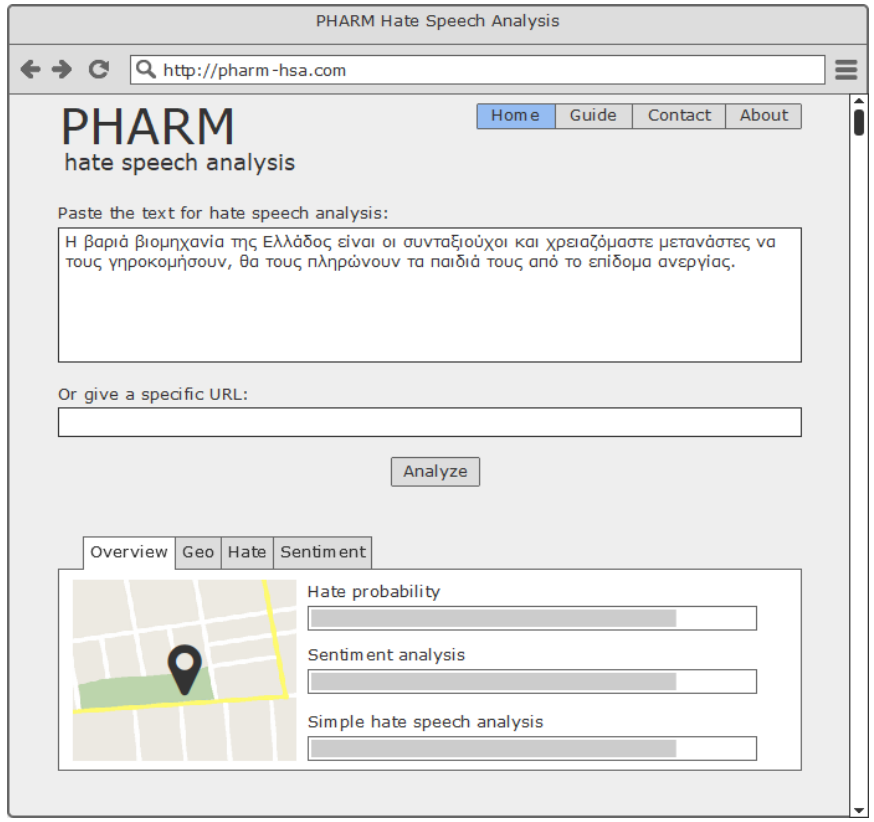
THE PHARM INTERFACE

Quick Start Guide

A web interface and computational methods for online hate speech detection

WHAT IS THE PHARM INTERFACE?

- It serves as the front-end of the PHARM software.
- It is a web interface for storing and querying multi-source news and social media contents.
  - It exposes data and functionality to the users.
  - It relies on the back-end NLP scripts.



WHAT FUNCTIONS DOES IT OFFER?

Monitor

The Interface offers real-time hate-speech event detection.

Search

The search function concerns database querying for filtering data.

Analyze

This involves hate-speech detection, sentiment analysis, and geolocation estimation.

Scrape

This allows for scraping text data from the Twitter and YouTube social platforms.

Annotate

This function enables the annotation of collected data.

Submit

The Interface supports adding new hate-speech records into the Repository.

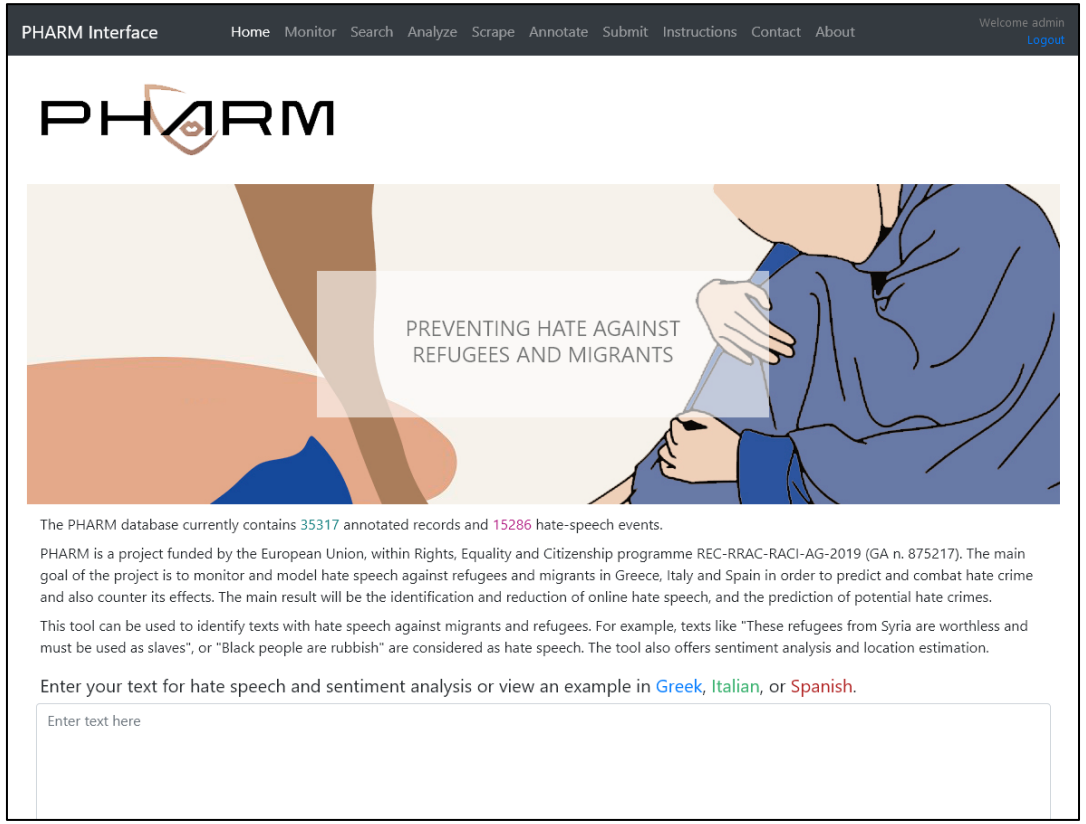
TYPES OF USERS

Contributor	Visitor
• Monitor • Search • Analyze • Scrape • Annotate • Submit	• Monitor • Search • Analyze

