Projet specifications

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# Context

## 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  + Draft: Contains tests, temporary files, outdated past files that we want to keep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

## 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)

**Legend :**

* : Convinces

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)

## Problems and solutions

The project aims to solve the following problems:

|  |  |  |
| --- | --- | --- |
| Ind. | Problems | Solutions |
|  | 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 |
|  | 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 |
|  | 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 |
|  | Censorship/deletion/changes of sources | Makes copies of sensitive sources |
|  | 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) |
|  | Certifies that sources copies weren’t modified | UNSURE |
|  | Sourceflow concept can be stolen by someone else | Place a patent? |
|  | Sourceflow could be taken down | Make it accessible on Tor Browser  If blockchain apps cannot be taken down, making it a blockchain app |
|  | 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 |

## 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

# Principles

## 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

Source 1

Source 1.1

Source 1.2

Source 2

Source 2.1

Source 2.2

Source 1.1.1

Source 1.1.2

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>, 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

Fig. 2

|  |  |  |  |
| --- | --- | --- | --- |
|  | Source info 1 | Source info 2 | Source info 3 |
| Source 1 | Info | Info | Info |
| Source 2 | Info | Info | Info |
| Source 3 | Info | Info | Info |

For arguments:

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

Argument 1

Argument 3

Argument 4

4

Argument 2

Argument 5

5

Argument 6

Argument 7

Argument 7

Fig. 1

To keep track of every argument:

* Each argument has the info of who shares it anf for each “who shares it” is attached the proof of it
* Each end argument has the proodf
* 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://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.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))*.*

A given source is the true copy of an original document which sourceflow did not create

The original document existed on some external platform

The document in our database is the true copy of the original document

The document in our database was never edited since copied

It has blockchain technology

A blockchain technology is a strong enough way to unfalsify info

# Application

## Interface: Main interface

Schematic view of the main interface of the app:

Tools menu

Source content menu

Thesis menu

Sources menu

**Legend:**

* : Area of the web application interface on screen

## Interface: Sources menu

Variable 3

Variable 2

Interviewers

Person One ; Person Two ; Another person

11/06/2016

11/06/2016

14:11

07/06/1988

14:11

07/06/1978

12:11

Whomever

Whomever

Whomever

Whomever

Title

Something

Lore ipsum

Title 2

Press article

Press article

Press article

1357

1355

400

383

Press article

This is a title

Speech

Whomever

07/06/2012

14:11

07/04/2022

17:29

Press article

Whomever

This is another title

Creation date

Main author

Title

Document type

Index

376

368

Legend :

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

Sources menu

|  |  |  |  |
| --- | --- | --- | --- |
| Nb. | Type | Description | User case |
| (1) | Button | Develop arrow | 1. User clicks on the develop arrow **(1a)** 2. Arrow changes state to open 3. The complementary information window appears **(2)** 4. User clicks on the develop arrow **(1b)** 5. Arrow changes state to close 6. The complementary information window disappears; the line now does look like it’s initial state (example at line **(3)**) |
| 3 | Object | Line | 1. User clicks on the line 2. App shows line as highlighted; line is selected 3. User clicks on the line 4. App shows line at initial state; line is unselected |

## 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 explicitely |
| source\_quotes | Hex (list) | Gives the index of what sources it quotes explicitely |
| 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 |

## Interface: Tools menu

Tools menu

Add content…

Figure A

Show results

Advanced search…

*Type in…*

* 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)**

|  |  |  |  |
| --- | --- | --- | --- |
| 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 **(2)** 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    1. App opens new tabs in the browser for each selected element    2. The web page of the source shows up 4. IF the elements selected in step 1 are in thesis menu    1. In source menu, app puts on top of the pile elements that it cites |
| (5) | Button | Go to citations |  |

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

### Function : Advanced search tool

Cancel

OK

Advanced search

Figure A

Search history

Search bar

*Type in…*

*Type in…*

All fields

AND

All fields

|  |  |  |  |
| --- | --- | --- | --- |
| 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

### Function: Add content

AND

Publication date

*Type in…*

Terms

*Type in…*

Add only the content that match the following:

OK

Cancel

Add all the content

Add this page only

Make a backup of the source

This source may be sensitive

Add a source

*Type in…*

URL

Add a thesis

Add content

|  |  |  |  |
| --- | --- | --- | --- |
| 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 citated 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, photographies, text

Newspaper’s lead

* + - * + Shares the opinion of a newspaper or one of it’s responsibles 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

## 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 |  |
|  |  |

### 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

## Language choices

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

|  |  |  |
| --- | --- | --- |
| Type | Language | Reason |
| Frontend | React library (javascript+html) | * Professionnal * Clean * Up to date * Meant to code a fullstack app * Tillione has the most experience with |
| Backend | Nodejs runtime environment (javascript) | * Professionnal * Tillione has the most experience with |
| Backend | Python | * Tillone has no experience in python for backend |
| Database | mangodb | * Professionnal * Tillione has the most experience with |