

# Projet specifications

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# 1. Context

## 1.1. Workspace and project organization

- Documents:
  - 1 – Project specifications (this document):
    - Is the reference document of the project:
      - Gives the conception of the project, how the workspace is organized, to guide the developer in the development process
      - Is a checklist on the requirements of the project
      - Is updated along the development process
  - 2 – Action plan:
    - Keeps track of the advancement of the project
    - Gives specific tasks to the developers
    - Is filled during each meeting, some tasks may be added to the document along the development process
  - 3 – Evolution monitoring
    - Keeps track of the choices that were made and why
    - Is filled during each meetings
- Meetings:
  - Is for defining the global objectives and objectives of the week
  - During the meetings:
    - Action plan and evolution monitoring may be filled
    - A meeting report is always filled
- Project folders:
  - Draft: Contains tests, temporary files, outdated past files that we want to keep
  - Meetings: Contains meetings reports
  - Ressources: Contains any other useful files for the project
    - Inspiration: Contains any useful document/link that could give ideas to the development of the project
    - Tools: Contains useful online and local tools for the project

## 1.2. Introduction to the project

The situation can only improve by the sum of the following individual initiatives:

- Comprehension (learning)
- Debate (communication)
- Militancy (action)

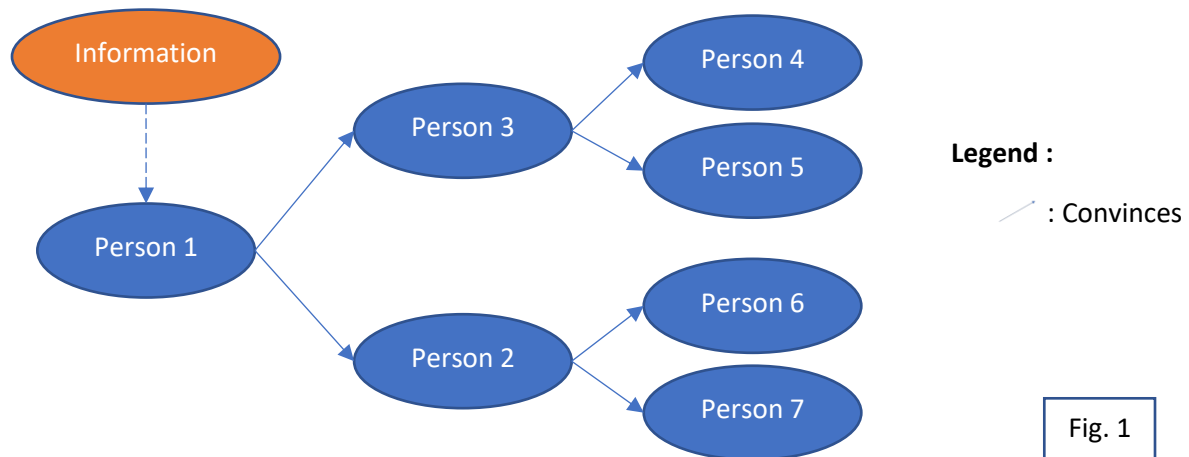
If everybody does that:

1. People will be educated on politics and hot topics (comprehend)
2. They will make other people change their mind (family, relatives...)
3. Their relatives will make other people they know change their mind
4. Public opinion shifts in favor of the truth and by all of their actions, they will help solving society problems.

Conditions for the convincing and persuading process to work are:

- If the arguments that are given are convincing
- If the arguments are given kindly by the person
- If the ones that are talked to are:
  - Good willing people, so people that try to do the right thing
  - Sane people, not fanatics
  - People that care about general/other's interests, or if they don't, that the given arguments don't go against their interests

This phenomenon will be exponential if everybody convinces at least 2 people (e.g fig. 1)



The project intervenes in the first step of the process: makes the user “comprehend” the truth before debating and acting

To check if an argument/information is true, there are two ways to determine it (src: Antmann) :

- Analyse the arguments/information logically (exhaustive method, more viable but slower)
- Compare, for the said argument/information, the curriculum of both the ones that says positive or negative about the source of the information (trust method, less viable but faster)

### 1.3. Problems and solutions

The project aims to solve the following problems:

Ind.	Problems	Solutions
1.	People that debate with their relatives don't know their sources by heart	Give the user an access to the sources that they need to push their arguments
2.	People that debate with their relatives don't have time to google them up during debates because the conversation evolves fast	Gives the user a quick and easy access to the sources
3.	There are some elements that are complicated to prove and requires a lot of research	Has powerful tools that process the information, like the search engine of a browser or a university website with scientific articles
4.	Censorship/deletion/changes of sources	Makes copies of sensitive sources
5.	Original sources copies are too heavy to store if it contains pictures or videos	Converts sources copies to a lighter form / strips data to a source (eg: a video to audio, an audio to text, a video that is in 1080p 60fps becomes in 480p 30fps)
6.	Certifies that sources copies weren't modified	UNSURE
7.	Sourceflow concept can be stolen by someone else	Place a patent?
8.	Sourceflow could be taken down	Make it accessible on Tor Browser If blockchain apps cannot be taken down, making it a blockchain app
9.	Some sources can be private, how to share them and still being legal?	Make sure Sourceflow respects the law of citation, or change the law

### 1.4. Potential of the project

To sum up, it gives:

- Who did what when
- Who said what when
- What happened when (e.g: a video from a protest)

Examples that the project could do:

- Give accurate data of the content of the sources such as:
  - Lexical field that is used in
    - Public figures speeches
    - Press articles
    - Governments and political communication
  - How many times a word/a sentence have been repeated by a public personality
- Spot language elements used by politics and who uses them in common
- Spots when politics steals/copies the communication of other politics
- Gives who lied and who said the truth

- Gives who acts for their own benefit against the general interest
- Gives who was wrong and who was right on predicting an event that didn't yet happen
- Gives all the curriculum of any public figure, so information such as
  - Where and when did they work
  - With who they work/have worked with
  - Personal relationships that they had with other public figures or people of power
  - ...To make a network of the interactions of the person
- What opinion public figures have shared

## 2. Principles

### 1.5. Models

This part is an attempt to structure the content of the app in a logical fashion, and therefore to know how to process the information in the app, it picks information both on external sources and personal analysis

A source is a document that has been made by someone and that contains information

Two types of sources:

- Primary source: Is the first location that the content has been published in
- Secondary source: Is a source that quotes other sources. The source that quotes is the indirect source of the quoted source

They are a relative concept, because a source can be a primary source or the secondary source of a primary source depending on how its used

Some sources are a part of a bigger source. We will name the bigger source mother source and the smaller source the daughter source

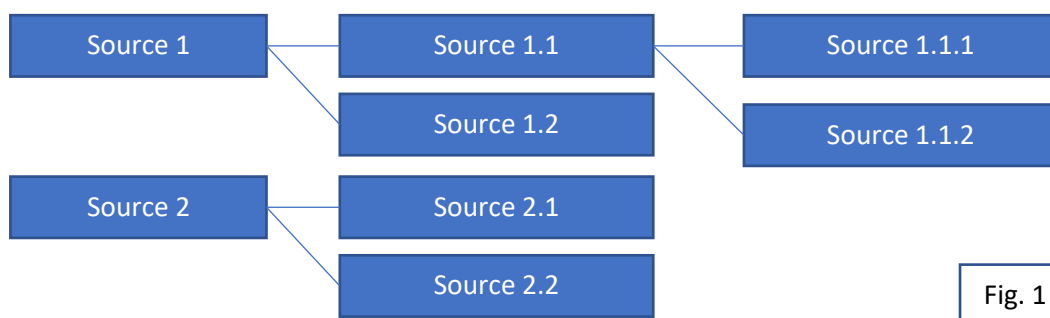


Fig. 1

E.g: this source [https://www.lemonde.fr/les-decodeurs/article/2017/01/23/decodex-qu-est-ce-qu-une-source-d-information\\_5067722\\_4355770.html](https://www.lemonde.fr/les-decodeurs/article/2017/01/23/decodex-qu-est-ce-qu-une-source-d-information_5067722_4355770.html), which is a press article, contains pictures. This source is the mother source of pictures

For the user to have a good overview on what sources are, they would be segmented and piled into lines, just like an excel spreadsheet