- The Interface supports two types of users:
  - The visitor can access the analysis and search modules.
  - The contributor has full access to all available processing functions.
- The basic work-flows are:
  - Monitor -> Analyze
  - Search -> Analyze
  - Scrape -> Annotate -> Submit

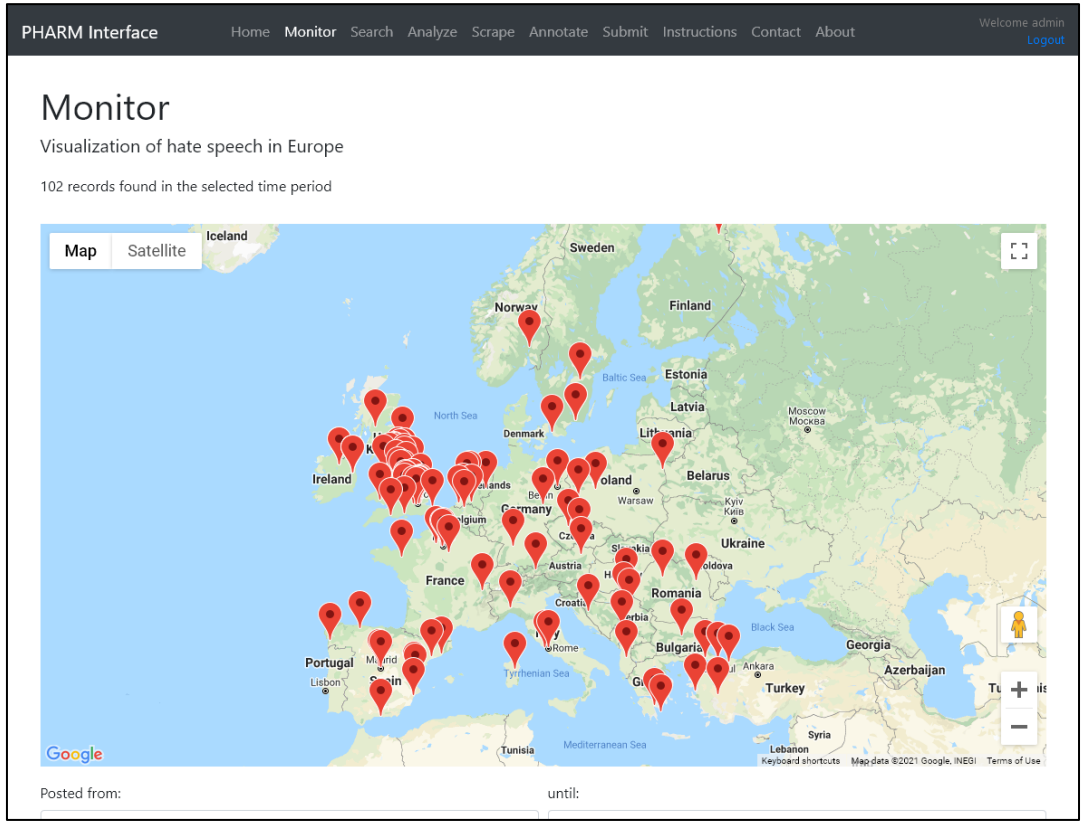
INTERFACE | HOME

- The home screen provides some basic information about the project and the hate-speech repositories.
- It is accessible via the link pharm-interface.usal.es.
- It provides input for performing the supported analyses on a user-defined text.
- There are examples in Greek, Italian, and Spanish.
- These three languages are natively supported but content in all languages can be analyzed via translation.



