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MyChoice main functionalities

General objectives

MyChoice is a web application supporting collective decision, designed by INRAE. The software enables project participants to:

- Analyze, compare and assess stakeholders' attitudes towards different alternatives.
- Review explanatory arguments stemming from various sources and reflecting different concerns.
- Explain the criteria, aims and features pursued.
- Highlight potential synergies or competing concerns.
- Propose different modes of decision support (expert, consensual, prospective, etc.).

A project’s home page

The project home page displays the name and the description of the project and of the considered alternatives as well as an illustrative image.

Example for the VITAMIN project:
https://ico.iate.inra.fr/MyChoice/project?spreadsheet=1bSLqMsIcertNvYDSewg3-okDZYfcPj-4gErA0VLbGac

Displaying arguments

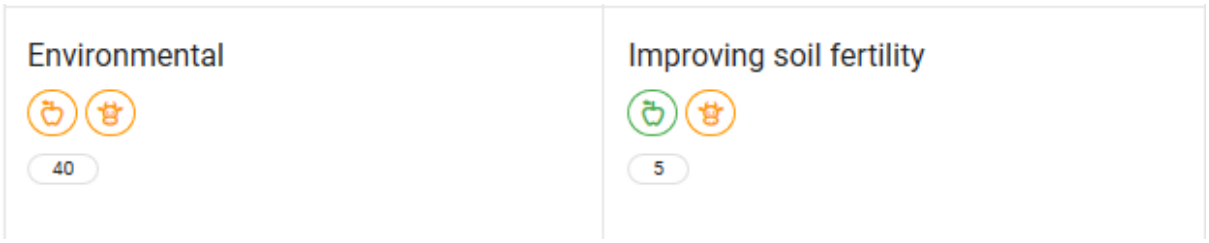
The project’s global view displays a table containing all the arguments expressed in favor or against each alternative (for instance vegetable-based or meat-based diet) in order to give a view on the debate issues.
Arguments are grouped by criterion (economic, nutritional, etc.) and within each criterion, by aim (consuming a balanced diet, etc.) and by property (price, protein digestibility, etc.).

Example for the VITAMIN project:
https://ico.iate.inra.fr/MyChoice/project/global-view?spreadsheet=1bSLqMsIcertNvYDSewg3-okDZYfcPj-4gErA0VLbGac

Color codes

With each criterion and aim, a color code summarizes if the criterion/aim contains only pro arguments (green color), con arguments (red color), both (orange color), or no arguments (grey color) for each alternative. The number of arguments is also indicated.

Example for the VITAMIN project:



Collective attitude computation

At the bottom of the global view, a collective attitude regarding each alternative is computed as a weighted mean. More precisely, it is the mean of the proportion of pro arguments for this alternative in each aim, weighted by the total number of arguments (pro or con) in this aim, for all alternatives.
The closest to 1, the more favorable the audience is, for this alternative. The closest to 0, the less favorable the audience is, for this alternative. An attitude of 0.5 means a mixed attitude.

Stakeholder view

The list of stakeholders who expressed arguments in each criterion and aim, with the corresponding color codes.

Example for the VITAMIN project:
https://ico.iate.inra.fr/MyChoice/project/stakeholder-view?spreadsheet=1bSLqMsIcertNvYDSewg3-okDZYfcPj-4gErA0VLbGac

Property view

The list of properties used, together with their aim(s), criterion/a and color-codes.

Example for the VITAMIN project:
https://ico.iate.inra.fr/MyChoice/project/property-view?spreadsheet=1bSLqMsIcertNvYDSewg3-okDZYfcPj-4gErA0VLbGac

Different modes of analysis

The following modes are proposed in the drop-down list:
The CONSENSUS mode, which is used by default, takes into account all arguments.

The EXPERTISE mode only considers the arguments that fall into the expertise domain of their author. This is declared in the “hasExpertise” tab of the spreadsheet, or in the “hasExpertise” table of the database.
The DATA RELIABILITY mode only considers arguments whose source type is of fiability 1 (highest fiability). This is declared in the “sourceType” tab of the spreadsheet, or in the corresponding table of the database.
The PROSPECTIVE mode only considers the arguments whose “IsProspective” attribute takes the value 1 (True). This is declared in the “argument” tab of the spreadsheet, or in the corresponding table of the database.
The INTERPLAY mode only considers the arguments whose associated “property” value appears in different aims.
The MULTI STAKEHODER mode only considers the arguments whose associated aim is addressed by different stakeholders.

