Amsterdam Content Analysis Toolkit (AmCAT)

Sofia Gil-Clavel
Researcher, Lab Manager

MEDem
MONITORING ELECTORAL DEMOCRACY

VU VRIJE UNIVERSITEIT AMSTERDAM
Faculty of Social Sciences
Societal Analytics Lab

Developed by

Kasper Welbers

Wouter van Atteveldt

Johannes Gruber

Sofia Gil-Clavel

by researchers for researchers, **society**, and data savvy users.

General Goal

To **standardize multimedia analysis tasks** with easy-to-use software.

Part of the

Text & Multimedia Data Center

Part of the

Text & Multimedia Data Center

As part of Text & Multimedia Data Center, AmCAT aims to:

Part of the

Text & Multimedia Data Center

As part of Text & Multimedia Data Center, AmCAT aims to:

- Be an **inclusive tool for anyone** interested in understanding and engaging with communication dynamics in democracies.

Inclusive

Part of the

Text & Multimedia Data Center

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- Be an **inclusive tool for anyone** interested in understanding and engaging with communication dynamics in democracies.
- Provide an **entry point to search and share data**.

Inclusive → Entry point

Part of the

Text & Multimedia Data Center

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- Be an **inclusive tool for anyone** interested in understanding and engaging with communication dynamics in democracies.
- Provide an **entry point to search and share data**.
- **Share** data under the **non-consumptive research pipeline**.

Inclusive > Entry point > Non-consumptive

Part of the

Text & Multimedia Data Center

As part of Text & Multimedia Data Center, AmCAT aims to:

- Be an **inclusive tool for anyone** interested in understanding and engaging with communication dynamics in democracies.
- Provide an **entry point to search and share data**.
- **Share** data under the **non-consumptive research pipeline**.
- **Facilitate the integration of textual and multimedia** (audio, image, & video) **data** into (research) workflows.

Inclusive

Click and drop

Interactive

curl://

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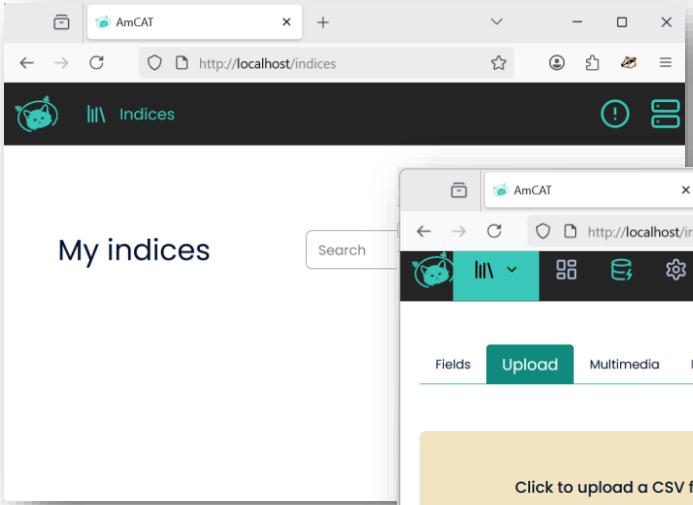

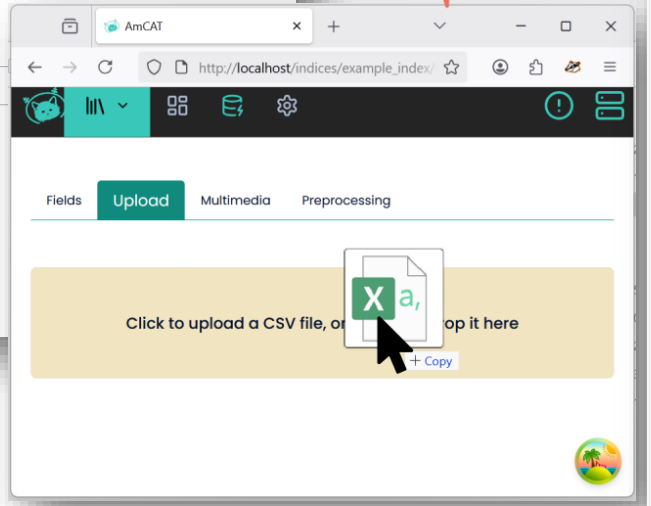

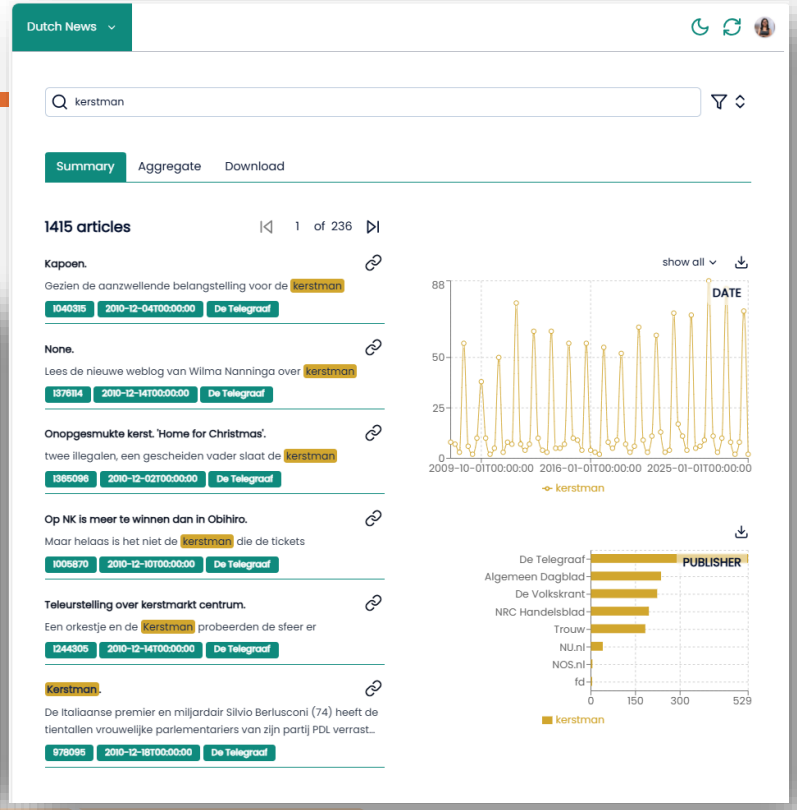

Inclusive → Entry point → Non-consumptive → Multimedia data

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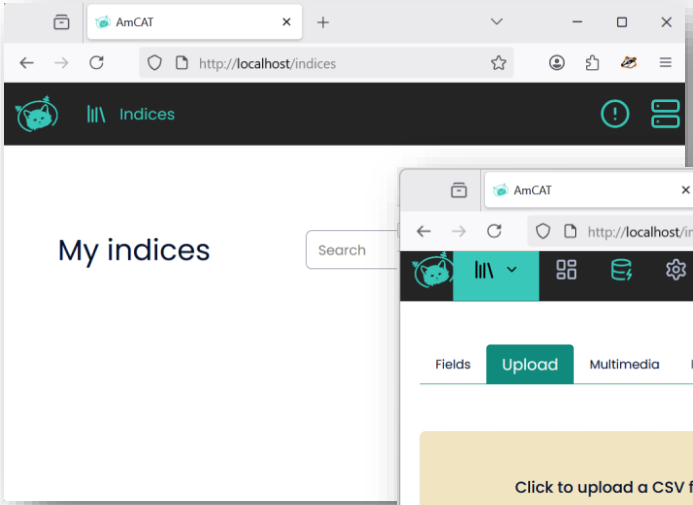

