

Crowdsourcing going open source, an opportunity for sister websites

The Muséum National d'Histoire Naturelle of Paris (MNHN) completed a **massive digitization program** of the herbarium specimens with about 6 millions of images made available online between 2008 and 2012. The remaining problem regarding huge digitization projects is the **data harvest process** because the information is contained into the images as handwritten text. The MNHN has developed a **citizen science website** – **The Herbonauts** – to allow the general public to help resolving this impediment. The project is now expanded to a nation-wide level with E-ReColNat (French natural History Collection Network).

Objectives

For the collection

Mobilize the maximum of volunteers in order to fill up a database with the information collected in the labels.

For the public knowledge improvement

Raise awareness among the general public about botanic, science history, climate change and about the importance of national collections in order to understand biological diversity.

Technical aspects

Languages: Java, Java Persistent API (connection to the database), Groovy (web pages), HTML (web pages), CSS Bootstrap (design), JavaScript (autocompletion, etc.)

Java Framework: Play Framework ! Version 1.3 : www.playframework.com

Database: it was developed without a database requirement. For now, the herbonauts works with Oracle 11 R2.

Web Server: Tomcat 7

Design Patterns: Model View Controller (MVC)

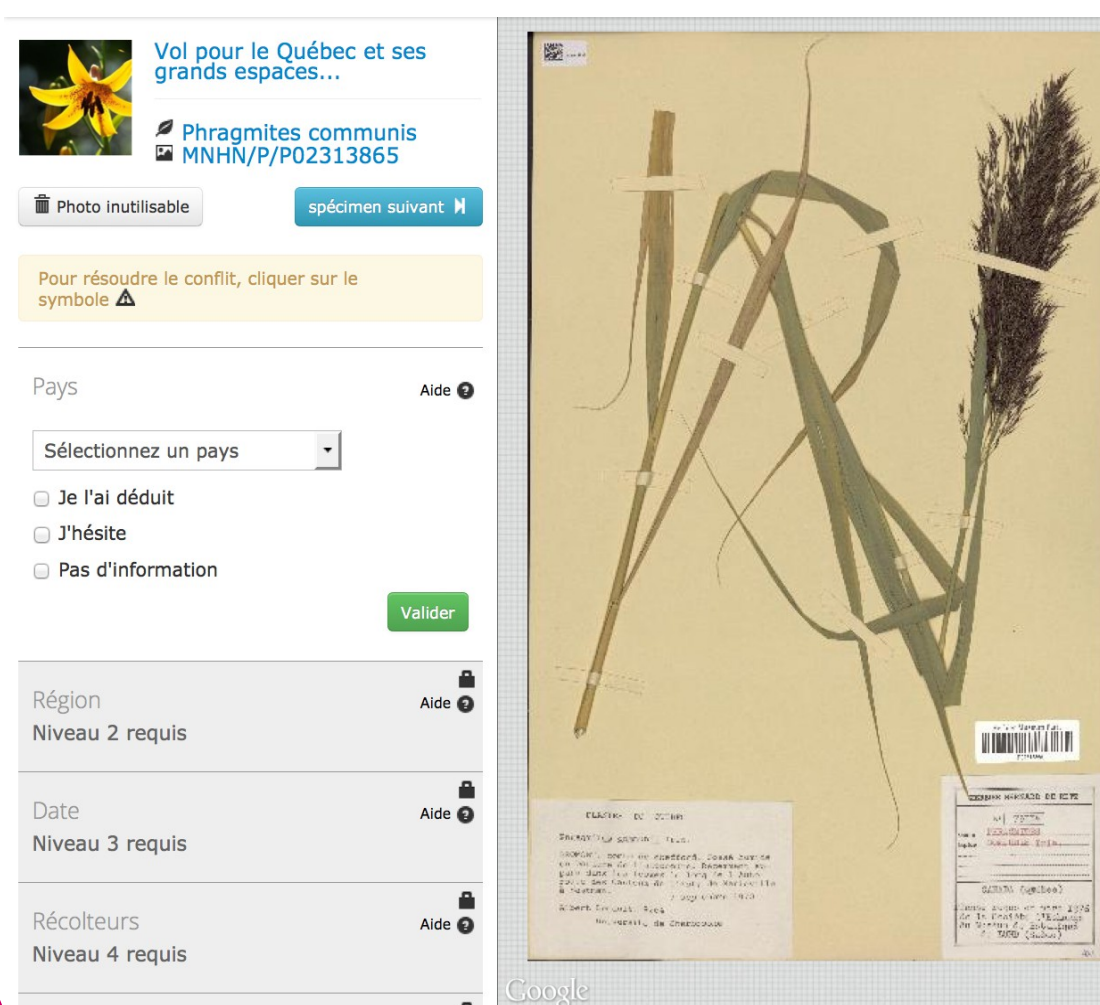
How it works

Propose a task you can complete

divide the work in mission based on scientific question (country, specie or botanist)

Make it fun

6 levels for each type of contribution
Quiz to pass a level
Badges to congratulate an user
Podium for the competition!



Finding answer is not boring!

Where was it collected ?
When was it collected ?
Who collected it ?

Ensuring quality with two functionalities

Training

Creation of quiz to help user to find the answer

A social website

Users can speak together through the comments part of a specimen/mission

Redundancy

Need a same result from different users for validate a contribution

Create a community around this project

Technical development

→ Random draw

From a real random draw to a three steps more efficient random draw.

→ Botanist contribution

Divide the Botanist contribution in two distinct parts: Collector and Determinator

Technical point

- Creation of a javadoc in English
- Internationalization of the tool
- Widely available through an open source system

Broadcast our tool

- Presenting our work (GBIF Mentoring, TDWG, etc.)
- Helping to the creation of other websites based on the Herbonauts (Sister website)

Future

- Creation of a combined mission between sister websites
- Creation of a mission using pictures from different countries
- Creation of a global website that list each sister websites
- And other ideas from the future community ...

The Herbonauts

Website: lesherbonauts.mnhn.fr

Twitter: @LesHerbonauts

Statistics (May 2014) :

- 1 405 contributors
- 69 085 specimens seen
- 783 311 contributions



The team behind the project

E-ReColNat (ANR-11-INBS-0004)

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Muséum d'Histoire Naturelle de Paris

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Fondation de la Maison de la Chimie (the House of Chemistry)



Muséum
national
d'Histoire
naturelle

