



Madbot

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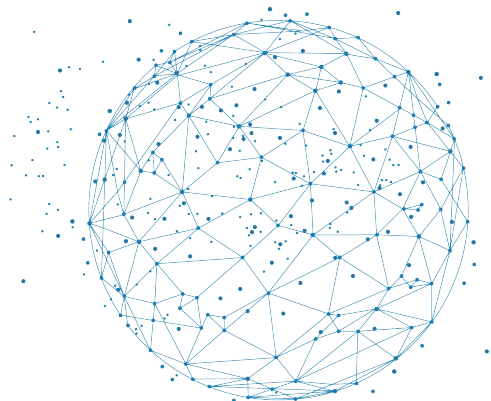
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webcam

Lifecycle / Biology Data Management Day - Sophia Antipolis - April 04, 2024



Madbot

A gateway to open science

Julien Seiler

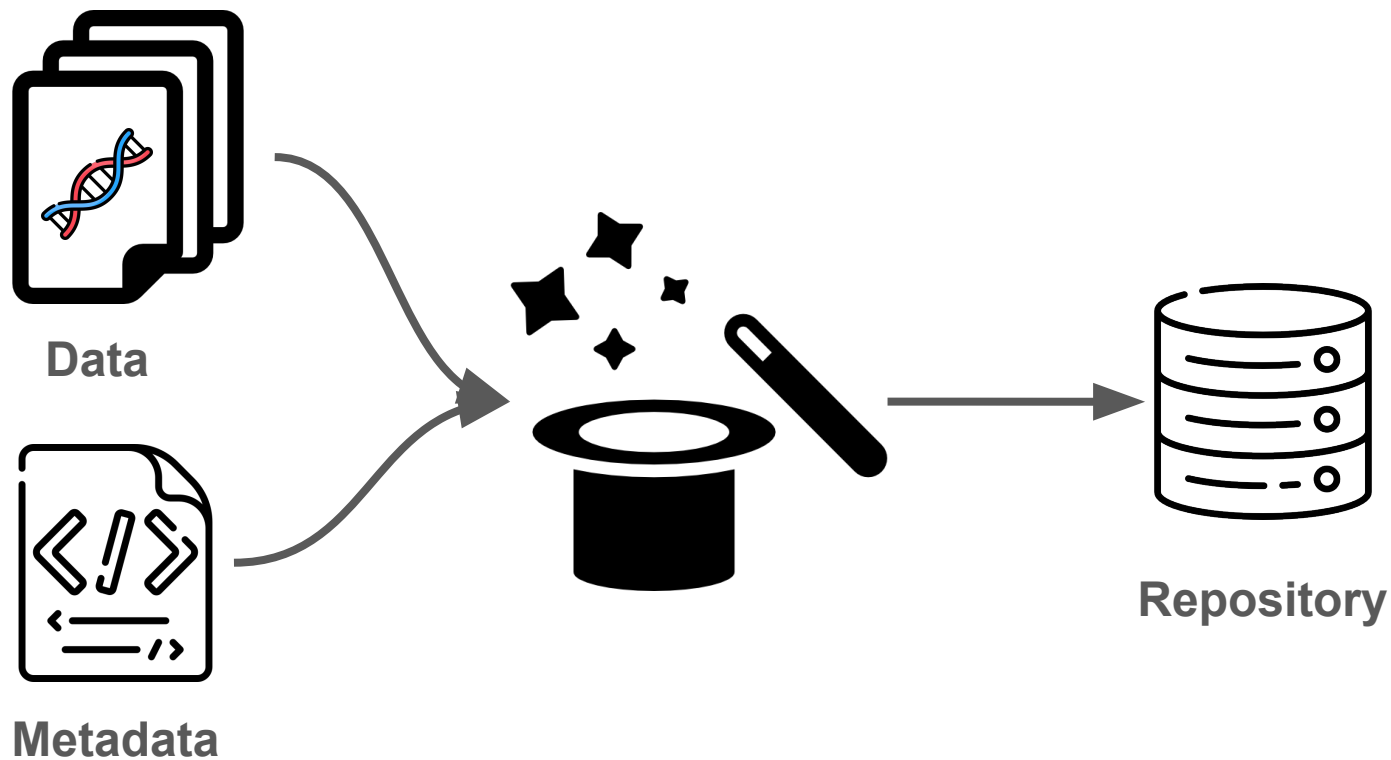
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First issue: where are the files?

