

# Pre-trained\_word2vec Note

window size = 9

LR:

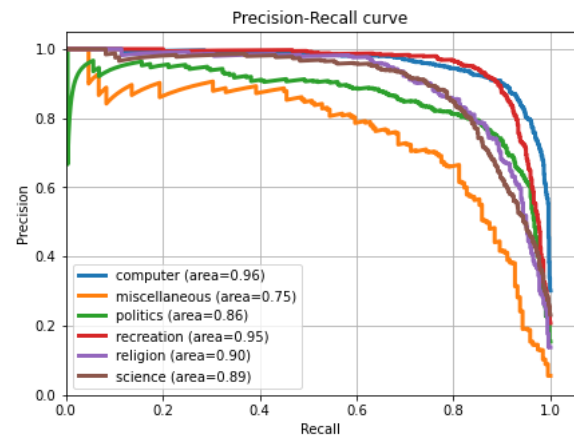
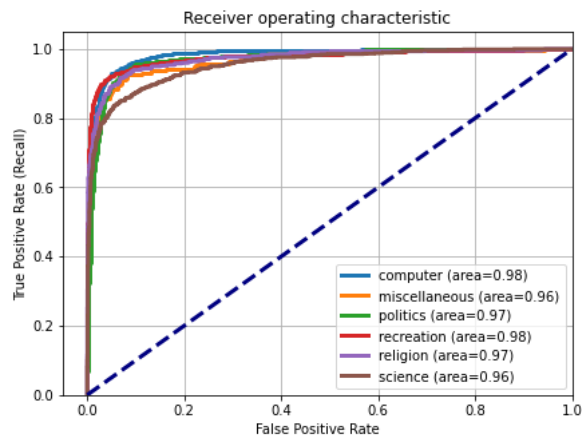
Accuracy: 0.85

Auc: 0.97

Detail:

	precision	recall	f1-score	support
computer	0.88	0.91	0.90	953
miscellaneous	0.77	0.65	0.71	191
politics	0.78	0.84	0.81	510
recreation	0.89	0.89	0.89	751
religion	0.87	0.80	0.83	478
science	0.82	0.81	0.82	764
accuracy			0.85	3647
macro avg	0.83	0.82	0.82	3647
weighted avg	0.85	0.85	0.85	3647

		Confusion matrix					
True	computer	869	15	3	13	6	47
	miscellaneous	27	125	5	17	0	17
	politics	2	1	430	21	34	22
	recreation	16	8	27	665	6	29
	religion	15	2	48	13	382	18
	science	59	12	39	20	12	622
			computer	miscellaneous	politics	recreation	religion
		Pred					



## SVM:

Accuracy: 0.87

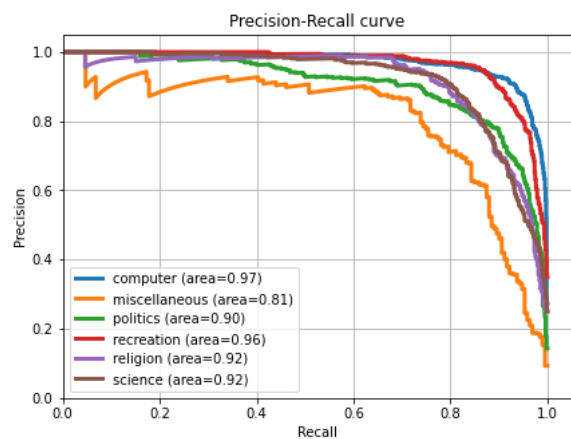
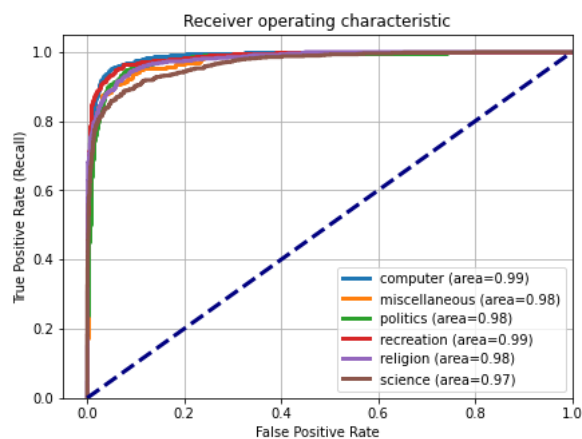
Auc: 0.98

Detail:

	precision	recall	f1-score	support
computer	0.89	0.93	0.91	953
miscellaneous	0.85	0.73	0.79	191
politics	0.79	0.87	0.83	510
recreation	0.89	0.90	0.90	751
religion	0.89	0.80	0.84	478
science	0.86	0.82	0.84	764
accuracy			0.87	3647
macro avg	0.86	0.84	0.85	3647
weighted avg	0.87	0.87	0.87	3647

