#### Il negazionismo climatico

Un'analisi testuale della letteratura pseudoscientifica e dei tweet dei complottisti

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#### **Presentation Overview**

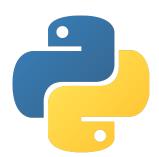
- Introduzione
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   Topic modelling
   Sentiment and emotion analysis
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#### Obiettivo progetto

Questo progetto si prefigge di analizzare i tweet ed alcuni libri scritti dai negazionisti climatici attraverso le tecniche di Natural Language Processing. L'obiettivo è quello di far luce sulle tesi più accreditate da questa nuova corrente di pensiero pseudoscientifica.





#### Selezione dei libri

- Inhofe, James. The Greatest Hoax How the global warming conspiracy threatens your future.
- Michaels, Pat and Balling, Robert. Climate of Extremes Global warming science they don't want you to know.
- Bell, Larry. Climate of Corruption Politics and power behind the global warming hoax.
- Andrew Montford. The Hockey Stick Illusion Climategate and the corruption of science.

#### Il caso Trump

#### 2024 Presidential Run



Figure: Donald Trump (Foto d'archivio)

"You can worry about nuclear warming but you can't worry about the global warming," he said. "They said the other day that the oceans are going to rise one-eighth of an inch over the next 300 years. We have bigger problems than that.

"We'll have a little bit more beachfront property, that's not the worst thing in the world," he said to roars of laughter from the crowd. [Link]

#### Tweet scraping



### Visualizzazione spaziale dei tweet

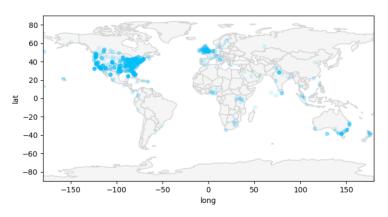


Figure: Visualizzazione spaziale dei tweet

### Data Cleaning (libri)

- Rimozione della punteggiatura e dei caratteri speciali
- Tokenizzazione
- Rimozione delle stopwords
- Lemmatizzazione

# Data Cleaning (libri)

| Libro                     | Parole pre cleaning | Parole post cleaning |
|---------------------------|---------------------|----------------------|
| The Greatest Hoax         | 97171               | 57146                |
| Climate of Extremes       | 71345               | 44902                |
| Climate of Corruption     | 95441               | 60283                |
| The Hockey Stick Illusion | 138441              | 75872                |

Figure: Risultati del data cleaning.

### Data Cleaning (tweet)

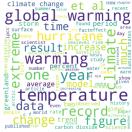
- Rimozione dei duplicati
- Rimozione della punteggiatura e dei caratteri speciali
- Tokenizzazione
- Rimozione delle stopwords
- Lemmatizzazione



(a) The Greatest Hoax



(c) Climate of Corruption



(b) Climate of Extremes



(d) The Hockey Stick Illusion

Figure: Word clouds dei libri.



Figure: Word clouds dei libri con riassegnazione dei colori.

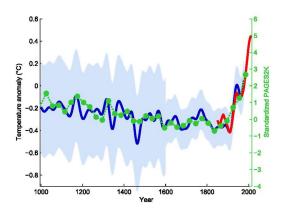


Figure: Hockey Stick Graph

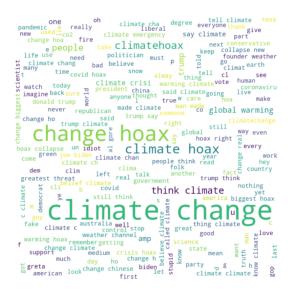


Figure: Word cloud tweet



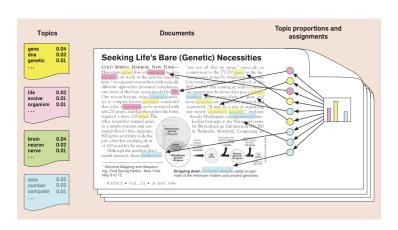


Figure: Latent Dirichlet Allocation (LDA)

#### Coherence score

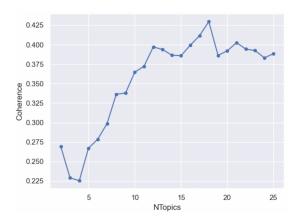


Figure: Topic Coherence corpus libri

# Perplexity score

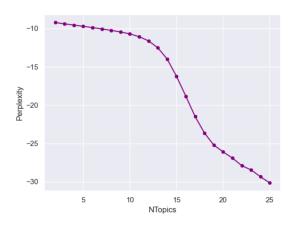


Figure: Topic Perplexity corpus libri

# LDA.html

# Sentiment analysis

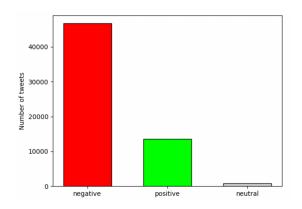


Figure: Sentiment analysis dei tweet

## **Emotion analysis**

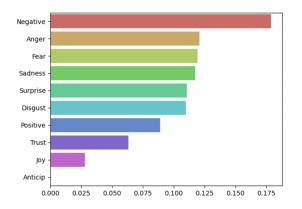


Figure: Emotion analysis dei tweet

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[Link]