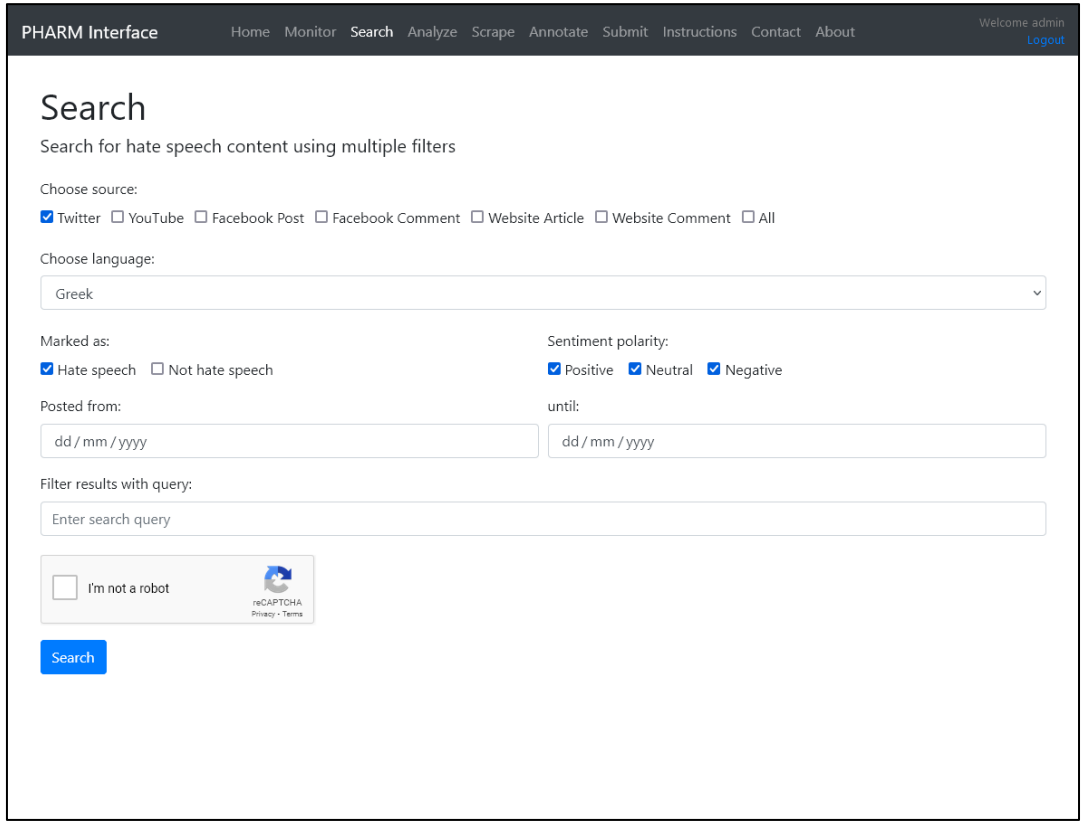
INTERFACE | MONITOR

- The Interface includes hate-speech monitoring capabilities.
- Geolocated tweets are being analyzed for containing hate-speech.
- This concerns the regional area of Europe.
- Found hate-speech events are stored and shown on a map.



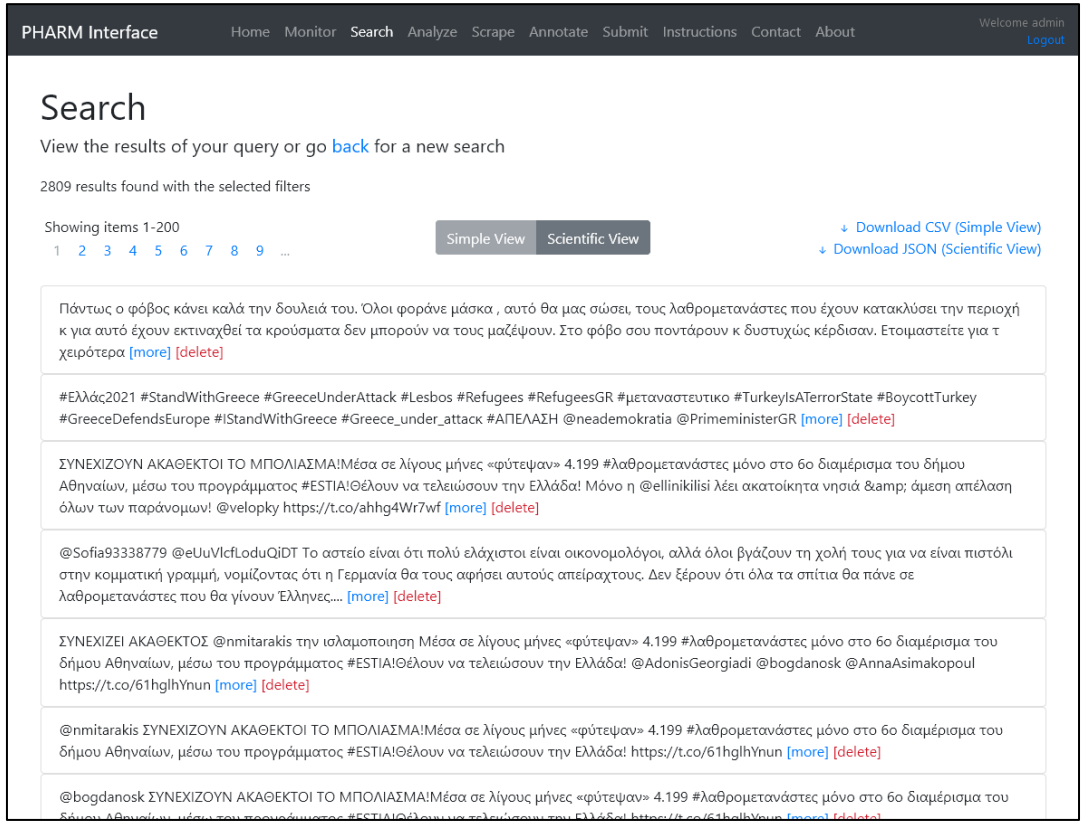
INTERFACE | SEARCH

- One of the main functionalities of the interface is navigating through hate-speech records.
- The user can apply a variety of filters:
  - Source selection (Tweets, Facebook posts and comments, Website Articles and comments).
  - Language selection (English, Greek, Italian, Spanish).
  - Date and time selection (specify a specific period).
  - Keyword filtering (a search query for finding occurrences to texts).



