User manual

STAY Web Application

August 29, 2025

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1 Navigation Menu

On the left side, the **navigation menu** Figure 1 allows switching between modules :

- **Home**: Dashboard overview
- **Time analysis**: Explore the self-sufficiency activity trends over time
- **Networks**: Visualize relationships between channels and between Users(subscribers).
- **Spatial analysis**: See geolocations of the self-sufficiency phenomenon in France.
- **Semantic analysis**: Explore themes and keywords

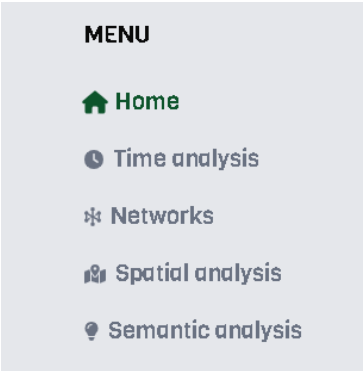

Figure 1: Navigation menu

NB: Relevant videos or channels refer to those related to the self-sufficiency phenomenon.

2 Home

2.1 Statistics section

Here you can see the main statistics and overview of the stored data (after collecting and Filtering) Figure 2:

- Number of channels: Shows the total number of relevant YouTube channels to the self-sufficiency phenomenon.
- Number of videos : Displays the total number of relevant videos.
- Number of comments : Shows the total number of comments collected from the videos.

Figure 2: Statistics section

2.2 Channels section

Shows a list of all relevant YouTube channels depending on applied filters, and with the most recent metrics from the database.

- **Search bar:** Type a channel name to quickly locate it. Figure 3
- **Sort channels:** Organize the channels by number of views, subscribers, or shared videos in ascending or descending order.
- **Creation date:** Two calendars to choose the range of channels' creation dates.

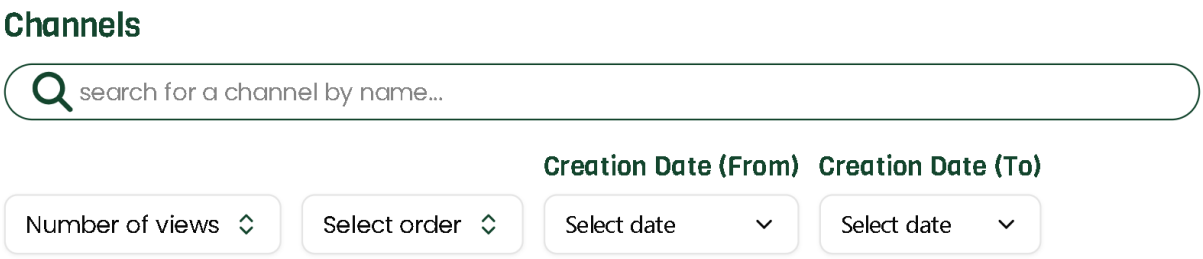

Figure 3: Channels filters

Each channel section contains the name, logo, creation date, pertinence status, and chosen metric. By clicking on it, you see a channel card with more details, such as the bio.

2.3 Videos section

Shows a list of 10 relevant YouTube videos depending on applied filters, and with the most recent metrics from the database.

- **Search bar:** Find videos by title. Figure 4
- **Sort videos:** Organize the videos by number of views or likes in ascending or descending order.
- **Publication date:** Two calendars to choose the range of videos' publication dates.

