

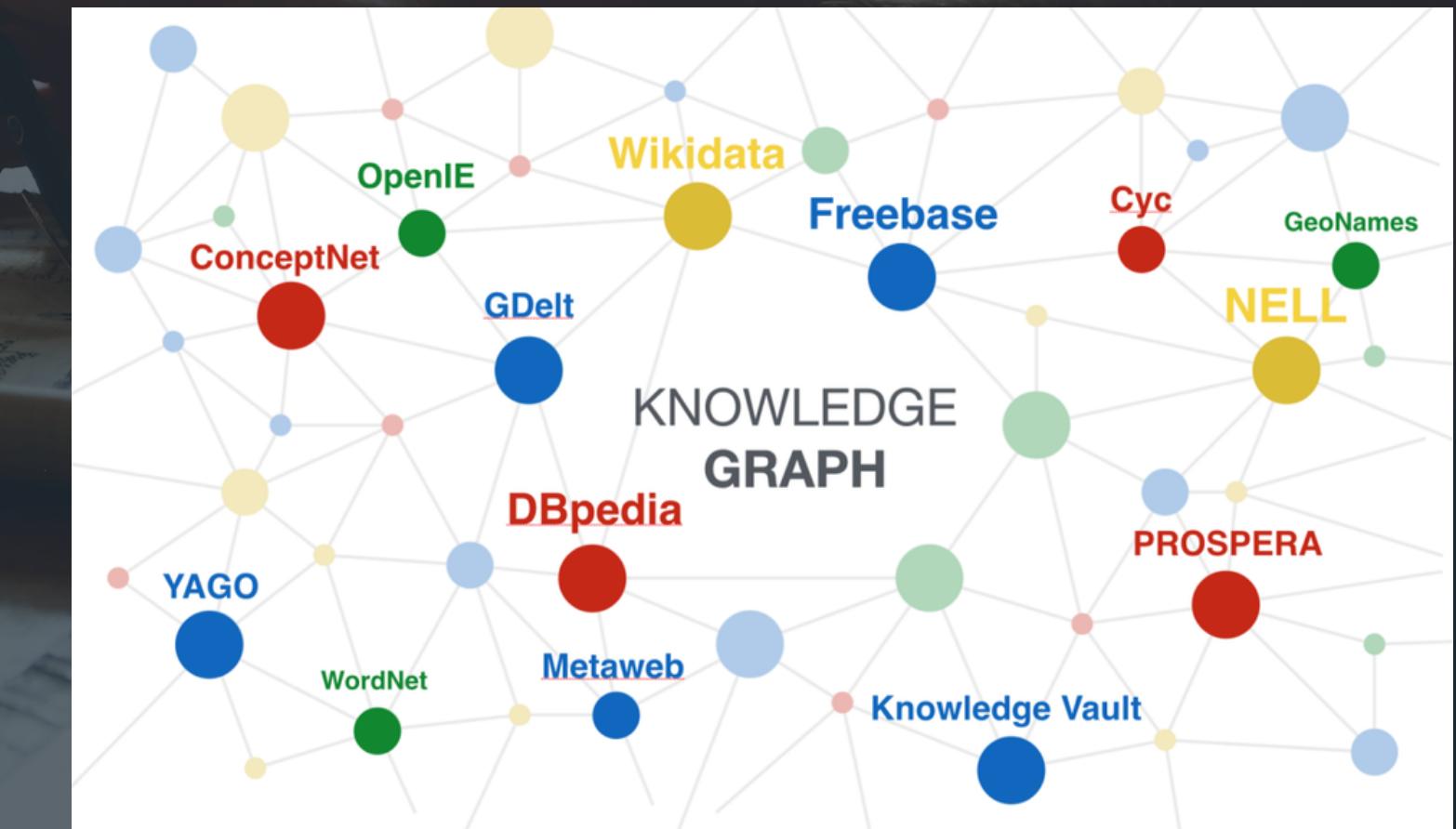
# 2ND DELIVERABLE:RESEARCH KNOWLEDGE GRAPH

PRESENTED BY:

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# THE PROBLEM TO ADDRESS

Getting the data from our papers and enriching it with information from outside sources.



