Subject made by INR (Institut du Numérique Responsable)

Context

Without digital tools, COVID lock down would have been totally different. No home office, no meeting, no chat with family or friends etc… For many, digital technology has maintained a social, professional and educational link shaken by isolation. But is this a generality? Far from it. According to the french digital Secretary of State , still 13 million French people do not have access to digital technology, or at least do not have the basic knowledge to use properly a computer or smartphone.

These people are struck by a new evil, electronicism. This neologism, born from the contraction of illiteracy and electronics, refers to the digital gap which therefore concerns nearly a quarter of French people. Far from ''clichés'', this modern scourge does not specifically affect the elderly or rural areas, but all our territories. And yet, the digitalization of our societies presupposes the acquisition of the skills necessary to fully play one's role as a citizen.

La nécessité pour les élus des territoires de connaitre le degré d'appropriation des technologies numériques de leur population est aussi fondamentale pour éviter involontairement d'y contribuer.

The need for our elected territory representatives and politics to know the degree of ownership of digital technologies by their population is also fundamental to avoid involuntarily contributing to it.

In order to steer public policies, the need for indicators is essential. In this context, an index of the digital fragility of territories was proposed within the framework of the ''*IncubO of SGAR Occitanie*'' with the support of ANSA in partnership with Mednum, thanks to the support of the Public Action Transformation Fund. For the time being, this index combines four indicators that make it possible to create a global analysis based on access on the one hand (information, digital interfaces) and on skills on the other hand (use of an interface, administrative skills).

- Access to information: Identify areas poorly covered by an information service offer or populations who will have difficulty understanding information.
- Access to digital interfaces: Identify areas poorly covered by networks or in which populations will have financial difficulties accessing them.
- Ability to use digital interfaces: Identify populations among which there is a frequency of illectronism or difficulty in using the Internet.
- Administrative skills: Identify populations among whom there are difficulties in carrying out administrative procedures.

The digital fragility index, through its graphic representation, reveals the digital exclusion zones in a given territory. This tool allows you, whether you are a municipality (council), a department or a region, to compare your digital fragility index with other territories.

A mapping tool, developed by INR, allows the visualization of the **digital fragility territory index** by territory. It is accessible on the website https://indice.institutnr.org

The digital fragility index, through its graphic representation, reveals the digital exclusion zones in a given territory.

Required Work

The objective of this challenge is simple. Redevelop the tool developped by INR while respecting ecodesign rules as much as possible.

This tool allows you, whether you are a municipality (council), a department or a region, to compare your digital fragility index with other territories.

The functional unit will be: the search for the index of fragility of a municipality (council) in relation to its department and its region.

Data

The data used to set up the digital fragility index come from open source databases as follow : (data.gouv.fr, Insee):

INSEE :

- Population en 2016 Recensement de la population - Base infracommunale (IRIS)
- Couples - Familles - Ménages en 2016 - Recensement de la population - Base infracommunale (IRIS)
- Diplômes - Formation en 2016 - Recensement de la population - Base infracommunale (IRIS)
- Revenus et pauvreté des ménages en 2016 - Dispositif Fichier localisé social et fiscal (Filosofi)
- Revenus, pauvreté et niveau de vie en 2015 (IRIS) - Dispositif Fichier localisé social et fiscal (Filosofi)

Data.Gouv.fr

- Le marché du haut et très haut débit fixe (déploiements)
- Mon réseau mobile

In this challenge, there is no obligation to use a graphical representation tool.

More information about the index formula here : https://lamednum.coop/wp-content/uploads/2020/07/Kit-Indice-de-Fragilit%C3%A9-Num%C3%A9rique.zip

Required features

1. Create a website that provides the digital fragility index
2. The application must fit on a single web page
3. The application must allow the index to be introduced with an explanatory text and to end it with a concluding sentence
4. The application must allow the collection of aggregated results
    a. For statistics
    b. To bring out the result more quickly if the same query
5. The application must allow the choice of the municipality by its postal code and / or access to a drop-down list
6. The user must have access to the 4 scores of the index, the overall score as well as those of his department and region
7. The site must store the request
8. Possibility by the website to download a pdf presentation of the final result
9. The site must comply with the GDRP (General Data Protection Regulation)

Evaluation

The solutions must be able to be tested by tools presented on the website:

https://institutnr.org/outils-ecoconception-accessibilite

Teams will be encouraged to use the opquast checklist below :
https://checklists.opquast.com/fr/qualiteweb/

The jury will use an aggregation of indicators from these online services

It will be based on the deadline deposit by the teams on the storage space offered by the challenge.

In any case, it will not seek to "run" an inaccessible or inactive site on the repository.

- **Evaluation Steps :**
  1. **Assessment of the validity of projects (assessable and functional site) + Report document**
  2. **General ranking via aggregation of 3 evaluation tools (+ SonarQube)**
     - **Auto Evaluation – Please insert your score for the three evaluation tools + screenshot**
     - **SonarQube – create a PUBLIC account and drop your GITHUB URL.**
  3. **Scoring grid for the top ranking**
  4. **Winners : TOP 3 students teams and Top 1 professional team**

Report (In English or in French)

In order to analyze the work done by the teams, the source code must be made available to the jury.

The ZIP file should have the following name: source.zip (only lowercase) and should be placed at the root of your web server (example: /VAR/www/html/source.zip).

In the ZIP File :

- Insert the **report document (PDF)** explaining in DETAILS your strategy **(including your auto evaluation, screenshot and GITHUB URL)**

The Jury will consider this document(report) in its evaluation. We recommend you to answer the questions as you go from the start to the end of the 48 hours.

a text file (readme.TXT) with the name of the team + the following mention '' the sources of this challenge, remains the property of the team of developers (Team name + last name and first name of each participant).

Finally, please an email to aferard@esaip.org with a **text file (readme.TXT)** attached with the name and number of the team + the following mention '' the sources of this challenge, remains the property of the team of developers (Team name + last name and first name of each participant).

IMPORTANT

- Error 404 or no access to the VPS = Disqualified
- Do not integrate your team name in your work (ONLY team number)