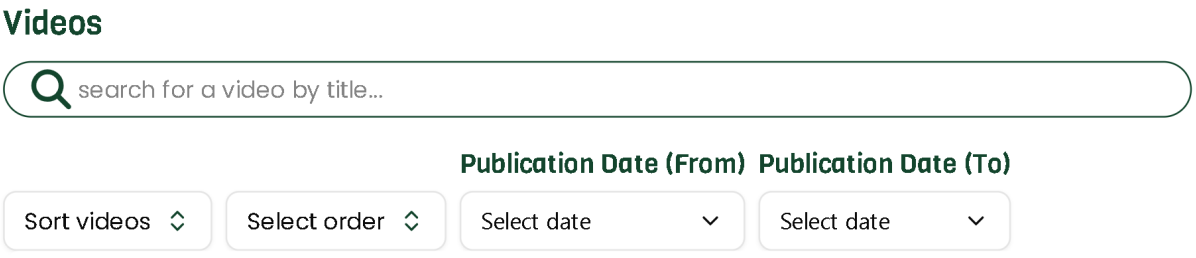

Figure 4: Videos filters

Thumbnail preview includes the publication date and chosen metric. By clicking on it, you see a video card with other information, such as the description and tags (keywords added by the publisher), and you can also watch the video by clicking on the YouTube icon.

3 Time analysis

3.1 Events

A checkbox at the top of the time analysis section is used to activate main events visualizations on the plots. For the moment, there are two: **COVID-19** and **Russia-Ukraine War**. Figure 5

3.2 Channels by year

- The relevant channels in the database are grouped by year of creation; the results are presented in this plot.
- By hovering on the line, you can see the number of channels created each year.
- Cumulative CkeckBox shows the cumulative number of channels for each year.

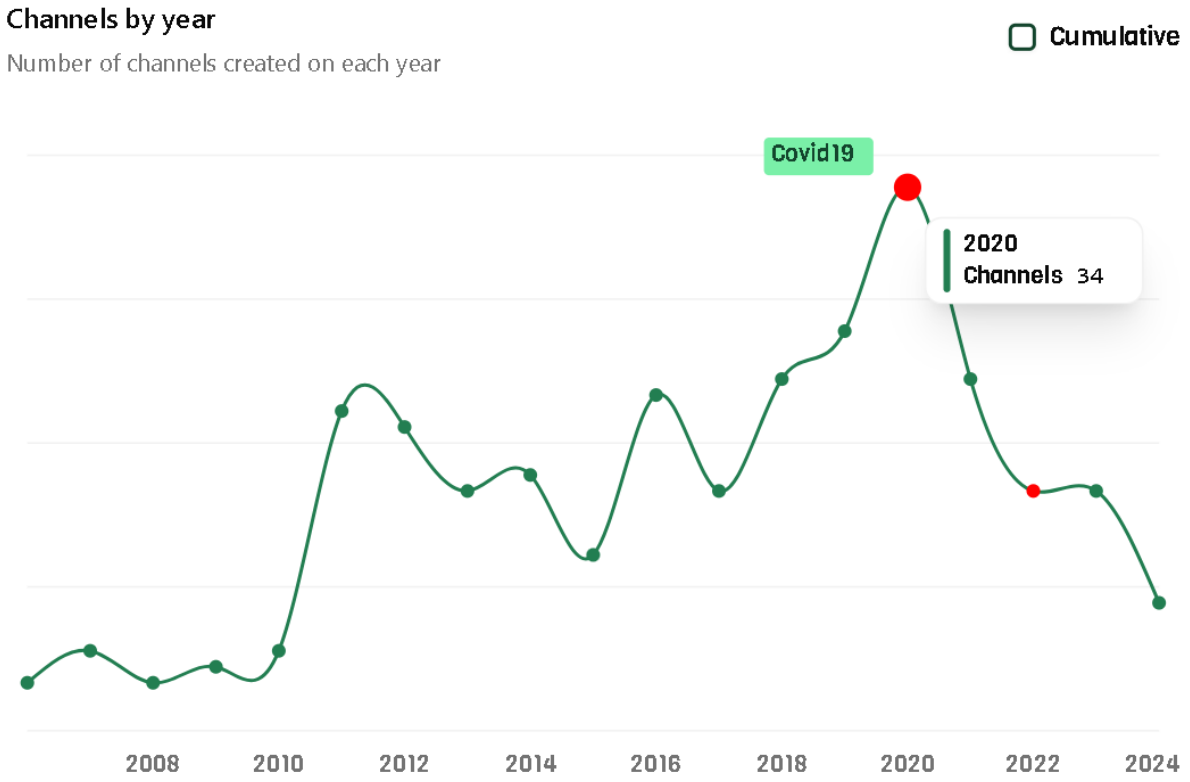

Figure 5: Channels by year plot

3.3 Videos by year

- The pertinent videos in the database are grouped by year of publication; the results are presented in this plot. Figure 6
- By hovering on the line, you can see the number of videos published each year.
- You can select videos published by a category of channels:

- Large Channels: more than 13000 subscribers
- Small Channels: less than 600 subscribers
- Medium Channels: between 600 and 13000 subscribers

The thresholds are chosen based on quartiles analysis on collected metadata.