## DATA SOURCES USED

As data sources we used ROR's API (for organization's information) and Wikidata (for author's information).



How we processed ROR?

Making requests given the name of the organization through a Python script, then analyzing the returned information and extracting the properties we needed.

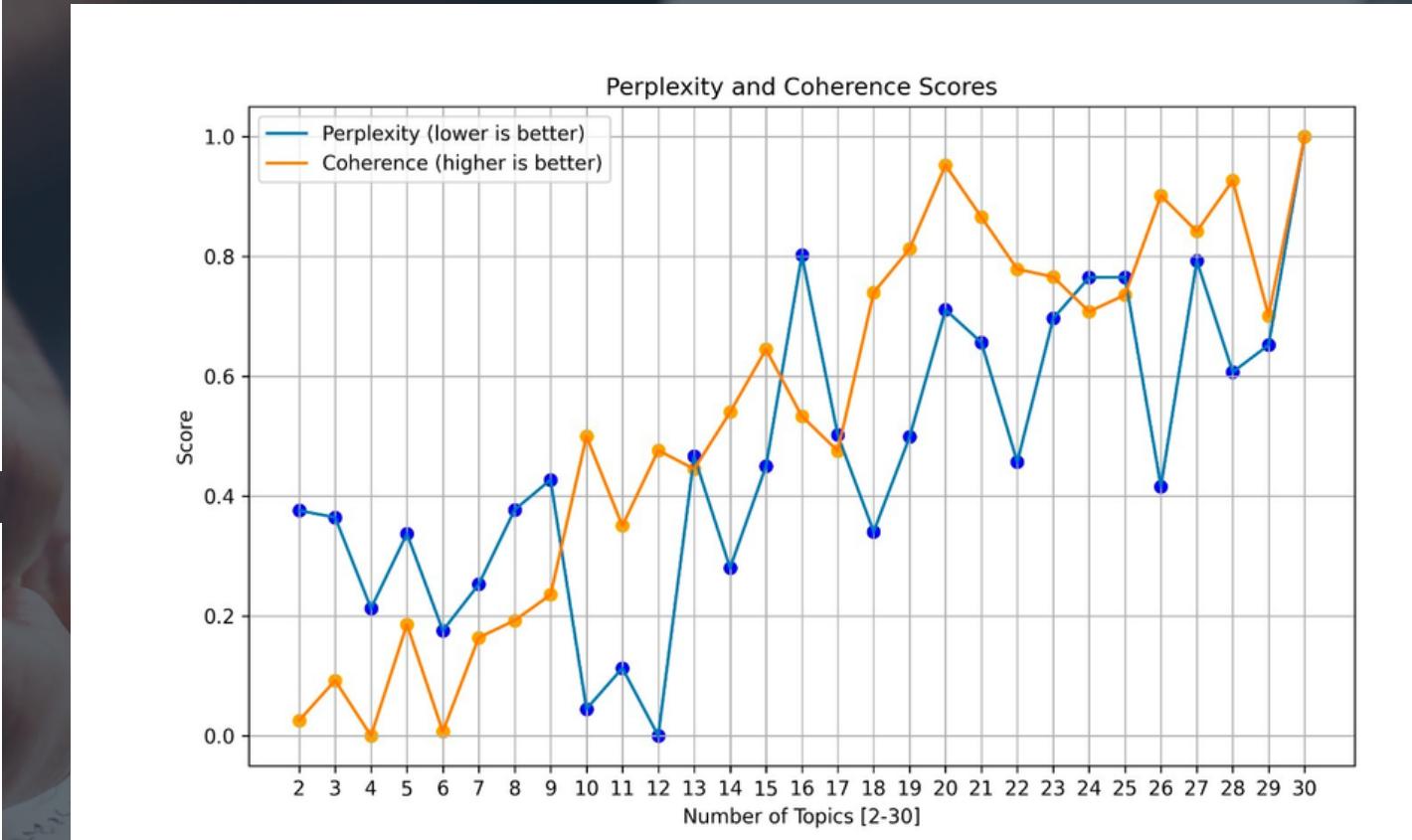
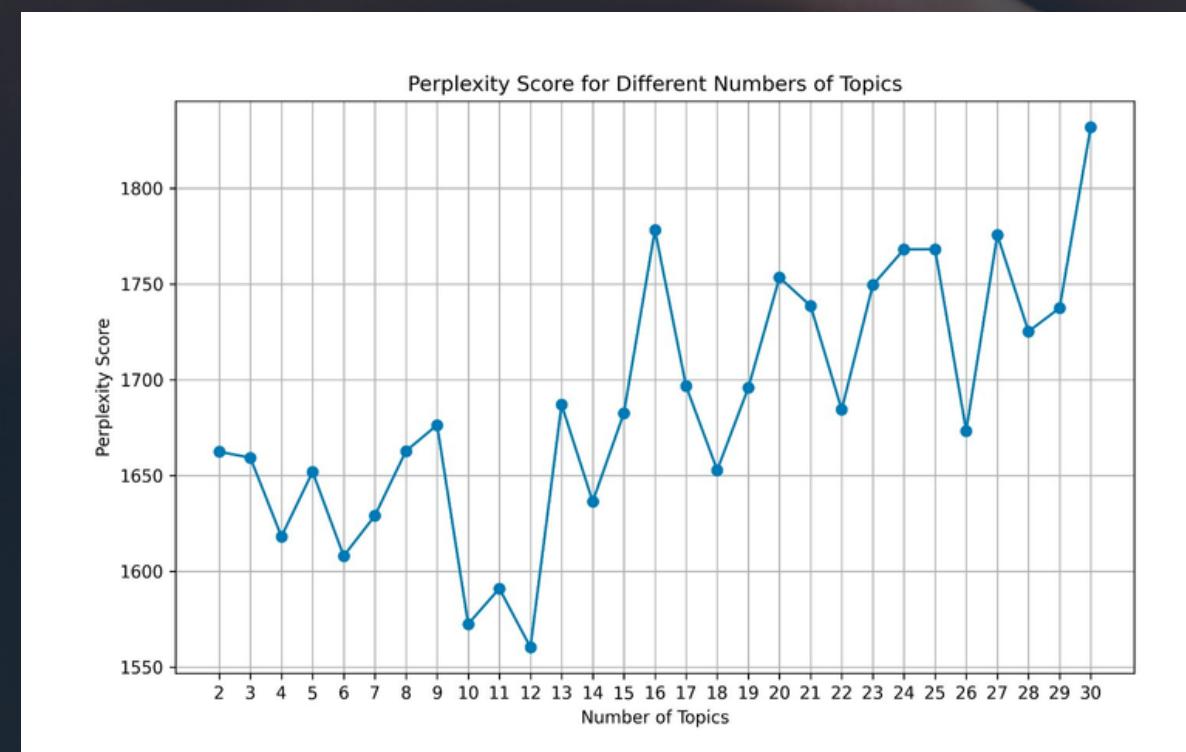
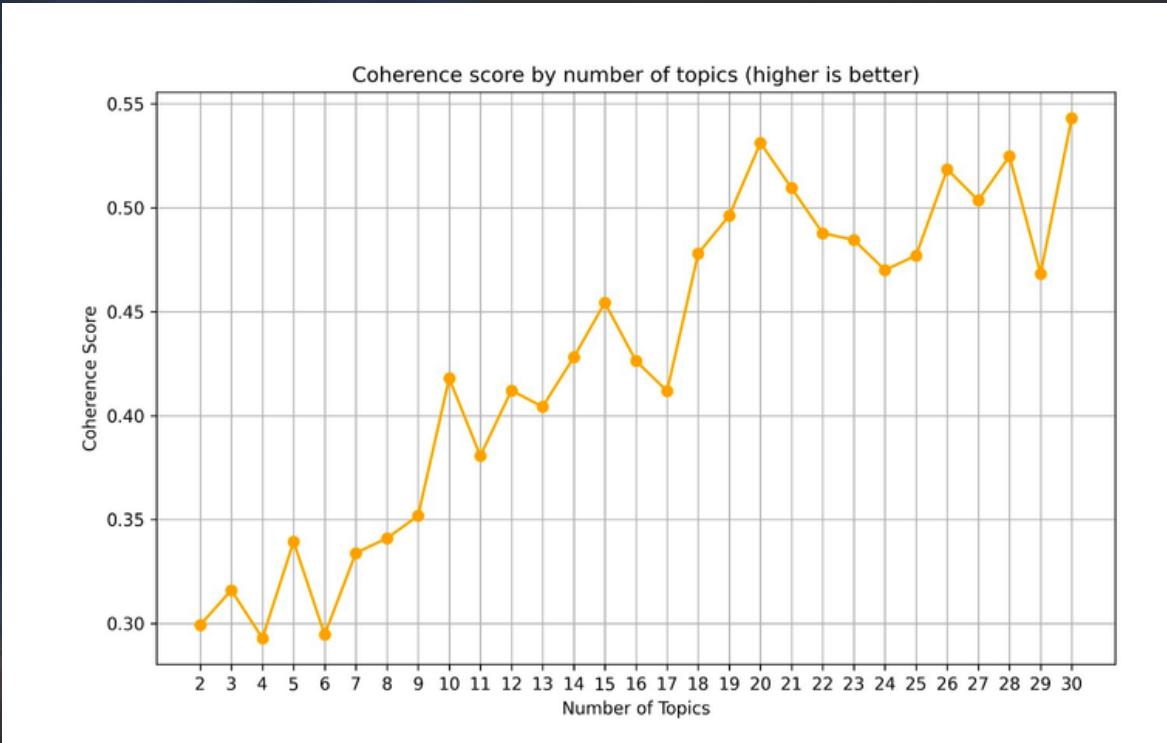
How we processed Wikidata?