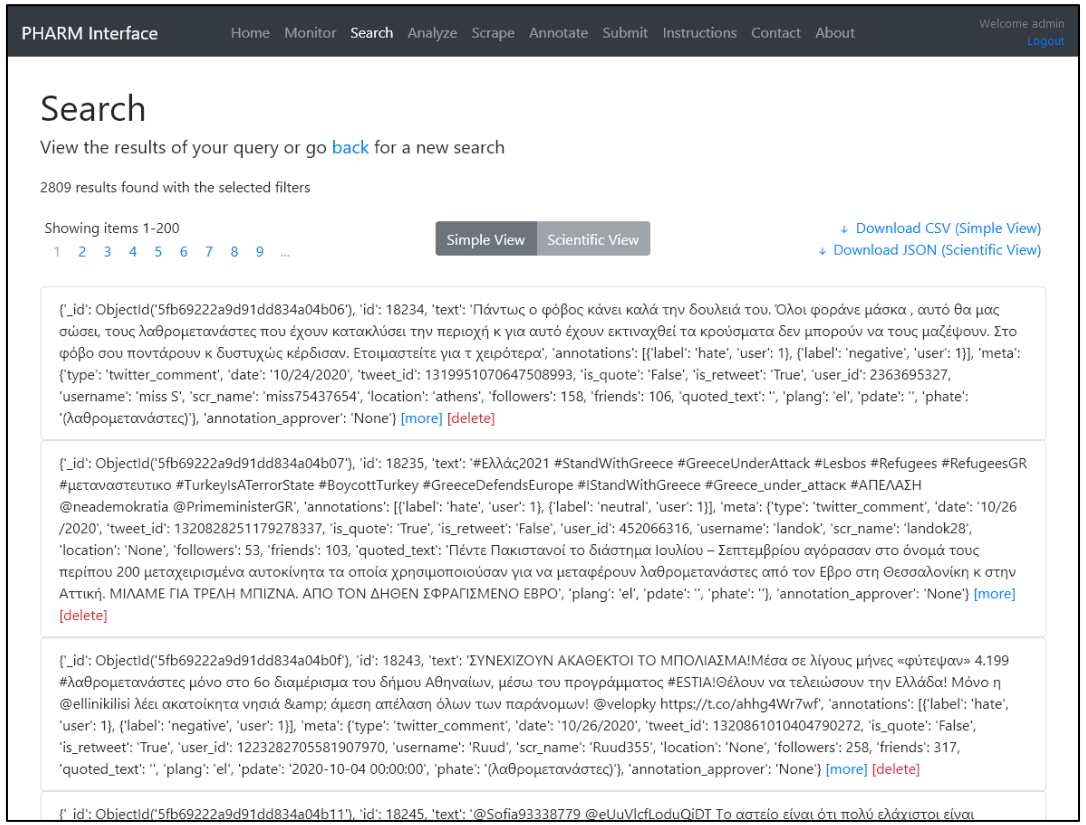
INTERFACE | SIMPLE RESULTS

- Search results are being presented as list of records.
- The user can preview and edit the results, and display details for each one record.
- Either the "Simple" or the "Scientific" view can be chosen.
- The list can be downloaded as a CSV or a JSON file.



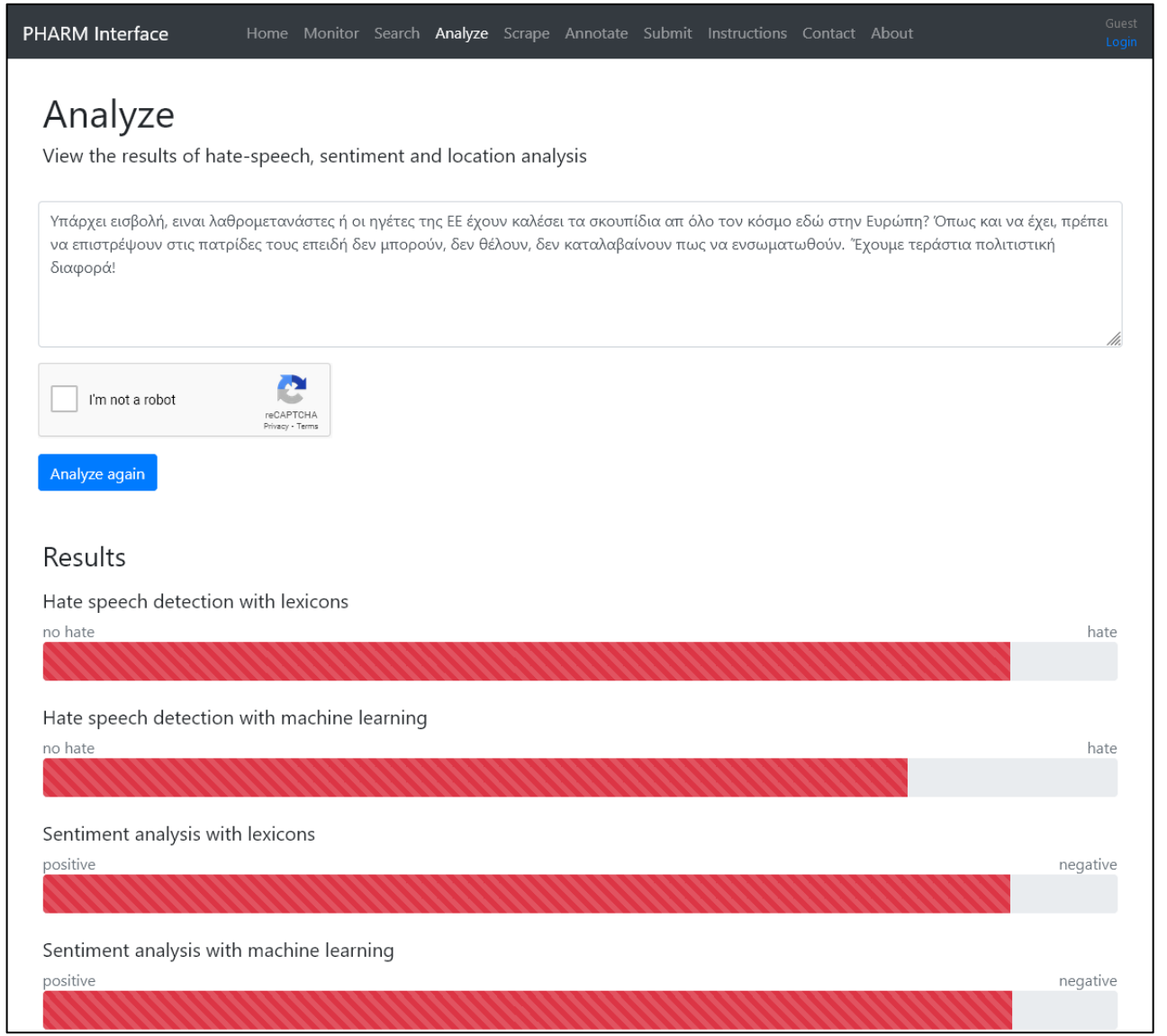
INTERFACE | EXTENDED RESULTS

Twitter	YouTube
tweet id	comment id
is retweet	reply count
is quote	like count
user id	video id
username	video title
screenname	channel
location	video description
follower count	author id
friend count	author name



