

# **Scientific Research Visualization: A Case Study on Covid-19 Literature**

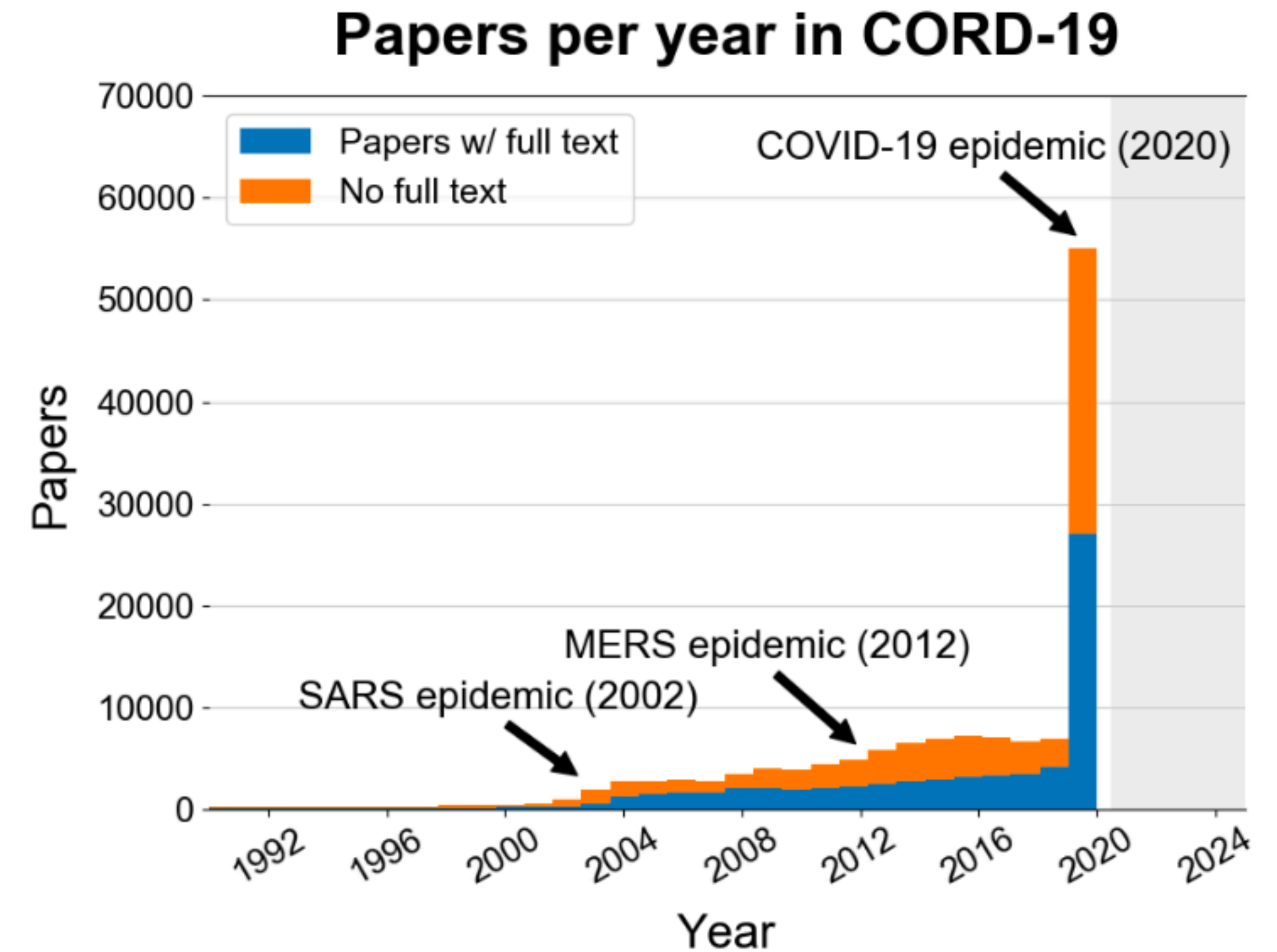
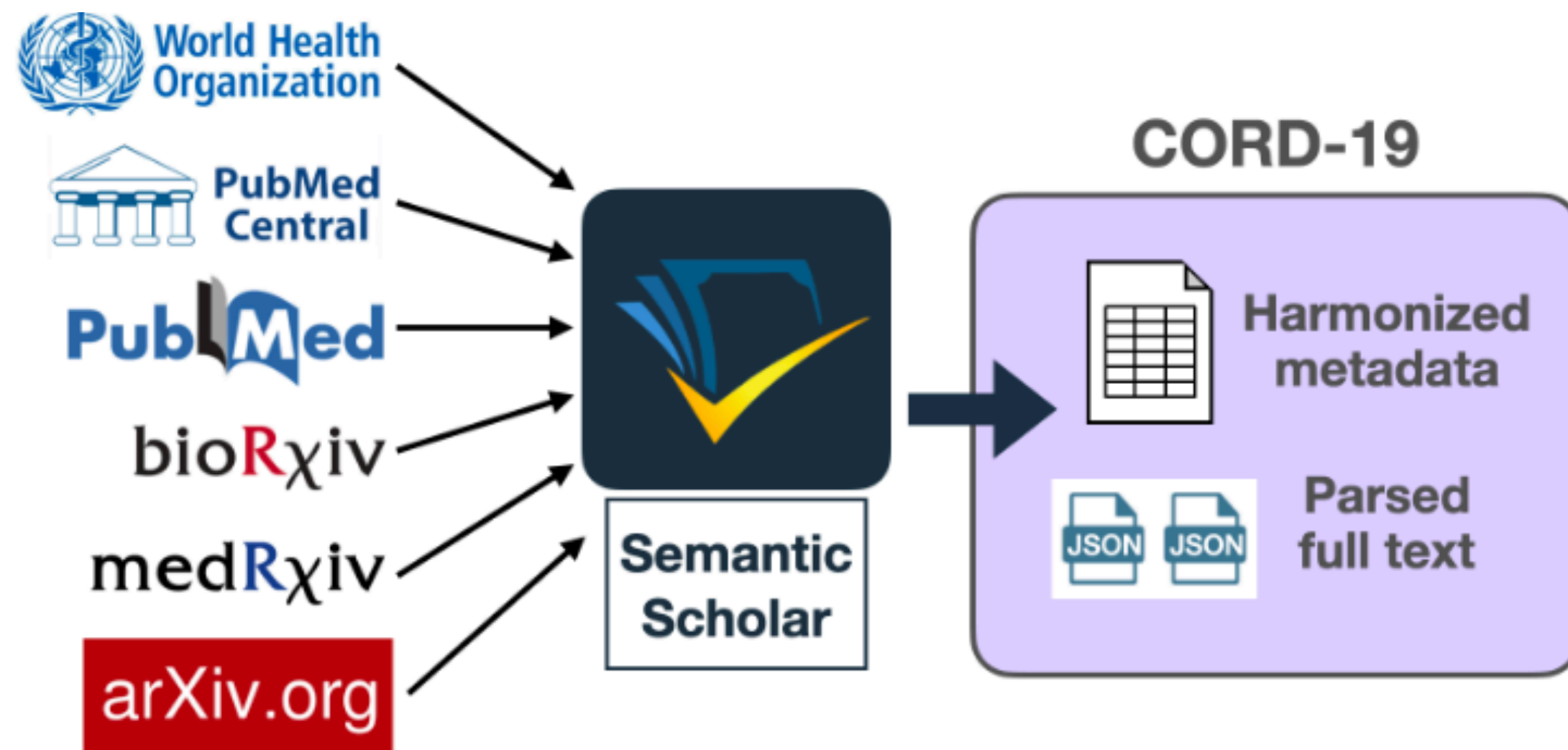
# Table of Contents

