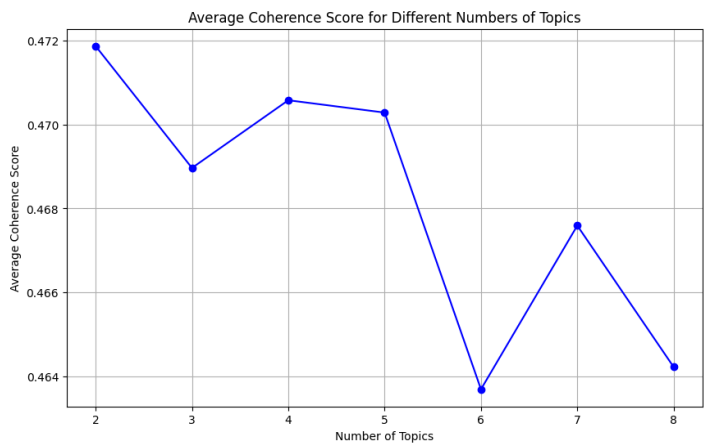


# Sensitivity Analysis

The analysis aims to find the optimal number of topics for the NYT dataset. The coherence scores were evaluated across different numbers of topics.



The highest average coherence score was achieved with two topics, but this may not be the most effective approach due to the diverse range of topics in NYT articles. The LDA model demonstrated robustness to changes in the number of topics. The choice of the number of topics should balance between coherence and granularity.

## Topic Similarity

As the number of topics increases, the average similarity score decreases consistently, suggesting that the topics become less similar on average.

Higher similarity scores indicate more significant overlap or coherence between topics, while lower scores imply less similarity.