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We're not all organized in the same way...



Metadata, you see, is really a love note – it might be to yourself, but in fact it's a love note to the person after you, or the machine after you, where you've saved someone that amount of time to find something by telling them what this thing is.

Jason Scott

<http://ascii.textfiles.com/archives/3181>



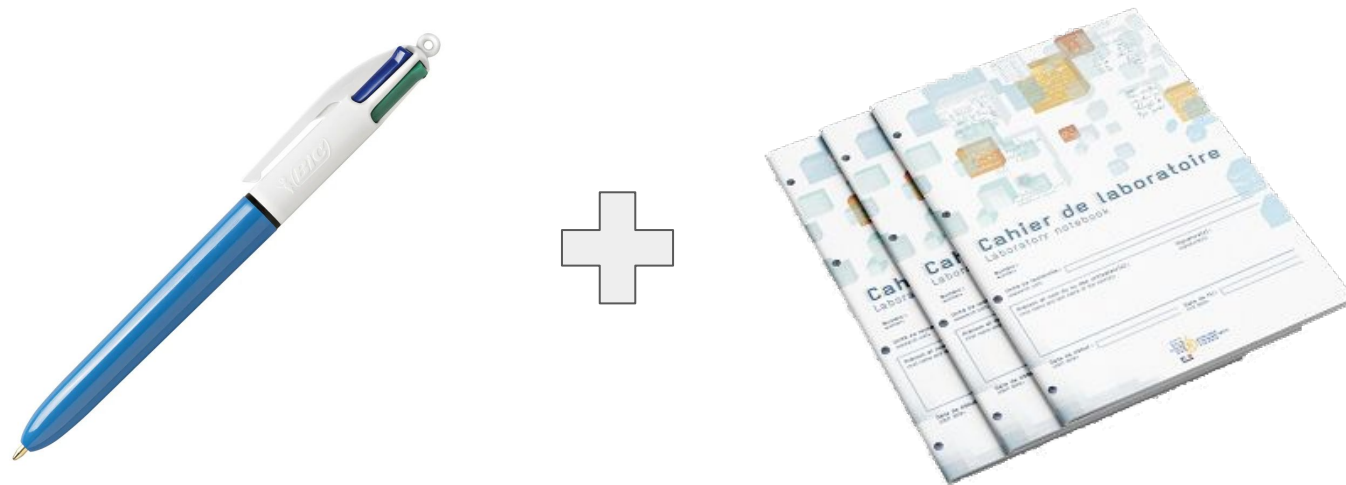
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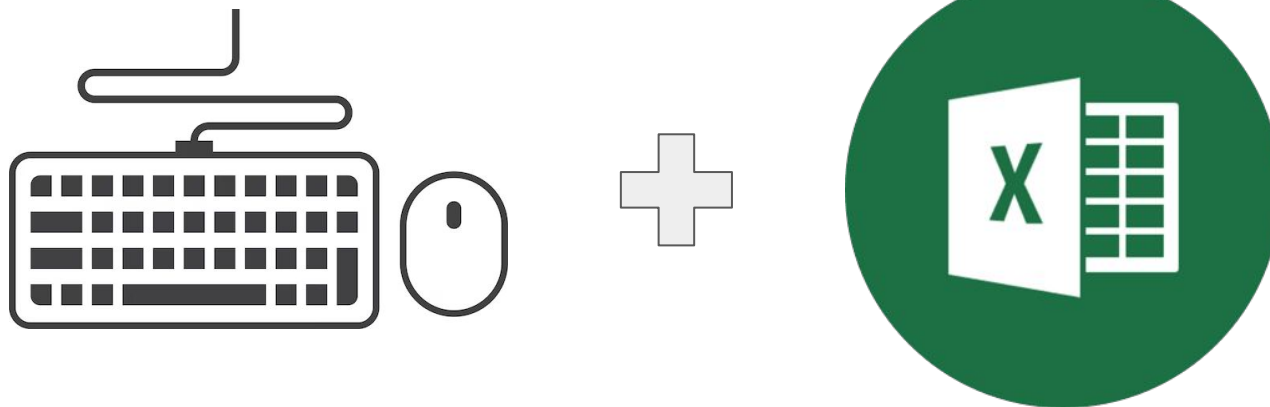
But how do you write this love note?

