

Topic-based Sentiment analysis of Online retailers reviews (Amazon)

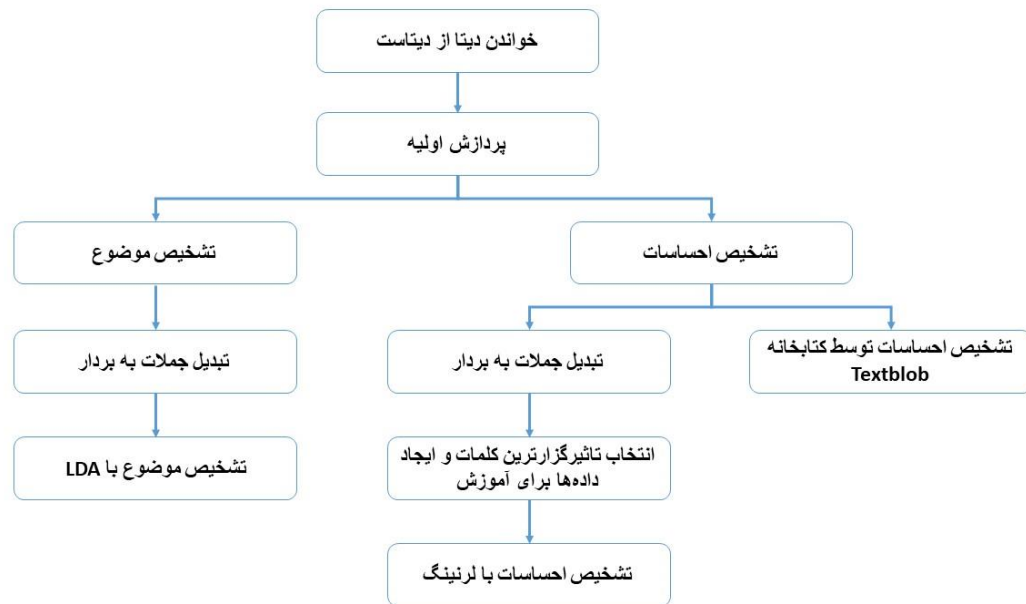
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outline

- Overview
- Preprocessing
- Sentiment Analysis
- Extracting topics
- Web / GitHub repo
- Contributions



Overview



P1) Finding sentiment analysis of reviews

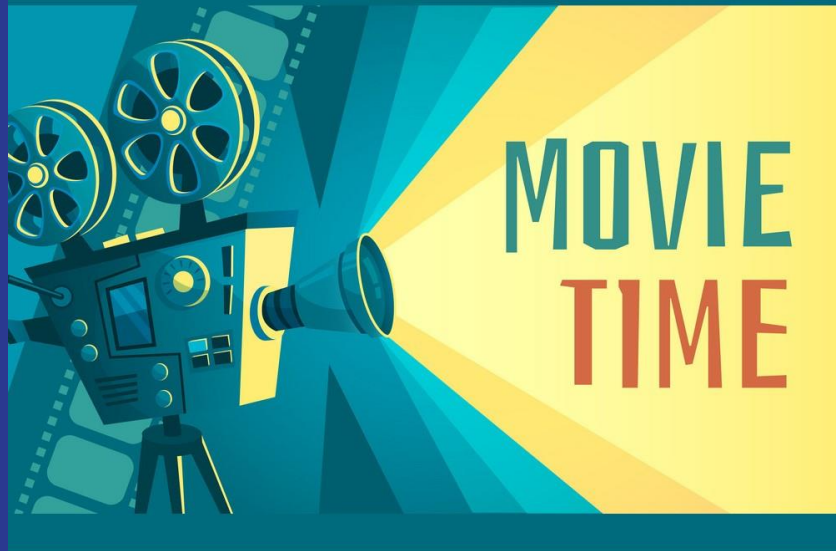
P2) Extracting topics of reviews

Business plan and purpose?

Finding a
summary usually
has a lot of
challenges.
Even for humans

Preprocessing

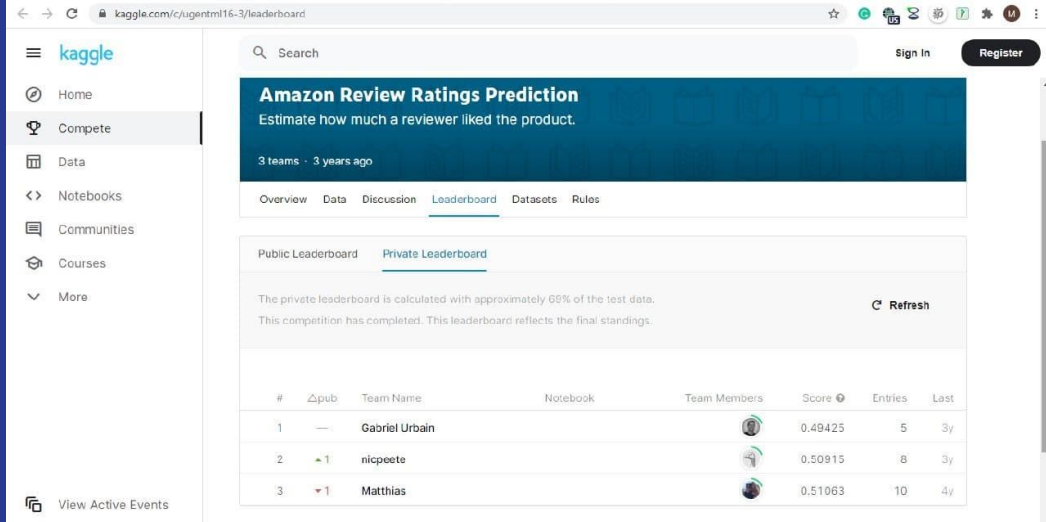
- 1) Text cleaning
- 2) Stemming
- 3) Vectorizer



