

# Results dump

## Cross validation character n-grams tfidf

F1-score Task A 0.6440953412784399

	precision	recall	f1-score	support				
	0	0.64831953	0.69214769	0.66951710	1923	1	0.66760247	0.62218734
0.64409534	1911							
micro avg	0.65727700	0.65727700	0.65727700	3834	macro avg	0.65796100	0.65716751	
0.65680622	3834							
weighted avg	0.65793082	0.65727700	0.65684601	3834				

## Embeddings with averages

F1-score Task A 0.5545722713864307				precision	recall	f1-score		
support								
	0	0.70503597	0.62156448	0.66067416	473	1	0.51226158	0.60450161
0.55457227	311							
micro avg	0.61479592	0.61479592	0.61479592	784	macro avg	0.60864878	0.61303304	
0.60762321	784							
weighted avg	0.62856552	0.61479592	0.61858527	784				

## Embeddings with sums

--

F1-score Task A	0.3297644539614561				precision	recall	f1-score		
support									
	0	0.62738854	0.83298097	0.71571299	473		1	0.49358974	0.24758842
0.32976445		311							
micro avg	0.60076531	0.60076531	0.60076531		784	macro avg	0.56048914	0.54028470	
0.52273872		784							
weighted avg	0.57431274	0.60076531	0.56261351		784				

# Trial data character n-grams tfidf

{ 'classify__C': 100, 'classify__gamma': 'scale', 'reduce_dim__k': 10000}F1-score Task A									
0.6191198786039454									
		precision	recall	f1-score	support				
	0	0.75458716	0.69556025	0.72387239	473		1	0.58620690	0.65594855
0.61911988		311							
micro avg	0.67984694	0.67984694	0.67984694		784	macro avg	0.67039703	0.67575440	
0.67149613		784							
weighted avg	0.68779346	0.67984694	0.68231878		784				

# Trial data character n-grams with cheating to match skew in test data

Best parameters: { 'classify__C': 100, 'classify__class_weight': {0: 0.75, 1: 1.5}, 'classify__gamma': 'scale', 'reduce_dim__k': 10000}F1-score Task A									
0.6388206388206388									
		precision	recall	f1-score	support				
	0	0.81850534	0.48625793	0.61007958	473		1	0.51689861	0.83601286
0.63882064		311							
micro avg	0.62500000	0.62500000	0.62500000		784	macro avg	0.66770197	0.66113539	
0.62445011		784							
weighted avg	0.69886287	0.62500000	0.62148069		784				

# Trial data character n-grams mpqa skew

# in test data

## MI

Fitting 5 folds for each of 5 candidates, totalling 25 fits[Parallel(n\_jobs=-1)]: Using backend LokyBackend with 16 concurrent workers.[Parallel(n\_jobs=-1)]: Done 20 out of 25 | elapsed: 14.3s remaining: 3.6s[Parallel(n\_jobs=-1)]: Done 25 out of 25 | elapsed: 14.4s finished

Grid scores on training set:

'precision', 'predicted', average, warn_for)					precision	recall	f1-score
support							
	0	0.00000000	0.00000000	0.00000000	473	1	0.39668367
0.56803653	311						
micro avg	0.39668367	0.39668367	0.39668367	784	macro avg	0.19834184	0.50000000
0.28401826	784						
weighted avg	0.15735794	0.39668367	0.22533082	784			

Best parameters:

{'C': 100, 'class\_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A  
0.6067415730337078

	precision	recall	f1-score	support			
	0	0.87931034	0.21564482	0.34634975	473	1	0.44461078
0.60674157	311						0.95498392
micro avg	0.50892857	0.50892857	0.50892857	784	macro avg	0.66196056	0.58531437
0.47654566	784						
weighted avg	0.70687212	0.50892857	0.44964293	784			

Best parameters:

{'C': 100, 'class\_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A  
0.6211180124223602

	precision	recall	f1-score	support			
	0	0.91472868	0.24947146	0.39202658	473	1	0.45801527
0.62111801	311						0.96463023
micro avg	0.53316327	0.53316327	0.53316327	784	macro avg	0.68637197	0.60705084
0.50657230	784						
weighted avg	0.73355793	0.53316327	0.48290341	784			

Best parameters:

{'C': 100, 'class\_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A  
0.6282722513089005

```

precision    recall  f1-score   support

0   0.92142857 0.27272727 0.42088091     473          1  0.46583851 0.96463023
0.62827225      311

  micro avg   0.54719388 0.54719388 0.54719388     784  macro avg   0.69363354 0.61867875
0.52457658      784

weighted avg   0.74070343 0.54719388 0.50314967     784

Best parameters:
{'C': 100, 'class_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A
0.6251319957761351

precision    recall  f1-score   support

0   0.89864865 0.28118393 0.42834138     473          1  0.46540881 0.95176849
0.62513200      311

  micro avg   0.54719388 0.54719388 0.54719388     784  macro avg   0.68202873 0.61647621
0.52673669      784

weighted avg   0.72678948 0.54719388 0.50640501     784

Best parameters:
{'C': 100, 'class_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A
0.6272439281942978

precision    recall  f1-score   support

0   0.90540541 0.28329810 0.43156200     473          1  0.46698113 0.95498392
0.62724393      311

  micro avg   0.54974490 0.54974490 0.54974490     784  macro avg   0.68619327 0.61914101
0.52940296      784

weighted avg   0.73148965 0.54974490 0.50918582     784

Best parameters:
{'C': 100, 'class_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A
0.6314677930306231

precision    recall  f1-score   support

0   0.91891892 0.28752643 0.43800322     473          1  0.47012579 0.96141479
0.63146779      311

  micro avg   0.55484694 0.55484694 0.55484694     784  macro avg   0.69452235 0.62447061
0.53473551      784

weighted avg   0.74089001 0.55484694 0.51474746     784

```

## Chi2

Grid scores on training set:

Best parameters:

{'C': 100, 'class\_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A

0.5821596244131456

	precision	recall	f1-score	support				
0	0.96666667	0.06131078	0.11530815	473	1	0.41114058	0.99678457	
0.58215962	311							
micro avg	0.43239796	0.43239796	0.43239796	784	macro avg	0.68890363	0.52904767	
0.34873389	784							
weighted avg	0.74629854	0.43239796	0.30050051	784				

Best parameters:

{'C': 10, 'class\_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A

0.5944881889763779

	precision	recall	f1-score	support				
0	0.88607595	0.14799154	0.25362319	473	1	0.42836879	0.97106109	
0.59448819	311							
micro avg	0.47448980	0.47448980	0.47448980	784	macro avg	0.65722237	0.55952632	
0.42405569	784							
weighted avg	0.70451099	0.47448980	0.38883877	784				

Best parameters:

{'C': 10, 'class\_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A

0.59765625

	precision	recall	f1-score	support				
0	0.92957746	0.13953488	0.24264706	473	1	0.42917251	0.98392283	
0.59765625	311							
micro avg	0.47448980	0.47448980	0.47448980	784	macro avg	0.67937499	0.56172886	
0.42015165	784							
weighted avg	0.73107499	0.47448980	0.38347341	784				

Best parameters:

{'C': 10, 'class\_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A

0.5996093750000001

	precision	recall	f1-score	support				
0	0.94366197	0.14164905	0.24632353	473	1	0.43057504	0.98713826	
0.59960938	311							
micro avg	0.47704082	0.47704082	0.47704082	784	macro avg	0.68711850	0.56439366	
0.42296645	784							
weighted avg	0.74012876	0.47704082	0.38646626	784				

Best parameters:

{'C': 10, 'class\_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A

0.5974781765276431

```

precision    recall  f1-score   support

0   0.95312500  0.12896406  0.22718808        473
0.59747818      311
  micro avg   0.47066327  0.47066327  0.47066327        784
0.41233313      784
weighted avg   0.74472833  0.47066327  0.37407612        784

Best parameters:
{'C': 10, 'class_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A
0.5926640926640927

precision    recall  f1-score   support

0   0.93220339  0.11627907  0.20676692        473
0.59266409      311
  micro avg   0.46173469  0.46173469  0.46173469        784
0.39971550      784
weighted avg   0.73038854  0.46173469  0.35984603        784

Best parameters:
{'C': 100, 'class_weight': {0: 0.7, 1: 1.5}, 'gamma': 'scale'}F1-score Task A
0.6337854500616523

precision    recall  f1-score   support

0   0.80985915  0.48625793  0.60766182        473
0.63378545      311
  micro avg   0.62117347  0.62117347  0.62117347        784
0.62072364      784
weighted avg   0.69249666  0.62117347  0.61802464        784

```

## Sentiment feats alone

```

precision    recall  f1-score   support

0   0.63468635  0.36363636  0.46236559        473
0.51456311      311
  micro avg   0.48979592  0.48979592  0.48979592        784
0.48846435      784
weighted avg   0.54684829  0.48979592  0.48307149        784

```

# MPQA Sentiment feats + BoW

## MI

Best parameters:

{'C': 1, 'gamma': 'scale'}

F1-score Task A	0.5987421383647799		precision		recall	f1-score
support						
0	0.75666667	0.47991543	0.58732212	473	1	0.49173554 0.76527331
0.59874214	311					
micro avg	0.59311224	0.59311224	0.59311224	784	macro avg	0.62420110 0.62259437
0.59303213	784					
weighted avg	0.65157281	0.59311224	0.59185226	784		

Best parameters:

{'C': 1, 'gamma': 'scale'}

F1-score Task A	0.6122905027932961		precision		recall	f1-score
support						
0	0.81500000	0.34460888	0.48439822	473	1	0.46917808 0.88102894
0.61229050	311					
micro avg	0.55739796	0.55739796	0.55739796	784	macro avg	0.64208904 0.61281891
0.54834436	784					
weighted avg	0.67781809	0.55739796	0.53513100	784		

Best parameters:

{'C': 1, 'gamma': 'scale'}

F1-score Task A	0.6160714285714285		precision		recall	f1-score
support						
0	0.82412060	0.34672304	0.48809524	473	1	0.47179487 0.88745981
0.61607143	311					
micro avg	0.56122449	0.56122449	0.56122449	784	macro avg	0.64795774 0.61709143
0.55208333	784					
weighted avg	0.68435874	0.56122449	0.53886130	784		

Best parameters:

{'C': 1, 'gamma': 'scale'}

F1-score Task A	0.6155555555555555	precision	recall	f1-score
support				
0	0.82564103 0.34038055 0.48203593	473	1	0.47028862 0.89067524
0.61555556	311			
micro avg	0.55867347 0.55867347 0.55867347	784	macro avg	0.64796483 0.61552790
0.54879574	784			
weighted avg	0.68467853 0.55867347 0.53500098	784		

Best parameters:

{'C': 1, 'gamma': 'scale'}

F1-score Task A	0.6145374449339207	precision	recall	f1-score
support				
0	0.82887701 0.32769556 0.46969697	473	1	0.46733668 0.89710611
0.61453744	311			
micro avg	0.55357143 0.55357143 0.55357143	784	macro avg	0.64810684 0.61240083
0.54211721	784			
weighted avg	0.68545986 0.55357143 0.52715282	784		

Best parameters:

{'C': 1, 'gamma': 'scale'}

F1-score Task A	0.6106870229007634	precision	recall	f1-score
support				
0	0.82584270 0.31078224 0.45161290	473	1	0.46204620 0.90032154
0.61068702	311			
micro avg	0.54464286 0.54464286 0.54464286	784	macro avg	0.64394445 0.60555189
0.53114996	784			
weighted avg	0.68153057 0.54464286 0.51471501	784		

Best parameters:

{'C': 10, 'gamma': 'scale'}

F1-score Task A	0.6352941176470589	precision	recall	f1-score
support				
0	0.79393939 0.55391121 0.65255293	473	1	0.53524229 0.78135048
0.63529412	311			
micro avg	0.64413265 0.64413265 0.64413265	784	macro avg	0.66459084 0.66763084
0.64392352	784			
weighted avg	0.69131848 0.64413265 0.64570664	784		

Best parameters:

{'C': 10, 'gamma': 'scale'}

F1-score Task A	0.639386189258312	precision	recall	f1-score
-----------------	-------------------	-----------	--------	----------



```

support
      0  0.80511182 0.53276956 0.64122137      473      1  0.53078556 0.80385852
0.63938619      311
      micro avg  0.64030612 0.64030612 0.64030612      784  macro avg  0.66794869 0.66831404
0.64030378      784
weighted avg  0.69629107 0.64030612 0.64049339      784
Best parameters:
{'C': 10, 'gamma': 'scale'}
F1-score Task A 0.645
      precision  recall  f1-score  support
      0  0.82033898 0.51162791 0.63020833      473      1  0.52760736 0.82958199
0.64500000      311
      micro avg  0.63775510 0.63775510 0.63775510      784  macro avg  0.67397317 0.67060495
0.63760417      784
weighted avg  0.70421713 0.63775510 0.63607595      784

```

## Chi2

```

Best parameters:
{'C': 10, 'gamma': 'scale'}
F1-score Task A 0.6114352392065344      precision  recall  f1-score
support
      0  0.79411765 0.39957717 0.53164557      473      1  0.47985348 0.84244373
0.61143524      311
      micro avg  0.57525510 0.57525510 0.57525510      784  macro avg  0.63698556 0.62101045
0.57154040      784
weighted avg  0.66945418 0.57525510 0.56329683      784
Best parameters:
{'C': 10, 'gamma': 'scale'}
F1-score Task A 0.6084425036390102      precision  recall  f1-score
support
      0  0.75000000 0.64693446 0.69466515      473      1  0.55585106 0.67202572
0.60844250      311
      micro avg  0.65688776 0.65688776 0.65688776      784  macro avg  0.65292553 0.65948009
0.65155383      784
weighted avg  0.67298429 0.65688776 0.66046204      784
Best parameters:

```

{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.5892857142857142	precision	recall	f1-score
support				
0	0.73286052 0.65539112 0.69196429	473	1	0.54847645 0.63665595
0.58928571	311			
micro avg	0.64795918 0.64795918 0.64795918	784	macro avg	0.64066849 0.64602353
0.64062500	784			
weighted avg	0.65971837 0.64795918 0.65123337	784		

Best parameters:

{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.5991058122205664	precision	recall	f1-score
support				
0	0.74056604 0.66384778 0.70011148	473	1	0.55833333 0.64630225
0.59910581	311			
micro avg	0.65688776 0.65688776 0.65688776	784	macro avg	0.64944969 0.65507502
0.64960865	784			
weighted avg	0.66827730 0.65688776 0.66004418	784		

Best parameters:

{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.6240928882438316	precision	recall	f1-score
support				
0	0.76354680 0.65539112 0.70534699	473	1	0.56878307 0.69131833
0.62409289	311			
micro avg	0.66964286 0.66964286 0.66964286	784	macro avg	0.66616493 0.67335472
0.66471994	784			
weighted avg	0.68628721 0.66964286 0.67311481	784		

Best parameters:

{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.6195965417867435	precision	recall	f1-score
support				
0	0.76059850 0.64482030 0.69794050	473	1	0.56135770 0.69131833
0.61959654	311			
micro avg	0.66326531 0.66326531 0.66326531	784	macro avg	0.66097810 0.66806931
0.65876852	784			
weighted avg	0.68156293 0.66326531 0.66686273	784		

Best parameters:

{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.6218978102189782	precision	recall	f1-score
support				

0	0.76097561	0.65961945	0.70668177	473	1	0.56951872	0.68488746
0.62189781	311						
micro avg	0.66964286	0.66964286	0.66964286	784	macro avg	0.66524716	0.67225346
0.66428979	784						
weighted avg	0.68502779	0.66964286	0.67304936	784			
Best parameters:							
{ 'C': 10, 'gamma': 'scale' }							
F1-score Task A	0.6440677966101694			precision	recall	f1-score	
support							
0	0.80487805	0.55813953	0.65917603	473	1	0.54166667	0.79421222
0.64406780	311						
micro avg	0.65178571	0.65178571	0.65178571	784	macro avg	0.67327236	0.67617588
0.65162191	784						
weighted avg	0.70046639	0.65178571	0.65318284	784			
Best parameters:							
{ 'C': 10, 'gamma': 'scale' }							
F1-score Task A	0.644918444165621			precision	recall	f1-score	
support							
0	0.81879195	0.51585624	0.63294423	473	1	0.52880658	0.82636656
0.64491844	311						
micro avg	0.63903061	0.63903061	0.63903061	784	macro avg	0.67379927	0.67111140
0.63893134	784						
weighted avg	0.70375949	0.63903061	0.63769420	784			