Confusion matrix

	computer	miscellaneous	politics	recreation	religion	science
True computer	888	11	2	15	5	32
True miscellaneous	24	140	3	12	1	11
True politics	3	1	442	20	28	16
True recreation	13	6	18	678	6	30
True religion	12	0	56	14	382	14
True science	59	6	40	21	8	630
	computer	miscellaneous	politics	recreation	religion	science
	Pred					



window size = 38

LR:

Accuracy: 0.86

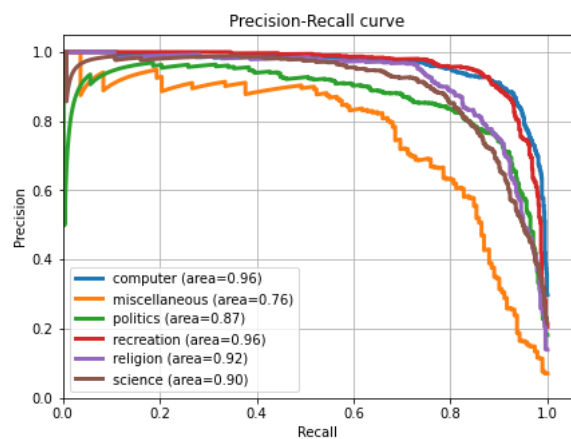
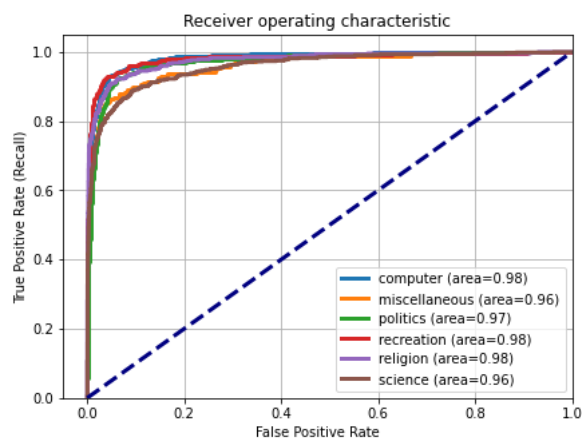
Auc: 0.97

Detail:

	precision	recall	f1-score	support
computer	0.89	0.91	0.90	953
miscellaneous	0.78	0.68	0.72	191
politics	0.79	0.83	0.81	510
recreation	0.89	0.90	0.89	751
religion	0.87	0.83	0.85	478
science	0.83	0.82	0.83	764
accuracy			0.86	3647
macro avg	0.84	0.83	0.83	3647
weighted avg	0.86	0.86	0.85	3647

Confusion matrix

	computer	miscellaneous	politics	recreation	religion	science
True computer	866	16	3	12	5	51
True miscellaneous	26	129	5	17	0	14
True politics	2	2	425	17	39	25
True recreation	15	7	23	673	5	28
True religion	9	1	45	13	397	13
True science	53	10	39	21	12	629
	computer	miscellaneous	politics	recreation	religion	science
	Pred					



## SVM:

Accuracy: 0.87

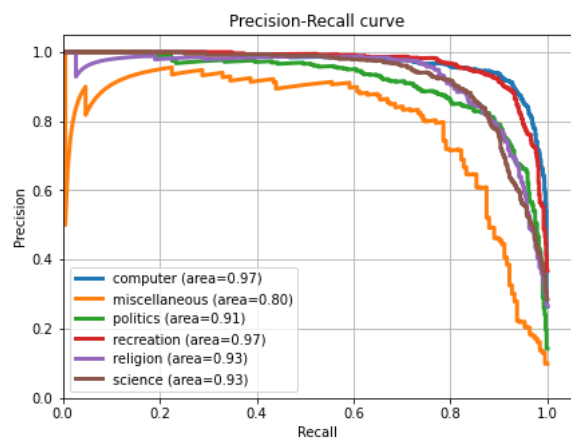
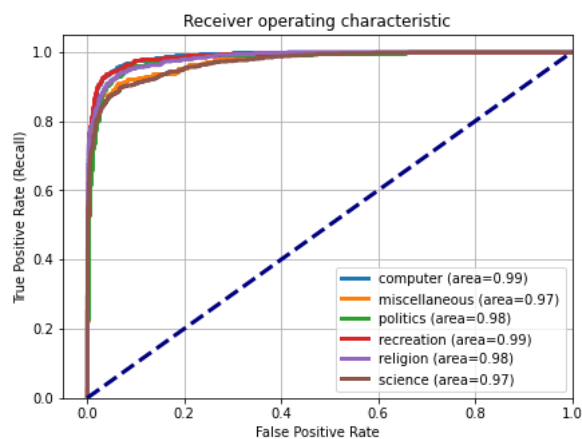
Auc: 0.98