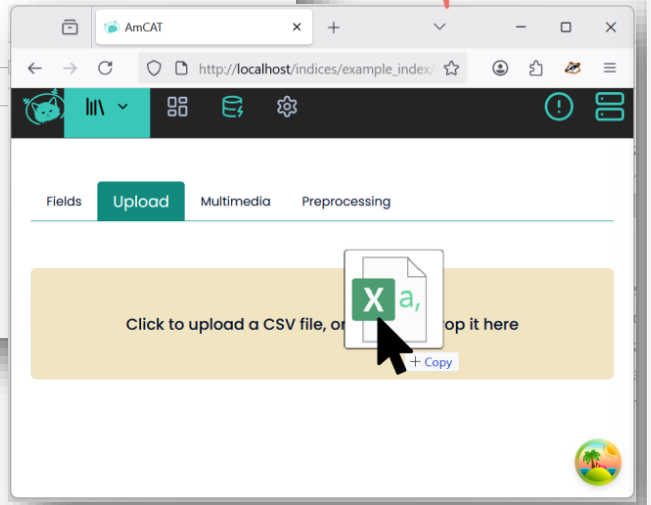

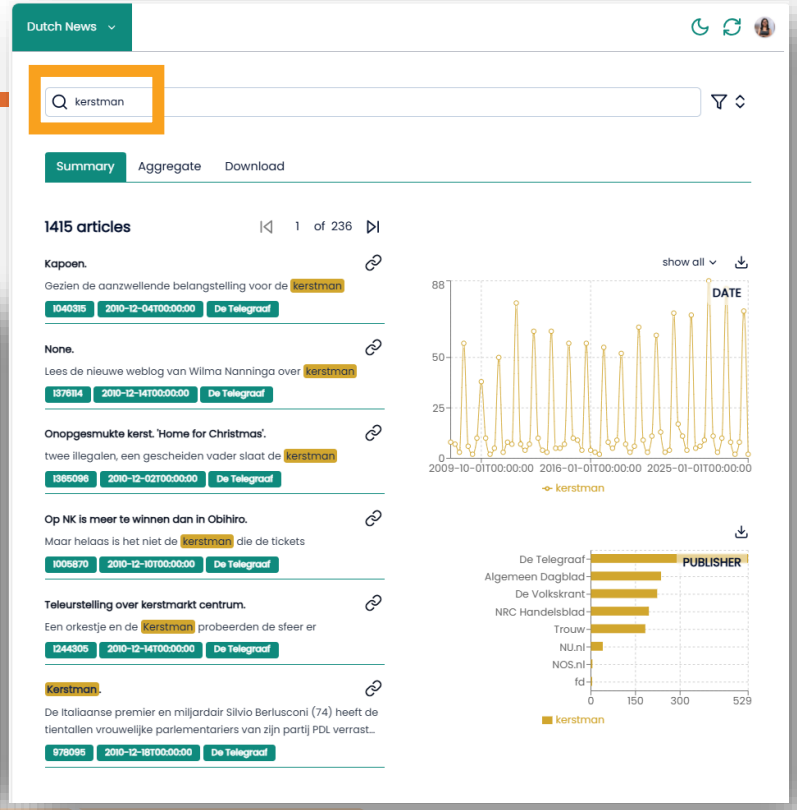

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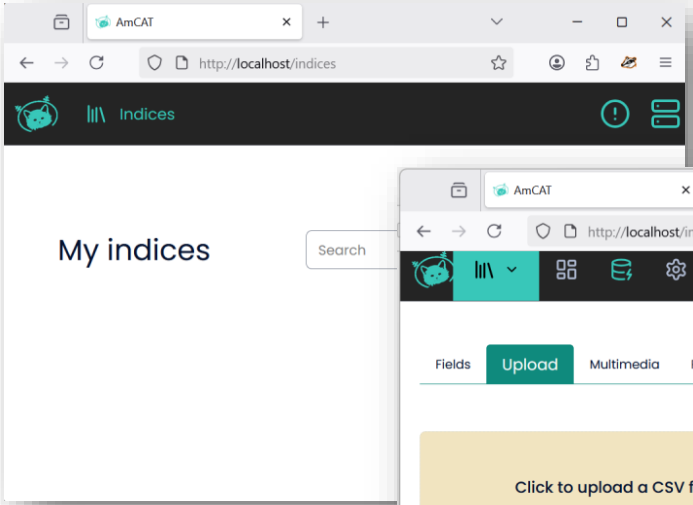

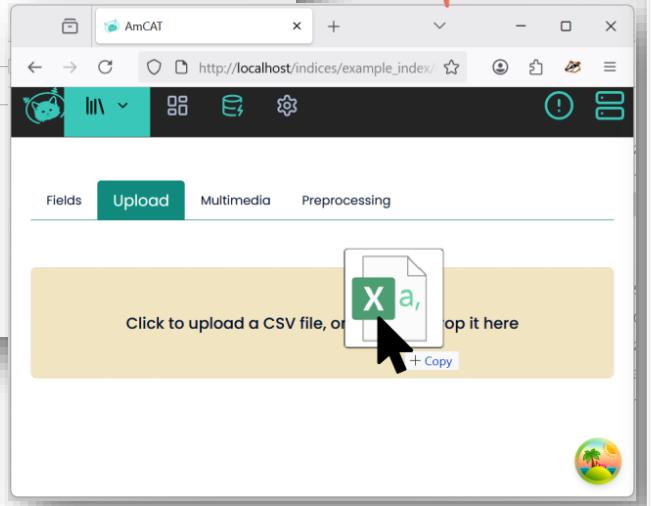

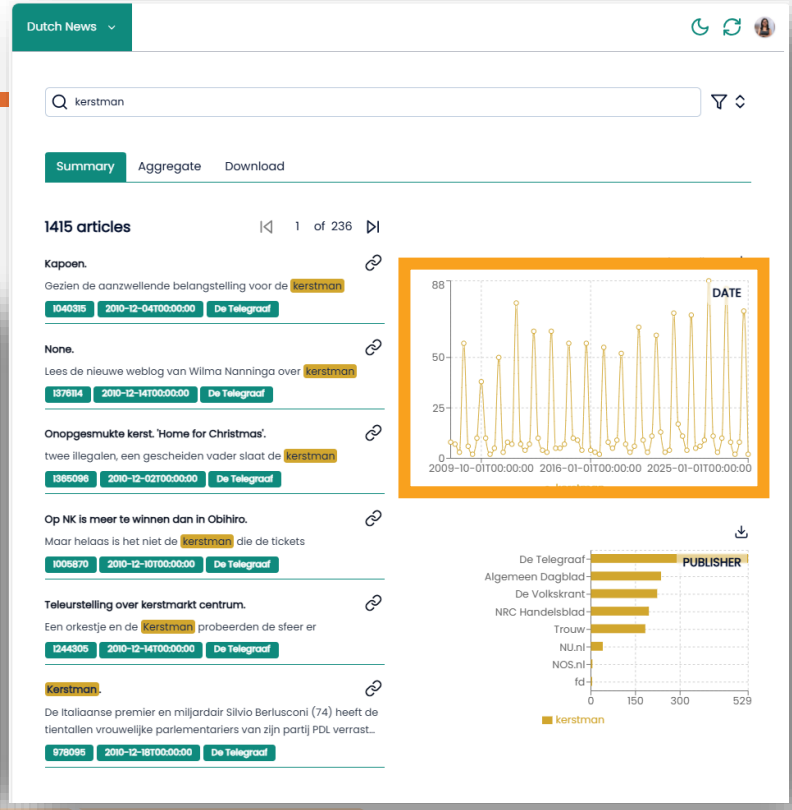

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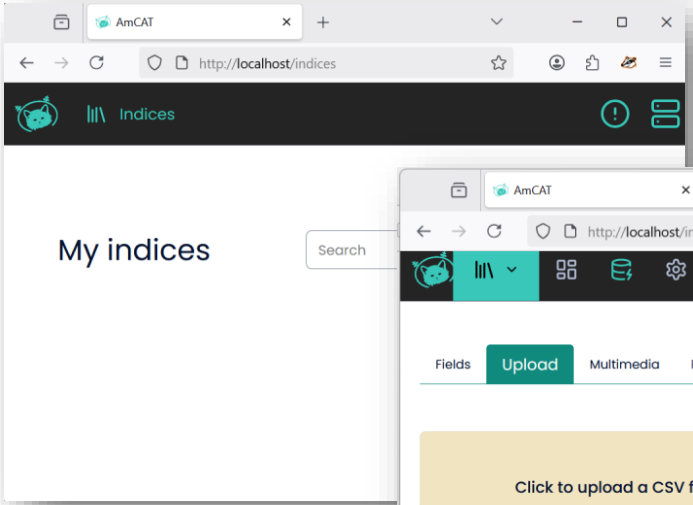