# CoreNLP Sentiment feats + BOW

## MI

Best parameters:							
{ 'C': 100, 'gamma': 'scale' }							
F1-score Task A	0.5388127853881278			precision	recall	f1-score	

```

support
      0  0.69406393 0.64270613 0.66739846      473      1  0.51156069 0.56913183
0.53881279      311
      micro avg  0.61352041 0.61352041 0.61352041      784  macro avg  0.60281231 0.60591898
0.60310562      784
weighted avg  0.62166787 0.61352041 0.61639062      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.5680119581464873      precision      recall  f1-score
support
      0  0.71596244 0.64482030 0.67853170      473      1  0.53072626 0.61093248
0.56801196      311
      micro avg  0.63137755 0.63137755 0.63137755      784  macro avg  0.62334435 0.62787639
0.62327183      784
weighted avg  0.64248227 0.63137755 0.63469032      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.5727272727272729      precision      recall  f1-score
support
      0  0.71954023 0.66173362 0.68942731      473      1  0.54154728 0.60771704
0.57272727      311
      micro avg  0.64030612 0.64030612 0.64030612      784  macro avg  0.63054375 0.63472533
0.63107729      784
weighted avg  0.64893333 0.64030612 0.64313431      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.6156111929307806      precision      recall  f1-score
support
      0  0.75480769 0.66384778 0.70641170      473      1  0.56793478 0.67202572
0.61561119      311
      micro avg  0.66709184 0.66709184 0.66709184      784  macro avg  0.66137124 0.66793675
0.66101145      784
weighted avg  0.68067826 0.66709184 0.67039262      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.6056971514242879      precision      recall  f1-score
support
      0  0.74532710 0.67441860 0.70810211      473      1  0.56741573 0.64951768
0.60569715      311

```

micro avg	0.66454082	0.66454082	0.66454082	784	macro avg	0.65637142	0.66196814
	0.65689963		784				
weighted avg	0.67475257	0.66454082	0.66747973	784			
Best parameters:							
{ 'C': 100, 'gamma': 'scale' }							
F1-score Task A	0.6217008797653958			precision	recall	f1-score	
support							
	0	0.76029056	0.66384778	0.70880361	473	1	0.57142857 0.68167203
	0.62170088		311				
micro avg	0.67091837	0.67091837	0.67091837	784	macro avg	0.66585956	0.67275990
	0.66525225		784				
weighted avg	0.68537209	0.67091837	0.67425138	784			
Best parameters:							
{ 'C': 100, 'gamma': 'scale' }							
F1-score Task A	0.6133333333333333			precision	recall	f1-score	
support							
	0	0.75238095	0.66807611	0.70772676	473	1	0.56868132 0.66559486
	0.61333333		311				
micro avg	0.66709184	0.66709184	0.66709184	784	macro avg	0.66053114	0.66683548
	0.66053005		784				
weighted avg	0.67951031	0.66709184	0.67028243	784			
F1-score Task A	0.6105263157894737			precision	recall	f1-score	
support							
	0	0.74883721	0.68076110	0.71317829	473	1	0.57344633 0.65273312
	0.61052632		311				
micro avg	0.66964286	0.66964286	0.66964286	784	macro avg	0.66114177	0.66674711
	0.66185231		784				
weighted avg	0.67926251	0.66964286	0.67245793	784			
Best parameters:							
{ 'C': 100, 'gamma': 'scale' }							
F1-score Task A	0.6240713224368498			precision	recall	f1-score	
support							
	0	0.76066351	0.67864693	0.71731844	473	1	0.58011050 0.67524116
	0.62407132		311				
micro avg	0.67729592	0.67729592	0.67729592	784	macro avg	0.67038700	0.67694405
	0.67069488		784				
weighted avg	0.68904108	0.67729592	0.68032883	784			

# Chi2

Best parameters:									
{ 'C': 100, 'gamma': 'scale' }									
F1-score Task A	0.5799457994579946				precision		recall	f1-score	
support									
	0	0.72829132	0.54968288	0.62650602	473		1	0.50117096	0.68810289
0.57994580	311								
micro avg	0.60459184	0.60459184	0.60459184		784	macro avg	0.61473114	0.61889288	
0.60322591	784								
weighted avg	0.63819638	0.60459184	0.60803634		784				
Best parameters:									
{ 'C': 100, 'gamma': 'scale' }									
F1-score Task A	0.5900151285930408				precision		recall	f1-score	
support									
	0	0.73271889	0.67230444	0.70121279	473		1	0.55714286	0.62700965
0.59001513	311								
micro avg	0.65433673	0.65433673	0.65433673		784	macro avg	0.64493088	0.64965704	
0.64561396	784								
weighted avg	0.66307075	0.65433673	0.65710249		784				
Best parameters:									
{ 'C': 100, 'gamma': 'scale' }									
F1-score Task A	0.6184012066365008				precision		recall	f1-score	
support									
	0	0.75462963	0.68921776	0.72044199	473		1	0.58238636	0.65916399
0.61840121	311								
micro avg	0.67729592	0.67729592	0.67729592		784	macro avg	0.66850800	0.67419087	
0.66942160	784								
weighted avg	0.68630354	0.67729592	0.67996408		784				
Best parameters:									
{ 'C': 100, 'gamma': 'scale' }									
F1-score Task A	0.5988023952095808				precision		recall	f1-score	
support									
	0	0.74004684	0.66807611	0.70222222	473		1	0.56022409	0.64308682
0.59880240	311								
micro avg	0.65816327	0.65816327	0.65816327		784	macro avg	0.65013546	0.65558146	

```

0.65051231      784
weighted avg  0.66871409 0.65816327 0.66119727      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.6133333333333333      precision      recall      f1-score
support
      0  0.75238095 0.66807611 0.70772676      473      1  0.56868132 0.66559486
0.61333333      311
      micro avg  0.66709184 0.66709184 0.66709184      784      macro avg  0.66053114 0.66683548
0.66053005      784
weighted avg  0.67951031 0.66709184 0.67028243      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.6332842415316642      precision      recall      f1-score
support
      0  0.76923077 0.67653277 0.71991001      473      1  0.58423913 0.69131833
0.63328424      311
      micro avg  0.68239796 0.68239796 0.68239796      784      macro avg  0.67673495 0.68392555
0.67659713      784
weighted avg  0.69584761 0.68239796 0.68554698      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.6117647058823529      precision      recall      f1-score
support
      0  0.75180723 0.65961945 0.70270270      473      1  0.56368564 0.66881029
0.61176471      311
      micro avg  0.66326531 0.66326531 0.66326531      784      macro avg  0.65774643 0.66421487
0.65723370      784
weighted avg  0.67718246 0.66326531 0.66662908      784
F1-score Task A 0.6172106824925816      precision      recall      f1-score
support
      0  0.75534442 0.67230444 0.71140940      473      1  0.57300275 0.66881029
0.61721068      311
      micro avg  0.67091837 0.67091837 0.67091837      784      macro avg  0.66417359 0.67055736
0.66431004      784
weighted avg  0.68301246 0.67091837 0.67404230      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.6140089418777943      precision      recall      f1-score

