

VIVO

Community Development

Aligning Efforts

VIVO Conference 2018

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Andrew Woods - DuraSpace



Vision for VIVO in the Scholarly Ecosystem

“... an **expressive ontology**, tools for managing the **ontology**, and a platform ... to **create and manage linked open data** for **scholarship and discovery**”.

“... faceted semantic search for **expert and opportunity finding**, rich semantic linking for **research discovery**, and **profiles** of people, organizations, grants, publications, courses, and much more.”

An Evolving Vision for VIVO

- Research profiles, but also...
- Research intelligence: management and aggregation
- A component in a larger scholarly ecosystem
 - Multiple systems and end user audiences
- How to provide flexibility for greater amount of use cases?

Challenges and Opportunities

- Many use-cases, many custom one-off solutions
- Instead: **Where/how can we work together?**
 - Architectural solutions
 - Collaboration
 - *Contributing back to the core product*
- **Community and code processes**
 - End-users, adopters, stakeholders, developers

References

- Australian National Data Service (ANDS): <https://www.ands.org.au/>
- Brown University: <https://vivo.brown.edu/>
- Combine: Nascent multi-institutional effort to combine data
- CU Experts: <https://experts.colorado.edu>
- Data Distribution API: <https://cul-it.github.io/vivo-data-distribution-api/>
- EarthCollab project: <https://earthcube.org/group/earthcollab>
- Jena Connect: <http://github.com/wcmc-its/vivo-import-data>
- New York Climate Change Science Clearinghouse (NYCCSC):
<https://www.nyclimatescience.org/>
- Product Evolution Taskforce:
<https://wiki.duraspace.org/display/VIVO/Product+Evolution+Task+Force>
- RIALTO (Stanford): <https://github.com/sul-dlss/rialto/wiki>
- Scholars @ Cornell: <https://scholars.cornell.edu/>
- UNAVCO: <https://connect.unavco.org/>
- VIVO Harvester: <https://github.com/vivo-project/VIVO-Harvester>

