# Full-Text Resource Processing Training Workshop

Connecting text resource from Europeana Newspapers with CLARIN NLP tools using Jupyter notebooks



CLARIN ERIC & Europeana 15 June 2022

### Welcome!

### Full-Text Resource Processing Training Workshop

#### Organisers:

Michał Gawor, Twan Goosen (CLARIN ERIC) Alba Irollo (Europeana Research)





### Overview

14:00 - 14:15 Introductions

14:15 - 14:50 Tutorial (demo)

14:50 - 15:00 Break

15:00 - 15:45 Interactive tutorial (exercises)

15:45 - 16:00 Wrap-up

### **Introduction to Europeana**

Alba Irollo

### **CLARIN**

Common Language Resources and Technology infrastructure. A European Research Infrastructure Consortium (ERIC)

Provides easy and sustainable access to language data and tools

22 national consortia, 70 connected centres

Europeana partner (in Europeana DSI)

https://www.clarin.eu

### **NLP** tools

CLARIN centres provide a wide range of natural language processing (NLP) tools

Tasks on text resources, e.g.:

- Parsing, Tagging, ...
- Topic modelling, Named entity recognition, Sentiment analysis, ...
- Translation, Text to Speech, Spelling correction...

https://www.clarin.eu/content/tools

# Resources (language data)

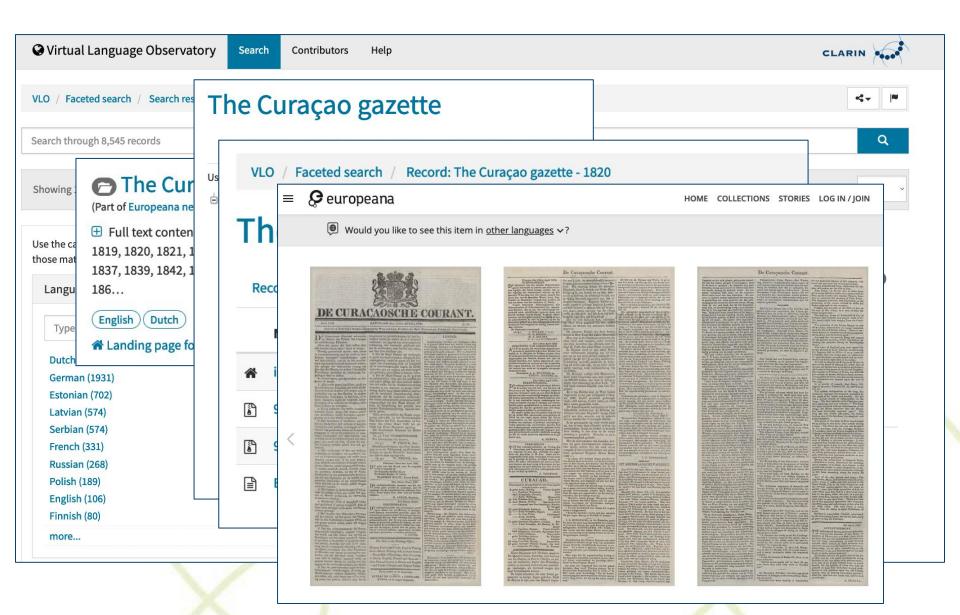
Many resource types can be distinguished:

- Textual, Audiovisual
- Corpora, Lexica, dictionaries, language models, ..

https://www.clarin.eu/content/data

CLARIN makes resources within and outside its consortium discoverable (vlo.clarin.eu).

Europeana newspaper full text resources have been aggregated at metadata level - easy to find and access via VLO.



https://vlo.clarin.eu

# Introduction to Jupyter and NLP demo

Michał Gawor

### Break until 15:00

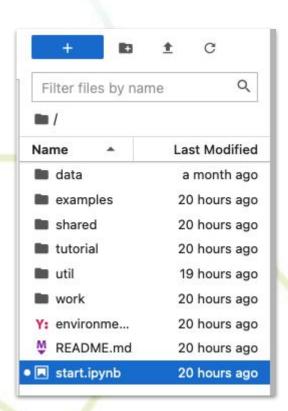
You will be assigned to break-out rooms

Please follow the log-in instructions to access <a href="https://jupyter.clarin-dev.eu">https://jupyter.clarin-dev.eu</a>

### Exercises



- 1. Go to the URL: <u>jupyter.clarin-dev.eu</u>
- 2. Log in with your personal credentials
- 3. Double-click on the 'start.ipynb' file on the left hand side and click the link to **Exercise 1** to get started



15:40 Wrap-up in breakout

# Wrap-up: summary and evaluation of the exercises

- Exercise 1
  - Notebook navigation and cell execution
- Exercise 2
  - Extracting information from metadata and resources files
- Exercise 3
  - Filtering data sets
  - Running NLP pipelines

## Wrap-up: how to proceed?

- Environment at jupyter.clarin-dev.eu will remain available for one month
- Working with these and other notebooks after that:
  - SSHOC marketplace (sshopencloud.eu)
    - -> search for Jupyter notebooks Europeana newspapers
  - One click to run in binder (but data will be lost)
  - Use a remote or local Jupyter environment
    - Local: <u>anaconda.org</u> (download + install)
    - Ask your institution!

## Wrap-up: further exploration

- Using different data sets and/or tools
  - Europeana Newspaper full text currently available from 9 countries
  - CLARIN centres offer many different tools
    - Usage will not be the same for all tools
      - Calling from a notebook requires remote access
      - Get informed about means of access, e.g. web service or python library
- See 'start.ipynb' notebook for links
- Experiment and ask for support in online communities

# Questions?



# Thank you for your attention!



marketplace.sshopencloud.eu



www.clarin.eu/notebooks



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