```

support								
	0	0.75235849	0.67441860	0.71125975	473		1	0.57222222 0.66237942
0.61400894		311						
	micro avg	0.66964286	0.66964286	0.66964286	784	macro avg	0.66229036	0.66839901
0.66263435		784						
weighted avg	0.68090137	0.66964286	0.67268195		784			

# Twitter Sentiment feats + BOW

## Mutual Information

Best parameters:  
{'C': 10, 'gamma': 'scale'}

F1-score Task A	0.5710186513629842		precision		recall		f1-score
support							
	0	0.71859296	0.60465116	0.65671642	473		1 0.51554404 0.63987138
0.57101865		311					
	micro avg	0.61862245	0.61862245	0.61862245	784	macro avg	0.61706850 0.62226127
0.61386753		784					
weighted avg	0.63804677	0.61862245	0.62272151		784		

Best parameters:  
{'C': 10, 'gamma': 'scale'}

F1-score Task A	0.5918653576437587		precision		recall		f1-score
support							
	0	0.73821990	0.59619450	0.65964912	473		1 0.52487562 0.67845659
0.59186536		311					
	micro avg	0.62882653	0.62882653	0.62882653	784	macro avg	0.63154776 0.63732555
0.62575724		784					
weighted avg	0.65358971	0.62882653	0.63276041		784		

Best parameters:  
{'C': 10, 'gamma': 'scale'}



F1-score Task A	0.5963431786216595	precision	recall	f1-score
support				
0	0.74218750 0.60253700 0.66511085	473	1	0.53000000 0.68167203
0.59634318	311			
micro avg	0.63392857 0.63392857 0.63392857	784	macro avg	0.63609375 0.64210451
0.63072702	784			
weighted avg	0.65801618 0.63392857 0.63783184	784		
Best parameters:				
{ 'C': 10, 'gamma': 'scale' }				
F1-score Task A	0.6134800550206327	precision	recall	f1-score
support				
0	0.76086957 0.59196617 0.66587396	473	1	0.53605769 0.71704180
0.61348006	311			
micro avg	0.64158163 0.64158163 0.64158163	784	macro avg	0.64846363 0.65450399
0.63967701	784			
weighted avg	0.67169037 0.64158163 0.64509015	784		
Best parameters:				
{ 'C': 10, 'gamma': 'scale' }				
F1-score Task A	0.6253443526170799	precision	recall	f1-score
support				
0	0.77235772 0.60253700 0.67695962	473	1	0.54698795 0.72990354
0.62534435	311			
micro avg	0.65306122 0.65306122 0.65306122	784	macro avg	0.65967284 0.66622027
0.65115199	784			
weighted avg	0.68295721 0.65306122 0.65648469	784		
Best parameters:				
{ 'C': 10, 'gamma': 'scale' }				
F1-score Task A	0.6233062330623307	precision	recall	f1-score
support				
0	0.77310924 0.58350951 0.66506024	473	1	0.53864169 0.73954984
0.62330623	311			
micro avg	0.64540816 0.64540816 0.64540816	784	macro avg	0.65587546 0.66152968
0.64418324	784			
weighted avg	0.68009979 0.64540816 0.64849711	784		
Best parameters:				
{ 'C': 10, 'gamma': 'scale' }				
F1-score Task A	0.6228187919463087	precision	recall	f1-score
support				
0	0.77428571 0.57293869 0.65856622	473	1	0.53456221 0.74598071

```

0.62281879      311
  micro avg  0.64158163 0.64158163 0.64158163      784  macro avg  0.65442396 0.65945970
0.64069251      784
weighted avg  0.67919131 0.64158163 0.64438580      784
Best parameters:
{'C': 10, 'gamma': 'scale'}
F1-score Task A 0.6251655629139073      precision      recall  f1-score
support
      0  0.77941176 0.56025370 0.65190652      473      1  0.53153153 0.75884244
0.62516556      311
  micro avg  0.63903061 0.63903061 0.63903061      784  macro avg  0.65547165 0.65954807
0.63853604      784
weighted avg  0.68108172 0.63903061 0.64129882      784
Best parameters:
{'C': 10, 'gamma': 'scale'}
F1-score Task A 0.6276041666666666      precision      recall  f1-score
support
      0  0.78593272 0.54334038 0.64250000      473      1  0.52735230 0.77491961
0.62760417      311
  micro avg  0.63520408 0.63520408 0.63520408      784  macro avg  0.65664251 0.65913000
0.63505208      784
weighted avg  0.68335809 0.63520408 0.63659107      784

```

# Chi-squared

```

Best parameters:
{'C': 10, 'gamma': 'scale'}
F1-score Task A 0.6
      precision      recall  f1-score  support
      0  0.76140351 0.45877378 0.57255937      473      1  0.48697395 0.78135048
0.60000000      311
  micro avg  0.58673469 0.58673469 0.58673469      784  macro avg  0.62418873 0.62006213
0.58627968      784
weighted avg  0.65254178 0.58673469 0.58344462      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.5842349304482226      precision      recall  f1-score