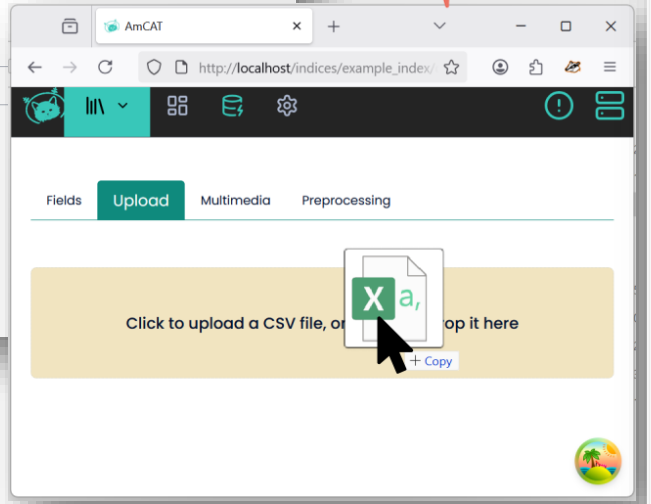

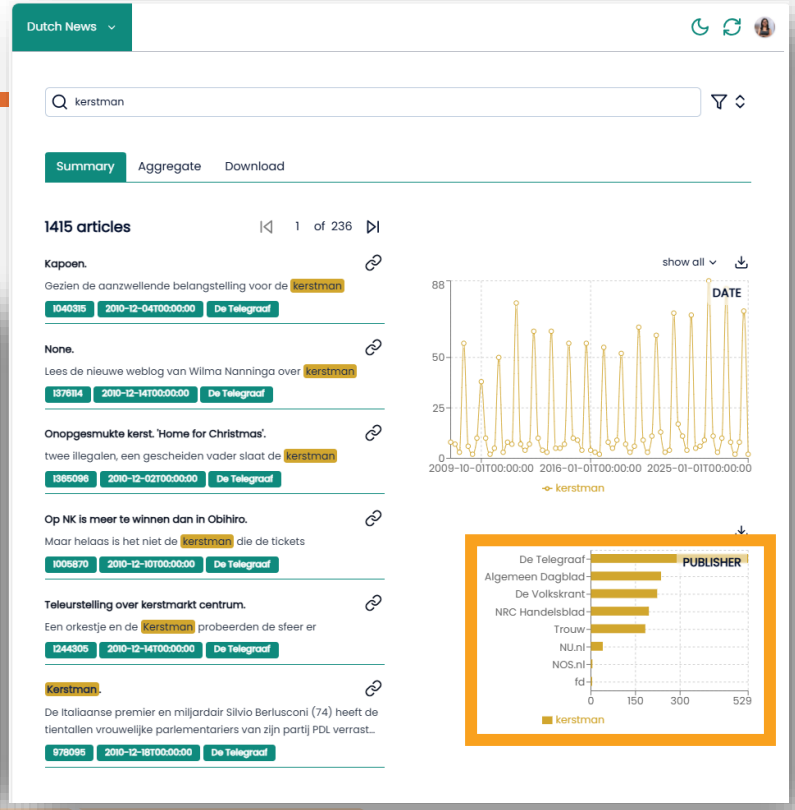

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```
remotes::install_github("ccs-amsterdam/amcat4r")
```

Install

```
remotes::install_github("ccs-amsterdam/amcat4r")

library(amcat4r)
```

Open

```
remotes::install_github("ccs-amsterdam/amcat4r")

library(amcat4r)

#### Checking the indexes ####

amcat_login("https://amcat4.labs.vu.nl/amcat")
```

Log-in to server

```
remotes::install_github("ccs-amsterdam/amcat4r")

library(amcat4r)

#### Checking the indexes ####

amcat_login("https://amcat4.labs.vu.nl/amcat")

list_indexes()

example_index=read.csv("CODES_SGC/Example_Index.csv",header = TRUE,sep = ";")

create_index(index = "example_index", guest_role = "METAREADER",
             description = "My first index",name = "Example_Index")
```

Create index

```
remotes::install_github("ccs-amsterdam/amcat4r")

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create_index(index = "example_index", guest_role = "METAREADER",
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upload_documents(index = "example_index",
                 example_index)
```

Upload to server

```
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#### Checking the indexes ####

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```
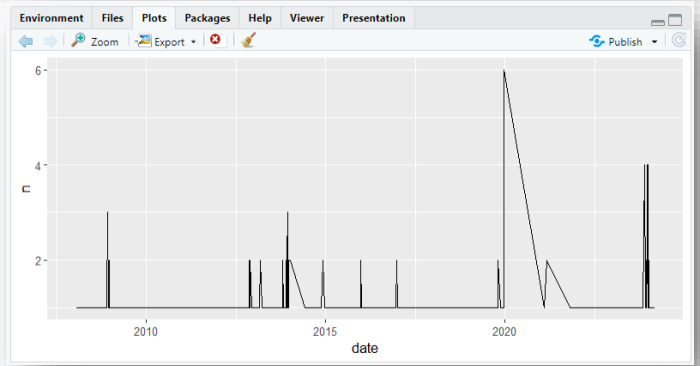

```
query_documents("example_index",
                queries = "kerstman") %>%
  count(date) %>%
  ggplot(aes(x = date, y = n)) +
  geom_line()
```



