

# Analysis of Hillary Clinton Emails

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# Overview

- 1 What we proposed?
- 2 What have we achieved?
- 3 How we achieved them?
- 4 References

# Problem Statement

- Extracting important topics from the emails.
- Relation of US with different nations in Hillary's perspective.
- Persons linked to Clinton and Hillary's sentiment about them.

# Topic Modelling

- Technique for discovering the abstract “topics” in a set of documents.
- Topic of a document is inferred from the words in it.
- Latent Semantic Analysis(LSA) - uses SVD on term-doc matrix.
- Latent Dirichlet allocation(LDA) - Bayesian Inference
  - A topic has probabilities of generating certain words.
  - A document is a mixture of various topics.
- We have used LDA model in gensim for this purpose.

# Sentiment Analysis

- Process of identifying and categorizing texts on sentiments.
- For determining the person's attitude towards a particular thing.
- VADER - Lexicon and rule based approach.
  - Each word has some +ve or -ve score.
  - Rules to score the combination of lexicons.
- We have used NLTK-VADER library for this purpose.

# Achievements

- Fulfilled objectives
  - 1 Extracting important topics from the e-mails.
  - 2 Relation of US with different nations in Hillary's perspective.
- Difficult to assess sentiment of Hillary about some person from emails between them.

## Demo

# References

 <https://www.kaggle.com/kaggle/hillary-clinton-emails>

 Hutto, Clayton J and Gilbert, Eric (2014)

Vader: A parsimonious rule-based model for sentiment analysis of social media text  
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# Questions?