```

```

support
      0  0.72767857 0.68921776 0.70792617      473      1  0.56250000 0.60771704
0.58423493      311
      micro avg  0.65688776 0.65688776 0.65688776      784  macro avg  0.64508929 0.64846740
0.64608055      784
weighted avg  0.66215493 0.65688776 0.65885987      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.6183431952662721      precision      recall  f1-score
support
      0  0.75656325 0.67019027 0.71076233      473      1  0.57260274 0.67202572
0.61834320      311
      micro avg  0.67091837 0.67091837 0.67091837      784  macro avg  0.66458299 0.67110800
0.66455276      784
weighted avg  0.68358912 0.67091837 0.67410117      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.623688155922039      precision      recall  f1-score
support
      0  0.75934579 0.68710359 0.72142064      473      1  0.58426966 0.66881029
0.62368816      311
      micro avg  0.67984694 0.67984694 0.67984694      784  macro avg  0.67180773 0.67795694
0.67255440      784
weighted avg  0.68989595 0.67984694 0.68265176      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.624813153961136      precision      recall  f1-score
support
      0  0.76056338 0.68498943 0.72080089      473      1  0.58379888 0.67202572
0.62481315      311
      micro avg  0.67984694 0.67984694 0.67984694      784  macro avg  0.67218113 0.67850758
0.67280702      784
weighted avg  0.69044379 0.67984694 0.68272412      784
Best parameters:
{'C': 100, 'gamma': 'scale'}
F1-score Task A 0.6340740740740741      precision      recall  f1-score
support
      0  0.76904762 0.68287526 0.72340426      473      1  0.58791209 0.68810289
0.63407407      311

```

micro avg	0.68494898	0.68494898	0.68494898	784	macro avg	0.67847985	0.68548908
	0.67873916			784			
weighted avg	0.69719411	0.68494898	0.68796843	784			
Best parameters:							
{ 'C': 100, 'gamma': 'scale' }							
F1-score Task A	0.609720176730486			precision	recall	f1-score	
support							
	0	0.75000000	0.65961945	0.70191226	473	1	0.56250000 0.66559486
	0.60972018		311				
micro avg	0.66198980	0.66198980	0.66198980	784	macro avg	0.65625000	0.66260715
	0.65581622		784				
weighted avg	0.67562181	0.66198980	0.66534117	784			
Best parameters:							
{ 'C': 100, 'gamma': 'scale' }							
F1-score Task A	0.6244477172312224			precision	recall	f1-score	
support							
	0	0.76201923	0.67019027	0.71316085	473	1	0.57608696 0.68167203
	0.62444772		311				
micro avg	0.67474490	0.67474490	0.67474490	784	macro avg	0.66905309	0.67593115
	0.66880429		784				
weighted avg	0.68826293	0.67474490	0.67796980	784			
Best parameters:							
{ 'C': 10, 'gamma': 'scale' }							
F1-score Task A	0.6311688311688313			precision	recall	f1-score	
support							
	0	0.79076923	0.54334038	0.64411028	473	1	0.52941176 0.78135048
	0.63116883		311				
micro avg	0.63775510	0.63775510	0.63775510	784	macro avg	0.66009050	0.66234543
	0.63763955		784				
weighted avg	0.68709299	0.63775510	0.63897662	784			

# Bow alone

# Mutual Information

Best parameters:

{'C': 0.01, 'gamma': 'scale'}

F1-score Task A	0.6146788990825688	precision	recall	f1-score
support				
0	0.80717489 0.38054968 0.51724138	473	1	0.47771836 0.86173633
0.61467890	311			
micro avg	0.57142857 0.57142857 0.57142857	784	macro avg	0.64244662 0.62114301
0.56596014	784			
weighted avg	0.67648486 0.57142857 0.55589325	784		

Best parameters:

{'C': 0.1, 'gamma': 'scale'}

F1-score Task A	0.6074766355140188	precision	recall	f1-score
support				
0	0.78661088 0.39746300 0.52808989	473	1	0.47706422 0.83601286
0.60747664	311			
micro avg	0.57142857 0.57142857 0.57142857	784	macro avg	0.63183755 0.61673793
0.56778326	784			
weighted avg	0.66381877 0.57142857 0.55958131	784		

Best parameters:

{'C': 10, 'gamma': 'scale'}

F1-score Task A	0.6084507042253521	precision	recall	f1-score
support				
0	0.75324675 0.61310782 0.67599068	473	1	0.54135338 0.69453376
0.60845070	311			
micro avg	0.64540816 0.64540816 0.64540816	784	macro avg	0.64730007 0.65382079
0.64222069	784			
weighted avg	0.66919211 0.64540816 0.64919867	784		

Best parameters:

{'C': 10, 'gamma': 'scale'}

F1-score Task A	0.6022727272727273	precision	recall	f1-score
support				
0	0.74680307 0.61733615 0.67592593	473	1	0.53944020 0.68167203
0.60227273	311			
micro avg	0.64285714 0.64285714 0.64285714	784	macro avg	0.64312164 0.64950409
0.63909933	784			
weighted avg	0.66454561 0.64285714 0.64670890	784		

Best parameters:

{'C': 10, 'gamma': 'scale'}

F1-score Task A	0.5991316931982634	precision	recall	f1-score
-----------------	--------------------	-----------	--------	----------

```

support
      0  0.74257426 0.63424947 0.68415051      473      1  0.54473684 0.66559486
0.59913169      311
      micro avg  0.64668367 0.64668367 0.64668367      784  macro avg  0.64365555 0.64992216
0.64164110      784
weighted avg  0.66409538 0.64668367 0.65042494      784
Best parameters:
{'C': 10, 'gamma': 'scale'}
F1-score Task A 0.6080691642651297      precision      recall  f1-score
support
      0  0.75062344 0.63636364 0.68878719      473      1  0.55091384 0.67845659
0.60806916      311
      micro avg  0.65306122 0.65306122 0.65306122      784  macro avg  0.65076864 0.65741011
0.64842817      784
weighted avg  0.67140190 0.65306122 0.65676766      784
Best parameters:
{'C': 1, 'gamma': 'scale'}
F1-score Task A 0.6242038216560509      precision      recall  f1-score
support
      0  0.78709677 0.51585624 0.62324393      473      1  0.51687764 0.78778135
0.62420382      311
      micro avg  0.62372449 0.62372449 0.62372449      784  macro avg  0.65198721 0.65181879
0.62372388      784
weighted avg  0.67990525 0.62372449 0.62362471      784
Best parameters:
{'C': 1, 'gamma': 'scale'}
F1-score Task A 0.6221662468513853      precision      recall  f1-score
support
      0  0.78737542 0.50105708 0.61240310      473      1  0.51138716 0.79421222
0.62216625      311
      micro avg  0.61734694 0.61734694 0.61734694      784  macro avg  0.64938129 0.64763465
0.61728467      784
weighted avg  0.67789538 0.61734694 0.61627598      784
Best parameters:
{'C': 1, 'gamma': 'scale'}
F1-score Task A 0.6262376237623762      precision      recall  f1-score
support
      0  0.79790941 0.48414376 0.60263158      473      1  0.50905433 0.81350482
0.62623762      311

