Hyperbolic Feature-based Sarcasm Detection in

Tweets: A Machine Learning Approach

Introduction:

This Paper Introduces a new way for Sarcasm Detection and their Proposed Model Consists of 4 Layers which are:

1-Tweets Collection and feature Extraction

2-Part of Speech Tagging

3- Feature Extraction

4-Classifiers

Explaining Proposed Model:

First Tweets Collection and Feature Extraction. They used RESTful Twitter Developer API to collect tweets from twitter server, they used the hashtags sarcasm and sarcastic to collect about 1000000 Tweets.

Second Part of Speech tagging. This stage they divide the input text into atomic words and assign the words with appropriate Part of speech tag.

Third part is the Feature Extraction. They used interjection and intensifier to build the feature set. An intensifier is either adjective or adverb or combination of both. Words like wow is considered as interjections.

Fourth part Classifiers. They used classifiers Naive bayes, Decision tree, Ada boost, SVM , Random forest.

Results:

The system attains an accuracy (%) of 75.12, 80.27, 80.67, 80.79, and 80.07 using NB, DT, SVM, RF, and AdaBoost respectively.

Datasets:

Collected Sarcastic Tweets from twitter manually

Draw Backs:

They Relied on Hashtags on collecting datasets which could mislead them while collecting. The hashtag could be sarcastic while not containing any sarcasm content.