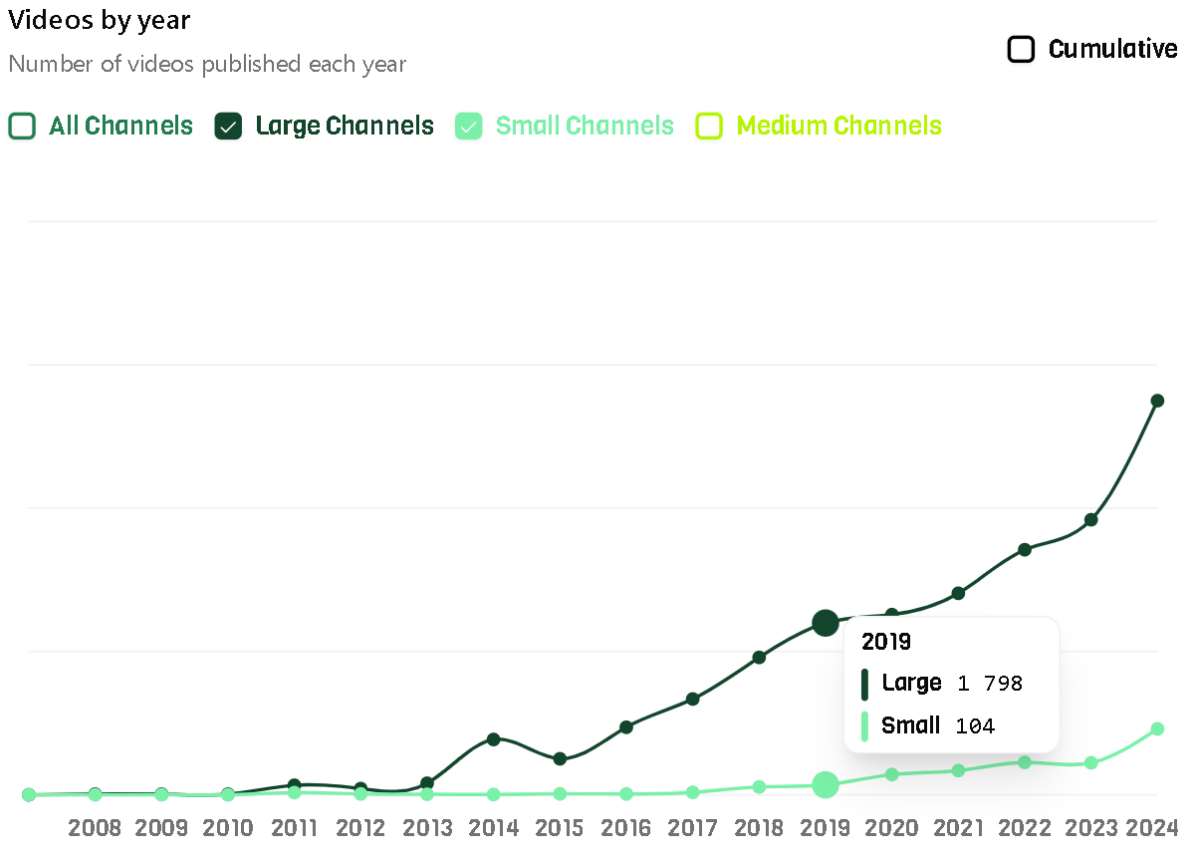

Figure 6: Videos by year

3.4 Commnets and Duration by year

Comments plot shows the number of comments grouped by year of publication, and the Duration plot shows the average duration in seconds of videos grouped by year of publication.