1. Introduction
2. Text mining
3. Clustering
4. Visualization platform
5. Conclusions and future works

## **Mission**

**Tracking the evolution of the scientific research  
along the time using a visualization platform**

# 1. Introduction



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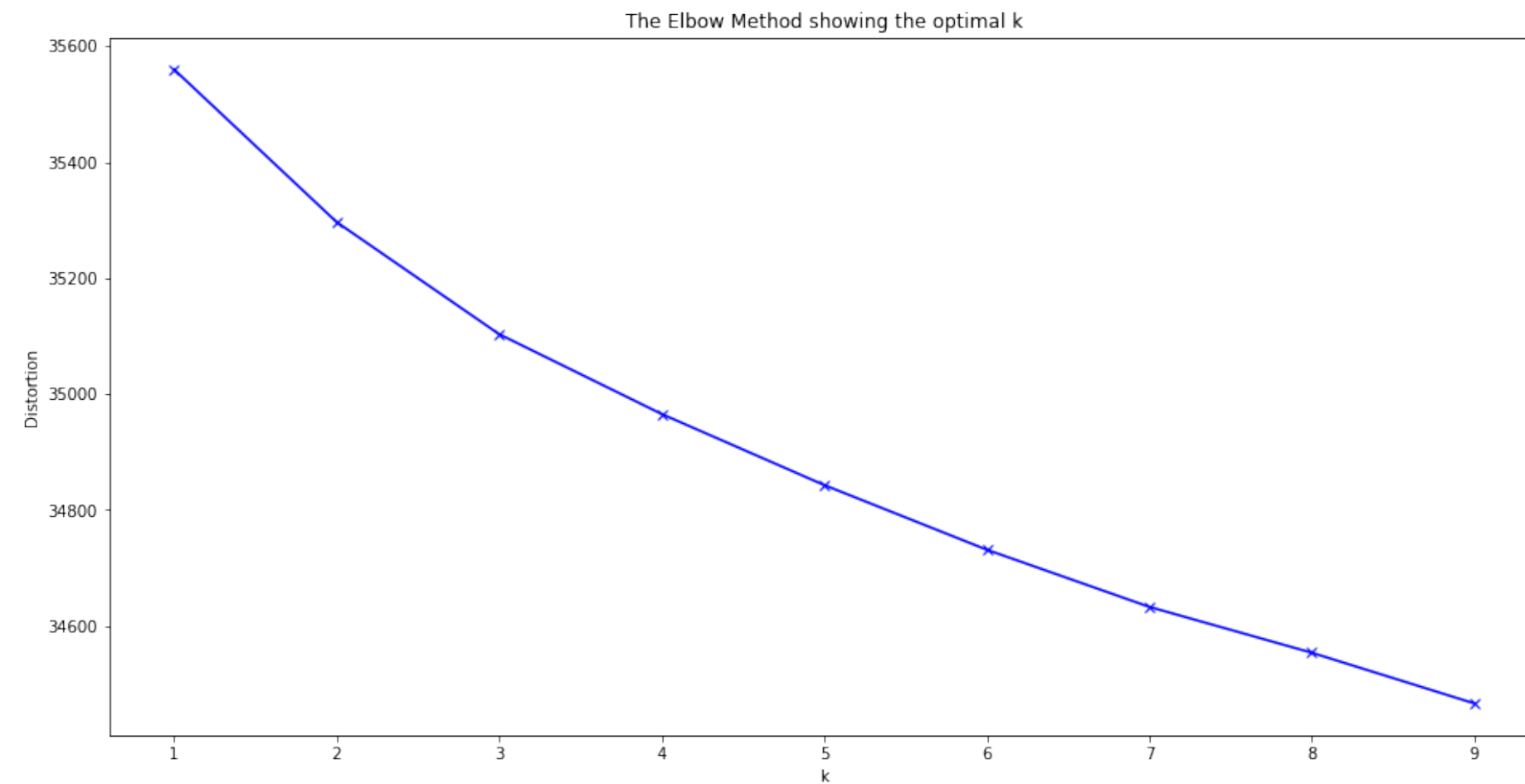
## **2. Dataset**

### **CORD-19: COVID-19 Open Research Dataset**

- Preprocessing
  - Tokenizing abstracts
  - Customized stopwords
  - Lemmatization
  - TF-IDF

