72±0.77	71.38±1.35
HomOTL-II	88.27±0.33	92.31±0.59	83.45±0.93	87.65±0.40	76.89±0.61
HomOTLMS	**90.83±0.34**	**92.72±0.33**	**88.59±0.82**	**90.60±0.39**	**81.74±0.66**
Confidence Interval	[90.67, 90.99]	[92.56, 92.87]	[88.20, 88.98]	[90.42, 90.79]	[81.43, 82.05]

TABLE 5
Results (mean±standard deviations) using Different Homogeneous Learning Algorithms on **books**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	51.95±0.29	51.17±0.17	**85.72±0.45**	**64.08±0.24**	5.30±0.78
PAIO	54.49±0.54	53.78±0.47	63.85±0.59	58.39±0.46	9.14±1.09
HomOTL-I	52.45±0.57	52.25±0.51	56.87±1.06	54.46±0.72	4.93±1.16
HomOTL-II	52.25±0.00	51.96±0.00	59.70±0.00	55.56±0.00	4.55±0.00
HomOTLMS	**56.36±1.34**	**56.41±1.30**	55.90±1.87	56.15±1.55	**12.72±2.67**
Confidence Interval	[55.73, 56.99]	[55.80, 57.01]	[55.03, 56.78]	[55.43, 56.88]	[11.47, 13.97]

TABLE 6
Results (mean±standard deviations) using Different Homogeneous Learning Algorithms on **DVDs**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	51.75±0.58	51.08±0.36	**82.58±0.90**	**63.12±0.50**	4.46±1.47
PAIO	53.64±0.77	53.09±0.65	62.52±0.93	57.42±0.74	7.40±1.56
HomOTL-I	52.17±0.34	52.09±0.32	54.15±0.67	53.10±0.46	4.35±0.69
HomOTL-II	52.45±0.02	52.28±0.02	56.09±0.07	54.12±0.04	4.91±0.04
HomOTLMS	**54.77±0.68**	**54.14±0.64**	62.39±0.86	57.97±0.56	**9.65±1.36**
Confidence Interval	[54.45, 55.09]	[53.84, 54.44]	[61.99, 62.79]	[57.71, 58.23]	[9.01, 10.28]

TABLE 7
Results (mean±standard deviations) using Different Homogeneous Learning Algorithms on **electronics**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	51.02±0.37	50.54±0.20	**95.35±0.40**	**66.06±0.26**	4.40±1.61
PAIO	56.82±0.60	55.26±0.47	71.59±0.76	62.38±0.53	14.27±1.26
HomOTL-I	52.40±1.01	52.05±0.84	60.71±1.87	56.04±1.23	4.86±2.07
HomOTL-II	53.46±1.20	52.71±0.92	67.21±2.02	59.08±1.32	7.21±2.52
HomOTLMS	**57.09±0.82**	**56.36±0.80**	62.92±1.14	59.45±0.74	**14.28±1.65**
Confidence Interval	[56.70, 57.48]	[55.98, 56.73]	[62.39, 63.46]	[59.11, 59.80]	[13.51, 15.05]

TABLE 8
Results (mean±standard deviations) using Different Homogeneous Learning Algorithms on **kitchen**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	49.95±0.06	49.97±0.03	**99.64±0.08**	**66.56±0.04**	-0.98±1.01
PAIO	57.09±0.60	55.97±0.47	66.41±1.03	60.75±0.68	14.43±1.23
HomOTL-I	50.61±0.50	50.55±0.44	56.92±0.63	53.55±0.50	1.24±1.01
HomOTL-II	50.66±0.33	50.56±0.27	59.91±0.50	54.84±0.37	1.34±0.67
HomOTLMS	**60.32±0.48**	**59.27±0.46**	65.98±0.95	62.45±0.54	**20.78±0.98**
Confidence Interval	[60.09, 60.55]	[59.06, 59.49]	[65.54, 66.43]	[62.19, 62.70]	[20.32, 21.23]