Start analyzing

```r
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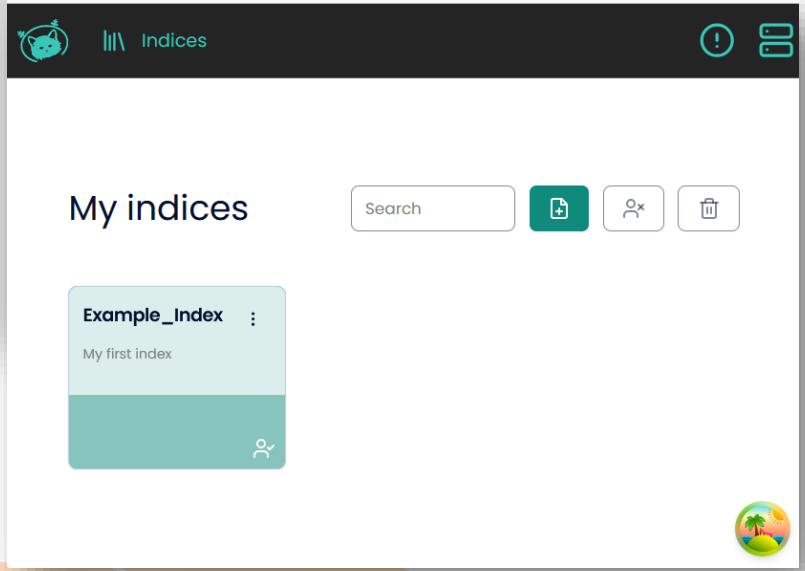


Start analyzing

Inclusive

Click and drop

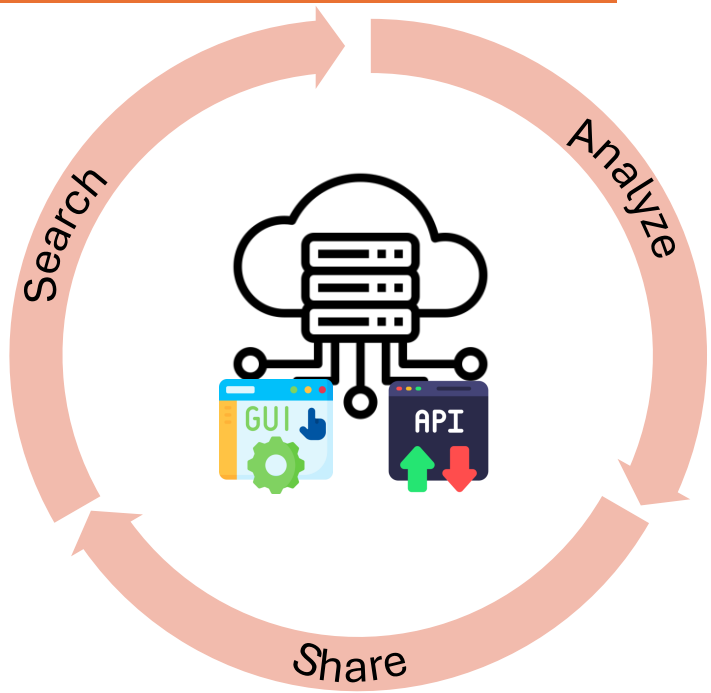
Interactive

curl://

R

Entry point

Create a **save repository** to share and search for data.



Already running in the Societal Analytics Lab server and soon in MEDEM's servers.

Non-consumptive research

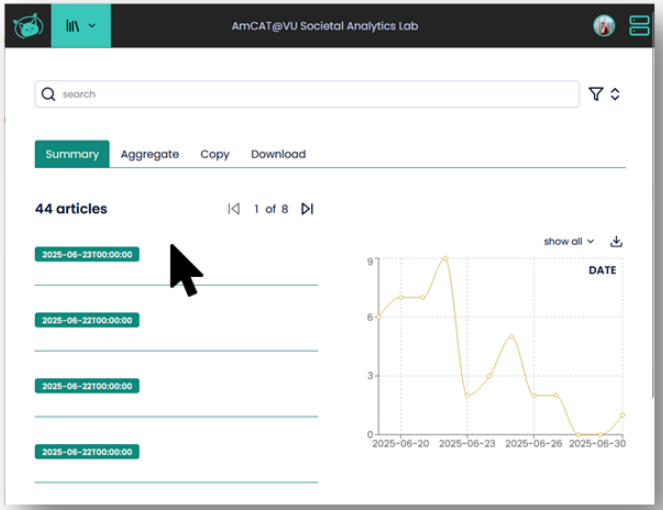
Non-consumptive research

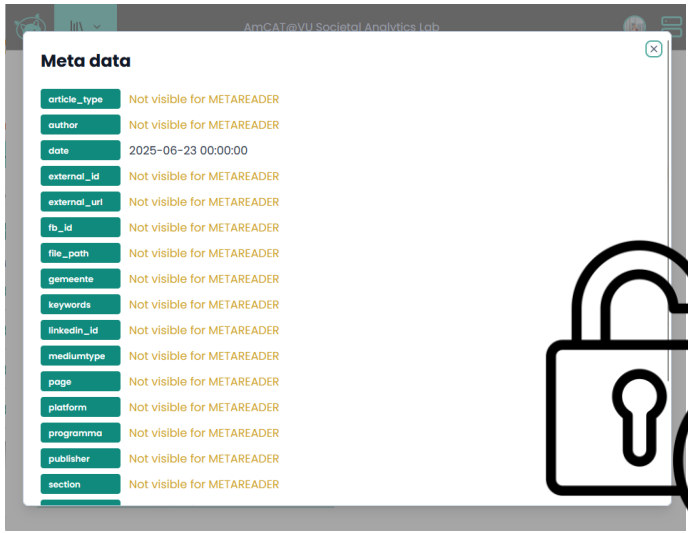
Refers to **analyses** methods that can be performed **without access to the full data set**.

Non-consumptive research

AmCAT **enables users to give access to others** to view the metadata and annotations **without accessing the underlying full text.**

Non-consumptive research





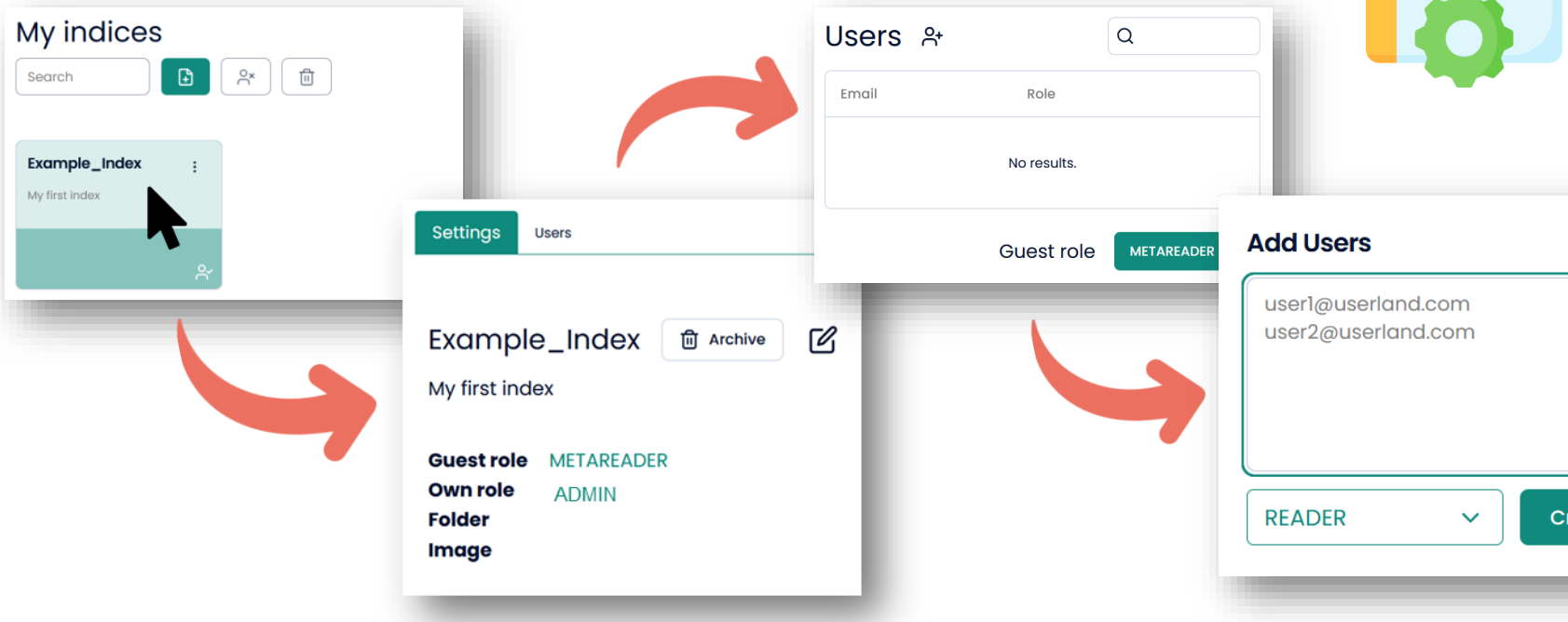
Inclusive > Entry point > Non-consumptive > Multimedia data

Non-consumptive research

Access Control

Role Level	Global Role	Index Role In Index A	Description