We use a function that receives a string useful to identify the author and a graph, this one does a query obtaining all the existing data that we want to retrieve and in the process, enriches the graph.

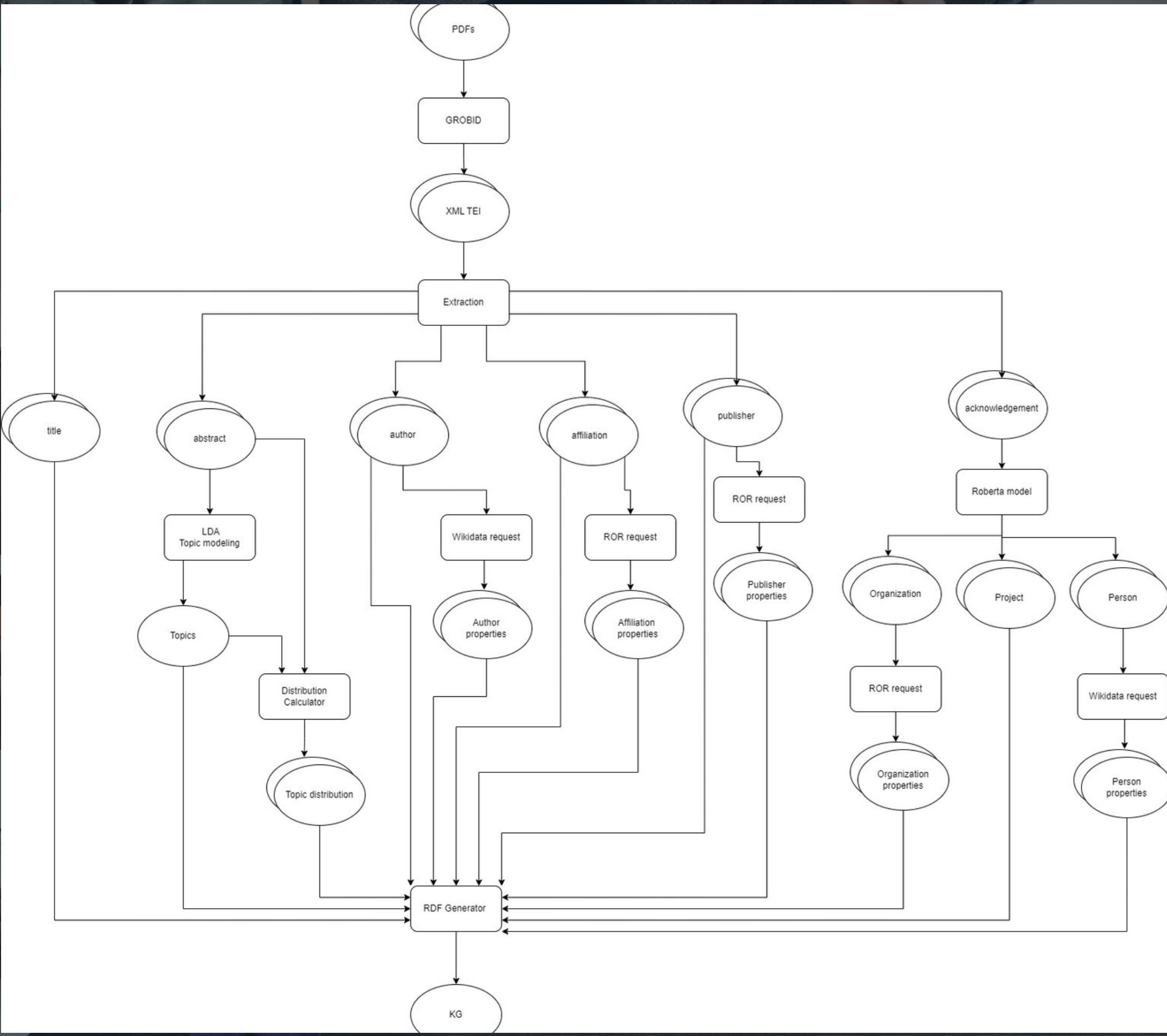
# TOPIC MODELING

## METRICS USED TO EVALUATE THE ADEQUATE # OF TOPICS

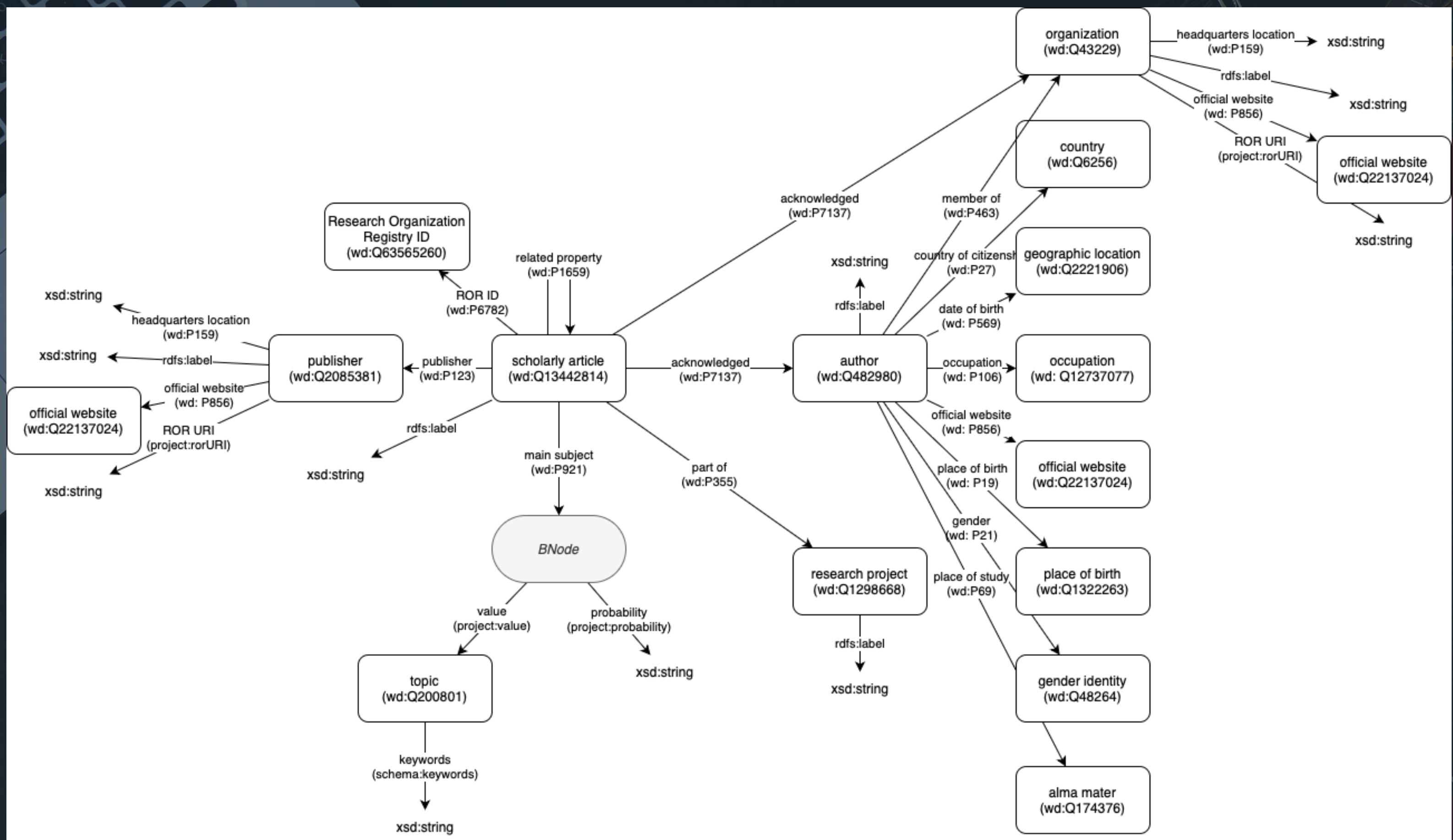
- Perplexity
- Coherence



# STEPS IN OUR EXPERIMENT



# ONTOLOGY



# HOW WE VALIDATED OUR APPROACH

## DOCKER

- First we dockerized our python code

## DOCKER COMPOSE

- Then with docker compose , it first executes our container which output is the .ttl file and then runs the jena fuseki server.

## QUERIES

- Now we go to localhost:3030 and upload our .ttl file so then we can query our KG. We validated our approach by querying our graph.

main ▾

Go to file Add file ▾ < > Code ▾

Ang3licaValdo Update index.rst ... ✖ 7 hours ago ⏱ 44

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HOW TO EXECUTE How to execute it

EXAMPLE QUERIES Example queries

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A collage of office scenes. On the left, a person's hands are shown on a keyboard and a calculator. In the center, a person is working at a desk with papers, a laptop, and sticky notes. On the right, there's a pen holder and a keyboard. Overlaid on the central image is a large, bold text "DEMO TIME".

**DEMO TIME**



TIME FOR  
QUESTIONS

**THANK YOU FOR  
YOUR ATTENTION!**