Sentiment Analysis

Part1)
Textblob

Part2)
Machine learning with Keras
chi square
concatenate vote, verified



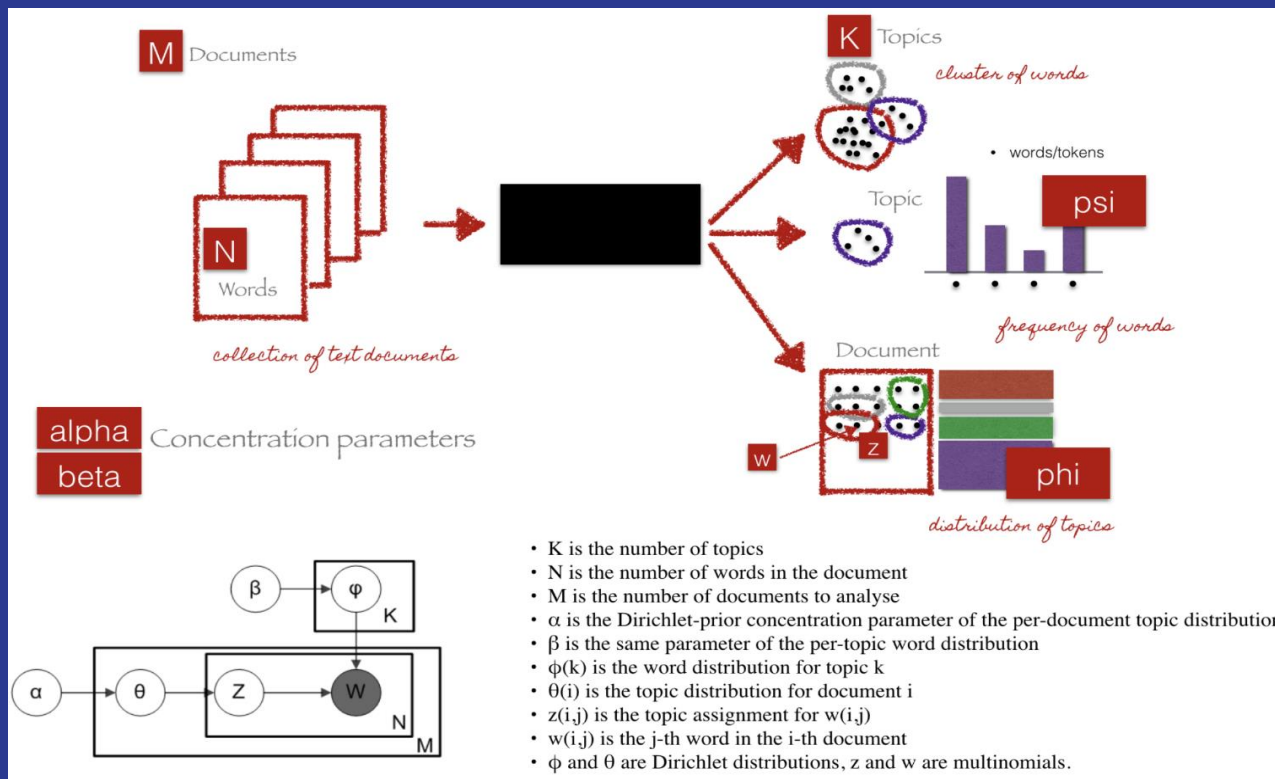
```
16/16 [=====] - 1s 51ms/step
          precision    recall  f1-score   support

         1         0.14         0.31         0.19         49
         2         0.05         0.21         0.08         38
         3         0.12         0.20         0.15         60
         4         0.22         0.05         0.08        153
         5         0.76         0.66         0.70        698

 accuracy                   0.50        998
 macro avg                 0.26         0.28         0.24        998
 weighted avg              0.58         0.50         0.53        998
```