See also: VIVO Technical Initiatives: <http://bit.ly/2sutwTO>

VIVO: More than meets the eye

Institutional
Information

Data
processing



Display

Display/
Integration

RDF/Linked data
management

Ontology

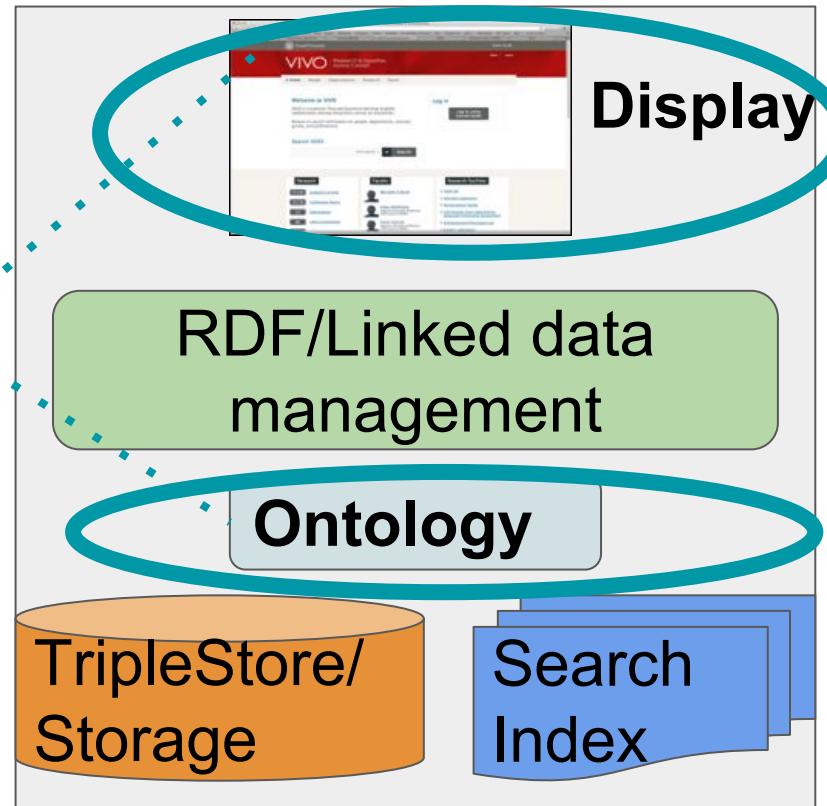
TripleStore/
Storage

Search
Index

Data export/
output

Initiatives and Explorations: Local customizations

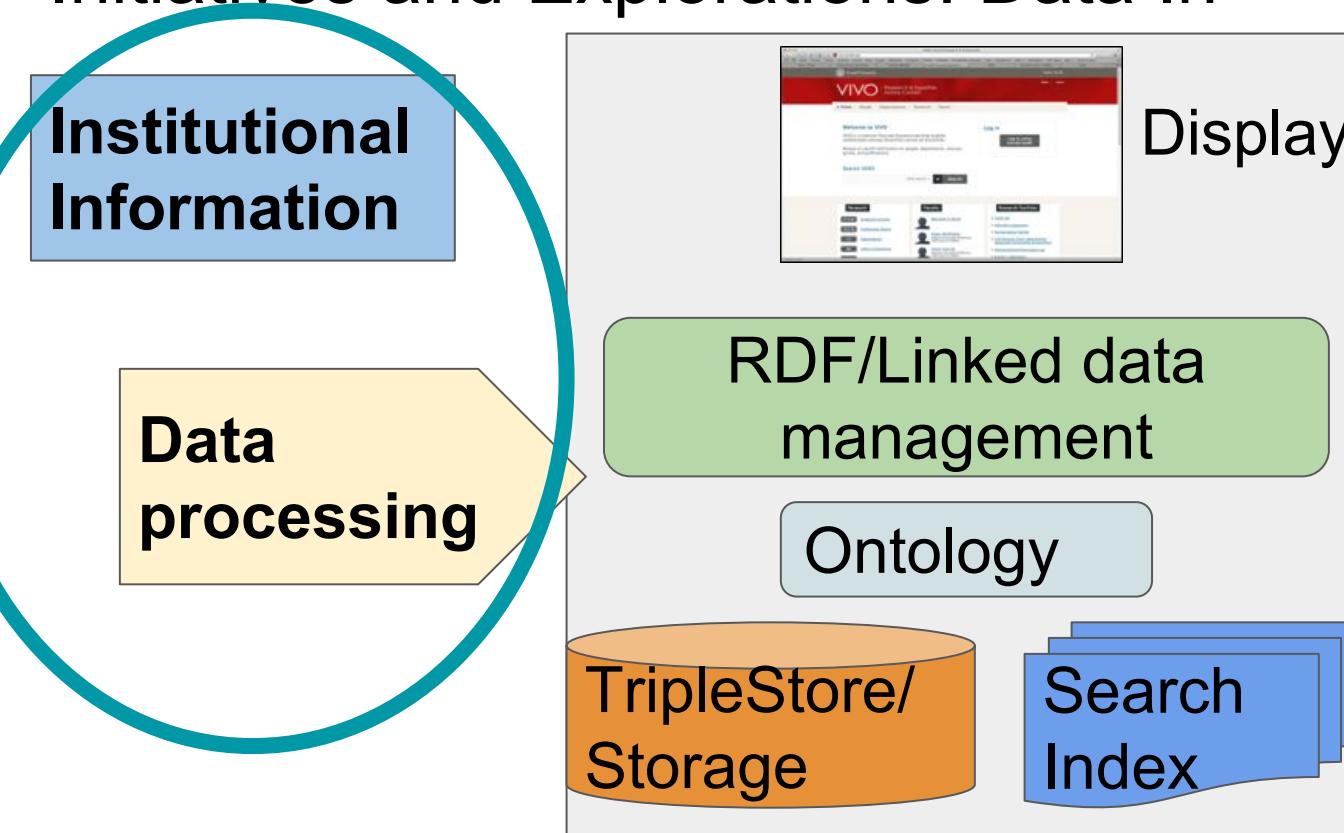
Customizations



Initiatives and Explorations: Local customizations

- Site-specific customizations
- Enabled by VIVO architecture
- Different display/theming
- Extensions to ontology
- *You know who you are*