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🤔 How can someone other than me retrieve the information easily?

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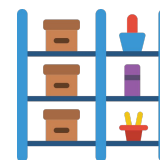
🤔 How do I co-edit metadata? How can I always have the right version?

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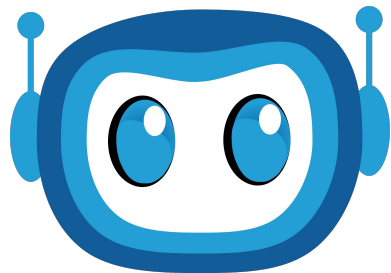
Madbot (Metadata And Data Brokering Online Tool) is a web application that provides a **dashboard for managing research data and metadata**.



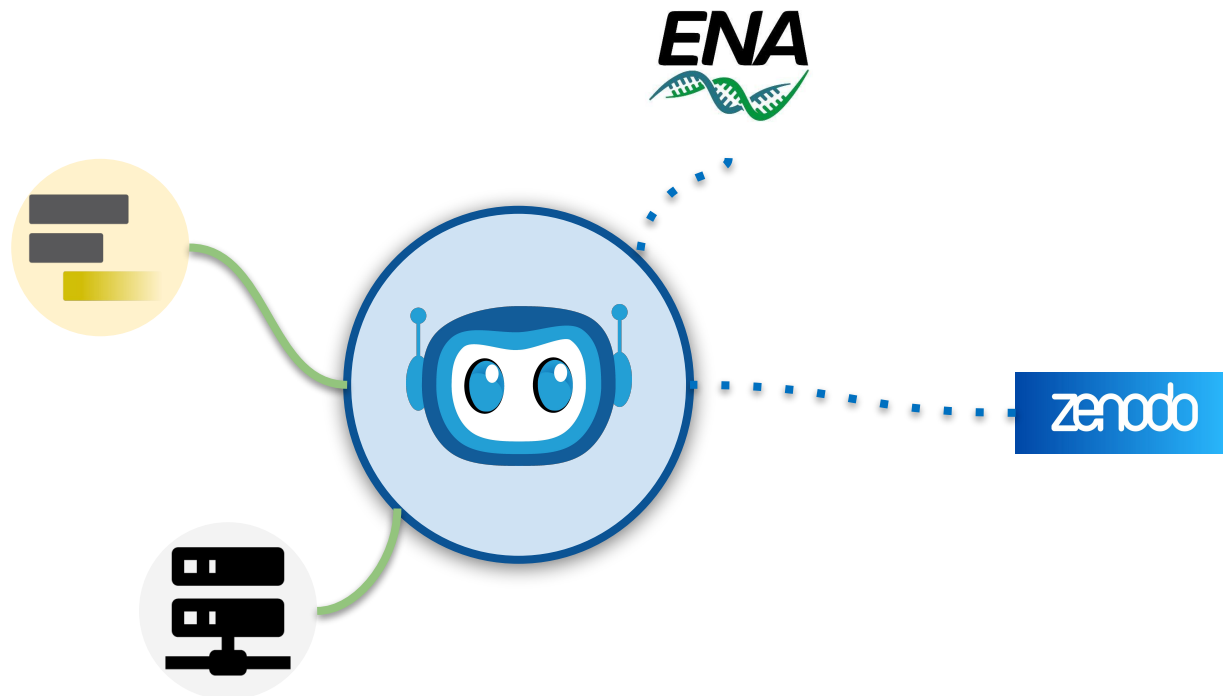
The application can be used to **aggregate and track metadata** for scientific projects, and to **identify exactly where the data is stored** via a number of connectors.