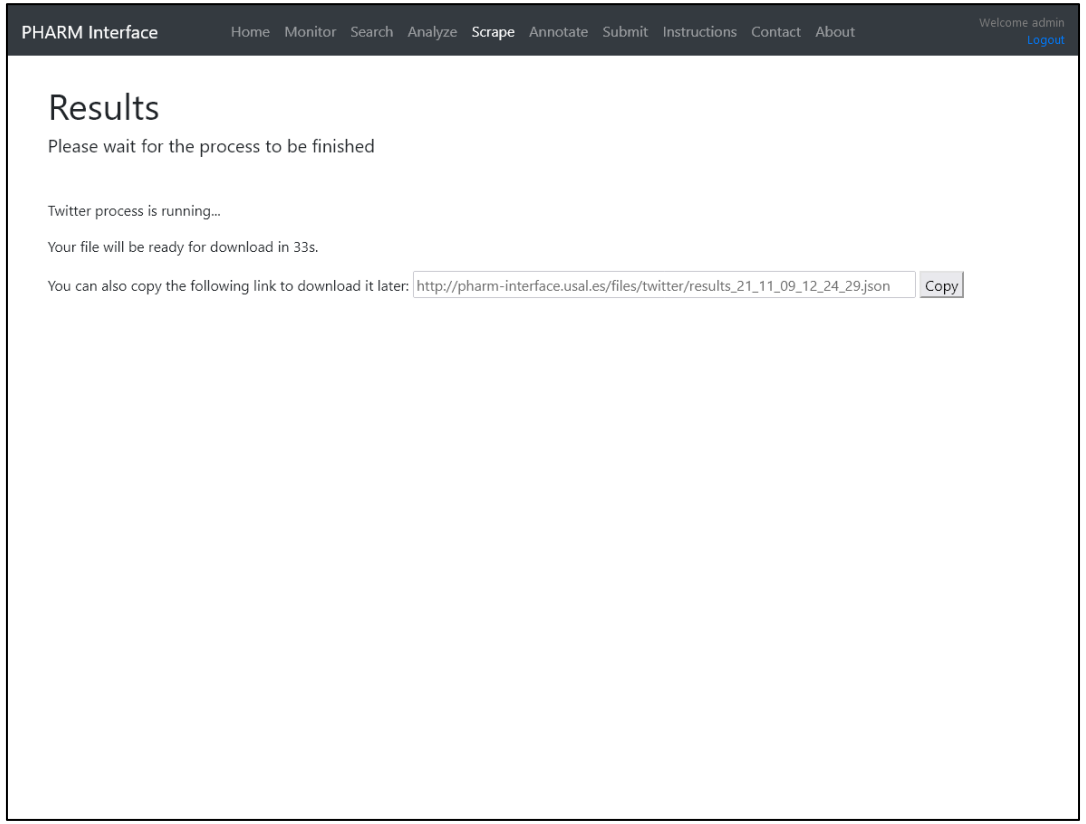
INTERFACE I
ANALYZE

When a record is selected (or for a text that is placed in the home screen), a view presenting detailed information appears.