Initiatives and Explorations: Data In



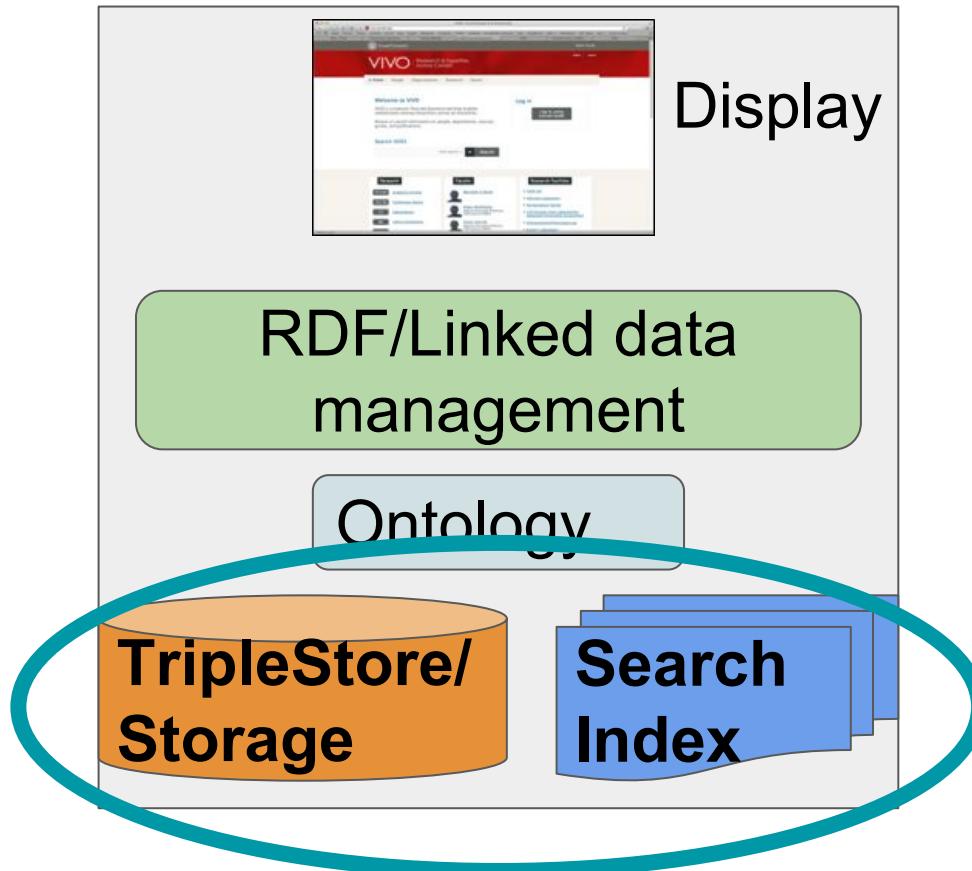
Initiatives and Explorations: Data In

- Streamlining mapping and ingest processes
- Examples:
 - **VIVO Harvester**
 - Processes with **OpenRefine/Karma**
 - **JenaConnect**
 - **Combine**

Initiatives and Explorations: Data In

- How do other systems relate to the data ingested into VIVO? (Symplectic, Pure, etc.)
- Mapping to ontology
- Performance: ingest, reasoning and inference, indexing
- Batch vs. updates through the interface

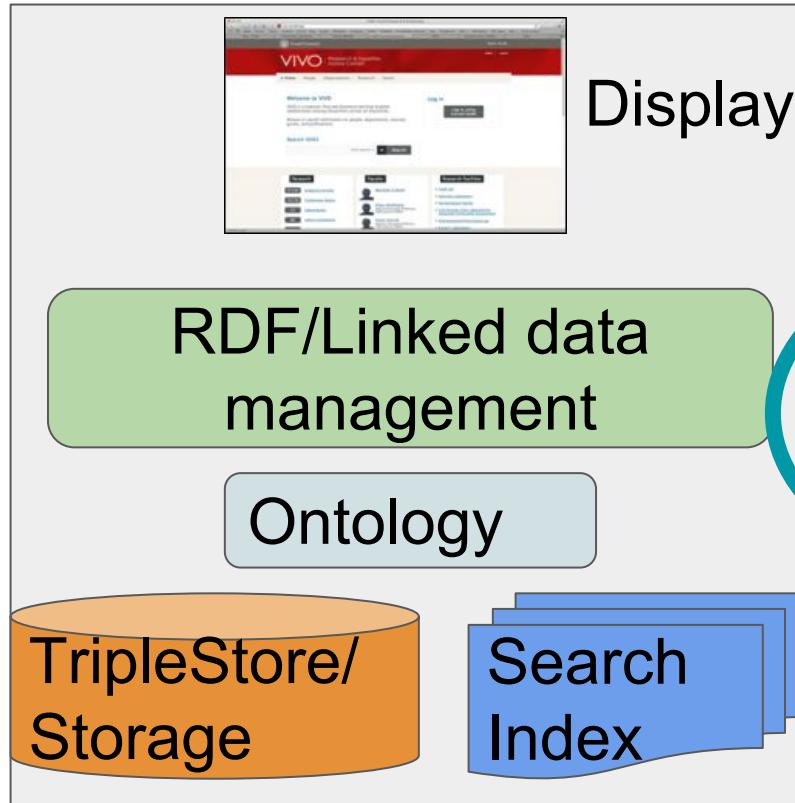
Initiatives and Explorations: Storage and search



