Overview

• Introductions all around
• What is VIVO?
• VIVO as a semantic web application
• The VIVO community
• Case study – Duke University
• Case study – Colorado
• Implementation & building an open source community project
Instructors

• Jon Corson-Rikert
  – VIVO Core Development WG lead; Head of Mann Library Information Technology Services, Cornell University Library

• Brian Lowe
  – ISF/VIVO ontology WG co-lead; Semantic Applications Programmer, Cornell University Library

• Kristi Holmes
  – VIVO Engagement WG lead; Bioinformaticist, Becker Medical Library, Washington University School of Medicine

• Julia Trimmer
  – Manager, Faculty Data Systems & Analysis, Duke University

• Alex Viggio
  – VIVO Implementation WG lead; FIS Lead Developer, Faculty Affairs, University of Colorado-Boulder
What is VIVO?
What is VIVO?

• A semantic-web-based research and researcher discovery tool
  – People plus the research they do
• Publicly-visible information, across disciplines
  – For external as well as internal audiences
• An open, shared platform for connecting scholars, research communities, campuses, and countries using Linked Open Data
A brief VIVO history

2003-2005  First realization for the life sciences at Cornell, as a relational database
2006-2008  Expansion to all disciplines at Cornell, and conversion to Semantic Web
2009-2012  National Institutes of Health-sponsored VIVO: Enabling the National Networking of Scientists project transforms VIVO to a multi-institutional open source platform
2013-2014  VIVO incubator project with DuraSpace for open community development
Key VIVO principles

• Open software
• Open data
• Open ontology
• Open community
• Decentralized infrastructure
  – Local control
What does VIVO do?

• Integrates multiple sources of data
  – Systems of record
  – Faculty activity reporting
  – External sources (e.g., Scopus, PubMed, NIH RePORTER)

• Provides a review and editing interface
  – Single sign-on for self-editing or by proxy

• Provides integrated, filterable feeds to other websites
What does VIVO model?

• People and more
  – Organizations, grants, programs, projects, publications, events, facilities, and research resources

• Relationships among the above
  – Meaningful
  – Bidirectional
  – Navigable context

• Links to URIs elsewhere
  – Concepts, identifiers
  – People, places, organizations, events
Abawi, George Samuel | Professor

Positions

- Plant Pathology at Geneva, Professor

George S. Abawi is a professor of Plant Pathology and International Agriculture at Cornell University. He received his MSc. And Ph.D. degrees from Cornell. He was a Postdoctoral Fellow in Plant Nematology at Cornell from 1970 to 1972, after which he was appointed as a faculty member in the Department of Plant Pathology at the NYS Agric. Expt. Station, Cornell – Geneva. The major area of his research responsibility deals with Vegetable Pathology, with emphasis on the biology and the integr (... more)

Research Areas

plant pathology collaborative research area (CALS)
People and what they do
Co-Author Network  (GraphML File)

Profile

Riha, Susan Jean
Charles L. Pack Professor in t...
VIVO profile | Co-author network
132 Publication(s)
33 Co-author(s)
1980 First Publication
2010 Last Publication

Note: This information is based solely on publications which have been loaded into the VIVO system. This may only be a small sample of the person's total work.
Typical data sources

• HR – people, appointments
• Research administration – grants & contracts
• Registrar – courses
• Faculty reporting system(s)
  – publications, service, research areas, awards
• Events calendar
• Internal and external news
• External repositories – e.g., Pubmed, Scopus
Value for institutions

• Common data substrate
  – Public, granular and direct
  – Discovery via external and internal search engines
  – Available for reuse at many levels

• Distributed curation
  – E.g., affiliations beyond what HR system tracks
  – Data coordination across functional silos
  – Feeding changes back to systems of record
  – Direct linking across campuses

• Data that is visible gets fixed
Enter data once, use it many times
Overview

local program

4-H Beef Breeding Project at CCE Chautauqua

4-H Clothing and Textiles at CCE Chautauqua
995 projects

Mentor junior extension faculty in journal submission

2009 to 2012
Over the past two years, I have engaged a number of (7) EDI extension professionals in the writing of ten articles (Melissa Bjelland, Arun Karpur, Sarah von Schrader, Thomas Golden, Ray Cebula, Seukong Pi, Carol Blessing), as well supported Melissa Bjelland and Doug Webber in working on two articles to complete responsibilities on two grants that I oversee.