# 3. Clustering - Original

## CORD-19: COVID-19 Open Research Dataset

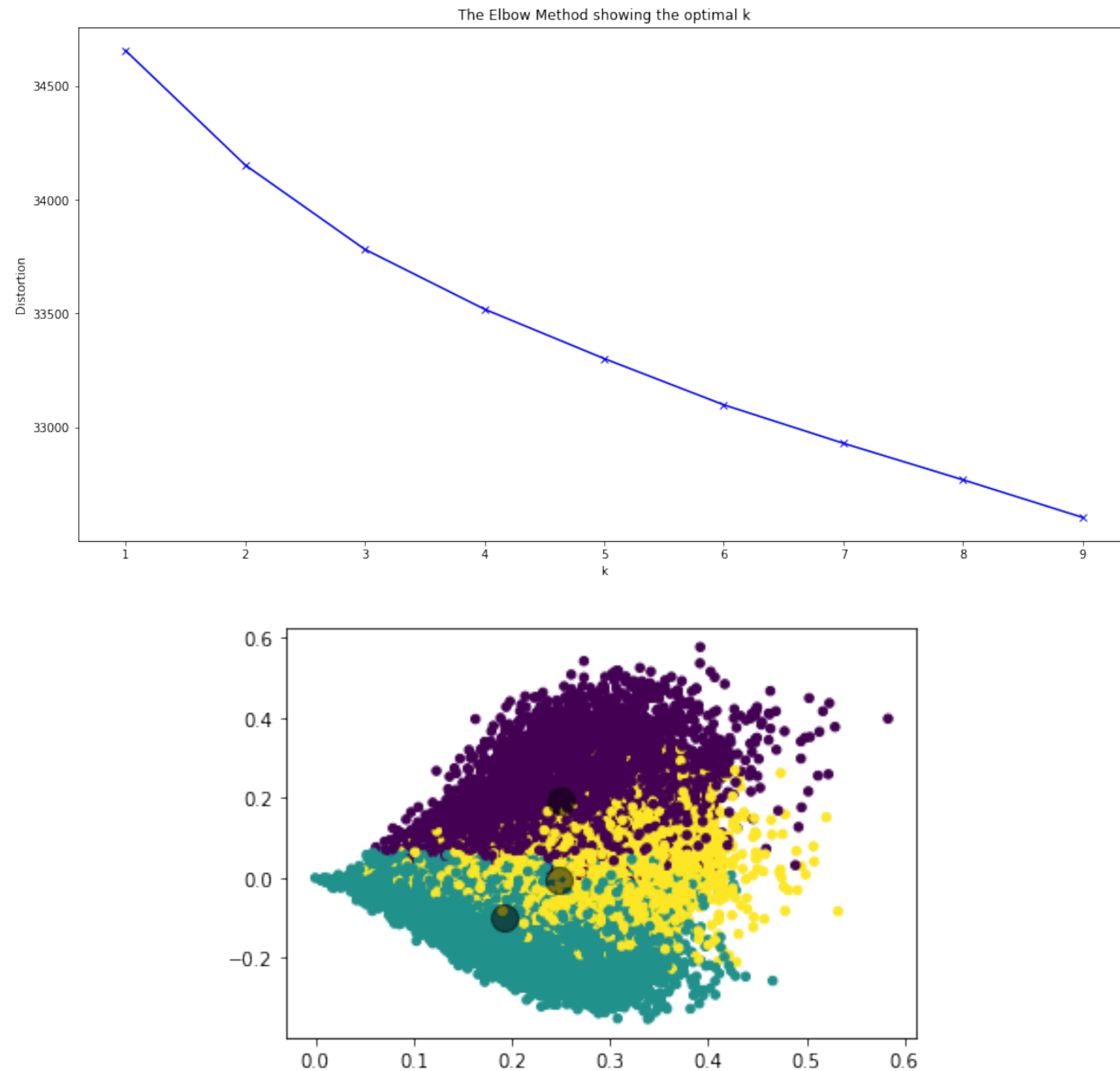


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