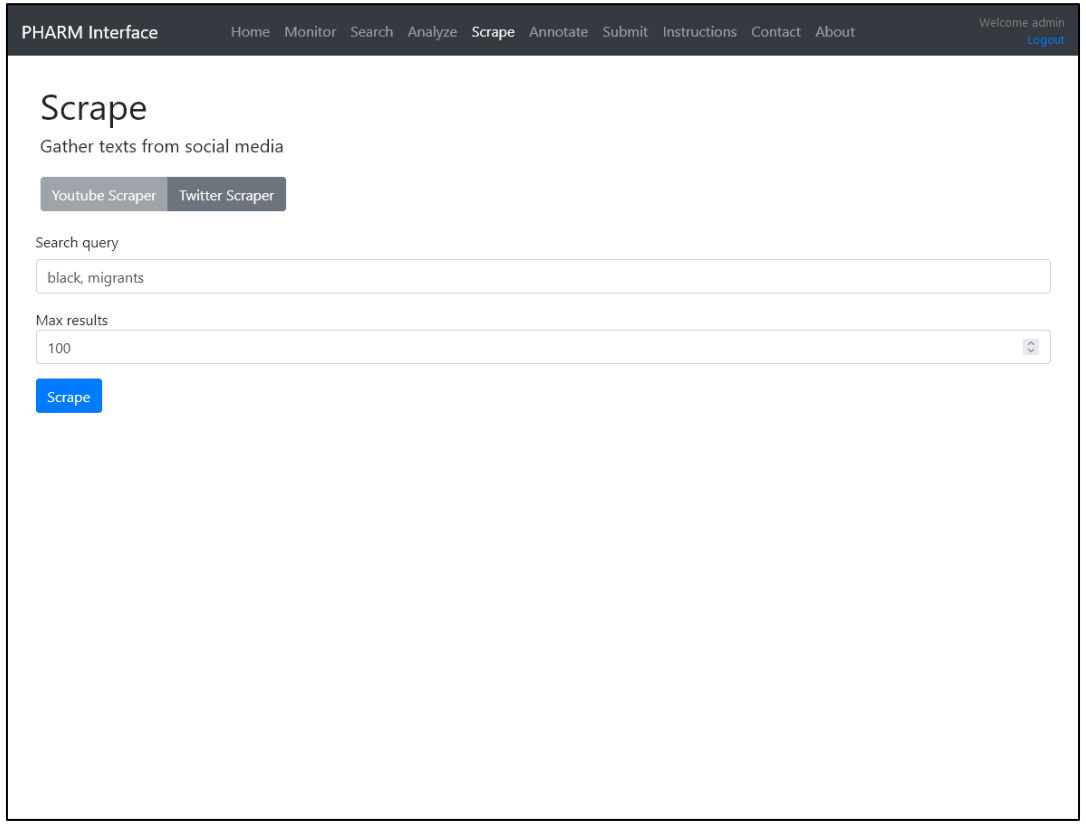
INTERFACE | TWITTER SCRAPING

- This module enables the mass-collection of text data from two popular platforms: Twitter and YouTube.
- A User can collect hate-speech data from Twitter, by simply choosing the desired language (Greek, English, Italian, or Spanish).
- A link is provided for downloading a JSON file that contains the data.



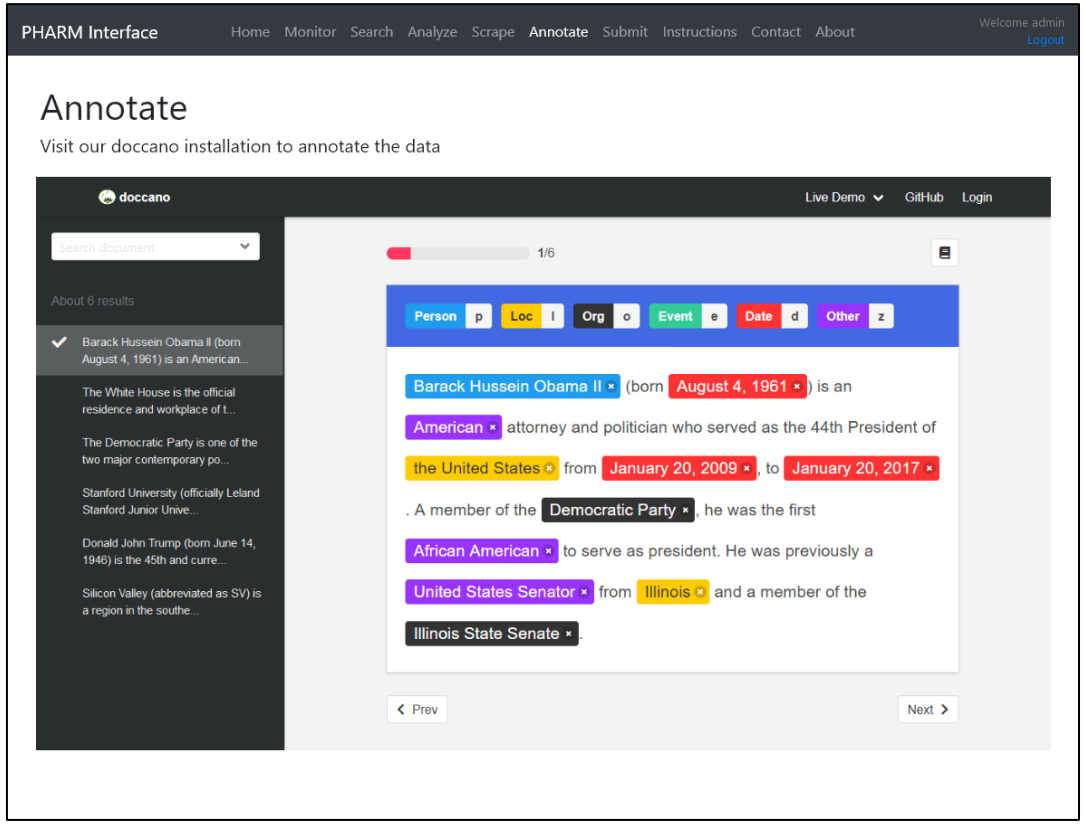
INTERFACE | YOUTUBE SCRAPING

- In the case of YouTube, instead of selecting the language, a search query must be set.
- The process is instantaneous and a view displays the corresponding data.
- The data can be previewed.
- These data can be downloaded as a CSV or JSON file.