0	-	Guest	If a user does not have an explicit role on an index, the guest role (if any) is used. An unauthorized user can still get guest roles, so they can see any indices with a guest role. This is not a specific level, but it serves as a fallback for undefined index roles.
1	Reader	None	Can see which indices exist, but cannot access them. Index A is invisible to the user.
2	Reader	Metareader	Can see which indices exist. Can read all properties, do queries, etc. in Index A, but cannot read the 'text' attribute.
3	Reader	Reader	Can see which indices exist. Can read all properties, do queries, etc. in Index A, but cannot make changes.
4	Reader	Writer	Can see which indices exist. Can add/delete documents, add/delete users (up to their own level), and make other changes (but not delete) in Index A.
5	Reader	Admin	Can see which indices exist, can add/update/delete documents and users (up to their own level) in Index A and delete Index A itself.
6	Writer	None	Can create new indexes and users (with at most their own global role). Index A is invisible to the user.
7	Writer	Metareader	Can create new indexes and users (with at most their own global role). Can read all properties, do queries, etc. in Index A, but cannot read the 'text' attribute.
8	Writer	Reader	Can create new projects and users (with at most their own global role). Can read all properties, do queries, etc. in Index A, but cannot make changes.
9	Writer	Writer	Can create new projects and users (with at most their own global role). Can add/delete documents, add/delete users (up to their own level), and make other changes in Index A, but can't delete Index A.
10	Writer	Admin	Can create new projects and users (with at most their own global role). Can add/update/delete documents and users (up to their own level) in Index A and delete Index A itself.
11	Admin	Admin	Can delete projects and assign themselves a role on any index role. Can do whatever they want, including deleting the index.

Non-consumptive research



Multimedia data

Multimedia data

OPEN SOURCE SEARCH, ANALYTICS, AND AI PLATFORM

Elasticsearch

Source: https://www.elastic.co/elasticsearch