3.5 Channels and Videos Seasonality

Channels Seasonality pie chart represents the channels grouped by season (spring, winter, autumn, summer). By hovering on a section, you can see the number of channels created in each season.
The same for *Videos Seasonality* but for videos published on each season.

4 Spatial analysis

We detect French geolocations (cities, places, etc.) from the videos' metadata (titles, descriptions, tags), and we use the results to create a cartography.

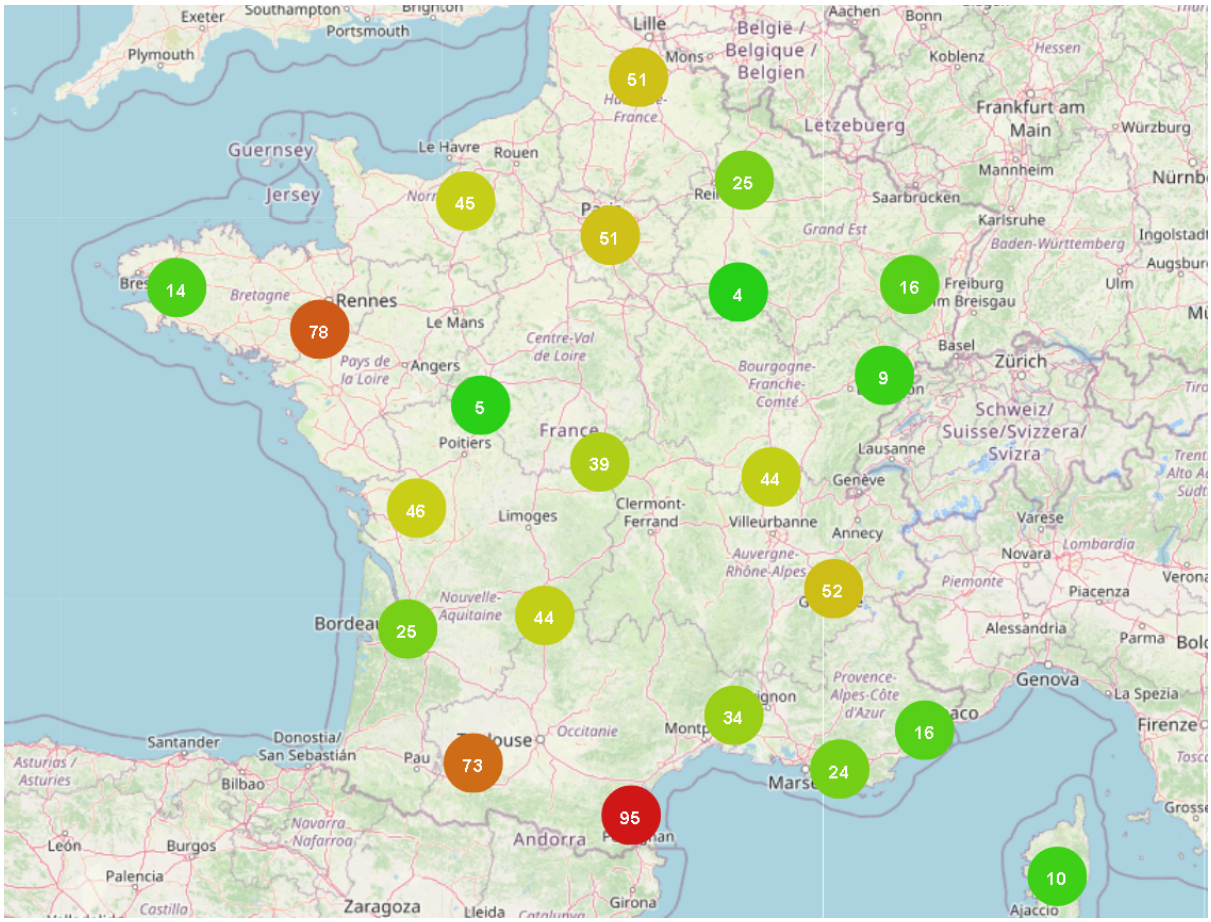

Figure 7: The cartography

The circles Figure 7 are clusters of geolocations. When you hover a cluster a small card appears with all unique tags, along with their frequency between parentheses. Figure 8