It also supports researchers in **publishing data and metadata** to many general (RGD, Zenodo, etc.) and thematic (ENA, GEO, etc.) data warehouses.

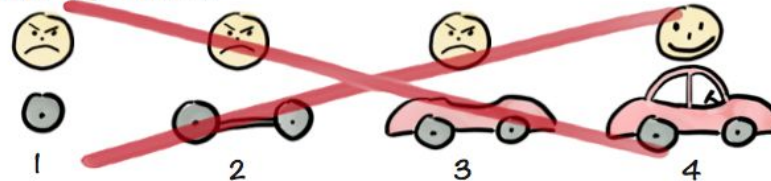


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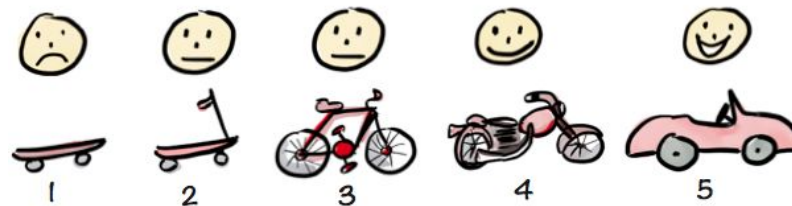


We want to produce a working application as quickly as possible.

Not like this....



Like this!