Multimedia data

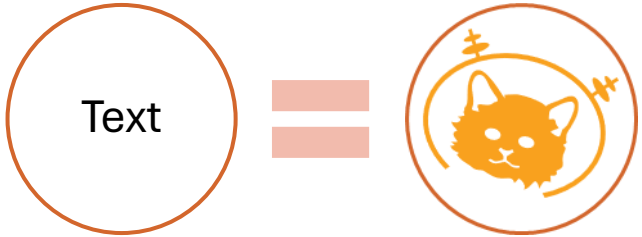
OPEN SOURCE SEARCH, ANALYTICS, AND AI PLATFORM

Elasticsearch

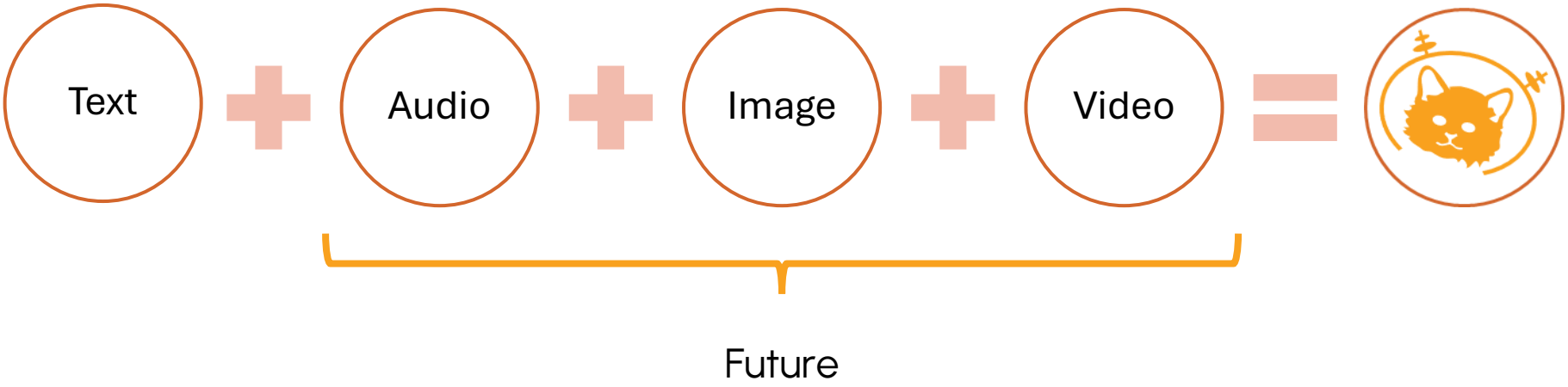
Elasticsearch is an open source, distributed search and analytics engine built for speed, scale, and AI applications. As a retrieval platform, it stores structured, unstructured, and vector data in real time — delivering fast hybrid and vector search, powering observability and security analytics, and enabling AI-driven applications with high performance, accuracy, and relevance.

Source: https://www.elastic.co/elasticsearch

Multimedia data



Multimedia data



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Did you find it useful?

Check out the amcat-book:

Check our blog post:

Learn more

Did you find it useful?

Free trial

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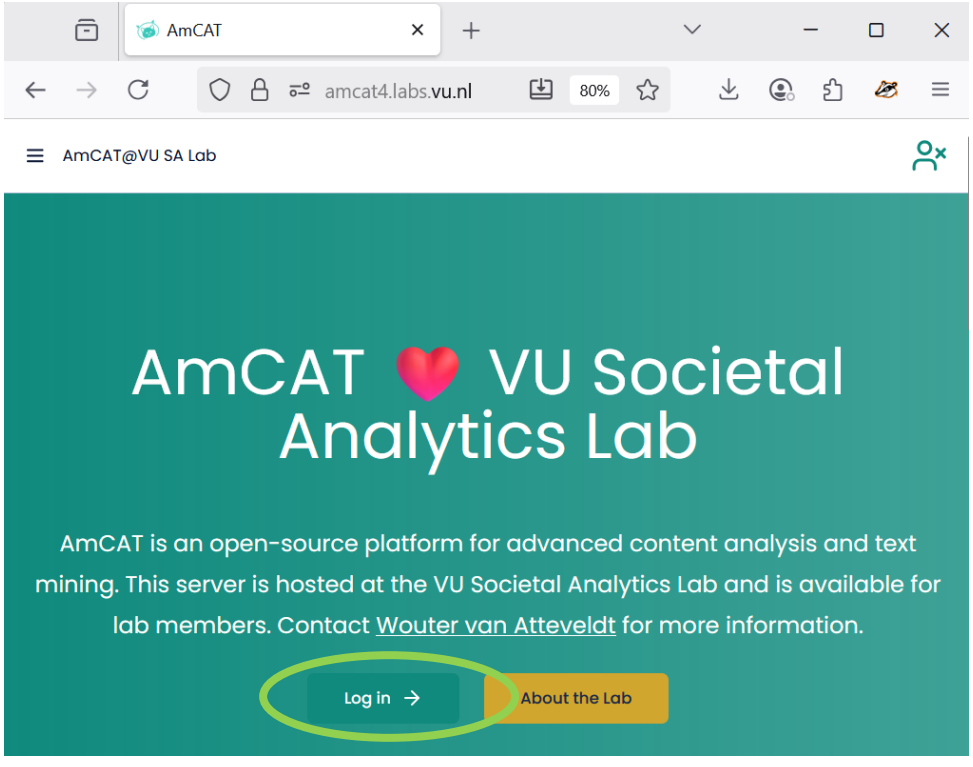

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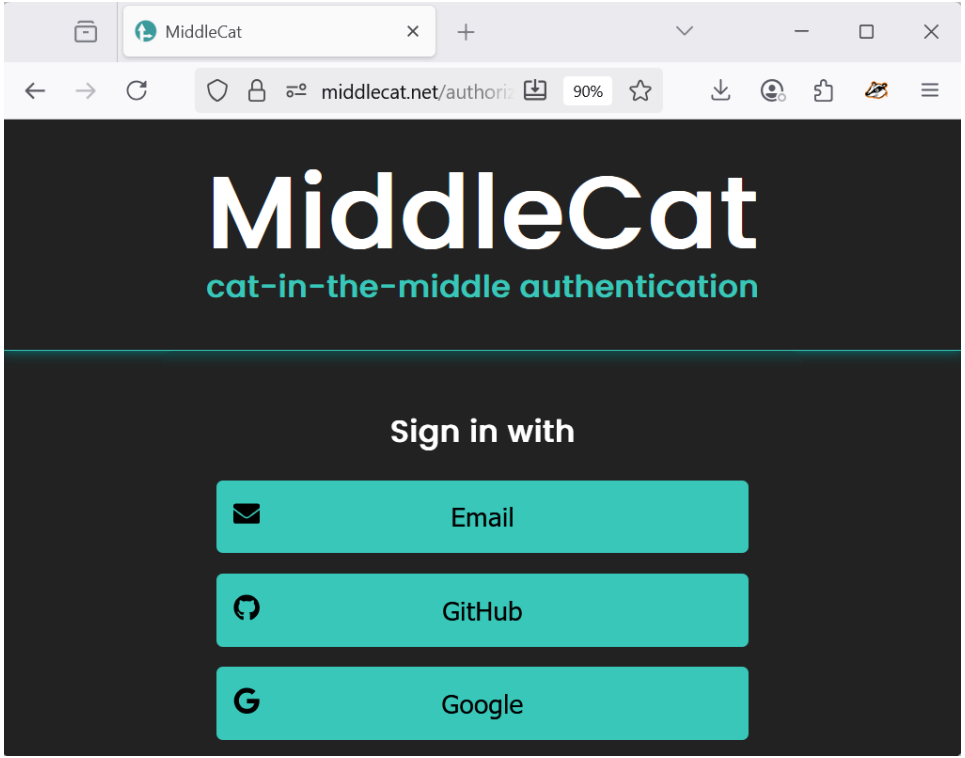

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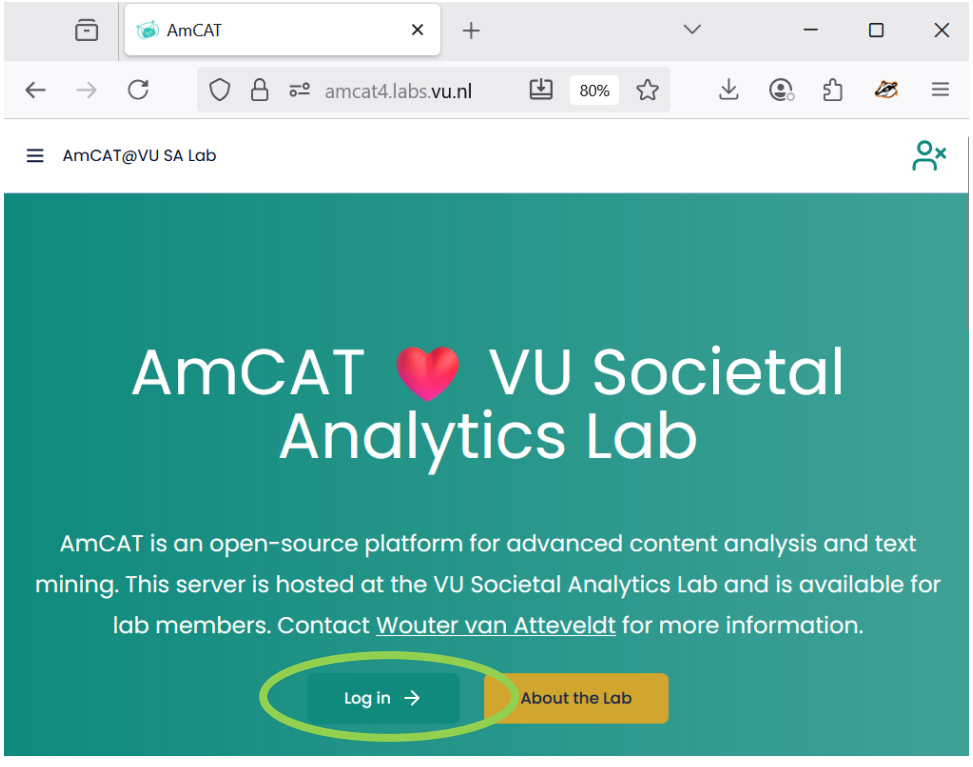