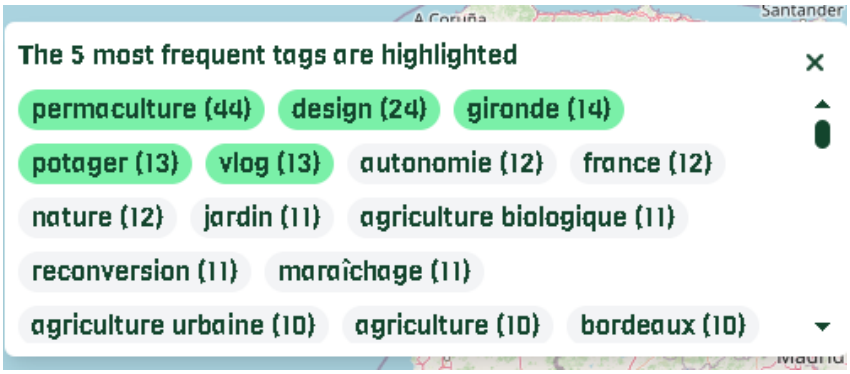

Figure 8: Tags card

The gradient color of a circle depends on the number of locations in the cluster; big clusters tend to be red, and small ones tend to be green.

By clicking a cluster, you zoom in to the geolocations that constitute it.

By clicking on a specific location (the blue marker), you can see the videos mentioning that location, as well as their distribution across the three categories of channels (large, medium, small).

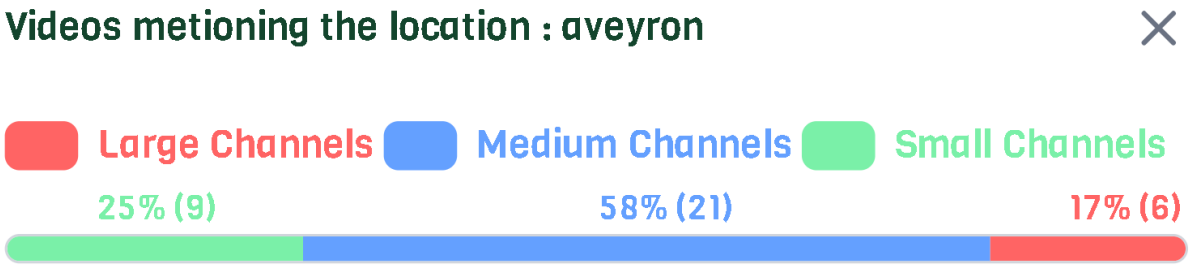

Figure 9: Videos sidebar example

An example: here the location is *Aveyron*, mentioned in 9 videos from small channels, 21 videos from medium channels, and 6 videos from large channels. Figure 9

5 Semantic analysis

5.1 Keywords Cloud

This WordCloud is based on the videos' tags and their frequencies, the initial cloud is a random selection of 21 tags, constructed by first categorizing all tags into three groups according to their frequency (most frequent, medium frequent, and less frequent), then randomly sampling 7 tags from each group and combining them into the starting set.

By hovering on each keyword, you can see the corresponding frequency.

You can filter tags by frequency by setting a maximum or minimum value using the two sliders.

You can construct your own keywordsCloud by using :

- **Search bar:**
  - To search for a keyword.
  - While you are typing you will see suggestions of similar words you need to select from there.
  - When you just click the search bar you will see a random selection of 10 keywords with their frequencies between parenthesis to help you discover less common keywords.
  - To close the suggestions card click in an white space.
- **Delete Button :** When you click a keyword in the cloud the deletion button will be activated so you can remove the word from the cloud.
- **Add Button :** Is activated after selection in the search bar, it inserts the keyword in the existing Cloud.