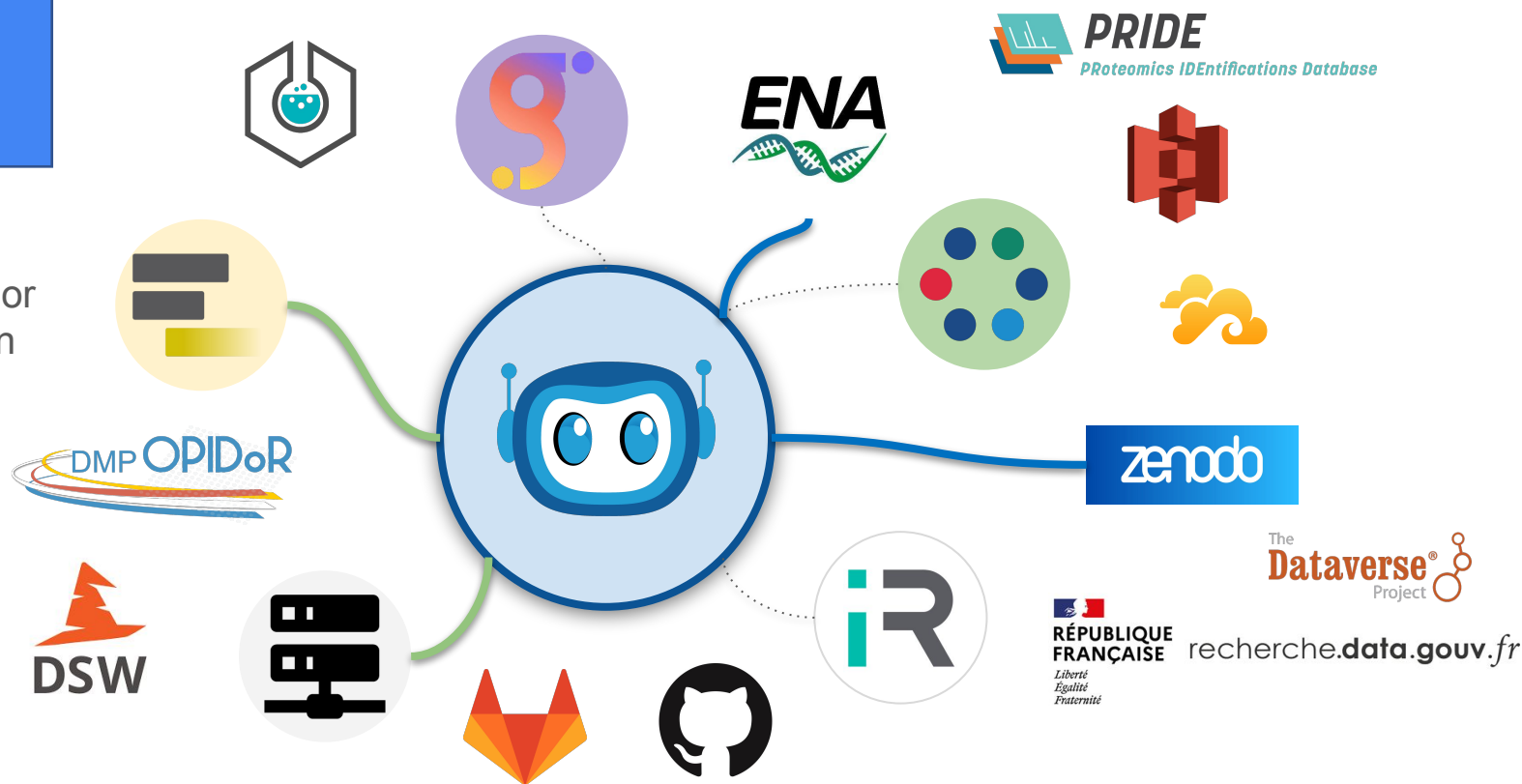


The Madbot application capable of achieving these objectives is our **Minimal Viable Product (MVP)**.


Many connectors are possible for the future

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When?
After the MVP, or
by contribution



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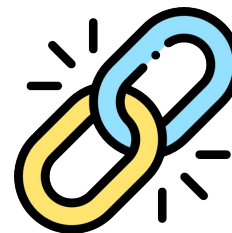
- 
- Step 1 — **Provide a REST API and OAuth2 authentication service**
With a developer documentation and an interactive interface
 - Step 2 — **Provide custom structure to organize data and metadata**
For example, ISA model (Investigation, Study, Assay)
 - Step 3 — **Link data files from SSHFS & Galaxy**
With a simple, secure and reusable connection system
 - Step 4 — **View a data dashboard**
Volume, activity, etc.
 - Step 5 — **Associate metadata**
With input help : automatic curation, pre-selection etc
 - Step 6 — **Publish data to ENA and Zenodo**
With a collect of external identifiers

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Authentication systems

LifeScience AAI (Elixir), DOI,
GitLab (already tested), ORCID



New connectors

Recherche data gouv,
DMP(Opidor & DSW), iRODs,...



Hackathon



Training

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Full stack developer
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Full stack developer
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Full stack developer
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+ a working group
throughout France



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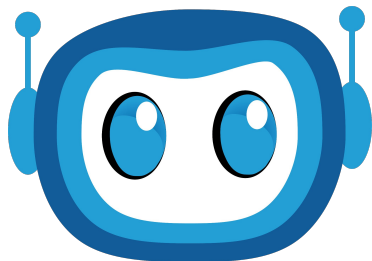


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The **maDMP4LS** project (*machine-actionable Data Management Plans for Life Sciences*) has been funded by the French Agence Nationale de la Recherche (grant [ANR-19-DATA-0017-01](#)) as part of the Flash call "[Open Science: research practices and open data](#)".

The **OpenLink** project (A gateway between imaging data management tools to apply FAIR principles) has been funded by the French Agence Nationale de la Recherche (grant [ANR-19-DATA-0011-01](#)) as part of the Flash call "[Open Science: research practices and open data](#)".

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Our project is open source under license on Gitlab

<https://gitlab.com/ifb-elixirfr/madbot>



If you want to add a connector, join our working group or develop in Madbot, contact us!

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