Initiatives and Explorations: Storage and search

- Different search engine?
 - E.g. ElasticSearch: More nested records
- Different methods for storing the data?
 - TDB? PostgreSQL?: Performance, optimization
- Examples/explorations:
 - **CU Experts**
 - **UNAVCO**
 - **Product Evolution Task Force**
 - **Rialto (Stanford)**

Initiatives and Explorations: Data Out

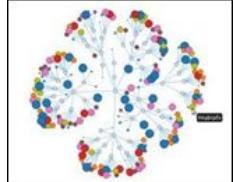


Display/
Integration

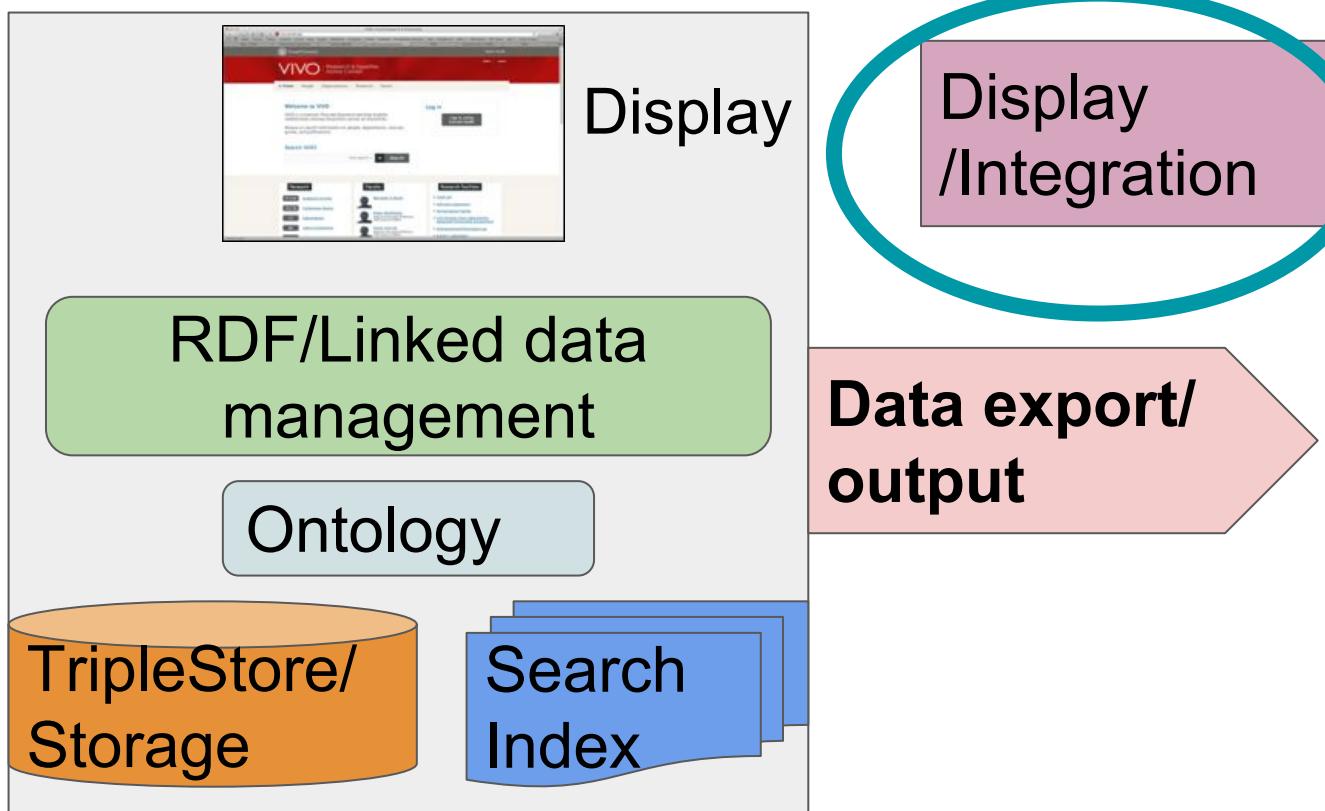
Data export/
output

Initiatives and Explorations: Data Out

- SPARQL API, Search index
- Extract data for visualizations and external display
- Examples
 - **Data Distribution API**
 - **NYCCSC** (pre-April 2018)
 - **EarthCollab**