- **Cancel Button :** Turns off the deletion and adding buttons in case of miss selection and cleans the search bar.
- Buttons are disactivated after performing their associated actions.

5.2 Keywords Timelines

In this plot Figure 10 you see the number of times a keyword is existed in videos tags over time.

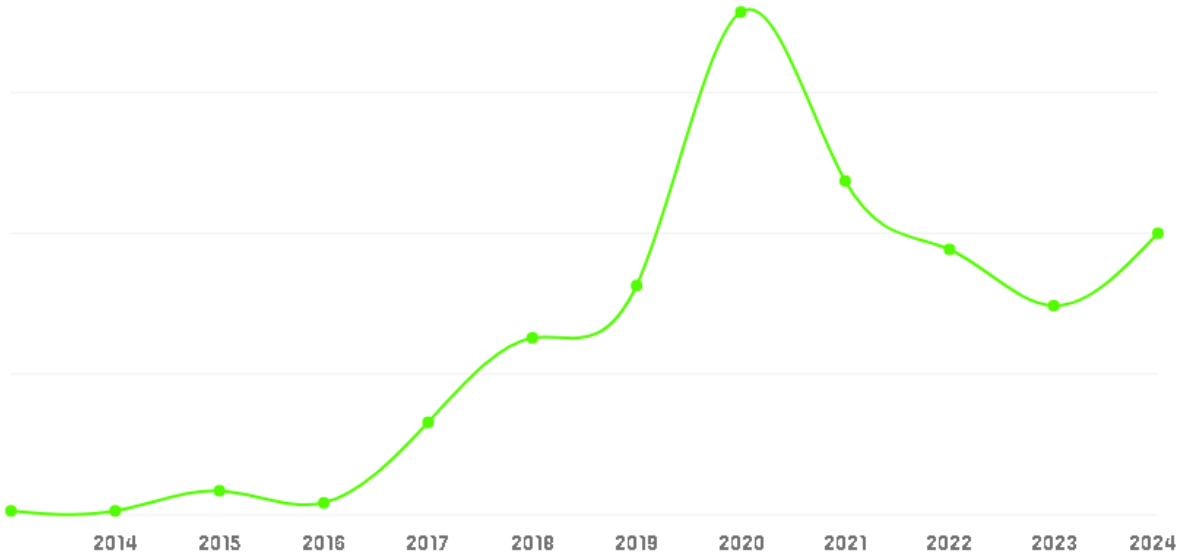

Figure 10: Example of a timeline for keyword *autosuffisance*

By hovering on the line you know the number of mentions of the keyword in each year. For example her *autosuffisance* existes in tags of 125 videos in 2020. Figure 11

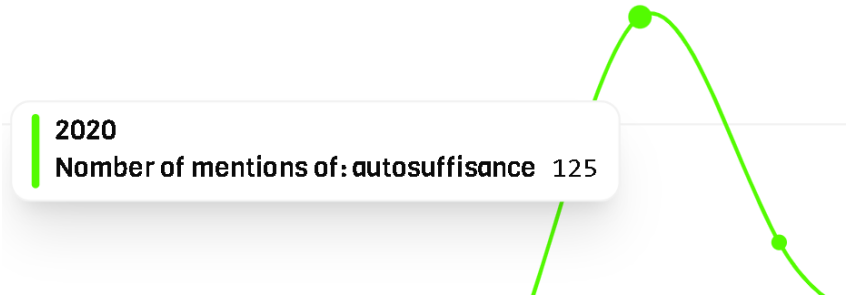

Figure 11: Example with *autosuffisance*

To compare different keywords you use the Search bar :

- When you click on it you see a random selection of 10 keywords.
- Start typing to see suggestions of similar words, then select from the list.

- When you choose a keyword it will be added to the selection bar, and its mentions variations will appear in the plot.
- If you are not interested about a keyword just click the button (X) icon next to it.

5.3 Keywords Network

This plot Figure 12 represents the relationships between keywords. When two are presented at the same video (in the tags field of video metadata) an edge links them.