```

micro avg	0.61479592	0.61479592	0.61479592	784	macro avg	0.65348187	0.64882429
	0.61443460		784				
weighted avg	0.68332531	0.61479592	0.61199571	784			

# Chi2

Best parameters:							
{ 'C': 0.1, 'gamma': 'scale' }							
F1-score	Task A	0.616822429906542		precision		recall	f1-score
	support						
	0	0.80334728	0.40591966	0.53932584	473	1	0.48440367 0.84887460
	0.61682243		311				
	micro avg	0.58163265	0.58163265	0.58163265	784	macro avg	0.64387548 0.62739713
	0.57807414		784				
	weighted avg	0.67682756	0.58163265	0.57006747	784		
Best parameters:							
{ 'C': 0.1, 'gamma': 'scale' }							
F1-score	Task A	0.6134259259259259		precision		recall	f1-score
	support						
	0	0.80086580	0.39112051	0.52556818	473	1	0.47920434 0.85209003
	0.61342593		311				
	micro avg	0.57397959	0.57397959	0.57397959	784	macro avg	0.64003507 0.62160527
	0.56949705		784				
	weighted avg	0.67326795	0.57397959	0.56041991	784		
Best parameters:							
{ 'C': 10, 'gamma': 'scale' }							
F1-score	Task A	0.6005830903790088		precision		recall	f1-score
	support						
	0	0.74327628	0.64270613	0.68934240	473	1	0.54933333 0.66237942
	0.60058309		311				
	micro avg	0.65051020	0.65051020	0.65051020	784	macro avg	0.64630481 0.65254278
	0.64496275		784				
	weighted avg	0.66634228	0.65051020	0.65413303	784		
Best parameters:							
{ 'C': 10, 'gamma': 'scale' }							
F1-score	Task A	0.6051873198847262		precision		recall	f1-score
	support						

0	0.74812968	0.63424947	0.68649886	473	1	0.54830287	0.67524116
0.60518732	311						
micro avg	0.65051020	0.65051020	0.65051020	784	macro avg	0.64821627	0.65474531
0.64584309	784						
weighted avg	0.66886165	0.65051020	0.65424390	784			
Best parameters:							
{ 'C': 10, 'gamma': 'scale' }							
F1-score Task A	0.5979971387696709			precision	recall	f1-score	
support							
0	0.74242424	0.62156448	0.67663982	473	1	0.53865979	0.67202572
0.59799714	311						
micro avg	0.64158163	0.64158163	0.64158163	784	macro avg	0.64054202	0.64679510
0.63731848	784						
weighted avg	0.66159421	0.64158163	0.64544355	784			
Best parameters:							
{ 'C': 10, 'gamma': 'scale' }							
F1-score Task A	0.6189111747851003			precision	recall	f1-score	
support							
0	0.76070529	0.63847780	0.69425287	473	1	0.55813953	0.69453376
0.61891117	311						
micro avg	0.66071429	0.66071429	0.66071429	784	macro avg	0.65942241	0.66650578
0.65658202	784						
weighted avg	0.68035076	0.66071429	0.66436605	784			
Best parameters:							
{ 'C': 10, 'gamma': 'scale' }							
F1-score Task A	0.6221590909090909			precision	recall	f1-score	
support							
0	0.76470588	0.63213531	0.69212963	473	1	0.55725191	0.70418006
0.62215909	311						
micro avg	0.66071429	0.66071429	0.66071429	784	macro avg	0.66097890	0.66815769
0.65714436	784						
weighted avg	0.68241228	0.66071429	0.66437346	784			
Best parameters:							
{ 'C': 1, 'gamma': 'scale' }							
F1-score Task A	0.628498727735369			precision	recall	f1-score	
support							
0	0.79288026	0.51797040	0.62659847	473	1	0.52000000	0.79421222
0.62849873	311						
micro avg	0.62755102	0.62755102	0.62755102	784	macro avg	0.65644013	0.65609131



0.62754860	784								
weighted avg	0.68463312	0.62755102	0.62735227	784					
Best parameters:									
{ 'C': 1, 'gamma': 'scale' }									
F1-score Task A	0.62360248	44720497			precision	recall	f1-score		
support									
	0	0.79310345	0.48625793	0.60288336	473	1	0.50809717	0.80707395	
0.62360248	311								
micro avg	0.61352041	0.61352041	0.61352041	784	macro avg	0.65060031	0.64666594		
0.61324292	784								
weighted avg	0.68004611	0.61352041	0.61110230	784					