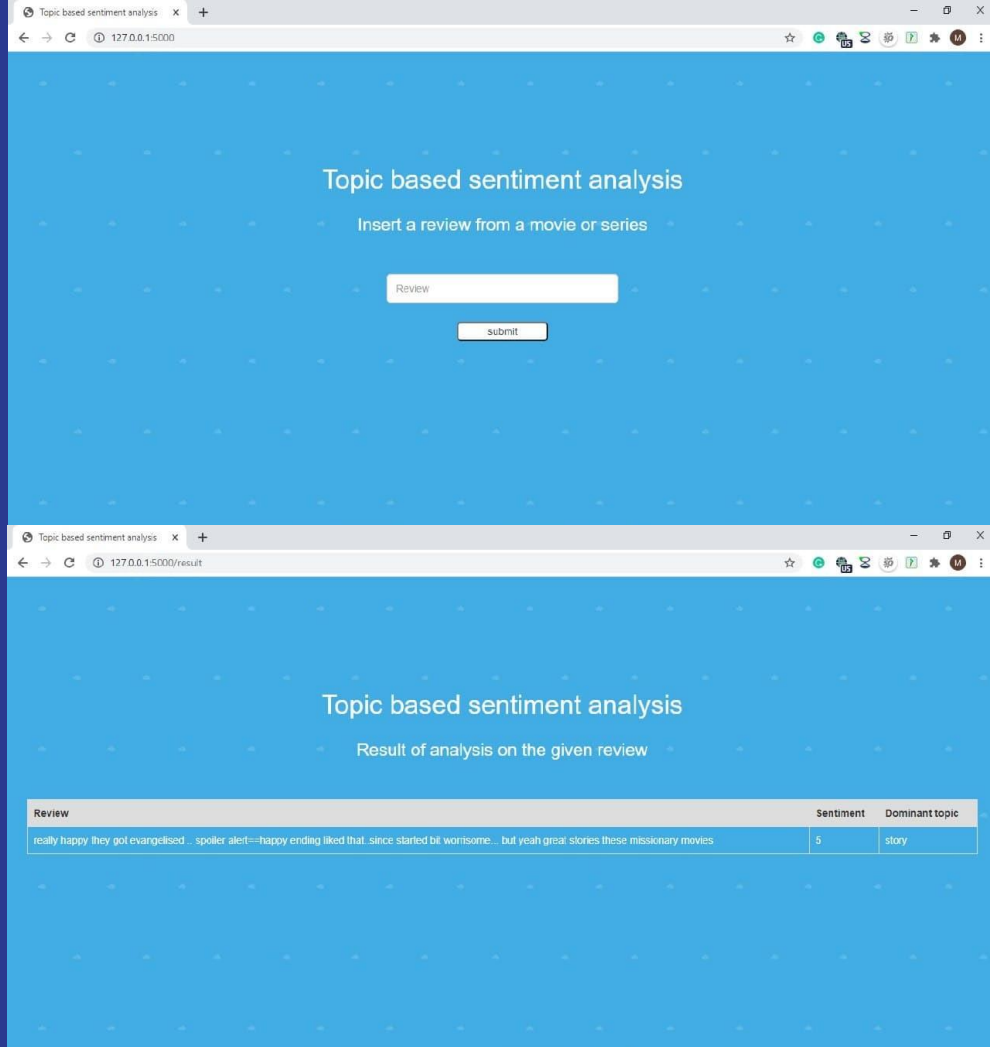
Extracting topics

LDA




User interface


+ Website



Your Name / Site Title


Publications Talks Teaching Portfolio








Your Sidebar Name


Your biography for the left-hand sidebar


 Location

 Twitter

 Github

 Google Scholar

 PubMed


 ORCID

Topic-based sentiment analysis of Amazon reviews (NLP course, Polytechnic university of Tehran)

Introduction

As it's conspicuous from the title of the project we have 2 main phases. At first, we find sentiment of reviews and then we extract topics. A long the way we graph topic-based sentiment analysis of reviews and evaluate both main phases. We will use Textblob library and Deep learning approach for finding sentiment and we will get 80% accuracy for textblob and 50% accuracy for deep learning approach .

There is no need to mention countless use cases of sentiment analysis, since we can use it for any work for finding more insightful details. and for Topic extraction, we can think of it as a space-reduction function that maps document whit many words to just a few number of topics. . You can download [the Jupyter notebook file with this link](#) and fill free to contact us for more detail: [Matthew anderson](#), [Roozbehbazargani](#).



Aknowledgement

I am grateful to all of those with whom I have had the pleasure to work during this and other related projects, especially Dr. Mohammad Akbari (akbari.ma@aut.ac.ir) and Mr. Arman Malekzade(malekzadeh@ieee.org).

Contribution chart

2	Work \ Participation Percent	Roozbeh	Mohammadreza
3	Writing Summary	50	50
4	Presentation	30	70
5	Proposal	70	30
6	Finding Data-Set	100	0
7	preprocessing	30	70
8	phase1(Txtblob implementing)	10	90
9	phase1(Deep learning and Chi2)	100	0
10	Implementation of Part 2	15	85
11	Evaluation and visualization	30	70
12	API (GITHB REPO)	0	100
13	API (off-line site)	100	0
14	Final Presentation	50	50
15	Final report	50	50



Thanks for your attentions