# 3. Clustering - SVD

## CORD-19: COVID-19 Open Research Dataset

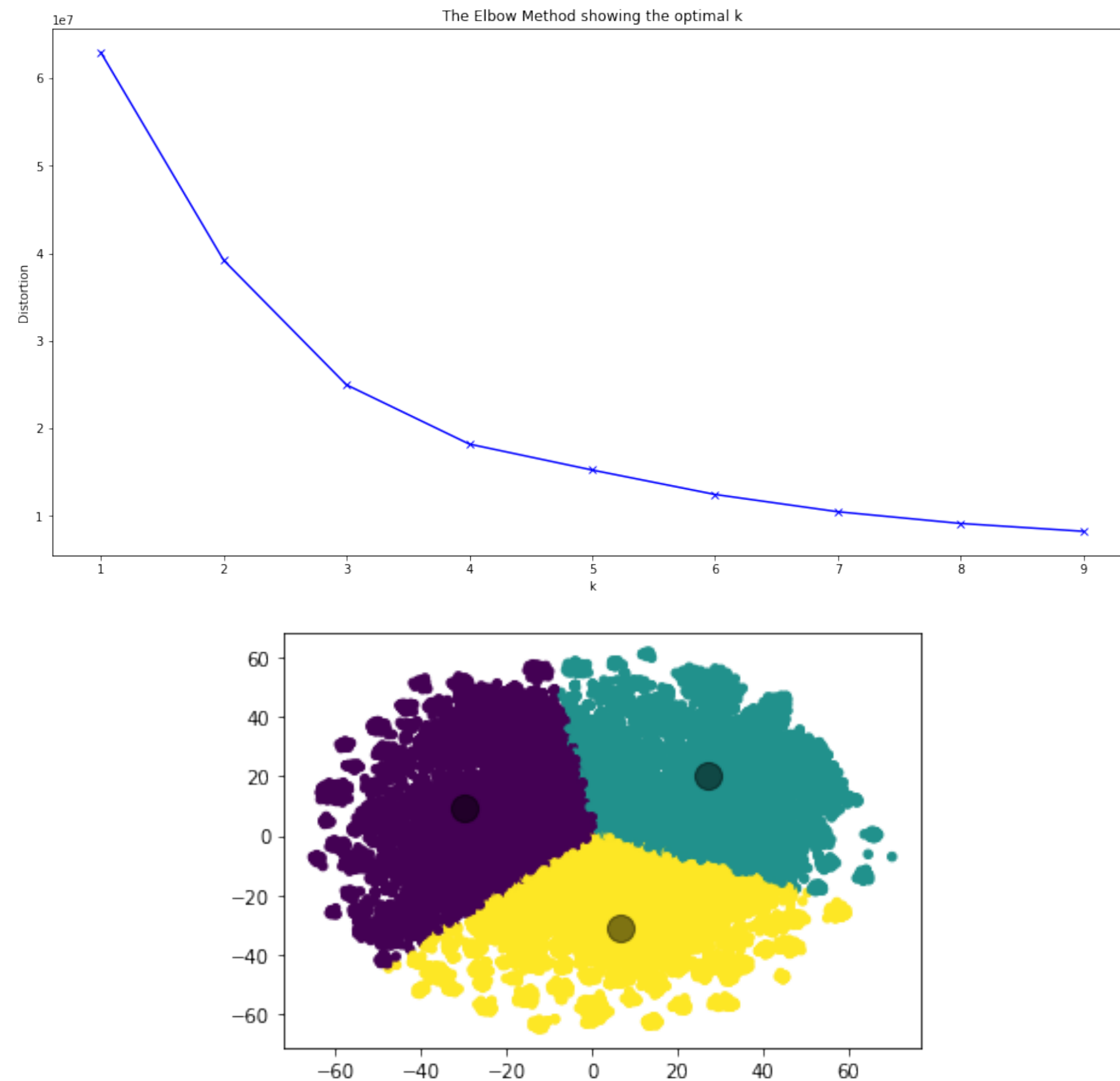