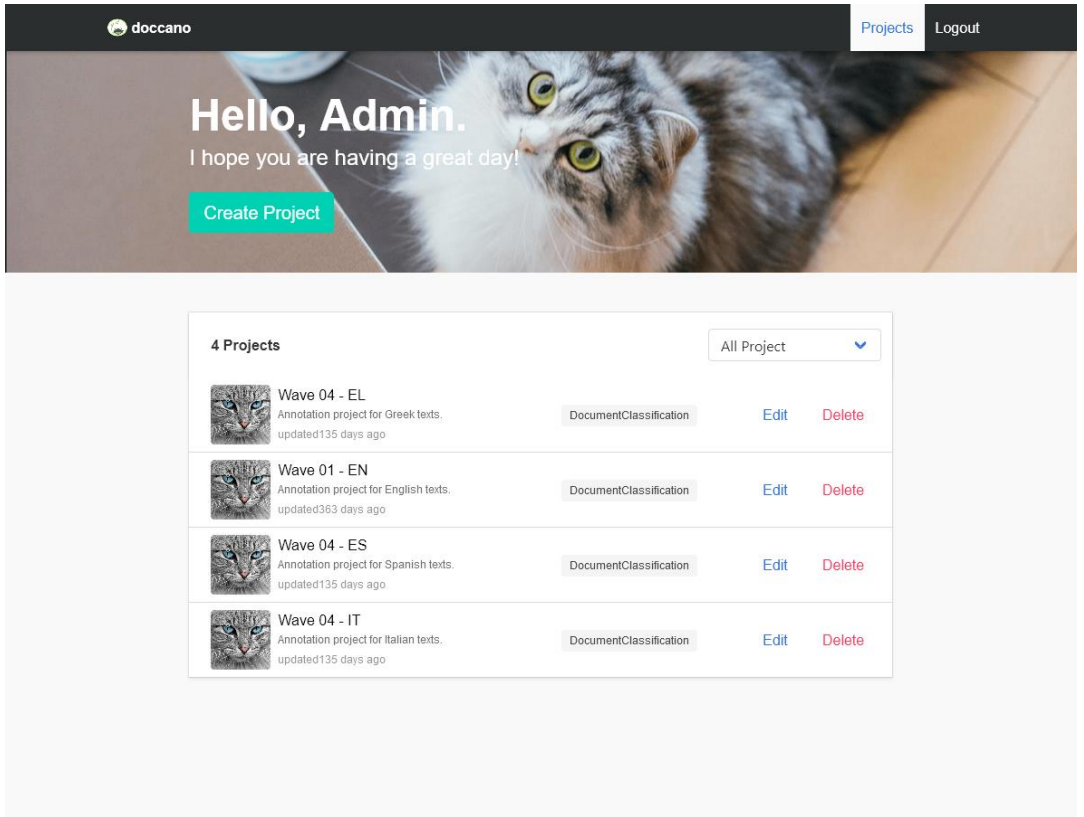
INTERFACE | ANNOTATE

- The annotation process is powered by the doccano tool.
- Doccano is an annotation management system for text data and can be used for developing datasets for
  - classification,
  - sentiment analysis,
  - entity tagging,
  - translation tasks.



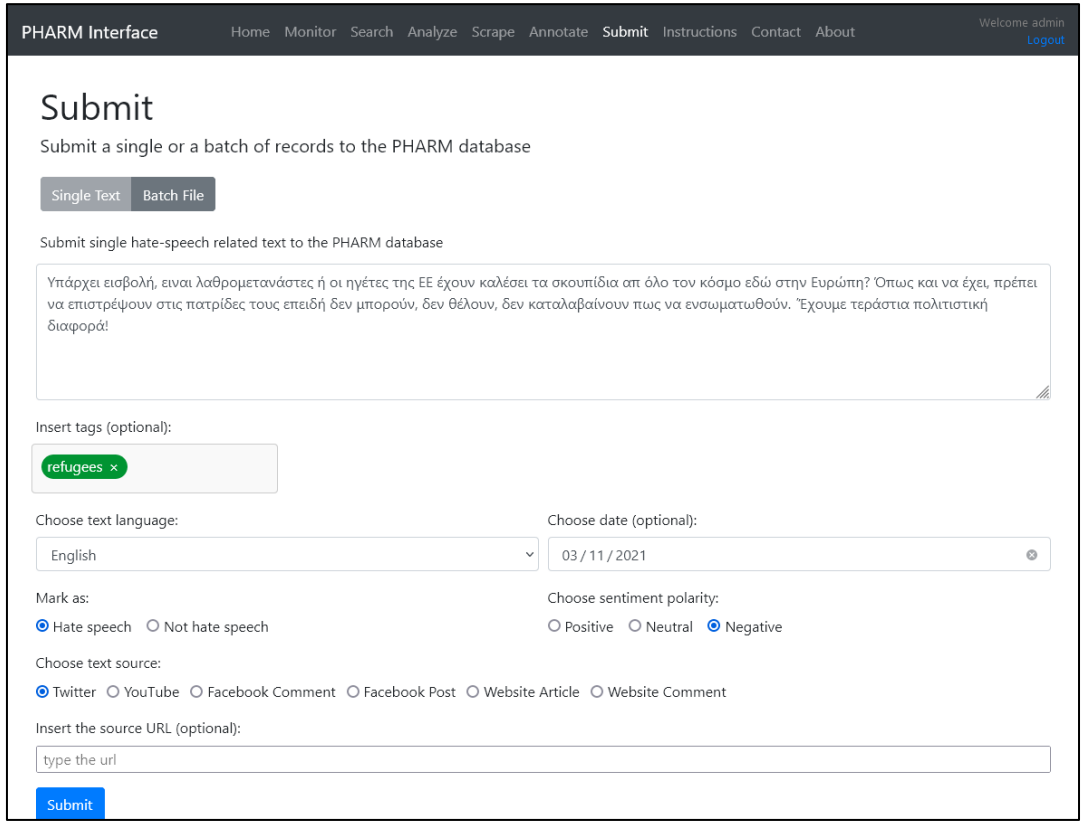
INTERFACE | DOCCANO

- In the context of the PHARM Project, it is used for text classification.
- "Hate" or "No Hate"
  - If the text contains content against refugees or migrants or not.
- "Positive", "Neutral", or "Negative"
  - According to the sentiment of the text.



