

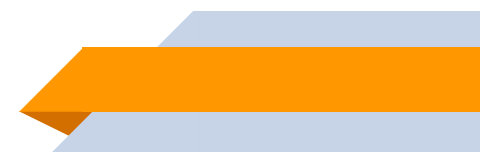


**Notebook for the Touché Lab on Argument  
Retrieval at CLEF 2021 – Task 2**

# DistilBERT-based Argumentation Retrieval for Answering Comparative Questions

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- Mohamed Bouhaouel





## Touché Lab - Task 2

- Which is better, a Mac or a PC?



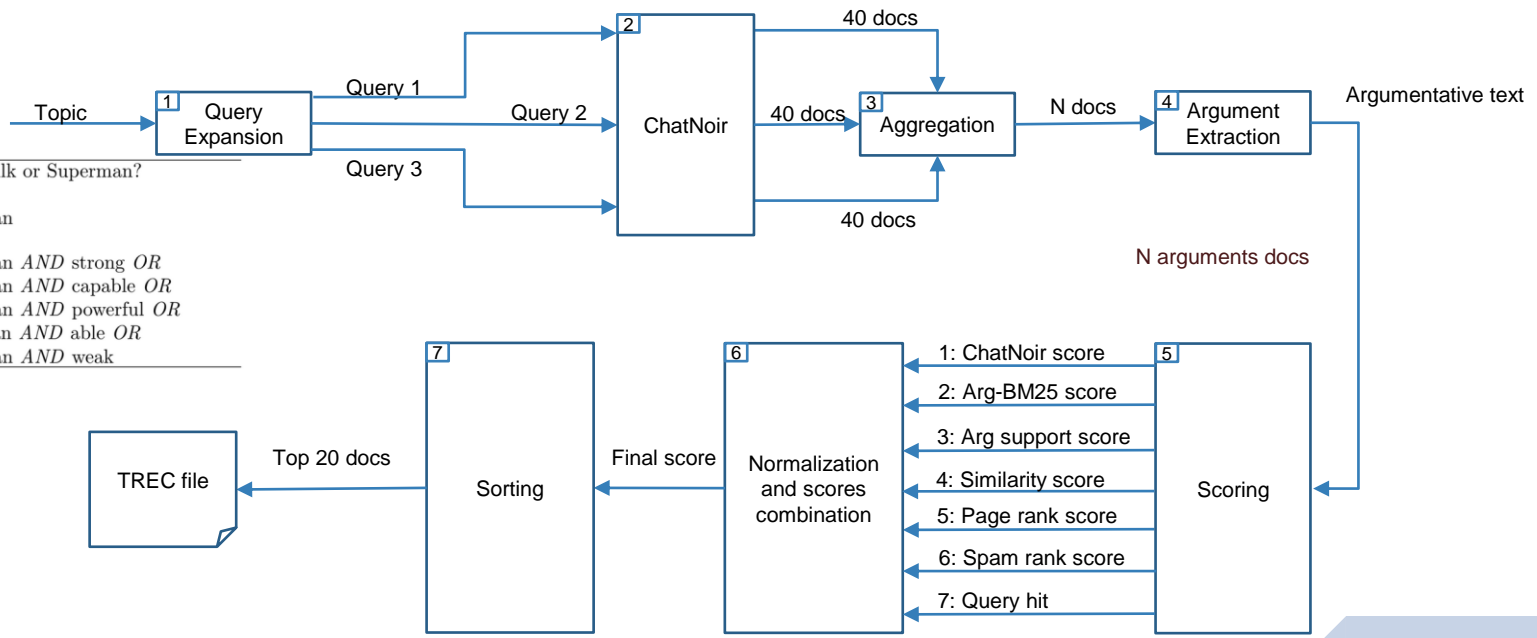


# Plan

1. Overall architecture
2. Argument identification module
3. Results
4. Conclusion



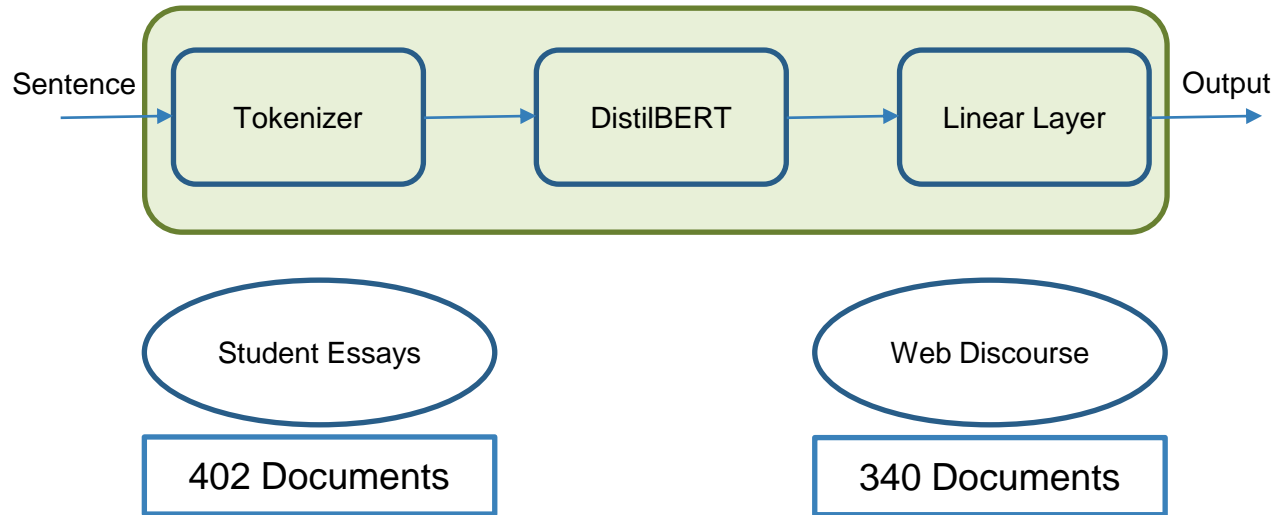
# Global Architecture



Overall Approach Architecture



# Argument Identification





## Configuration & Results

Run Tag	Score Weights							Docs
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
DistilBERT_argumentation_bm25	0	1	0	0	0	0	0	30
DistilBERT_argumentation_advanced_ranking_r1	15	25	25	15	20	0	0	20