Initiatives and Explorations: Display/front-ends



Initiatives and Explorations: Display/front-ends

- VIVO doesn't serve as user-facing front-end
- **Product Evolution task force**
 - Possibility: JavaScript framework-enabled front end
- Blacklight or Ruby on Rails: **Brown University, Rialto, NYCCSC**
 - Communicates with search index and/or RDF
- **Scholars @ Cornell:** Visualizations

Initiatives and Explorations: Information/Intelligence

- VIVO for bringing data and information together
- Not intended for manual editing or display
- Examples:
 - **ANDS-funded projects**
 - **Rialto**
- Ontology evolution
 - **Ontology task force**
 - **Product Evolution task force**

Local

- Innovation
- Customization
- Workarounds
- Organic



Core

- Evolution
- Maintenance
- Sustainability
- Managed

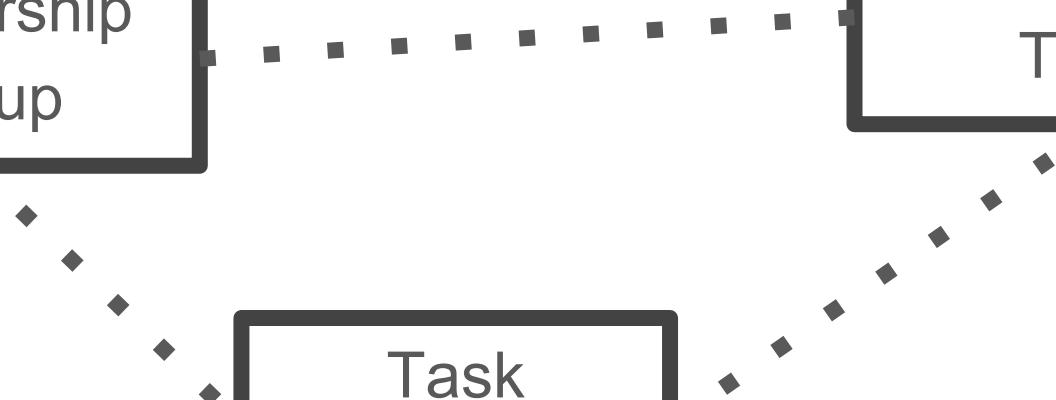
Common Focus
Coordination
Collaboration



Leadership
Group

Development
Team

Task
Forces



Leadership Group

Strategic Direction

Project Budget

Fundraising

In-kind Contributions





TEXAS A&
M
UNIVERSITY®



DARTMOUTH



The UNIVERSITY of OKLAHOMA



THE GEORGE
WASHINGTON
UNIVERSITY
WASHINGTON, DC

Task Forces

Exploration

Opportunities

- Ontology
- Product (Frontend) Evolution
- UI / Theming
- Governance
- Resources



<https://pixabay.com/en/wonder-woman-girl-super-superhero-2478971/>
<https://pixabay.com/en/batgirl-girl-super-superhero-hero-2478979/>
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VIVO Development Team

Committees

Contributors

Weekly Development calls (Tues @11am ET)

Bi-weekly Committer calls



VIVO Committers

[Jim Blake](#) - Cornell

[John Ferreira](#) - Cornell

[Benjamin Gross](#) - Clarivate Analytics

[Muhammad Javed](#) - Cornell

[Huda Khan](#) - Cornell

[Brian Lowe](#) - Ontocale

[Graham Triggs](#) - TIB Hannover

[Tim Worrall](#) - Cornell

<Your name here>

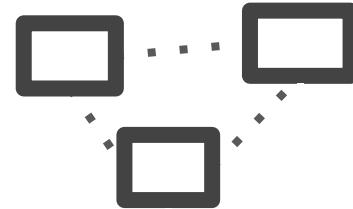
Aligning as a Community

Creating shared Roadmap

Coordinating across Efforts

Amplifying Stakeholder Voices

...Realizing the Vision



connect • share • discover

Stay in Touch

vivo-community@googlegroups.com

vivo-tech@googlegroups.com

<http://bit.ly/vivo-slack>

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Resources

<https://wiki.duraspace.org/display/VIVO/Task+Forces>

<https://wiki.duraspace.org/display/VIVO/Development+Interest+Group>

<https://wiki.duraspace.org/display/VIVO/VIVO+Project+Governance>

<https://wiki.duraspace.org/display/VIVO/Release+Testing+-+1.10.0>