	Source info 1	Source info 2	Source info 3
Source 1	Info	Info	Info
Source 2	Info	Info	Info

Fig. 2

Source 3	Info	Info	Info
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For arguments:

A mother argument is called a conclusion and a daughter argument is called a premise

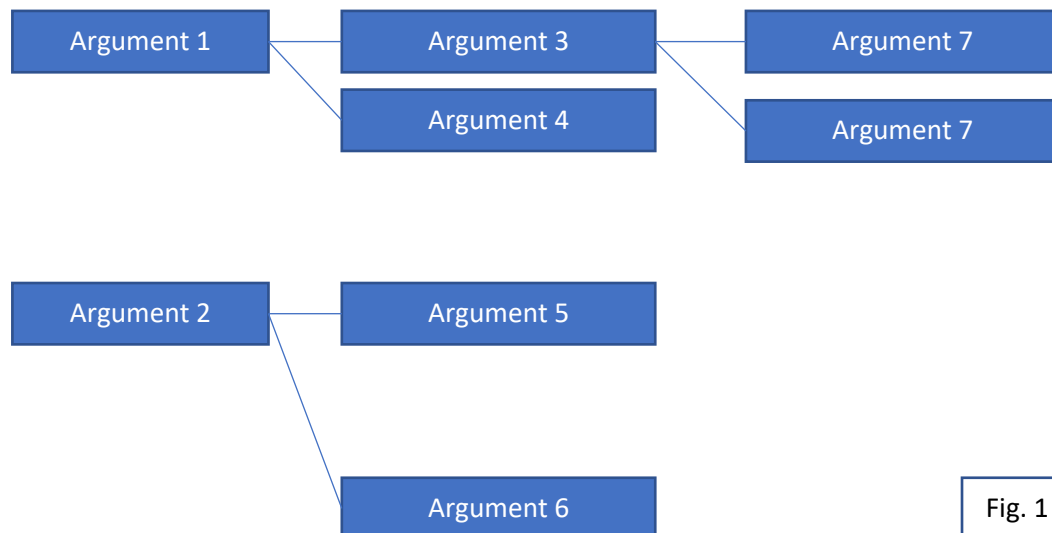


Fig. 1

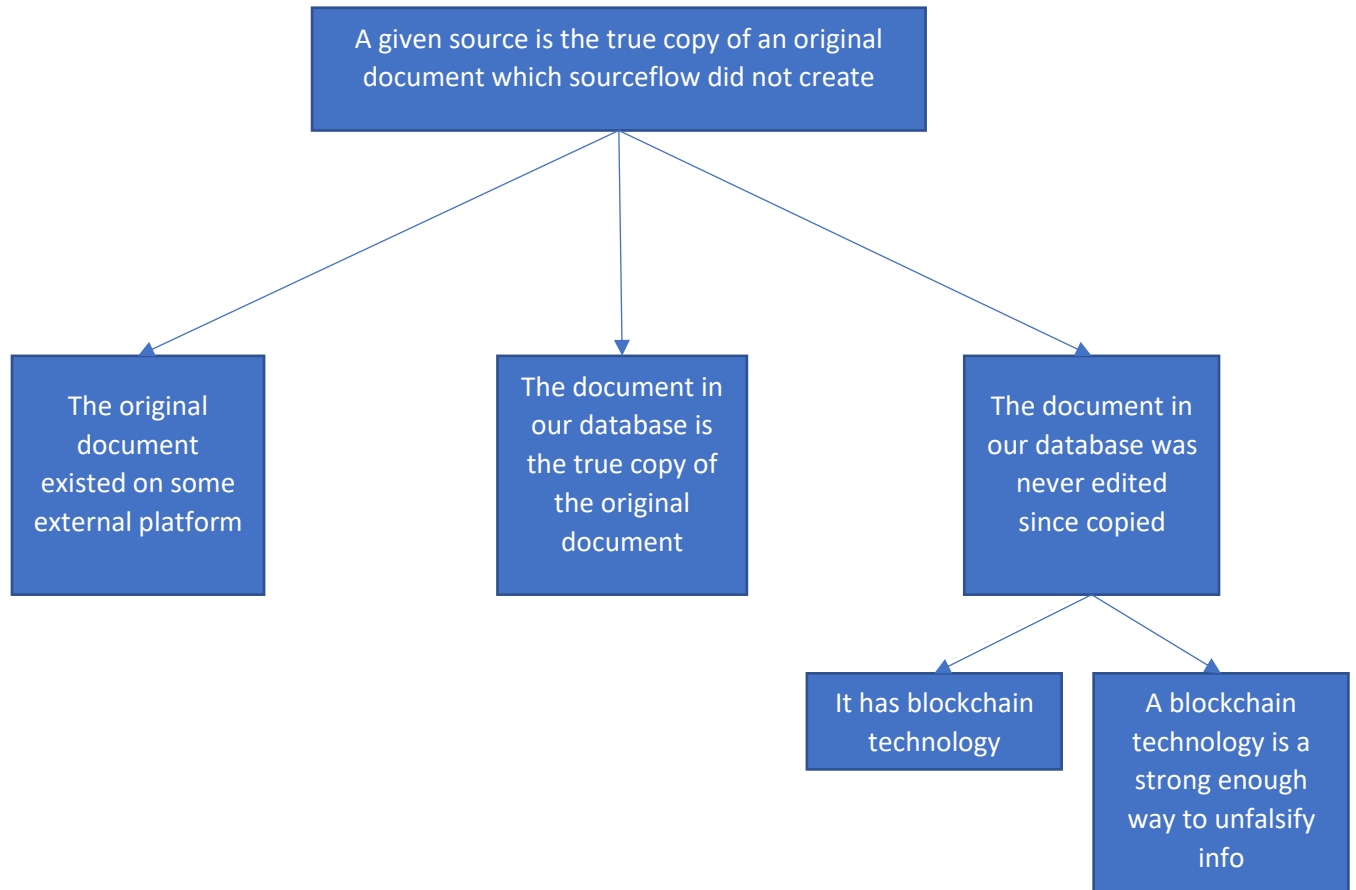
To keep track of every argument:

- Each argument has the info of who shares it and for each “who shares it” is attached the proof of it
- Each end argument has the proof
- Who shares it
- An opinion:
  - Is subjective
  - Is a personal judgement
  - Contains the use of an adjective (good, bad, recent, evil...)
  - Can be objective if the scale of the adjective is given; e.g: “recent is less than 2 years for this, less than 5 years for that...”
  - E.g of an opinion: “this president is rubbish”
- An information:
  - Is objective
  - Is based on an observation

Sources:

- <https://legacy.bib.uclouvain.be/infosphere/prepare-sa-recherche/cat%C3%A9gories-des-sources-dinformation>
- <https://www.compilatio.net/blog/les-normes-de-citations>
- [https://www.lemonde.fr/les-decodeurs/article/2017/01/23/decodex-qu-est-ce-qu-une-source-d-information\\_5067722\\_4355770.html](https://www.lemonde.fr/les-decodeurs/article/2017/01/23/decodex-qu-est-ce-qu-une-source-d-information_5067722_4355770.html)