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# 3. Clustering - t-SNE

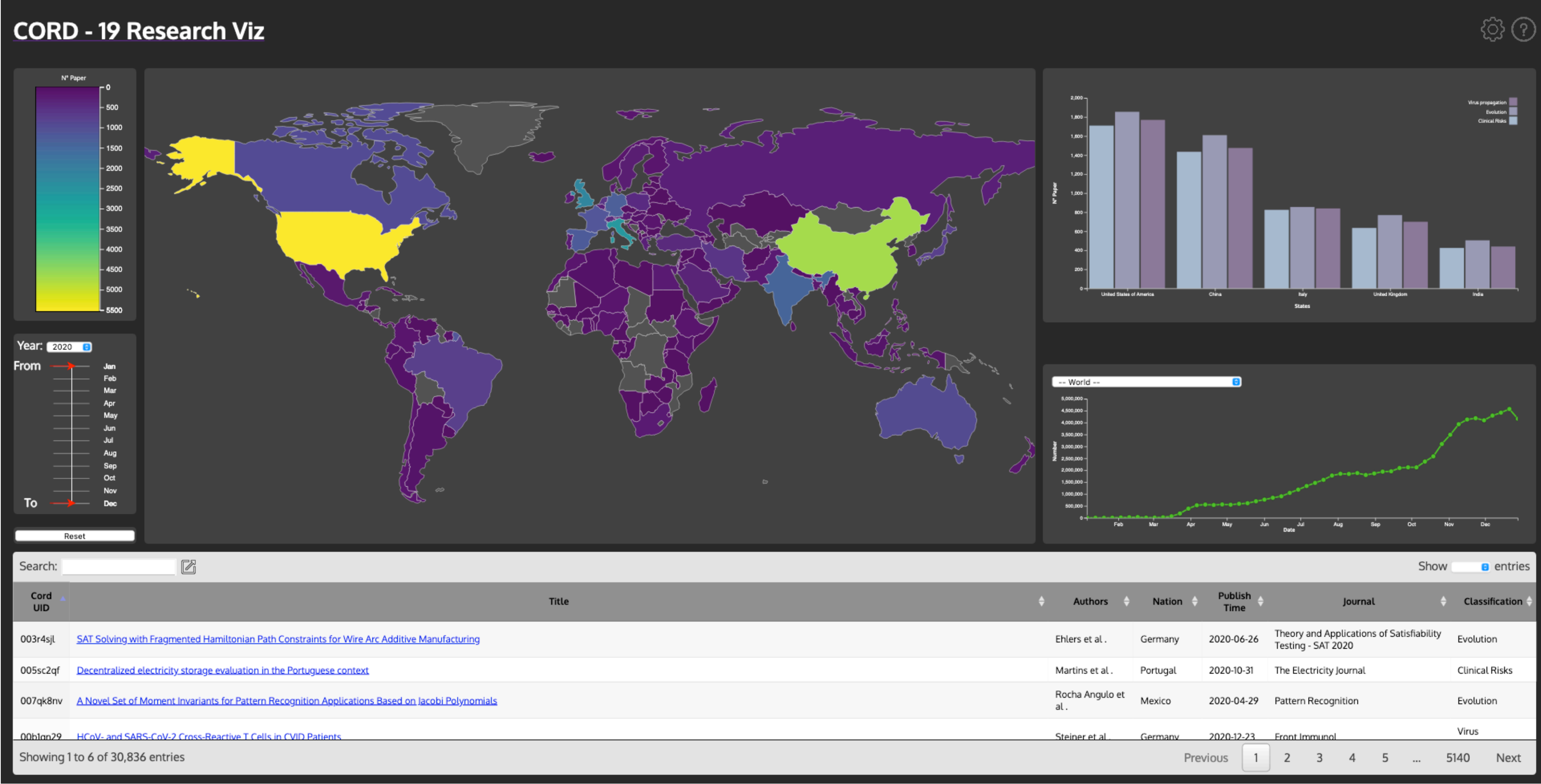
## CORD-19: COVID-19 Open Research Dataset



