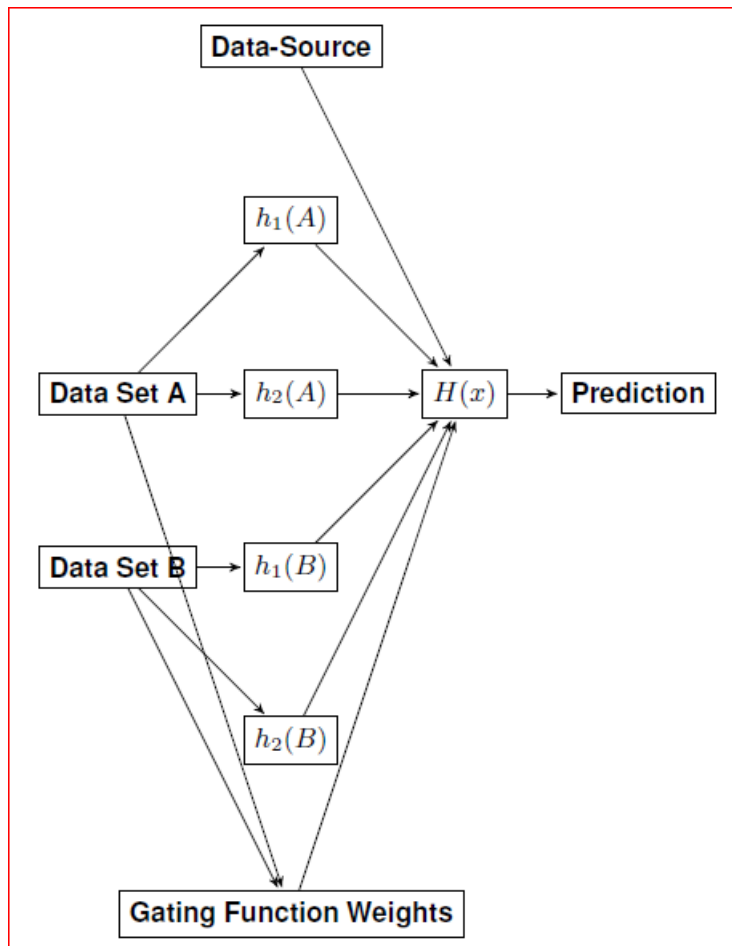


A Generalized 2-Layer Weighted Ensemble Classifier with Superior Text Sentiment Classification



Relevance Scores for Mixes of Classifiers on Different Data Types					
	Movie Review	Product Review	SMS	Tweet	
Movie Review	1.000	0.744	0.445	0.218	
Product Review		1.000	0.472	0.238	
SMS			1.000	0.521	
Tweet				1.000	

For every dataset:

1. Partition into:
 1. Training set
 2. Validation set
 3. Testing set
2. Train two classifiers per dataset
3. Calculate relevance on other datasets via difference in accuracy from testing on native data
4. Train 2nd layer on outputs of all 1st layer classifiers, data source, and gating function weights (relevance)

Averaged Accuracy, Precision, Recall & F-score

Performance Tested Over a Mixed Collection of All Data Types				
Classifier	Average of Accuracy	Average of Precision	Average of Recall	Average of F-score
Ensemble Classifier	0.659353913	0.673589125	0.659353913	0.645066061
Movie-Review Naive Bayes	0.485097001	0.423082888	0.485097001	0.440402281
Movie-Review SVM	0.486097511	0.423872071	0.486097511	0.442288145
Product-Review-A Naive Bayes	0.494054465	0.429983151	0.494054465	0.443720837
Product-Review-A SVM	0.491369807	0.443990459	0.491369807	0.448403621
Product-Review-B Naive Bayes	0.478876147	0.417827931	0.478876147	0.424040821
Product-Review-B SVM	0.502604355	0.43459631	0.502604355	0.456248458
SMS-A Naive Bayes	0.495762987	0.42342102	0.495762987	0.444214278
SMS-A SVM	0.495217884	0.420759605	0.495217884	0.444902735
SMS-B Naive Bayes	0.344937988	0.58862545	0.344937988	0.317676573
SMS-B SVM	0.413597434	0.670582519	0.413597434	0.426082345
Twitter-A Naive Bayes	0.254437484	0.130884576	0.254437484	0.1680969
Twitter-A SVM	0.254437484	0.130884576	0.254437484	0.1680969
Twitter-B Naive Bayes	0.276761012	0.398238841	0.276761012	0.227611442
Twitter-B SVM	0.297229494	0.534863273	0.297229494	0.277465871
Grand Total	0.428655664	0.436346786	0.428655664	0.384954485