Nutritional needs of the developing chick embryo

2007 to 2008
Eggs contain approximately 200 mg of cholesterol. This project will determine how much of this cholesterol is needed for chick embryo development and will determine the consequences of cholesterol deficiency for the developing embryo.

CCE educators lend garden-based learning knowledge to Cornell students

2008 to 2009
Cornell Cooperative Extension educators increasingly find it challenging to make meaningful connections in a “too busy” world. In addition, they rarely have opportunities to engage with Cornell undergraduate. This is unfortunate for the educators, who benefit from the innovative engagement with the students, and for the students, who benefit from the real world connections and mentoring opportunities offered by interacting with educators.
CALS Research and Impact
Information about CALS research projects and their impact throughout the world

International and domestic locations where CALS research focuses

International

280 projects focusing on 142 countries
Atmospheric & space physics
Flight Equipment

Space Craft

Cassini Orbiter

POlar

Solar Dynamics Observatory (SDO)

Solar Mesosphere Explorer (SME)

Solar Radiation and Climate Experiment (SORCE)

Student Nitric Oxide Explorer (SNOE)
<table>
<thead>
<tr>
<th>Collection</th>
<th>Datasets</th>
<th>Citations</th>
<th>Publication Links</th>
</tr>
</thead>
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<tr>
<td>Curated Ecology Datasets</td>
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<td>4</td>
<td>4</td>
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<tr>
<td>Institutional Philosophy Datasets</td>
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<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Curated Biology Datasets</td>
<td>1</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td>Entomology Datasets</td>
<td>14</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Analytics and Discovery Datasets</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
Archaeological Findings

Cited 14 times
Linked to 23 publications
Related datasets 2
Part of 2 projects 9 collections

Identifier
DOI: 123234

Authors
Hardy, Thomas
Jehan Sorour

Contributors
Dickens, Charles

Description

Cite this dataset:
Why Cite?
Thomas, Hardy,
URL: www.urlsample.com

Rights and Restrictions:
Rights and restrictions content.
1. VIVO 2003-
   Ithaca, N.Y. : Cornell University Library, 2003-
   English
   Online

2. In vivo
   In vivo (Norwalk, Conn.)
   Multiple locations

3. Dinheiro Vivo
   Dinheiro Vivo (Online)
   Journal. [S.l.]: [s.n.]
   Online

   General neurochemical techniques.
Weill Cornell research reporting

- How has the number of publications co-authored with other institutions changed year to year?
Papers created with federal funding but not deposited in PubMed Central

Federal law mandates publications resulting from NIH-funded research must be deposited in the open access archives PubMed Central within twelve months... Read more
Questions from Weill Cornell

• Leadership
  – Which publications produced in the last quarter are by our authors with first or last author rank?

• Collaboration
  – Which PIs have the most collaborations based on grant support?
  – How has the number of publications co-authored with other institutions changed year to year?

• Policy
  – Who are our institution’s open access key opinion leaders?

• Impact
  – In any given year, which papers have the most incoming citations?
  – Which researchers have published the most research articles within a given set of journals in the past 5 years?