Detail:

	precision	recall	f1-score	support
computer	0.89	0.93	0.91	953
miscellaneous	0.84	0.73	0.78	191
politics	0.80	0.85	0.82	510
recreation	0.90	0.91	0.90	751
religion	0.90	0.81	0.85	478
science	0.87	0.84	0.85	764
accuracy			0.87	3647
macro avg	0.86	0.85	0.85	3647
weighted avg	0.87	0.87	0.87	3647

Confusion matrix

	computer	miscellaneous	politics	recreation	religion	science
True computer	884	13	3	14	2	37
True miscellaneous	24	139	4	13	0	11
True politics	4	1	435	19	34	17
True recreation	15	5	17	684	5	25
True religion	13	0	48	18	389	10
True science	54	8	40	16	4	642
	computer	miscellaneous	politics	recreation	religion	science
	Pred					



window size = 75

LR:

Accuracy: 0.86

Auc: 0.97

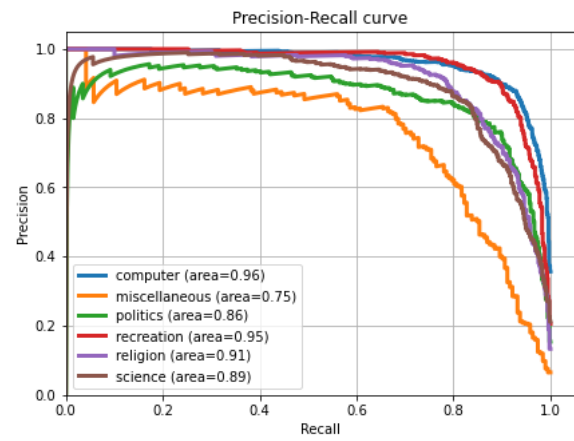
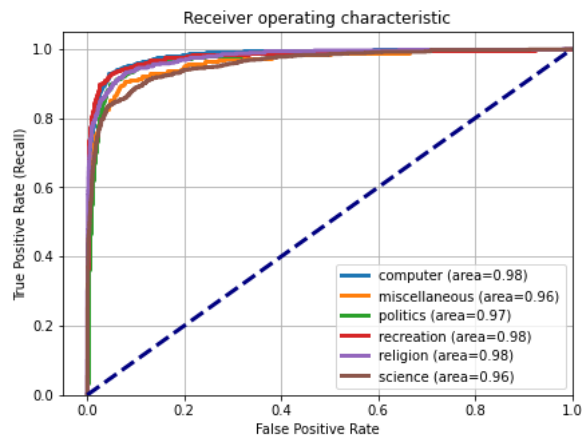
Detail:

	precision	recall	f1-score	support
computer	0.88	0.92	0.90	953
miscellaneous	0.81	0.68	0.74	191
politics	0.80	0.84	0.82	510
recreation	0.89	0.89	0.89	751
religion	0.86	0.82	0.84	478
science	0.83	0.82	0.83	764
accuracy			0.86	3647
macro avg	0.85	0.83	0.84	3647
weighted avg	0.86	0.86	0.86	3647

Confusion matrix

	computer	miscellaneous	politics	recreation	religion	science
True computer	876	14	2	11	4	46
True miscellaneous	27	129	2	16	1	16
True politics	3	0	429	21	34	23
True recreation	18	7	20	671	11	24
True religion	12	1	42	15	392	16
True science	56	8	41	18	12	629
	computer	miscellaneous	politics	recreation	religion	science

Pred



## SVM:

Accuracy: 0.87

Auc: 0.98

Detail:

	precision	recall	f1-score	support
computer	0.89	0.93	0.91	953
miscellaneous	0.83	0.72	0.77	191
politics	0.81	0.86	0.84	510
recreation	0.89	0.91	0.90	751
religion	0.90	0.82	0.86	478
science	0.86	0.84	0.85	764
accuracy			0.87	3647
macro avg	0.86	0.85	0.85	3647
weighted avg	0.87	0.87	0.87	3647

Confusion matrix

	computer	miscellaneous	politics	recreation	religion	science
True computer	888	13	3	12	2	35
True miscellaneous	27	137	1	13	0	13
True politics	3	1	438	21	29	18
True recreation	17	5	13	684	7	25
True religion	16	0	46	17	390	9
True science	52	10	37	21	4	640
	computer	miscellaneous	politics	recreation	religion	science

Pred