TABLE 9
Results (mean±standard deviations) of Different Homogeneous Learning Algorithms on **EN-EN**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	86.55±0.19	91.26±0.14	92.19±0.17	91.73±0.12	55.53±0.83
PAIO	87.63±0.22	92.42±0.18	92.27±0.15	92.35±0.13	60.62±1.07
HomOTL-I	85.06±0.53	93.23±0.30	87.91±0.95	90.49±0.40	62.54±0.97
HomOTL-II	86.48±0.18	92.43±0.44	90.72±0.54	91.56±0.13	62.40±0.27
HomOTLMS	**89.52±0.12**	**94.20±0.08**	**92.75±0.11**	**93.47±0.08**	**66.91±0.29**
Confidence Interval	[89.46, 89.58]	[94.17, 94.24]	[92.70, 92.80]	[93.43, 93.51]	[66.77, 67.05]

TABLE 10
Results (mean±standard deviations) of Different Homogeneous Learning Algorithms on **FR-FR**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	90.86±0.25	91.12±0.25	91.66±0.32	91.39±0.24	81.38±0.45
PAIO	91.74±0.26	92.11±0.24	92.30±0.34	92.20±0.25	83.19±0.33
HomOTL-I	93.87±0.01	**94.61±0.01**	93.75±0.01	94.18±0.01	88.14±0.01
HomOTL-II	93.87±0.00	**94.61±0.00**	93.76±0.00	94.18±0.00	**88.15±0.00**
HomOTLMS	**94.03±0.08**	92.31±0.11	**96.78±0.06**	**94.49±0.07**	88.04±0.13
Confidence Interval	[93.99, 94.06]	[92.25, 92.36]	[96.75, 96.81]	[94.46, 94.52]	[87.98, 88.10]

TABLE 11
Results (mean±standard deviations) of Different Homogeneous Learning Algorithms on **GR-GR**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	81.99±0.37	82.03±0.35	81.93±0.47	81.98±0.38	64.04±0.78
PAIO	83.01±0.35	83.15±0.40	82.81±0.35	82.98±0.34	66.15±0.64
HomOTL-I	88.29±0.01	**91.88±0.01**	84.01±0.02	87.77±0.01	77.50±0.02
HomOTL-II	88.30±0.00	**91.88±0.01**	84.02±0.00	87.78±0.00	77.52±0.01
HomOTLMS	**89.30±0.09**	89.25±0.07	**89.37±0.21**	**89.31±0.10**	**78.76±0.11**
Confidence Interval	[89.26, 89.34]	[89.21, 89.28]	[89.27, 89.47]	[89.26, 89.35]	[78.71, 78.81]

TABLE 12
Results (mean±standard deviations) of Different Homogeneous Learning Algorithms on **IT-IT**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	84.27±0.26	79.07±0.28	**87.52±0.41**	83.08±0.29	69.00±0.49
PAIO	84.22±0.27	79.06±0.30	87.40±0.39	83.02±0.30	68.79±0.49
HomOTL-I	86.55±0.07	83.18±0.10	87.14±0.09	85.11±0.08	72.82±0.11
HomOTL-II	86.46±0.00	82.93±0.01	87.30±0.00	85.06±0.00	72.67±0.00
HomOTLMS	**87.12±0.13**	**84.18±0.15**	87.21±0.30	**85.67±0.16**	**74.10±0.37**
Confidence Interval	[87.06, 87.18]	[84.11, 84.25]	[87.07, 87.35]	[85.59, 85.75]	[73.93, 74.28]

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TABLE 13

Results (mean±standard deviations) of Different Homogeneous Learning Algorithms on **SP-SP**

Algorithm	Accuracy (%)	Precision (%)	Recall (%)	F-measure (%)	MCC (%)
PA	90.03±0.26	61.81±1.16	58.65±0.94	60.19±0.94	54.23±1.18
PAIO	**91.40±0.31**	**65.66±1.22**	69.23±1.11	67.40±1.12	62.34±1.03
HomOTL-I	90.38±0.22	58.82±1.06	84.24±4.11	69.20±0.99	64.67±1.69
HomOTL-II	90.12±0.11	57.65±0.43	**86.97±2.81**	69.32±0.77	65.57±0.80
HomOTLMS	90.49±0.07	58.84±0.21	86.47±0.25	**70.03±0.17**	**66.27±0.20**
Confidence Interval	[90.46, 90.52]	[58.74, 58.94]	[86.36, 86.59]	[69.95, 70.11]	[66.18, 66.37]