• Compliance
  – Which papers that have received federal funding are not deposited in PubMed Central?
Policy issues

- Dirty data
- Lack even of common definitions of organizational structure or who’s faculty
- Data ownership
- Opt-in vs. opt-out and the many dimensions of privacy
- Short-term “go it alone” vs. common good
Brian Lowe
Semantic Applications Programmer
Mann Library, Cornell University
bjl23@cornell.edu

VIVO as a Semantic Web Application
The Semantic Web

- Turn data into a web of simple links
- Use *ontology* to explain *how* things are linked
- Use *reasoning* to add new links automatically
- Be flexible and extensible
The VIVO ontology

• Describe people, organizations, and research resources in the *process* of doing research
• Stay discipline neutral
• Use existing scientific domain terminology to describe *content* of research
CTSAconnect and the ISF

- VIVO and eagle-i project for research resources have unified their ontologies and extended both into the clinical domain.
- The unified ontology is known as the Integrated Semantic Framework, or ISF.
- VIVO 1.6 and eagle-i’s next release use the ISF.
- This ISF is modular to allow selective data population based on local needs.
What is Linked Open Data?

• Data
  – Structured information, not just documents with text
  – A common, simple format

• Open
  – Available, visible, mine-able
  – Anyone can post, consume, and reuse

• Linked
  – Directly by reference
  – Indirectly via common references and inference
Dr. Conlon is Associate CIO for IT Architecture, interim Director of Biomedical Informatics in the Associate Director of the university’s Clinical and Translational Science Institute, and Principal Investigator of National Networking of Scientists. His responsibilities include development of academic biomedical integration of research and clinical information resources as well as strategic planning for university. Previously Dr. Conlon served as Chief Information Officer of the University of Florida Health Science Center network and video services, desktop support, media and graphics, application development, technical planning and distance learning. He earned his Ph.D. degree in Statistics from the University of California Berkeley in 1990. His Bachelor’s degrees in Mathematics and Economics from Bucknell University, and is the author of over 150 publications and presentations.
Linked data in AGRIS

Length-frequency compositions and weight-length relations for bigeye tuna, yellowfin tuna, and albacore (Perciformes: Scombrinae) in the Atlantic, Indian, and eastern Pacific oceans [2008]

Zhou, Y.
Zhu, Q.
Dai, X., Tuna Fishery Technical Working Group of China, Shanghai, China
Xu, L., Shanghai Ocean University, Shanghai (China), College of Marine Sciences

Abstract:
Bigeye tuna, Thunnus obesus (Lowe, 1839); yellowfin tuna, Thunnus albacares (Bonnaterre, 1788); and albacore, Thunnus alalunga (Bonnaterre, 1788), are very important species for world fisheries. The weight-length relations (WLRs) of the three species were studied using commonly accepted methodology. Significant differences can be found from the fork length distributions and the WLRs of the above 3 tuna species and the relations of gilled-gutted and whole weight of bigeye and yellowfin tunas collected from the Atlantic, Indian, and Eastern Pacific Oceans. Significant differences of fork length distributions can be found for bigeye tuna, yellowfin tuna, and albacore from the three areas. The data collected will be useful for the fisheries management of the three species studied.

Read the article: http://www.aip.pj.pl/

Search augmented by linked data

Maize based cropping systems for sustainable agriculture in semi-arid areas of Ethiopia
Habtamu Adnew; Reddy, M.S.; Barbier Alsons; Yildiz Mohamed; M., Adala (Abdi) (Ethiopia)

In present circumstances agriculture use of appropriate cropping systems enable farmers to use natural resources efficiently. Lack of appropriate cropping systems in suit maize production was identified as one of the major production constraints in the semi-arid areas of Ethiopia. To determine the problem the possibility of intercropping, alley cropping or allel cropping of maize with efficient legumes, and development of appropriate crop rotation system for improved maize production in the area...

In AGRIS collection since: 1997

Pigeonpea intercropping in maize based cropping systems
Kamarso, S.; Piyu, C. (Bale Petroleum Tanaman Pangan Melang (Indonesia))

In physiologie area the predominant maize based "nqala" (dry land) cropping system is a rainy season maize monocrop followed by a maize-lablab bean intercrop. This maize in the maced-dry season is harvested shortly after the end of the rainy rainy season. The lab lab bean grows through the dry season, utilizing residual soil moisture and the vegetal lake vine. Pigeonpea could be used in a similar way to lab lab bean to utilize dry season soil moisture. A reacted soil field a ...

