

CRIS2014

Current Research Information Systems

Combining VIVO and Google Scholar
data as sources for
CERIF Linked Data: a case in the
agricultural domain

Alberto Nogales, Miguel Angel Sicilia, Brigitte Jörg

Agenda

- Introduction
- Objective
- The component
- Use case
- Potential usage

Introduction

- Research objective: share knowledge with the community.
 - Projects funded publicly: public access to the information.
 - Project results: papers, books, case studies, etc are available on the Internet.
 - Big amount of information -> Need easy access
-

DEVELOPMENT OF STANDARDS AND PROJECTS

Introduction



CERIF: Format data model for describing the scientific ecosystem.

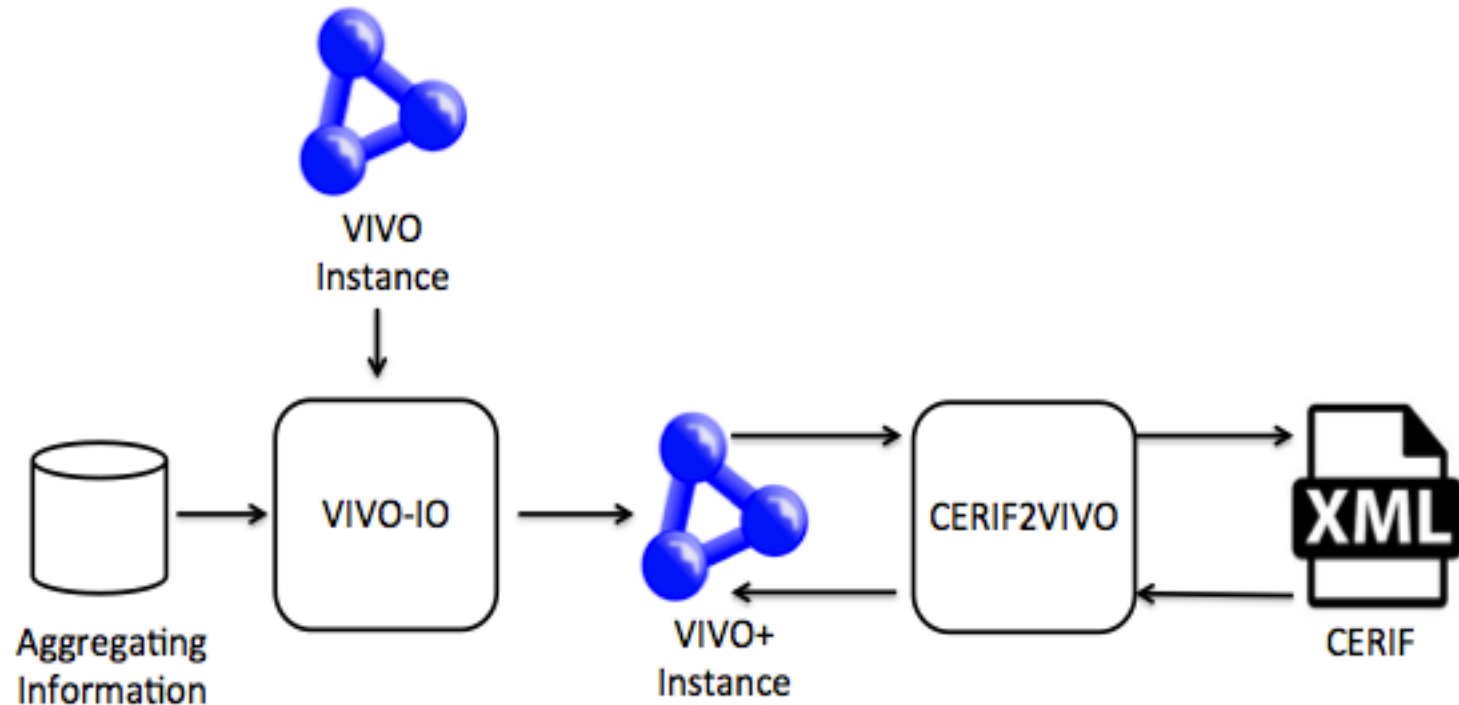
VIVO: Storing scientific knowledge and interchanging data between organizations.

Objective

agVIVO component -> Three sources information in two formats.

