



DMP

HEALTH-TECH FOR GOOD



DMP

Let's try to understand the reasons for resistance to change on a real-life example:



Then, let's find some ways to prevent it!

Centralizing and sharing medical data has many advantages, for all the actors of the chain:

- ✓ it improves and quickens diagnosis based on complete and timely information ;
- ✓ it guarantees patients access to their personal medical information ;
- ✓ it enables epidemiological surveillance by gathering of mass anonymous information ;
- ✓ it lowers the cost of the health system by reducing the number of unnecessary exams.

The idea has been around for a long time and a **Dossier Médical Partagé** has been created in France, by law, in 2004. But despite its evident advantages, the project has encountered many difficulties, has been postponed several times and is still far from being generalized.

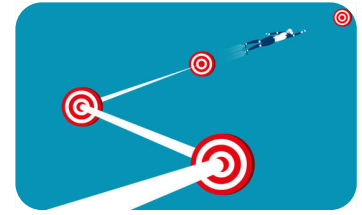


Such a good idea taking a long time to become real is not unusual (mobile banking is another example). It is partly due to technical difficulties. But the main reason for the project's delay is not technical, it is **a consequence various actors' resistance to change**.

Missions

To boost the deployment of the *DMP*, it has been decided to implement a 2nd iteration of this project. Nevertheless, it is obviously necessary to start with the comprehension of the failure reasons.

Your team must propose a ***Proof of Concept*** for this new iteration.



It must be **technically feasible**, of course, but most importantly, it must be **acceptable for all the actors of the health chain**, from patients to medics including authorities.

Step 1: identify risks and barriers

Identify all possible causes that might raise fears or problems, taking all the possible aspects into account. To help you in this, we have gathered [here](#) some documents introducing various aspects and points of view. They can be your starting point, **but some personal research is expected from you**.

Identify legal constraints

Do not go into details but simply identify themes and principles relevant for your subject, as well as the main applicable laws. Pay special attention to medical secrecy.

Understand mental barriers

Doctors are the entry point and the main users of the data. Various reasons might prevent them from adopting the system: find out which ones! A clear insight on those reasons, through interviews with professionals (~ 5), will help you put forward re-assuring features and messages in your *PoC*.

Anticipate technical challenges

Fostering *DMP* towards the public and the users involves specific challenges under strong security constraints linked to medical secrecy. They include securing in/out interfaces and respecting existing interoperability and medical data standards. Anticipating the main challenges is key before designing a solution. Find out about the risks linked to security in the medical field, and specifically in the context of the *DMP*.

Outline financial stakes

Deployment of the system has costs and benefits. Costs could consist of enhancements of the

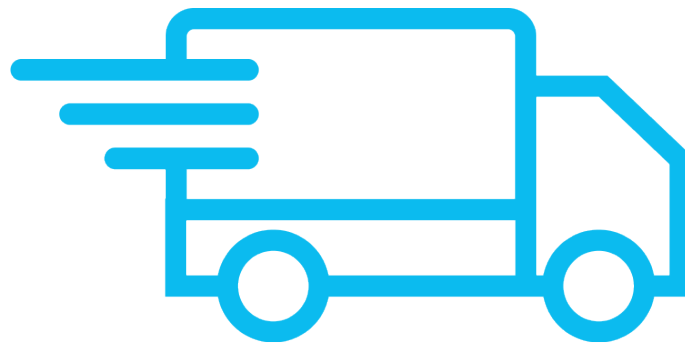
Carte Vitale, deployment of readers and/or software, training, daily time spent on the system, implementation and training of new features linked to the sanitary crisis...



You are not required to identify and quantify all those impacts, but to outline them on a qualitative basis: What are the financial costs of this operation? Make sure you consider all the aspects of the question.

First delivery

In a file, present a clear view on the risks of resistance to change: summarizing the key attention points for each of the above-mentioned aspects, for each step. You should express them pragmatically: be concrete, do not hesitate to give examples or quotes.



This should help you imagine pragmatic answers in the next step. You are expected to hand in at least a stakeholders map, an empathy map, plus other elements that might be useful in the Design Thinking process.

Step 2: propose solutions to prevent the risks of resistance

You should now be able to propose a relevant *PoC*, which must provide an overall architecture for the system, with focus on answering the possible resistances.

Assess clearly how your solution would bring answers to identified resistance risk.



You should be aware of **MES**, which is one tough competitor of yours. Find out more about it, get inspired and decline, reject or develop this idea.

Design and implementation methodology

The *PoC* is the key to achieve adoption. It does not only consist of hard technology.

Propose a design and an implementation methodology. Which stakeholders would you target? How would you gather input from those targets? What messages would you try to get through? What kind of onboarding/training would you propose?



Remember that some methodologies are available for you in the JARVISS section of Gandalf. Feel free to search for more by yourself.

UX principles

Users are both patients and medical professionals. Ease of use and access to features is a condition to their adoption. Your *PoC* describes the main usage scenarios and, for each scenario, the main objectives to achieve and pitfalls to avoid. You give examples of interfaces or devices and explain how they answer those requirements.



Prototypes and wireframes are very much advised!

Security

Ensuring the right level of security is a vital aspect of this project. Your *PoC* presents the technologies you have chosen to ensure this high level of security. For each identified risk, you clearly explain how the imagined solution prevents it and the possible limits of the solution.



You may seek help from your school colleagues in this field.

Business Model

A realistic Business Model must pay for all investment and operational costs in a way that is acceptable for all stake-holders.

You will try to imagine who will pay for what in a way that balances costs and benefits. This will not need to be illustrated by financial figures – only principles. The challenge is not the figures but to have a complete view on all costs, including hidden ones.

Benefits could be derived from savings to the health system due to better/quicker treatment, reduction in number of unnecessary medical acts, better synchronization of medical experts,...



The sanitary crisis has prompted large revolutions in many fields, and has had a fierce impact on the expectations of the consumer/user/patient. Think about how many features could be integrated, that looked like Sci-Fi just 18 months ago: telemedicine, personalized medicine, personal health data available in batch for research or decision making... All these aspects may or may not become a catalyzer for the *DMP*: it's up to you to aim at the right direction!

Final delivery A file will accomodate all the documents which must sketch the main features of your *PoC*.

It should especially explain the following:

- ✓ usage and functionalities ;
- ✓ prototypes/wireframes ;
- ✓ proposed technologies and architecture ;
- ✓ focus on security issues ;
- ✓ main steps and objectives of the implementation plan ;
- ✓ conformity matrix describing how your proposition answers the risks identified in step 1 ;
- ✓ KPI for monitoring and evaluating the success of this second iteration of *DMP* ;
- ✓ user test protocols.



Feel free to take it a step further and present a full prototype!





{ EPITECH. }
{ TECHNOLOGY }