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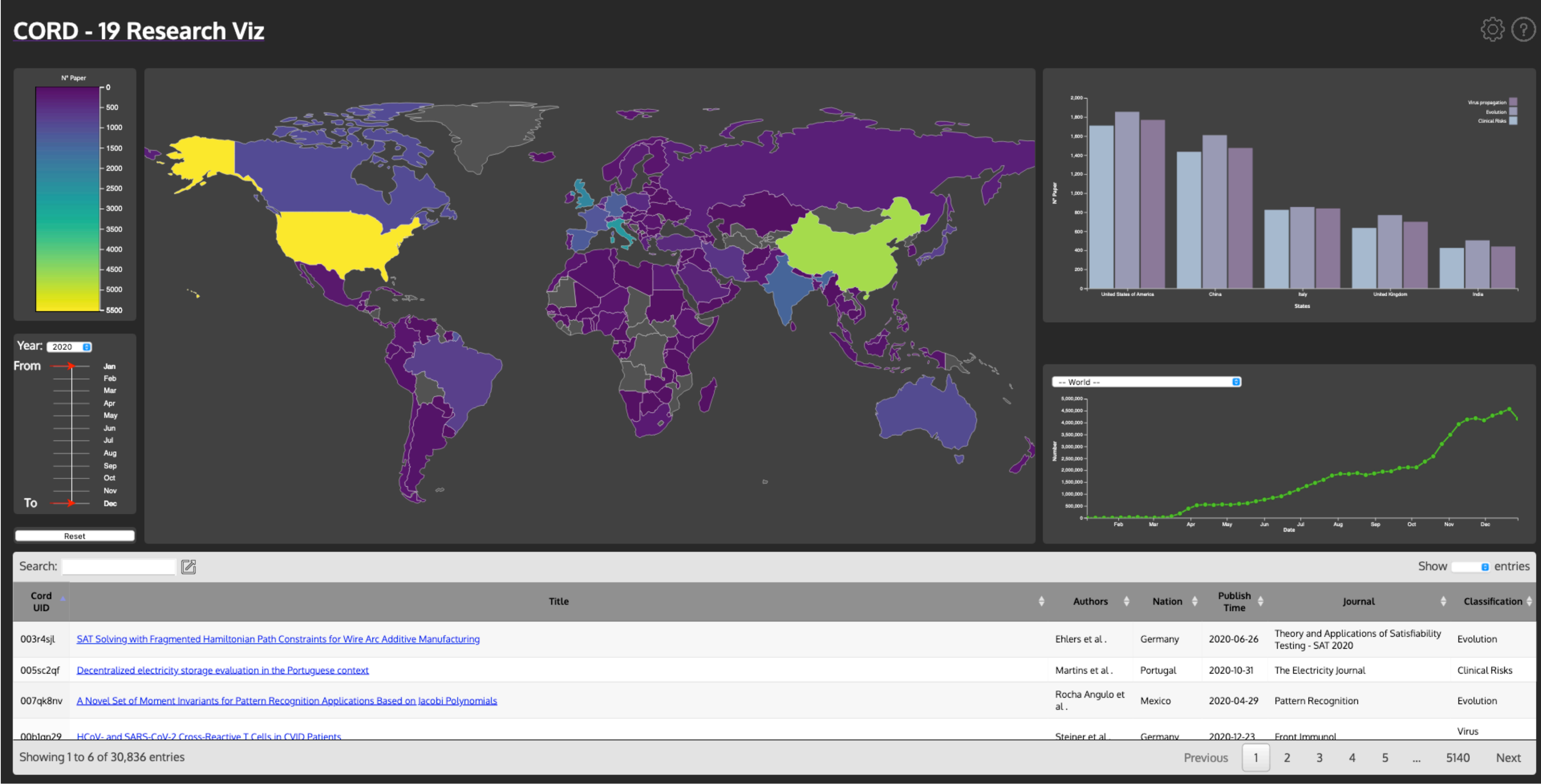


# 4. Visualization platform



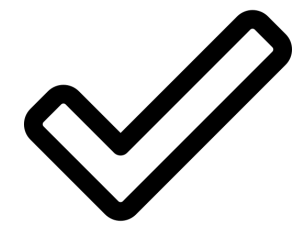
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# 4. Visualization platform - Demo

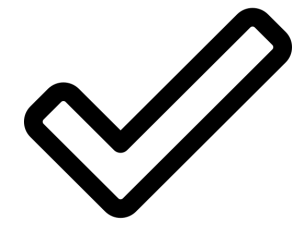


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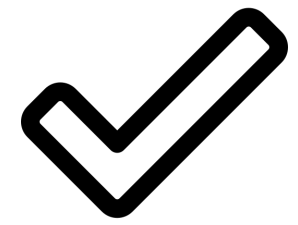
# 5. Discussion and conclusion



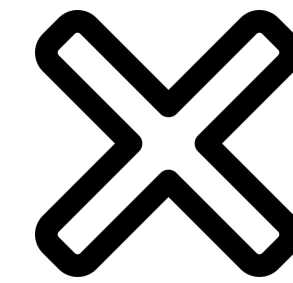
A different point of view to see the scientific research



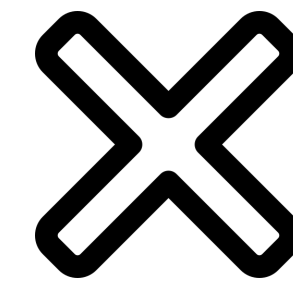
Topic classification



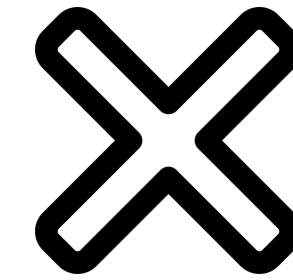
Independent of the topic



Huge amount of data



Serverless



Applying a NN

# References

- Wang, L.L., et al. “**CORD-19: The COVID-19 Open Research Dataset.**” *arXiv* (2020).
  - Paper: <https://arxiv.org/abs/2004.10706>.
  - Dataset: <https://ai2-semanticscholar-cord-19.s3-us-west-2.amazonaws.com>.
- Visualization platform.
  - Github pages: <https://tascio9.github.io/Thesis/>.



# Thanks!