- 1) VIVO instance. New information aggregated automatically
- 2) Google Scholar. Retrieve new information to be added.
- 3) OpenAgris. Information to be searched in Google Scholar.
- 4) Formats: VIVO and CERIF.

Architecture



1



Adding new information to VIVO

VIVO-IO; A module developed in Java using Jena Apache.

- 1) Check there is a lack of information in VIVO instance.
- 2) Information in a database to be added.
- 3) Aggregate new information using Jena.

VIVO to CERIF and vice-versa

CERIF2VIVO; A module containing two XSL sheets.

- 1) Mappings based on Lezcano, Sicilia and Jörg (2012) and Lezcano et al (2013).
- 2) Two XSL stylesheets: VIVO->CERIF and CERIF->VIVO.

Mappings between entities

CERIF Table	VIVO Class
cfPers	foaf:Person
cfResPubl	bibo:Document
cfResPat	bibo:Patent
cfResProd	vivo:CaseStudy vivo:Dataset
cfFacil	vivo:Facility
cfSrv	vivo:Service

Mappings between properties

Table	Attribute	Class	Property
cfProj	cfURI	vivo:Project	vivo:webpage only vivo:URLLink
cfProj	cfAcro	vivo:Project	vivo:description only Literal
cfProj	cfStartDate	vivo:Project	vivo:dateTimeInterval only vivo:dateTimeInterval
cfProj	cfEndDate	vivo:Project	vivo:dateTimeInterval only vivo:dateTimeInterval
cfOrgUnit	cfAcro	foaf:Organization	vivo:abbreviation only Literal
cfOrgUnit	cfURI	foaf:Organization	vivo:webpage only vivo:URLLink

Use case

1) We have the information of a paper in VIVO.

Pathogenic microorganisms of concern to the dairy industry | Academic Article 

Overview

Time

Additional Document Info

View All

authors

[Boor, Kathryn Jean](#)

published in

[Dairy Food Environ. Sanit](#)

Use case

2) These paper is in OpenAgris and has extra information in Google Scholar.

Pathogenic microorganisms of concern to the dairy industry

 live

Boor, K.J. (Cornell University, Ithaca, NY.)

▼ Agrovoc Keywords

- Milk products
- Pathogens
- Food contamination
- Occupational hazards

▼ Dairy, food and environmental sanitation (Journal)

FREQUENCY: Monthly

START DATE: 1989

▼ Source:

Information Systems Division, National Agricultural Library

The National Agricultural Library is one of four national libraries of the United States, with locations in Beltsville, Maryland and Washington, D.C. It houses one of the world's largest and most accessible agr [...]

HOME PAGE: <http://www.nal.usda.gov/>

[CITAS] [Pathogenic microorganisms of concern to the dairy industry](#)

KJ Boor - Dairy, food and environmental sanitation: a publication ..., 1997 - agris.fao.org

... 1997). Pathogenic microorganisms of concern to the dairy industry. Boor, KJ (Cornell University, Ithaca, NY.). Date of publication, Nov 1997. AGRIS ... sr. -, Resistance of selected microbes against disinfection means in milk industry. ...

Citado por 21 Artículos relacionados Las 2 versiones Citar Más ▼

Use case

3) We are adding new information with VIVO-IO

```
<rdf:Description rdf:about="http://vivo.iu.edu/individual/n58fi2cbppeiv5so3vacaa29eeg">
  <rdf:type rdf:resource="http://purl.org/ontology/bibo/Article"/>
  <vivo:title>Pathogenic microorganisms of concern to the dairy industry</vivo:title>
  <bibo:cites rdf:resource="http://vivo.iu.edu/individual/nu91cut1f9cgah0iio0graimm6q"/>
</rdf:Description>
<rdf:Description rdf:about="http://vivo.iu.edu/individual/nu91cut1f9cgah0iio0graimm6q">
  <vivo:title>Multistate outbreak of listeriosis</vivo:title>
  <rdf:type rdf:resource="http://purl.org/ontology/bibo/Document"/>
</rdf:Description>
```

4) We can translate VIVO into CERIF. CERIF can also be transformed to CERIF-LD.

Potential usage



- Shared e-infrastructure, tools and services.
- Higher interoperability of data.
- Improved research data services.

Questions



email: alberto.nogales@uah.es

Code: <https://github.com/ieru/vivo-io>

<https://github.com/ieru/cerif2vivo>