Parameters used for Preprocessing and Training

The following are the parameters used for preprocessing and training of the dataset. Two different machines were used to preprocess and train the dataset. The preprocessing and all training were performed using Weka 3.8.3.

**The dataset preprocessing**

* The hardware of the machine: Intel Core i7-6500U 2.50GHz 8.00GB RAM
* The operating system of the machine: Windows 10 Home version 1803
* Weka settings  
  • Attributes: 48 (Number of remaining attributes after removal from 59)  
  • Instances: 3000  
  • Sum of weights: 3000  
  • Minimum: 0  
  • Maximum: 1  
  • Mean: 0.095  
  • StdDev: 0.293
* Manually removed words from the dataset are:  
  O, Hillary’s, Is, October, Republican, That, http, president, whether, Thursday, Same-sex

**The training of the decision tree**

* The hardware of the machine: Intel Core i7-6500U 2.50GHz 8.00GB RAM
* The operating system of the machine: Windows 10 Home version 1803
* Weka settings  
  • IDFTransform: False  
  • TFTransform: False  
  • attributeIndices: first-last  
  • attributeNamePrefix: N/A  
  • debug: False  
  • dictionaryFileToSaveTo: N/A  
  • doNotCheckCapabilites: False  
  • doNotOpearateOnPerClassBasis: False  
  • invertSelection: False  
  • lowerCaseTokens: False  
  • minTermFreq: 1  
  • normalizeDocLength: N/A  
  • outputWordCounts: False  
  • periodicPruning: -1.0  
  • saveDictionaryInBinaryForm: False  
  • stemmer: Null  
  • stopwordsHandler: Null  
  • tokenizer: WordTokenizer  
  • wordsToKeep: 1000

**The training of the neural network**

* The hardware of the machine: Intel Core i5-4300U 1.9GHz 4GB RAM
* The operating system of the machine: Windows 10 Pro version 17134.407
* Weka settings  
  • autoBuild: True  
  • batchSize: 100  
  • debug: False  
  • decay: False  
  • doNotCheckCapabilities: False  
  • hiddenLayers: i, i, 2  
  • learningRate: 0.1  
  • momentum: 0.1  
  • nominalToBinaryFilter: True  
  • normalizeNumbericClass: True  
  • numDecimalPlaces: 2  
  • reset: True  
  • seed: 0  
  • trainingTime: 500  
  • validationSetSize: 0  
  • validationThreashold: 20  
  • learningTime: 100  
  • Cross-validation fold: 5