In AGRIS collection since: 1994

Breeding of speciality maize for industrial purposes
Pajic, Z.; Makse Research Institute Zemun Polje, Belgrade - Zemun (Serbia); Radiocarbon, M; Makse Research Institute Zemun Polje, Belgrade - Zemun (Serbia); Filipkova, M.; Makse Research Institute Zemun Polje, Belgrade - Zemun (Serbia); Tomicic, S.; Institute for National Plant Research Dr Josif Pelovic, Belgrade (Serbia); Brnic, J.; Makse Research Institute Zemun Polje, Belgrade - Zemun (Serbia)

The breeding programme on specialty maize with specific traits was established at the Makse Research Institute Zemun Polje, Belgrade. - Zemun (Serbia) several decades ago. The initial materials were collected, new methods applying to breeding of specialty maize, i.e. popcorn maize, sweet maize and white-enriched maize, were introduced. The aim was to enhance and improve variability of the initial material for breeding these three types of maize. Then, inbred lines of good combining abilities were ... In AGRIS collection since: 2010

Determination of plant population and planting time in maize (Zea mays L) and climbing bean (Phaselous vulgaris L) intercropping system
Nagosh Gudula (Bako Agricultural Research Center, Bako (Ethiopia)); Omida Dasa (Bako Agricultural Research Center, Bako (Ethiopia)); Sologo Gabreychu (Bako Agricultural Research Center, Bako (Ethiopia))

The experiment was conducted at Bako research center in 1994 and 1995 cropping seasons. The objectives of the study were to determine agronomically optimum plant population of maize and climbing bean in an intercropping system, and to determine appropriate planting time of climbing bean to be grown with maize for high yield system productivity. Experimental combinations of three maize plant populations (60, 75 and 90% of optimum planting densities obtained by planting 5 seeds per hill spaced at 10 ...

In AGRIS collection since: 2005

Effects of groundnut and green manure legumes intercropped to maize on yield of the intercrop maize, weeds and moisture of black clay soil
Amerel Suseman; Jareng Rongmang; Sompong Thongthong (Kasetatwad Univ., Bangkok (Thailand); Faculty of Agriculture. Department of Soil Science)

Field experiment was conducted on the sticky soil series (Typic Calciudix) in a farmer's field in Pakchong, Nakorn Ratcachara, to assess effects of intercropping groundnut and green manure legumes to maize on the yields of the intercrop maize, weed incidence and moisture status of the soil, so an effort to find green manure legumes that could be intercropped to maize with minimum detrimental effect on the intercrop maize and could continue to grow during the为期 period after harvesting of the maize...

In AGRIS collection since: 2005

Search augmented by linked data

http://agris.fao.org/openagris/searchIndex.do?query=maize
VIVO data indexed for search

Linked Open Data
A demonstration of multi-institutional search

A group of seven top research institutions dedicated to facilitating global research efforts recognize the challenges faced by researchers in uncovering parallel and related efforts, and have decided to join forces in standardizing the way institutional data gets published. Each institution uses the VIVO software to manage and publish up-to-date information about researchers and their activities.

This website provides a working example of how a multi-institutional search functions, allowing you to search across all seven partner institutions and across all disciplines to find people and information that could dramatically expand your research reach.
Eckenrode, John
... BUILDING INFRASTRUCTURE AND CAPACITY: ARRA FUNDING NATIONAL DATA ARCHIVE ON CHILD ABUSE AND NEGLECT AT CORNELL UNIVERSITY AGE-27 FOLLOW-UP OF EARLY ...
Cornell University

Nakashiki, John A
... Fifth Judicial Circuit Child Abuse Prevention Project (CAPP) District 3 CAPP Program District XII North Florida Area Health Education Centers Program ...
University of Florida

Nunno, Michael A
... and Understanding Abusive Families, Child Abuse and Neglect An International Journal, Children and Society, Protecting Children, Children and Youth Services Review ...
Cornell University