Consult an example

The example of the VITAMIN project on vegetable-based versus meat-based diets is consultable on the following links.

The VITAMIN MyChoice project

https://ico.iate.inra.fr/MyChoice/project?spreadsheet=1bSLqMsIcertNvYDSewg3-okDZYfcPj-4gErA0VLbGac

The VITAMIN MyChoice spreadsheet

https://docs.google.com/spreadsheets/d/1bSLqMsIcertNvYDSewg3-okDZYfcPj-4gErA0VLbGac/edit#gid=344302397

Database-hosted project

Open a database-hosted project with MyChoice

Indicate as URL parameter: project**?name=** *PROJECT_NAME*
(Caution: distinguish between uppercase and lowercase)

For example, if my project name is **VITAMIN**

The MyChoice URL will have the following syntax:
https://localhost:8080/project?name=VITAMIN

Spreadsheet-hosted project

Open a spreadsheet with MyChoice

Once the spreadsheet correctly filled, indicate as URL parameter:
project**?spreadsheet=** *SPREADSHEET_ID*

For example, if my spreadsheet URL is:
https://docs.google.com/spreadsheets/d/1J69CAgoAV9naltxJZs89dOI1NoGX8Ex6iw_PtggKxic

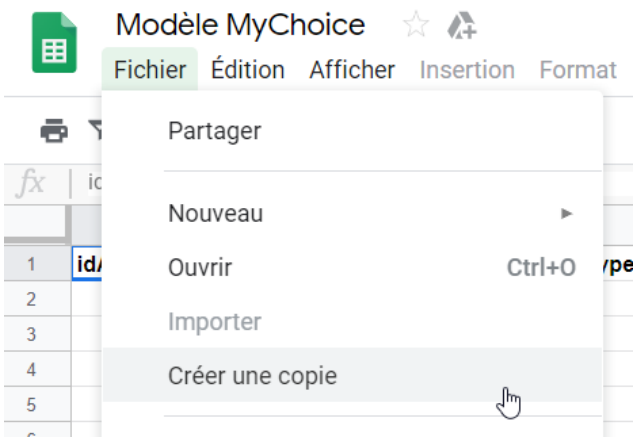
then the MyChoice URL will have the following syntax:
https://mychoice.netlify.com/project?spreadsheet=1J69CAgoAV9naltxJZs89dOI1NoGX8Ex6iw_PtggKxic

Create a spreadsheet

Step 1: Create a copy of the model

To create a spreadsheet, you can start with this empty model by creating a copy (**File > Create a copy**) **You should prealably be connected to your Google account.**

https://docs.google.com/spreadsheets/d/1wBWVzLSLwI30-z6dsh9eugieJGfo35nmsKoGZ-dkOzg/edit#gid=817364715



Step 2 : Complete the spreadsheet

At least the tabs **argument, project** and **alternative** must be completed.

argument:
Illimited number of lines, some columns are optional.

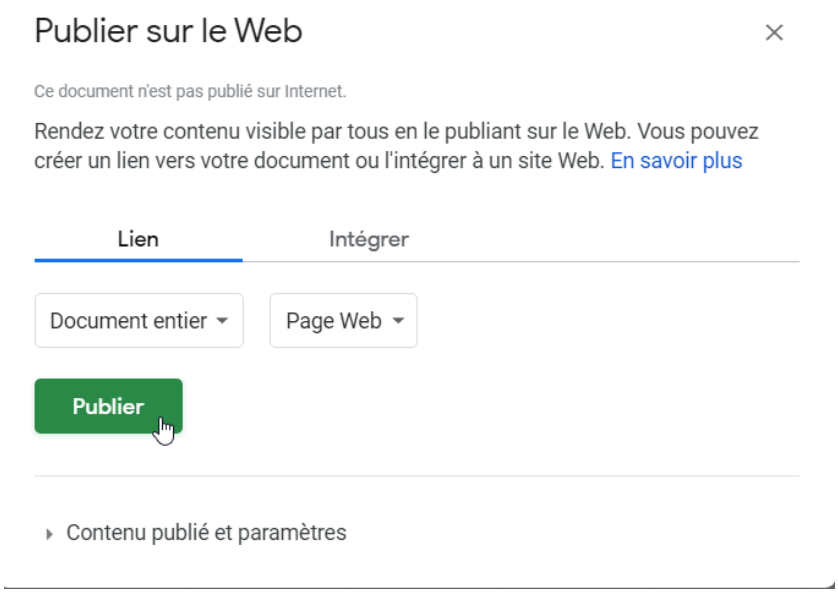
project:
One line only, **nameProject** is mandatory.

alternative:
One line per alternative**, nameAlternative** and **iconAlternative** are mandatory**.**

If the tab **typesource** is not completed, the **data-reliability mode** will display no result.
If the tab **hasexpertise** is not completed, the **expertise mode** will display no result.