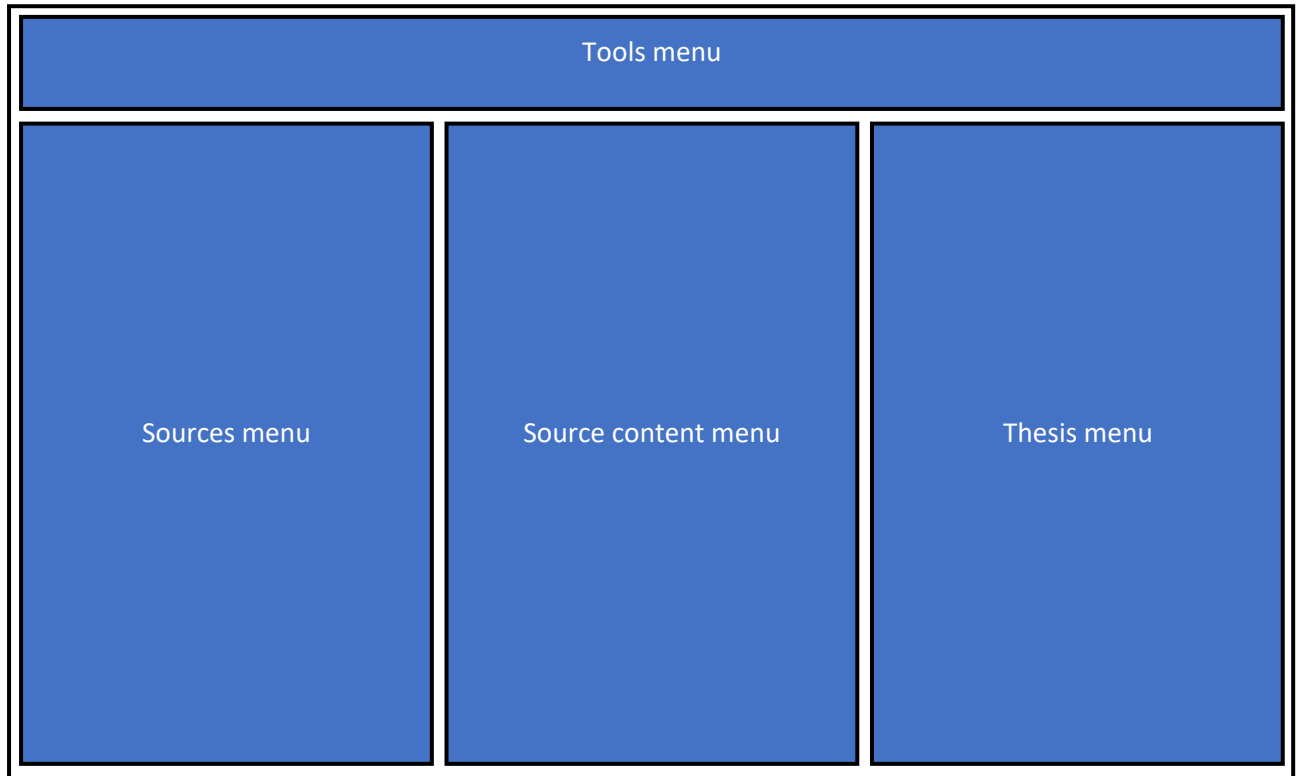
- [https://www.lemonde.fr/les-decodeurs/article/2017/01/23/decodex-qu-est-ce-qu-une-information\\_5067721\\_4355770.html](https://www.lemonde.fr/les-decodeurs/article/2017/01/23/decodex-qu-est-ce-qu-une-information_5067721_4355770.html)
- [https://www.superprof.fr/ressources/langues/francais/college-fr2/3eme-fr2/qualifier-comparer-denigrer.html#:~:text=\(%20Caract%C3%A9ristique%20stable%20\)-,Adjectif%20subjectif,quantit%C3%A9%20\(grandeur%2C%20poids\).](https://www.superprof.fr/ressources/langues/francais/college-fr2/3eme-fr2/qualifier-comparer-denigrer.html#:~:text=(%20Caract%C3%A9ristique%20stable%20)-,Adjectif%20subjectif,quantit%C3%A9%20(grandeur%2C%20poids).)



### 3. Application

#### 1.6. Interface: Main interface

Schematic view of the main interface of the app:

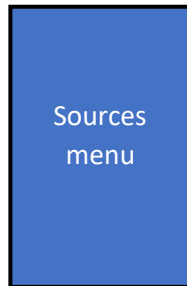


#### Legend:


- : Area of the web application interface on screen











## 1.7. Interface: Sources menu



Legend :

 : line where not all the scheme is represented because it's a long object

Index	Document type	Title	Main author	Creation date	
368	Press article	This is a title	Whomever	07/04/2022 17:29	
376	Speech	This is another title	Whomever	07/06/2012 14:11	
	Interviewers	Person One ; Person Two ; Another person			
	Variable 2				
	Variable 3				
383	Press article	Title	Whomever	07/06/1978 12:11	
400	Press article	Title 2	Whomever	07/06/1988 14:11	
1355	Press article	Lore ipsum	Whomever	11/06/2016 14:11	
1357	Press article	Something	Whomever	11/06/2016	