DistilBERT_argumentation_advanced_ranking_r2	10	10	50	20	10	5	5	40
DistilBERT_argumentation_advanced_ranking_r3	10	15	10	50	10	0	0	40

*Configurations of Each Run*



## Configuration & Results

Run Tag	Relevance		Quality	
	nDCG@5	Rank ./20	nDCG@5	Rank ./20
DistilBERT_argumentation_bm25	0.466	6	0.688	1
DistilBERT_argumentation_advanced_ranking_r1	0.473	3	0.670	5
DistilBERT_argumentation_advanced_ranking_r2	0.458	8	0.630	11
DistilBERT_argumentation_advanced_ranking_r3	0.471	4	0.625	13

*Achievements of Each Run*



## Conclusion

- The approach is based on a pipeline composed of several modules
- DistilBERT-based model for the argument identification task
- Several criteria for re-ranking





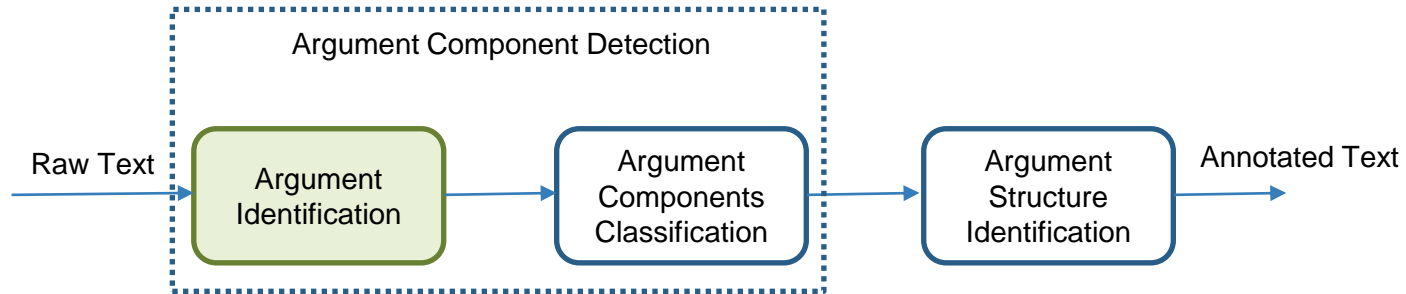
# Thank you for your attention

Mohamed Bouhaouel & Alaa Alhamzeh





# Argumentation Mining Pipeline



*General Pipeline of an Argumentation Mining System*