

High_Level_Design



News Articles Sorting

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Abstract

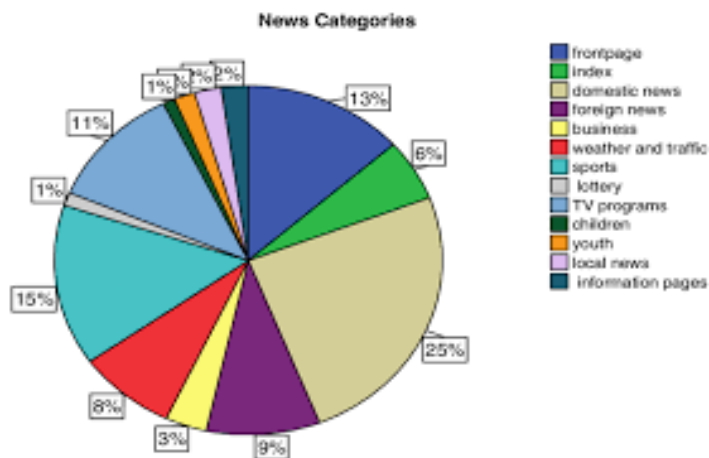
In today's world, data is power. With News companies having terabytes of data stored in servers, everyone is in the quest to discover insights that add value to the organization. With various examples to quote in which analytics is being used to drive actions, one that stands out is news article classification.

Nowadays on the Internet there are a lot of sources that generate immense amounts of daily news. In addition, the demand for information by users has been growing continuously, so it is crucial that the news is classified to allow users to access the information of interest quickly and effectively. This way, the machine learning model for automated news classification could be used to identify topics of untracked news and/or make individual suggestions based on the user's prior interests.



Introduction

Classification of different news category with NLP



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General Description

Let's start

*A machine learning natural
language processing(NLP)
model which help to classify
the type of news*



“



Datasets

File descriptions

BBC News Train.csv – the training set of 1490 records

BBC News Test.csv – the test set of 736 records

BBC News Sample Solution.csv – a sample submission file in the correct format

Data fields

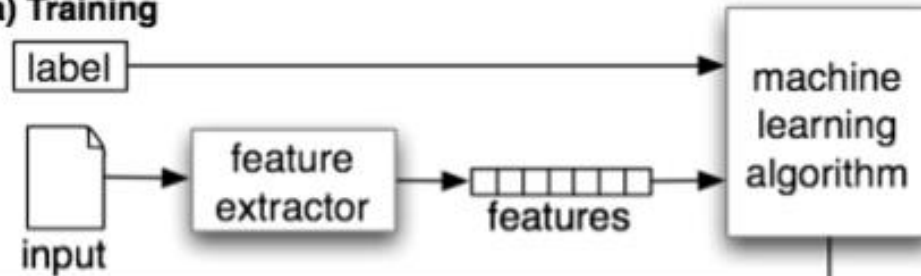
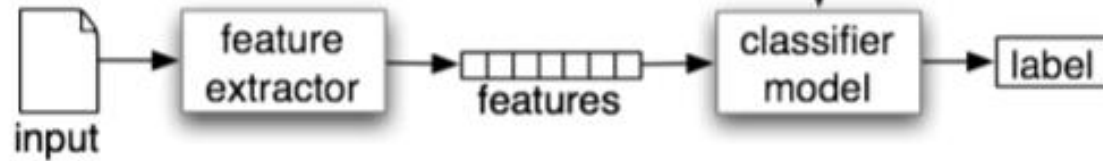
Article Id - Article id unique # given to the record

Article - text of the header and article

Category - category of the article (tech, business, sport, entertainment, politics)

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Solution

(a) Training**(b) Prediction**



?What Used.

- Data (extractor,storage) – Excel,wav
- Libraries–pandas,nltk,sklearn
- Platform– (jupyter notebook)



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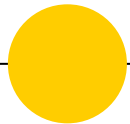
Conclusion



Prediction of news type with 97% accuracy (logistic regression)

```
[19:25:39] WARNING: ..\src\learner.cc:1061: Starting in XGBoost 1.3.0, the default evaluation metric used with the objective 'multi:softprob' was changed from 'merror' to 'mlogloss'. Explicitly set eval_metric if you'd like to restore the old behavior.
[('Logistic Regresion', 0.9785522788203753), ('XGboost', 0.9624664879356568), ('SVlinear', 0.9490616621983914), ('Random Forest', 0.9115281501340483), ('naiveBayes', 0.900804289544236), ('Decision tree', 0.839142091152815), ('SVrbf', 0.739946380697051), ('KNN', 0.675603217158177)]
```

```
# datatest["Pr"]=a.inverse_transform(e) # prediction of test dataset goes to PredictedTest.csv file
```



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