Nb.	Type	Description	User case
(1)	Button	Develop arrow	<ol style="list-style-type: none"> <li>1. User clicks on the develop arrow <b>(1a)</b></li> <li>2. Arrow changes state to open</li> <li>3. The complementary information window appears <b>(2)</b></li> <li>4. User clicks on the develop arrow <b>(1b)</b></li> <li>5. Arrow changes state to close</li> <li>6. The complementary information window disappears; the line now does look like it's initial state (example at line <b>(3)</b>)</li> </ol>
3	Object	Line	<ol style="list-style-type: none"> <li>1. User clicks on the line</li> <li>2. App shows line as highlighted; line is selected</li> <li>3. User clicks on the line</li> <li>4. App shows line at initial state; line is unselected</li> </ol>

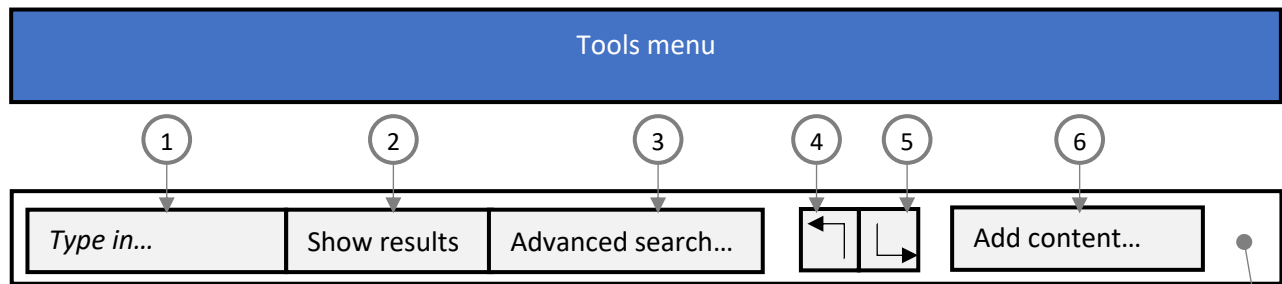
## 1.8. Database: Sources

Each source have the following variables:

Name	Type	Description
source_index	Hex	Is the source address that allows to point at it, every source has a unique adress
source_url	String	Is the link of the source
source_title	String	Is the title of the source, e.g: “
source_author	String	Is the source author: e.g: “Valérie Pécresse”
source_publisher	String	Is the source publisher
source_document_type	String (list)	Is the source document type
source_quoted_in	Hex (list)	Gives the index of what source(s) quotes this source explicately
source_quotes	Hex (list)	Gives the index of what sources it quotes explicately
source_first_version	Hex	Gives the index of the first source version If empty,the source is the first version