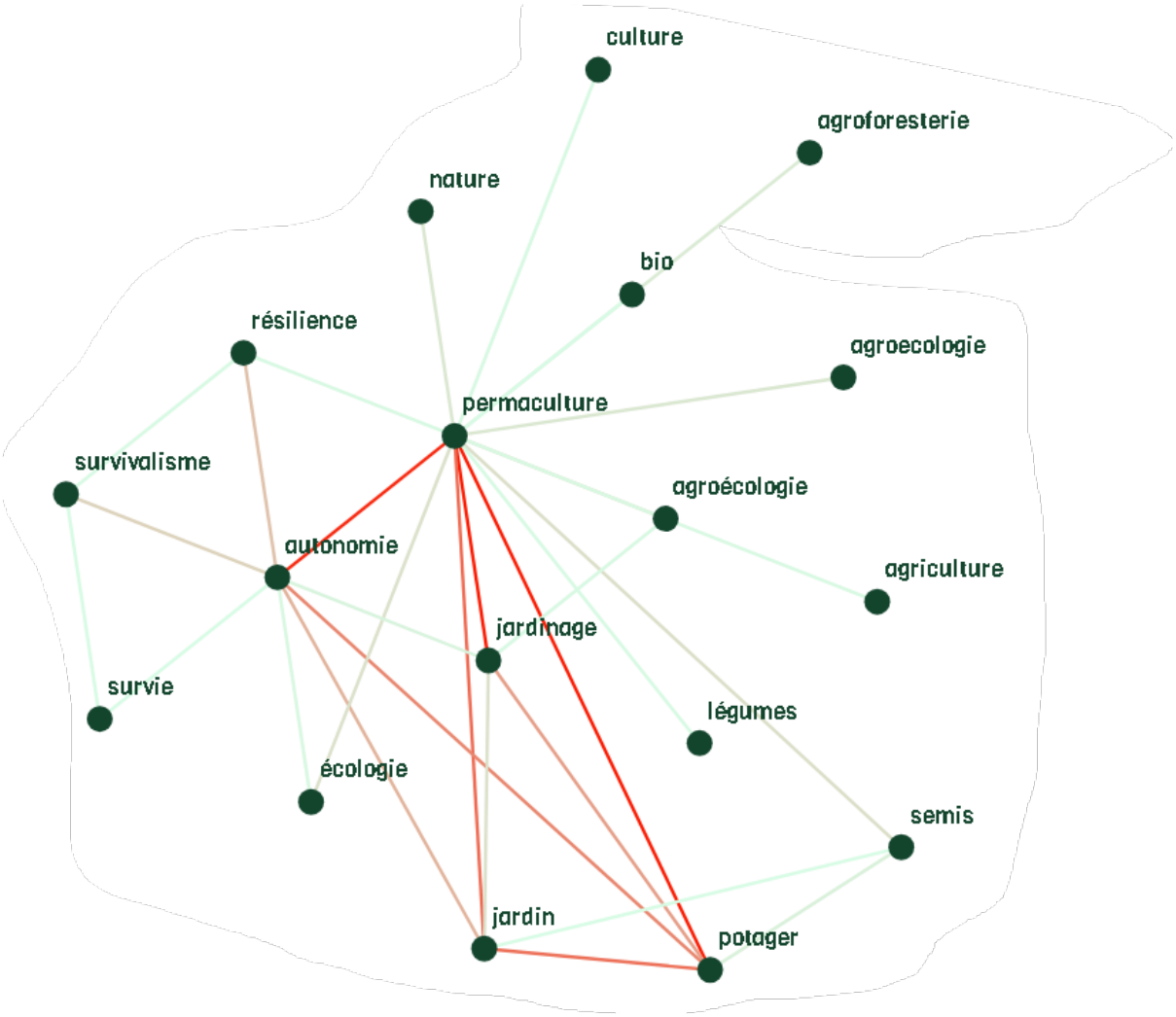

Figure 12: Example of a Keywords Network

For example, *survie* and *survivalisme* are co-existing in 771 videos tags list.(hover on the link) Figure 13