# Combined

## Chi2

Best parameters:									
{ 'C': 100, 'gamma': 'scale' }									
F1-score Task A	0.56637168	14159292			precision	recall	f1-score		
support									
	0	0.71462830	0.63002114	0.66966292	473	1	0.52316076	0.61736334	
0.56637168	311								
micro avg	0.62500000	0.62500000	0.62500000	784	macro avg	0.61889453	0.62369224		
0.61801730	784								
weighted avg	0.63867625	0.62500000	0.62868897	784					
Best parameters:									
{ 'C': 100, 'gamma': 'scale' }									
F1-score Task A	0.57530120	48192772			precision	recall	f1-score		
support									
	0	0.72157773	0.65750529	0.68805310	473	1	0.54107649	0.61414791	
0.57530120	311								
micro avg	0.64030612	0.64030612	0.64030612	784	macro avg	0.63132711	0.63582660		
0.63167715	784								
weighted avg	0.64997583	0.64030612	0.64332626	784					

Best parameters:

{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.5954198473282442	precision	recall	f1-score
support				
0	0.73636364 0.68498943 0.70974808	473	1	0.56686047 0.62700965
0.59541985	311			
micro avg	0.66198980 0.66198980 0.66198980	784	macro avg	0.65161205 0.65599954
0.65258397	784			
weighted avg	0.66912450 0.66198980 0.66439594	784		

Best parameters:

{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.600609756097561	precision	recall	f1-score
support				
0	0.74031891 0.68710359 0.71271930	473	1	0.57101449 0.63344051
0.60060976	311			
micro avg	0.66581633 0.66581633 0.66581633	784	macro avg	0.65566670 0.66027205
0.65666453	784			
weighted avg	0.67315861 0.66581633 0.66824727	784		

Best parameters:

{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.6255639097744361	precision	recall	f1-score
support				
0	0.76046512 0.69133192 0.72425249	473	1	0.58757062 0.66881029
0.62556391	311			
micro avg	0.68239796 0.68239796 0.68239796	784	macro avg	0.67401787 0.68007111
0.67490820	784			
weighted avg	0.69188069 0.68239796 0.68510434	784		

Best parameters:

{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.6216216216216217	precision	recall	f1-score
support				
0	0.75757576 0.68710359 0.72062084	473	1	0.58309859 0.66559486
0.62162162	311			
micro avg	0.67857143 0.67857143 0.67857143	784	macro avg	0.67033717 0.67634922
0.67112123	784			
weighted avg	0.68836351 0.67857143 0.68134947	784		

Best parameters:

{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.6077844311377245	precision	recall	f1-score
-----------------	--------------------	-----------	--------	----------

support							
	0	0.74707260	0.67441860	0.70888889	473	1	0.56862745 0.65273312
0.60778443	311						
micro avg	0.66581633	0.66581633	0.66581633	784	macro avg	0.65785003	0.66357586
0.65833666	784						
weighted avg	0.67628632	0.66581633	0.66878240	784			

# Mutual Information

Best parameters:  
{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.5601217656012177	precision	recall	f1-score
-----------------	--------------------	-----------	--------	----------

support						
	0	0.71004566	0.65750529	0.68276619	473	1 0.53179191 0.59163987
0.56012177	311					
micro avg	0.63137755	0.63137755	0.63137755	784	macro avg	0.62091878 0.62457258
0.62144398	784					
weighted avg	0.63933531	0.63137755	0.63411515	784		

Best parameters:  
{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.5753424657534247	precision	recall	f1-score
-----------------	--------------------	-----------	--------	----------

support						
	0	0.72146119	0.66807611	0.69374314	473	1 0.54624277 0.60771704
0.57534247	311					
micro avg	0.64413265	0.64413265	0.64413265	784	macro avg	0.63385198 0.63789658
0.63454280	784					
weighted avg	0.65195490	0.64413265	0.64677553	784		

Best parameters:  
{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.581039755351682	precision	recall	f1-score
-----------------	-------------------	-----------	--------	----------

support						
	0	0.72562358	0.67653277	0.70021882	473	1 0.55393586 0.61093248
0.58103976	311					
micro avg	0.65051020	0.65051020	0.65051020	784	macro avg	0.63977972 0.64373262
0.64062929	784					
weighted avg	0.65751787	0.65051020	0.65294243	784		

Best parameters:  
{'C': 100, 'gamma': 'scale'}

F1-score Task A	0.6066066066066067	precision	recall	f1-score
support				
0	0.74592075 0.67653277 0.70953437	473	1	0.56901408 0.64951768
0.60660661	311			
micro avg	0.66581633 0.66581633 0.66581633	784	macro avg	0.65746742 0.66302523
0.65807049	784			
weighted avg	0.67574476 0.66581633 0.66870461	784		
Best parameters:				
{ 'C': 100, 'gamma': 'scale' }				

  

F1-score Task A	0.6059701492537314	precision	recall	f1-score
support				
0	0.74588235 0.67019027 0.70601336	473	1	0.56545961 0.65273312
0.60597015	311			
micro avg	0.66326531 0.66326531 0.66326531	784	macro avg	0.65567098 0.66146170
0.65599176	784			
weighted avg	0.67431160 0.66326531 0.66632785	784		
Best parameters:				
{ 'C': 100, 'gamma': 'scale' }				

  

F1-score Task A	0.608955223880597	precision	recall	f1-score
support				
0	0.74823529 0.67230444 0.70824053	473	1	0.56824513 0.65594855
0.60895522	311			
micro avg	0.66581633 0.66581633 0.66581633	784	macro avg	0.65824021 0.66412650
0.65859788	784			
weighted avg	0.67683613 0.66581633 0.66885567	784		
Best parameters:				
{ 'C': 100, 'gamma': 'scale' }				

  

F1-score Task A	0.6063348416289592	precision	recall	f1-score
support				
0	0.74537037 0.68076110 0.71160221	473	1	0.57102273 0.64630225
0.60633484	311			
micro avg	0.66709184 0.66709184 0.66709184	784	macro avg	0.65819655 0.66353168
0.65896853	784			
weighted avg	0.67620951 0.66709184 0.66984436	784		

Revision #33

Created Tue, Jan 22, 2019 4:15 AM by [kenneth](#)

Updated Thu, Feb 6, 2020 4:53 PM by [kenneth](#)