

# VODAN BRAZIL - the Brazilian experience at the Virus Outbreak Data Network

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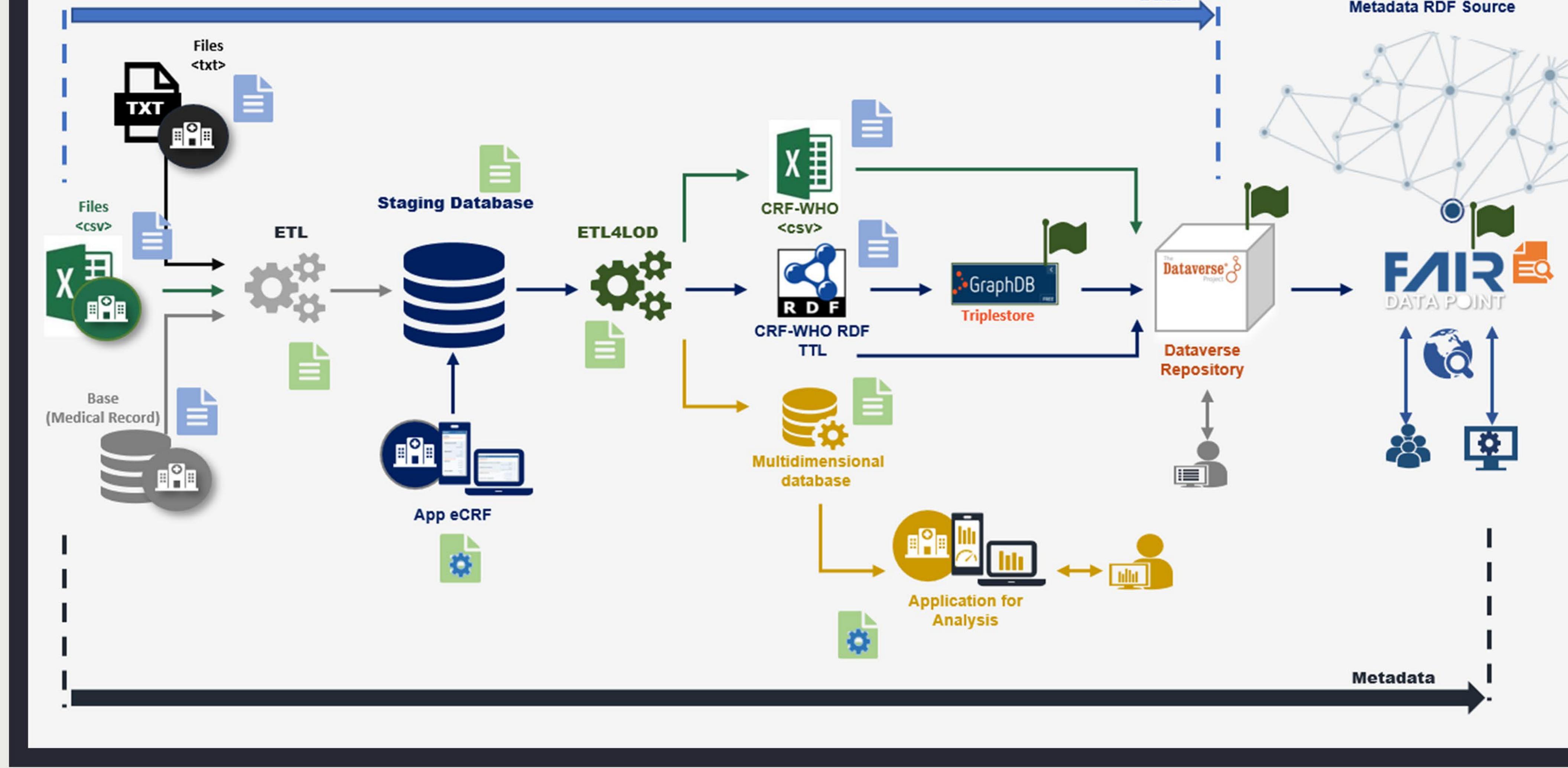
With the ongoing COVID-19 pandemic, a series of global research actions are being implemented to combat the virus and its effects, but also to create better support for more agile collaboration on future events. The Virus Outbreak Data Network (VODAN), this network was created under the urgent need to establish a federated data infrastructure to support the capture and use of data, following the FAIR Data Principles, not only during this pandemic but also on future infection disease outbreaks. It is aimed both to human and machine exploration, fostering reuse and reproducibility of scientific resources.

The VODAN Brazil (VODAN BR) project started the implementation of the network with a collaboration, collecting and treating anonymized patients data from COVID-19 cases, following the World Health Organization standard form, initially from two public hospitals. The poster addresses an general view of the VODAN BR project and the challenges encountered in stages of developing this generic and flexible infrastrucure supporting data and metadata life cycle. This infrastructure is to be part of the global VODAN network, allowing the reuse and exploration of associated data and metadata in a widely range of researchers.

## Participants



## VODAN BR Platform



## The VODAN BR Project

### Creation and Maintenance of the Support Database

Create and maintain questionnaire data, ontologies and internationalization



**Data Capture**  
Collect COVID-19 patient data



**Data Transformation (Ontology)**  
Transform data to LOD/CSV



### Publication in the VODAN BR Repository

Create and maintain dataset in Dataverse



**Publication in the FAIR Data Point**  
Create and Maintain the FDP VODAN BR

## Development Challenges

- » Create an extraction and collection strategy for the hererogeneous systems available at the hospital units.
- » Establish a staging relational database, following the World Health Organization form structure for data and metadata, enriched with a reference ontology and other associated standard vocabularies.

- » Set up local graph databases at each participating hospital.
- » Development of a metadata collection and registration cycle.
- » Create a workflow-based support for the FAIRification process, using the ETL4LOD tool.
- » Generate a repository and FAIR Data Points.

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