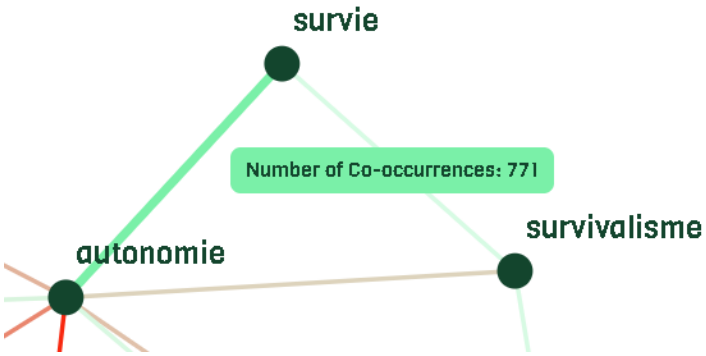

Figure 13: Enter Caption

The gradient color of a link depends on the number of co-occurrences, if it's bigger the color tends to red, if it's small it tends to light green.

The initial network is a selection of 30 relations in descending order of number of co-occurrences.

Her also you can build your own version of the network by using :

- **Search bar:** The same functionalities as before.
- **Delete Button :** When you click a node the deletion button will be activated so you can remove it from the network besides to links connected to that node.
- **Add Button :** Is activated after selection in the search bar, it inserts the keyword as a new node also 10 (maximum) links with the highest number of co-occurrences where the new node is a source or target.
- **Expand Button :** Is activated when you click a node. Similar to adding Button but her the node is already existing in the network.
- **Cancel Button :** Turns off the deletion, adding and expanding buttons in case of miss selection and cleans the search bar.
- Buttons are disactivated after performing their associated actions.

6 Networks

6.1 Channels Network

This network represents the relationships between relevant channels. An arrow means that the source channel mentioned in one or more of its videos metadata (title, description, tags) the target channel by name or ID.

At starting you will see an empty network, this is to let you initialize by yourself the network by adding your first channel. More details bellow.

You can click a node to see a channel overview with name, creation date, most recent number of subscribers in the database and clickable youtube icon sends you to the channel on Youtube.

The color of a link is a gradient between red and green. It depends on the number of mentions. Higher value gives red arrows; smaller one takes light green.

You can zoom in or out the network using your mouse wheel.

For example here the channel *La clé des champs* (source of red arrow) included in metadata of 160 videos the name or channelID of *L'Archipelle* (the target channel). Figure 14

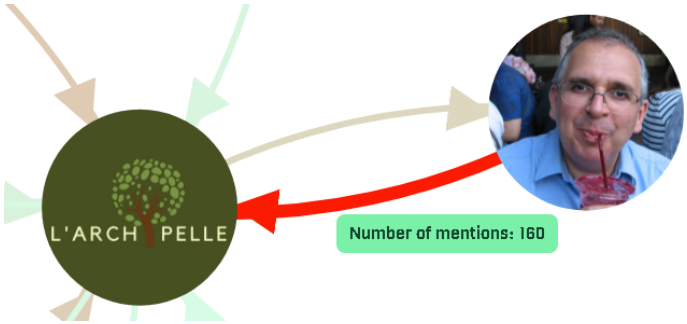

Figure 14: Example from channels network

The network is fully customizable using :

- **Search bar:**
  - To search for a channel.
  - While you are typing you will see suggestions of similar channels you need to select from there.
  - When you just click the search bar you will see a random selection of 10 channels to help you discover less common ones.
  - To close the suggestions card click in an white space.
- **Delete Button :** When you click a node the deletion button will be activated so you can remove it from the network besides to links connected to that node.
- **Add Button :** Is activated after selection in the search bar, it inserts the channel as a new node also 10 (maximum) links with the highest number of mentions where the new node is a source or target.
- **Expand Button :** Is activated when you click a node. Similar to adding Button but here the node is already existing in the network.
- **Cancel Button :** Turns off the deletion, adding and expanding buttons in case of miss selection; cleans the search bar and channel selection.
- Buttons are disactivated after performing their associated actions.