Name	Type	List of terms
document_types	String array	Insert here

## 1.9. Interface: Tools menu



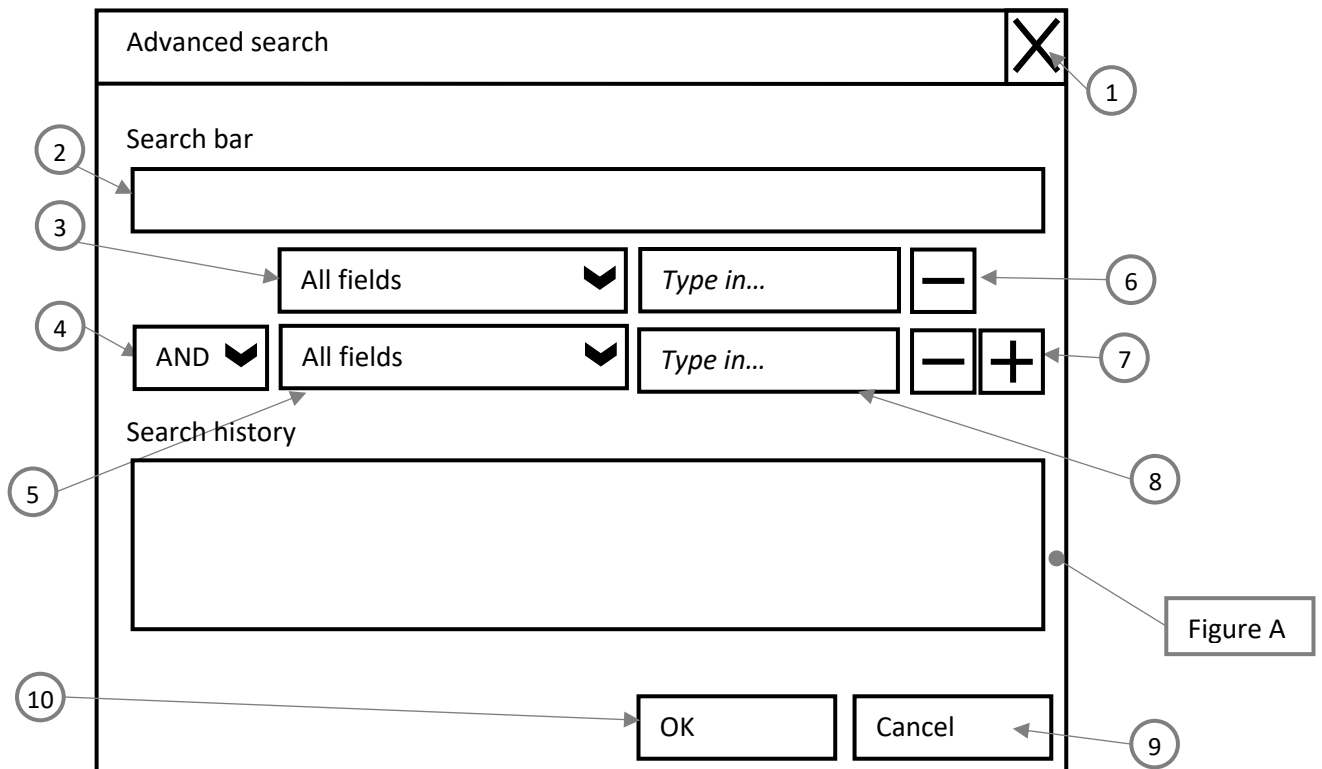
- To search for elements, the user must have access to:
  - a first tool that is simple and quick to use **(1)**
  - a second tool that gives all its potential **(2)**

Figure A

Nb.	Type	Description	User case
(1)	Field	Search bar	1. User clicks on the field 2. "Type in" disappears; waiting for text 3. User writes text 4. User presses "Enter" on keyboard or clicks "show results" button <b>(2)</b> 5. App shows in source menu and thesis menu any element that contains what has been written in the field 6. From step 1 to 5, IF user clicks on another object, text is kept
(2)	Button	Show results button	-
(3)	Button	Advanced search button	1. User clicks on the button 2. A window pops up (function 1.9.1)
(4)	Button	Go to source	1. User selects one element or more in source window OR thesis window 2. User clicks on the "go to source" button 3. IF the elements selected in step 1 are in source menu <ul style="list-style-type: none"> <li>a. App opens new tabs in the browser for each selected element</li> <li>b. The web page of the source shows up</li> </ul> 4. IF the elements selected in step 1 are in thesis menu <ul style="list-style-type: none"> <li>a. In source menu, app puts on top of the pile elements that it cites</li> </ul>
(5)	Button	Go to citations	

INFO: Figure B menu is inspired from advanced search tool from <https://www.ncbi.nlm.nih.gov/mesh/advanced>

### 1.9.1. Function : Advanced search tool



Nb.	Type	Description	User case
1	Button	Cross (close window button)	1. User clicks on the button 2. Window closes
2			
3			
4			
5			

Search field:

- Cases:
  - IF the field contained:
    - "Ukraine", all elements that contains the word "Ukraine" in source info or content will be displayed
    - "Ukraine war nato", all elements that contains "Ukraine" OR "war" OR "nato" in source info or content will be displayed
    - NOTE:
      - This description is meant to be in Boolean, the Boolean rules applies
      - This search is not case sensitive

### 1.9.1. Function: Add content

The 'Add content' dialog box contains the following elements:

- Header:** 'Add content' title and a close button (X).
- Radio Buttons:** 'Add a source' (selected) and 'Add a thesis'.
- URL Field:** A text input field with the placeholder 'Type in...'.
- Information:** An information icon (i) and the text 'This source may be sensitive'.
- Backup Option:** A checkbox labeled 'Make a backup of the source'.
- Selection Radio Buttons:** 'Add this page only', 'Add all the content', and 'Add only the content that match the following:' (selected).
- Search Field:** A text input field for filtering content.
- Filters:**
  - 'Terms' dropdown menu.
  - 'Type in...' text input field.
  - 'AND' dropdown menu.
  - 'Publication date' dropdown menu.
  - 'Type in...' text input field.
  - '-' (minus) and '+' (plus) buttons for adding/removing filters.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

Annotations (1 and 2) point to the close button, radio buttons, URL field, information icon, backup checkbox, selection radio buttons, search field, and filter section respectively.

Nb.	Type	Description	User case

#### NOTE:

- The automatic filling of the entries will use scrapping technology
- Private sources (that you have to pay for to have access to it) wouldn't have their content added or accessible unless the user has paid for it, so only information about the source and cited extracts will be registered and shown

Sources must be added by the following criterias:

- If it is in the theme
- If it contains one of the keywords of the theme

E.g: if the theme is about covid 19, a source that is about the recipe of strawberry jam on madame.lefigaro.fr won't be added (<https://madame.lefigaro.fr/recettes/confiture-de-fraises->

[220604-197933](#)), that doesn't mean that we don't like strawberry jam, it is so that the database is not flooded with out-of-subject sources and the storing space is not flooded

#### Entries assignments

- Document type :
  - Text
    - To be heard
      - Transmitted to a public here to hear it
        - Is accompanied with music
          - The lyrics of a song
        - Is to be pronounced
          - A speech
      - Transmitted by audio/visual means
        - Pronounced by someone
          - A radio-television speech
        - Only read by a journalist
          - A press report
        - Oppose more than one person
          - A debate
        - A person asks a series of questions to another person
          - An interview
    - To be read
      - Comes from a newspaper
        - Is accompanied by a general title, photographs, text
          - Newspaper's lead
        - Shares the opinion of a newspaper or one of its responsables on a question
          - Editorial
        - Position that a person that is external to the newspaper takes
          - Tribune
        - Relates an information
          - Article
        - A regular comment
          - Chronicle
      - Comes from a book
        - Fictional story invented from the author
          - Has a normal number of pages
            - Roman
          - Has a reduced number of pages
            - Novel
          - Is destined to be played on a scene
            - A play
          - Is in verses
            - A poem

INFO: the entries assignment are inspired by this source  
<http://hgmatisse.free.fr/pdf/IdentifierDoc.pdf>

## 1.10. Function : sources copy

Solution : exploiter fonctionnalité de traduction automatique

A source copy would have some data stripped from it without changing the meaning of it, to optimize storing capacity

Document type	Transformation possibility
Video+audio	Quality reduction (bitrate, resolution, sound...) Conversion to text (automatic translation) Strip to audio only
Text	

### 1.10.1. Function: Sourceflow bot

- Checks every source of sourceflow
  - Compares the content of each source and the content of the copy
  - Depending on the website, to see if the source has changed:
    - Checks if creation date/update date indicated on the website has changed
    - Checks if it contains a “modified” information
    - If one of the conditions above are confirmed, the source is considered modified
  - If the source has changed
    - A new source is added on the source menu
    - A new copy of the source is created; NOTE: only the changes are saved to save space

## 2. Language choices

Based on the need of the app mentioned above, here are the choosen languages

Type	Language	Reason
Frontend	React library (javascript+html)	<ul style="list-style-type: none"><li>• Professionnal</li><li>• Clean</li><li>• Up to date</li><li>• Meant to code a fullstack app</li><li>• Tillione has the most experience with</li></ul>
Backend	Nodejs runtime environment (javascript)	<ul style="list-style-type: none"><li>• Professionnal</li><li>• Tillione has the most experience with</li></ul>
Backend	Python	<ul style="list-style-type: none"><li>• Tillone has no experience in python for backend</li></ul>
Database	mangodb	<ul style="list-style-type: none"><li>• Professionnal</li><li>• Tillione has the most experience with</li></ul>