Step 3 : Publish the spreadsheet

To publish the spreadsheet (to make it accessible by the MyChoice application):
File > Publish on the web > Publish.



Technical documentation

Application Urls

The variables are in the file **.env** at the root of the project:
https://gitlab.com/maximelebreton/my-choice/blob/develop/.env

Example:
BASE_URL=/
VUE_APP_API_URL=https://icotest.iate.inra.fr/MyChoice/

/!\ Mandatory: the url must finish with a slash

It is possible to create a **.env.local** (not versioned) for your local version, and to create other .env depending on the targeted environment (prod, staging etc…).
For further information: https://cli.vuejs.org/guide/mode-and-env.html#modes

Technical Appendix

The web application developed will rely on services provided by the server. The exchanges between the client and the server parts will be based on the HTTP protocol and the exchange format used will be JSON. Below are two examples of querying allowing for data access.
In the examples below, the wget command line tool is used to illustrate the server querying via the HTTP protocol and the HTTP GET method.

1. Retrieving the list of alternatives, stakeholders, aims and criteria of a project called « VITAMIN »

The query will be of the form:

```
wget http://<host:port>/MyChoice/project?name=VITAMIN
```

The data returned will be of the form:

```
{
    "nameStakeholder": ["Food innovation cluster", "Journalist", "Consumer"],
    "aim": ["Consuming a balanced diet", "Reducing food budget"],
    "nameCriterion": ["Nutritional", "Economic"],
    "nameProject": "VITAMIN",
    "description": "Description du projet",
    "image": "img/photoVITAMIN.jpg",
    "alternatives": [{
        "nameAlternative": "Vegetarian diet",
        "description": "The vegetarian diet is a meal plan made up of foods th
at come mostly from plants and do not include animal flesh.",
        "imageAlternative": "imageAlternative",
        "iconAlternative": "iconAlternative"
    }, {
        "nameAlternative": "Meat diet",
        "description": "The meat diet is a meal plan that includes animal fles
h.",
        "imageAlternative": "imageAlternative",
        "iconAlternative": "iconAlternative"
    }]
    "hasExpertise": [{
        "nameStakeHolder": "Food innovation cluster",
        "nameCriterion": "Nutrition and health"
    }...]
    "typeSource": [{
        "nameTypeSource": "Newspaper",
        "fiability": "2"
    } ... ]

}
```

2. Retrieving the arguments of a project called « VITAMIN »

The query will be of the form:

```
wget http://<host:port>/MyChoice/arguments?project=VITAMIN
```

The data returned will be of the form:


```
[{
    "idArgument": 2,
    "assertion": "Les protéines végétales sont de moins bonne qualité que les protéines animales.",
    "explanation": "Prises individuellement, les protéines végétales ont généralement un déficit en un ou plusieurs acides aminés.",
    "date": "1036-09-24",
    "nameStakeHolder": "Food innovation cluster",
    "nameProperty": "Proteins",
    "value": "unbalanced",
    "typeProCon": false,
    "nameAlternative": "Vegetarian diet",
    "nameCriterion": "Nutritional",
    "nameSource": "Valorial - Argumentaire protéine végétale (citing Young & Pellett 1994, Ruales & Nair 1992, Craig et al. 2009, Le & Sabaté 2014, Morley 1997, Fleischer et al. 2016) Project scientist Slideshow",
    "aim": "Consuming a balanced diet",
    "nameTypeSource": "nameTypeSource",
    "isProspective": "0",
}
...]
```


By default, the data access described above is in the consensus mode and is equivalent to the following call:

```
wget http://<host:port>/MyChoice/arguments?project=VITAMIN&mode=CONSENSUS
```

To use other modes (expertise, data reliability, etc.) the same call will be used, by replacing CONSENSUS by EXPERTISE, DATA_RELIABILITY, PROSPECTIVE, INTERPLAY or MULTI_STAKEHOLDER.