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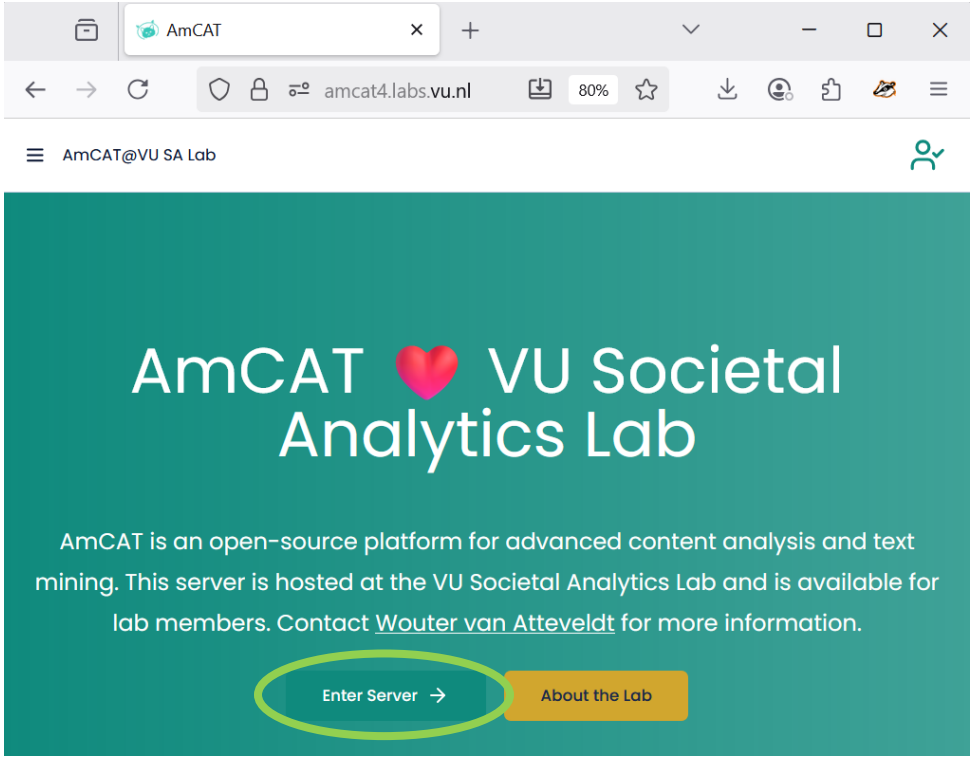

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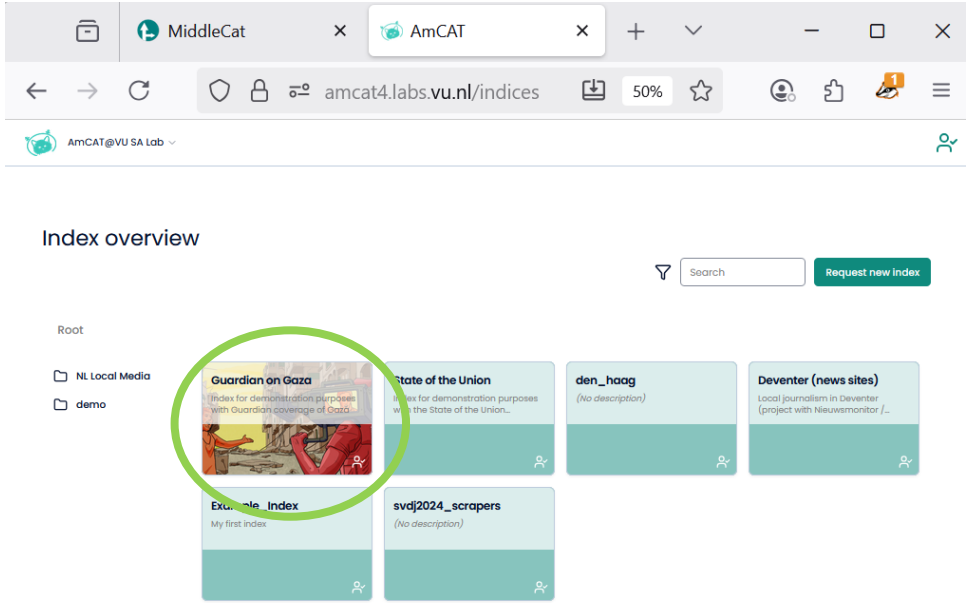

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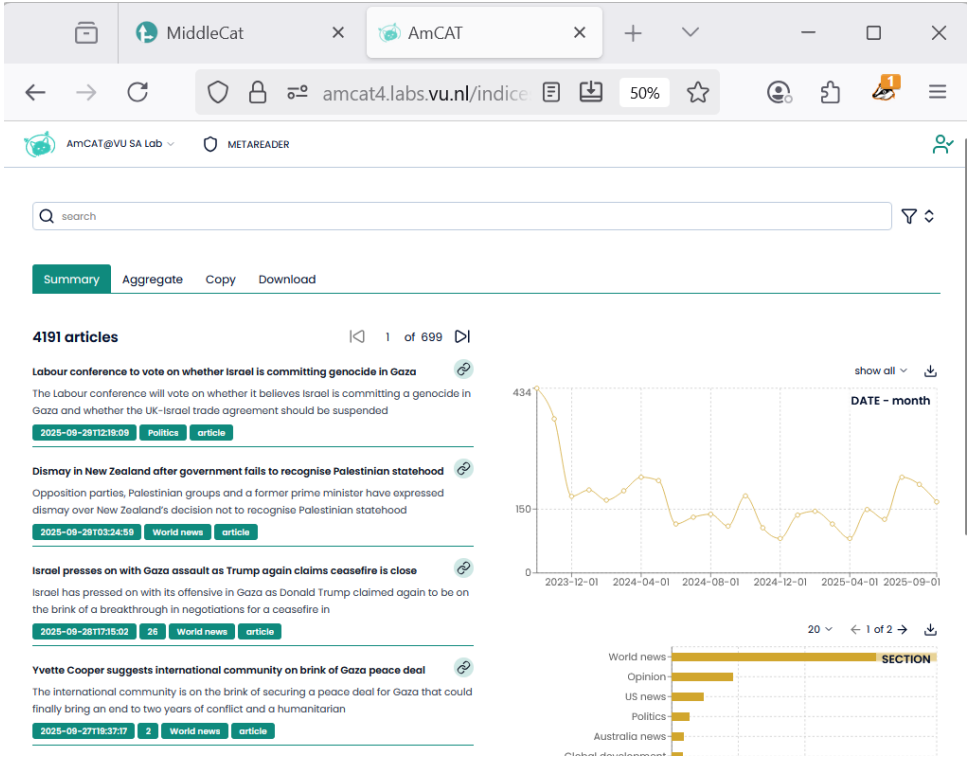

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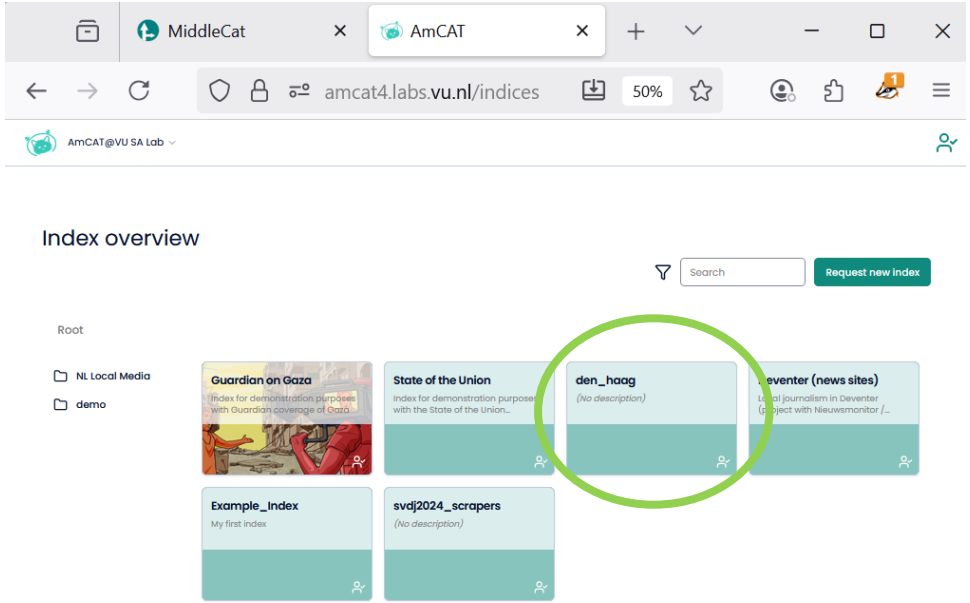

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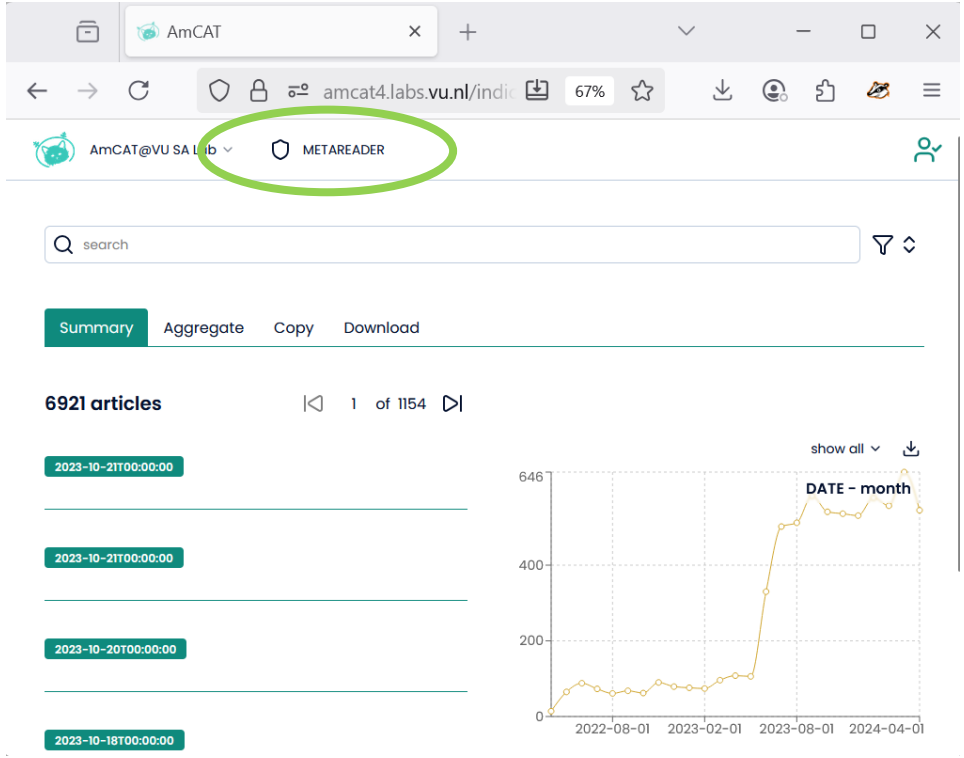

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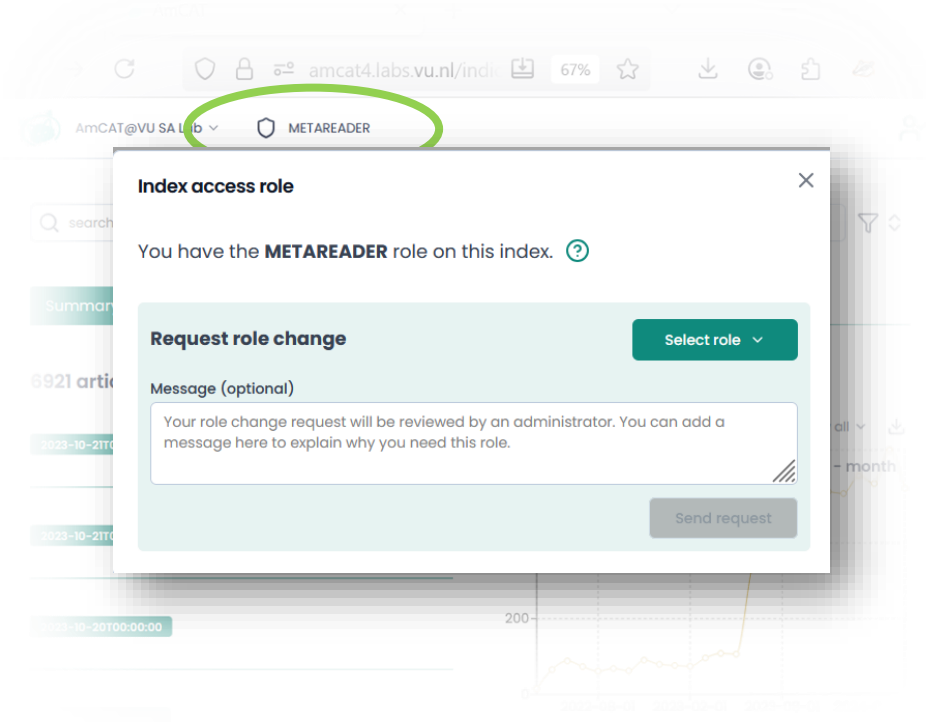

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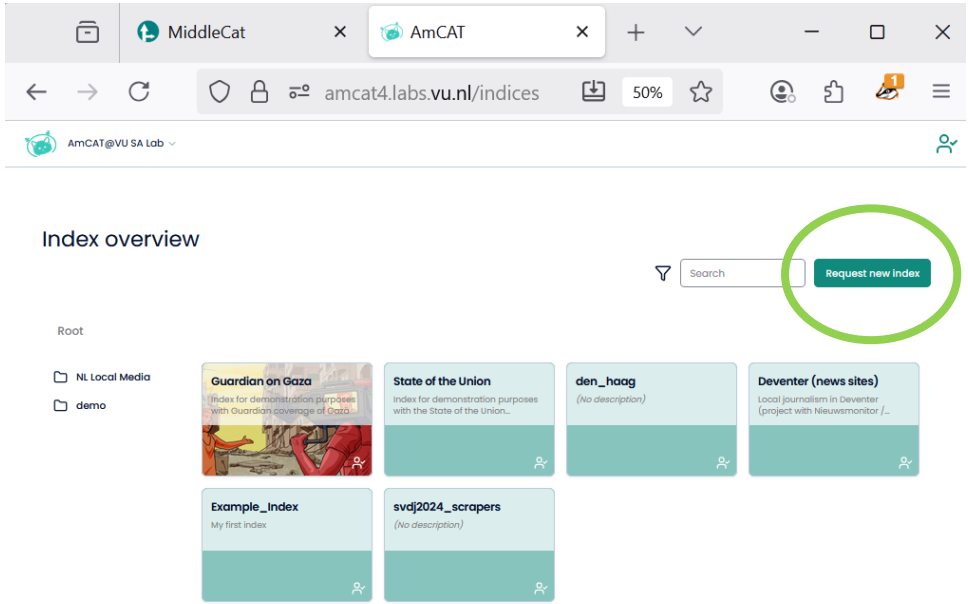

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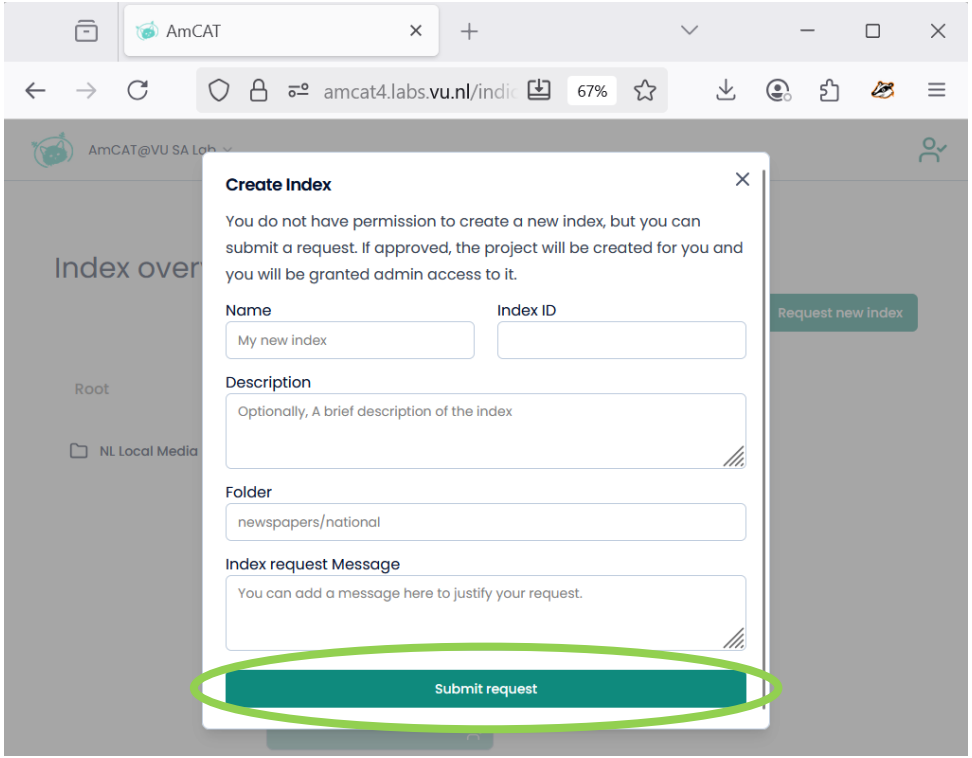

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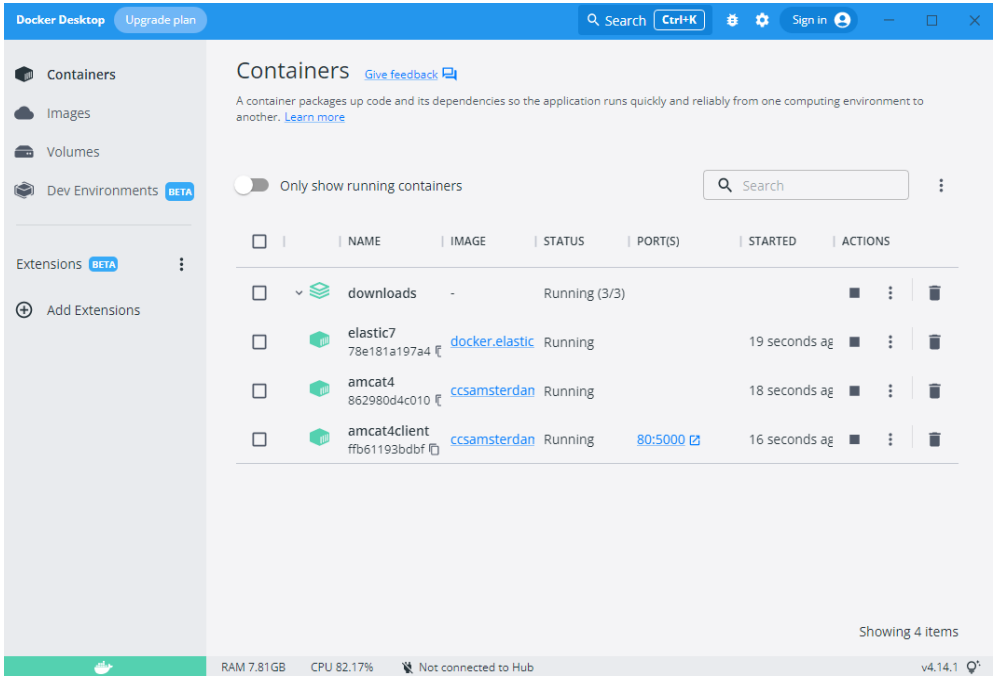

Check out the amcat-book:

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https://sofiag1l.github.io/

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Thanks!