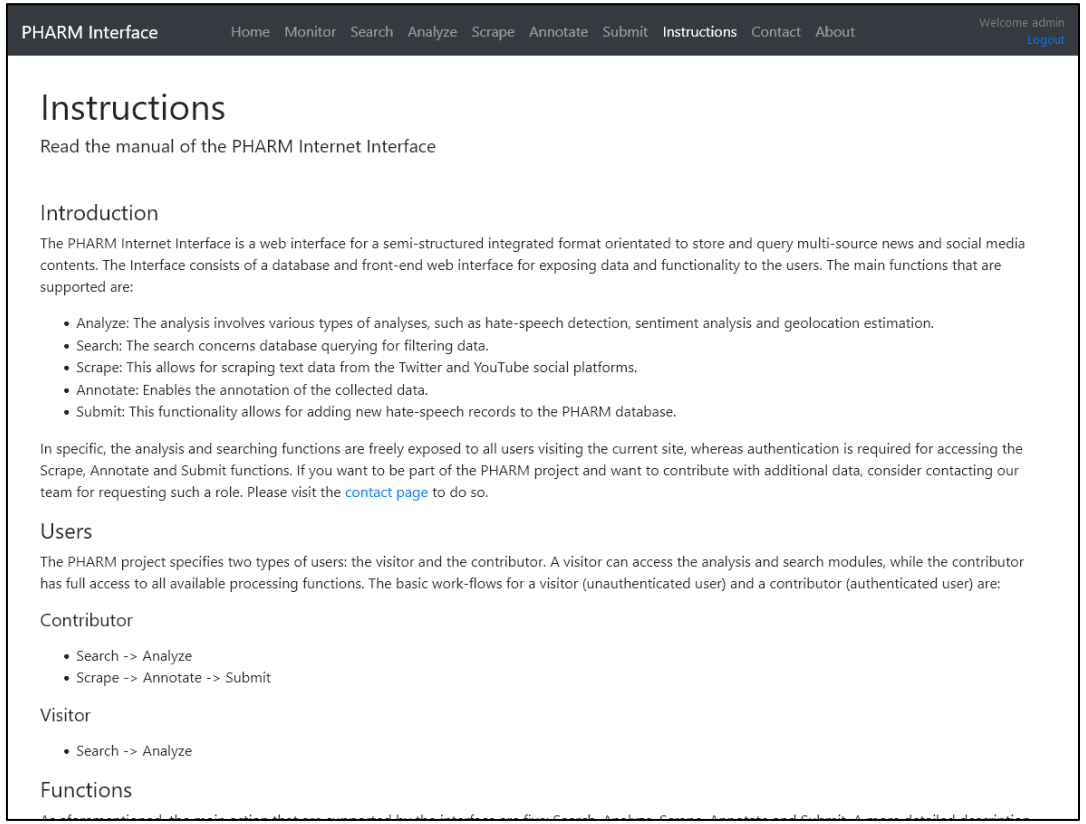
INTERFACE | SUBMIT

- This page can been used for adding new records.
- Data entry can be executed either one by one or massively.
  - the user should set all data (text) and metadata (source, language, date, hate, sentiment, etc.) via the corresponding input forms.
  - If data are already formed appropriately, they can be imported as a JSON file too.



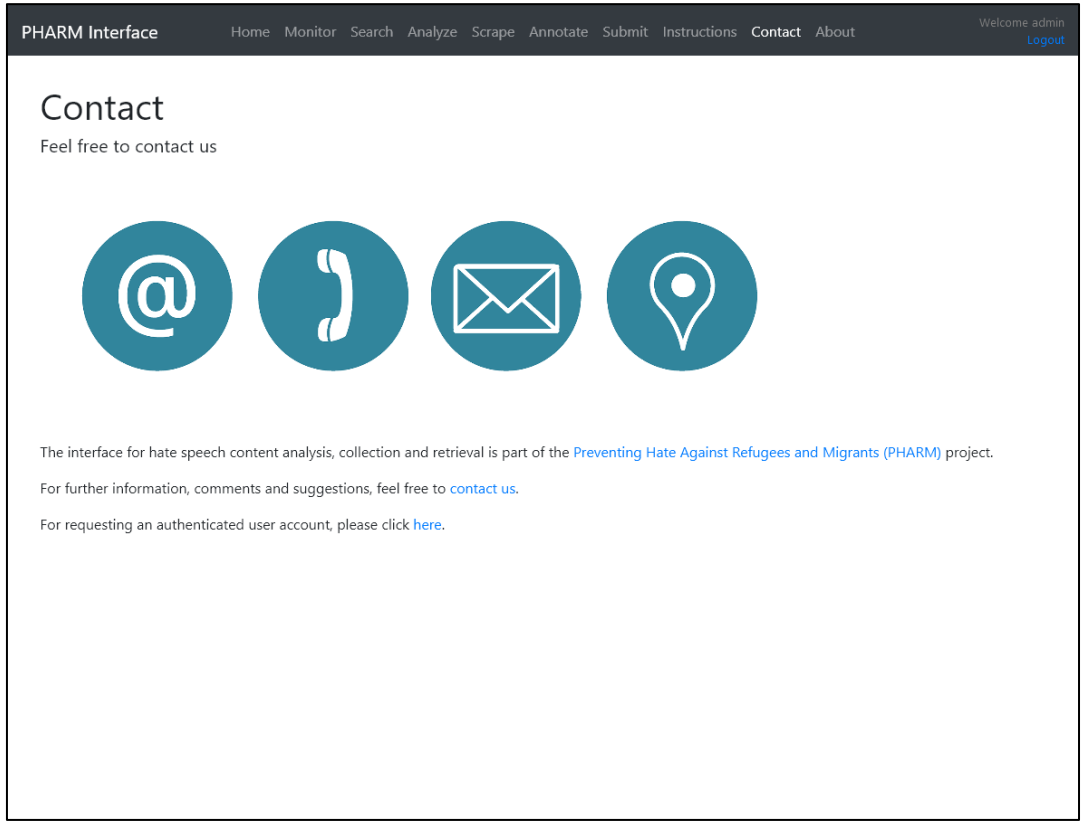
INTERFACE | INSTRUCTIONS

- Quick start guide.
- Instructions about all supported functions.
- Link to the PHARM GitHub repository for further technical information.
- There is a full guide of the Interface for additional information.
  - The guide is available in the English, Greek, Italian, and Spanish languages.



INTERFACE | CONTACT

- A user can also contact our team for:
  - further information,
  - support,
  - comments and suggestions,
  - requesting an authenticated user account (contributor).
- Contact e-mail:
  - pharm.project.eu@gmail.com



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