Thomas, Margaret Gilboy
... PROJECT CHILD AND SPOUSE ABUSE PREVENTION: UNITED STATES MARINE CORPS ARMY COMMUNITY SERVICES PROGRAM ACCOUNTABILITY DOD EXCEPTIONAL FAMILY MEMBER PROGRAM ...
Cornell University
Searchlight is a small app that automatically shows you VIVO profiles related to the page you’re reading.

http://about.vivosearchlight.org
Multi-institutional scenarios

• Multiple campuses of one university
• University and federal lab connections
  – E.g., Colorado ties with regional federal labs
• Consortia
  – 60 NIH Clinical & Translational Science Awards adopted VIVO as an ontology standard in 2011
• International
  – 13 Netherlands universities and the National Library
  – AgriVIVO.net
What is CTSAsearch?

CTSADsearch is a prototype demonstrating federated search using Linked Open Data published by members of the CTSA Consortium and other interested parties. To try it out, use the form below or click on the "CTSA Search" entry in the menu on the left to see a ranked list of matching investigators. Use the second form or click on the "CTSA Map" entry in the menu to visualize coauthorship amongst the matching investigators.

Search for Investigators at Multiple Institutions

- Text only
- Text and UMLS concepts

Map Coauthorship for Investigators at Multiple Institutions

- Text only
- Text and UMLS concepts

Current Status

- Total persons indexed: 72,711
- Total publications by those persons indexed as part of their profile: 1,129,795
- The harvesting times listed below are the times required to interrogate the respective SPARQL endpoints and cache the results locally at Iowa.

<table>
<thead>
<tr>
<th>Currently Harvested Sites</th>
<th>Platform</th>
<th>Harvesting Time</th>
</tr>
</thead>
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<tr>
<td>Cornell University</td>
<td>VIVO</td>
<td>38:05</td>
</tr>
<tr>
<td>Harvard University</td>
<td>Profiles</td>
<td>1:11:33</td>
</tr>
<tr>
<td>Indiana University</td>
<td>Scival Experts and VIVO</td>
<td>25:39</td>
</tr>
<tr>
<td>Northwestern University</td>
<td>Scival Experts and VIVO</td>
<td>3:50:26</td>
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<tr>
<td>Oregon Health Science University</td>
<td>Scival Experts</td>
<td>*</td>
</tr>
<tr>
<td>University of California, Davis</td>
<td>Scival Experts and VIVO</td>
<td>1:05:48</td>
</tr>
<tr>
<td>University of California, San Francisco</td>
<td>Profiles</td>
<td>*</td>
</tr>
<tr>
<td>University of Florida</td>
<td>VIVO</td>
<td>57:05</td>
</tr>
<tr>
<td>University of Iowa</td>
<td>Loki</td>
<td>8:11</td>
</tr>
</tbody>
</table>

Note: sites in italics are currently harvested by means other than SPARQL queries on LOD.
Benefits across institutions

• Sharing experience provides clarity and new ideas
• Incentives from sharing development, tools, customizations
• Potential data-level connectivity
  – Research is happening increasingly in teams that span institutions
  – Meeting the needs of short and long-term virtual organizations
International engagement

VIVO joins CASRAI in advancing research interoperability

Posted by Asha Law on Mon, 2012-04-23 09:18

The Leaders of the VIVO Project team (VIVO) and the Consortia Advancing Standards in Research Administration Information (CASRAI) are today announcing a collaboration to advance a common global approach to research interoperability.

VIVO is an open source ontology and software system designed at Cornell University for researchers and used in many universities in the USA that has attracted interest more widely internationally. It is based on the Semantic Web / Linked Open Data
International engagement

News Release

Strategic partnership of euroCRIS and VIVO
23 November 2011   euroCRIS

euroCRIS, a not-for-profit scientific association registered in the Netherlands, and the leaders of the project team of VIVO, an open source Semantic Web software application originally developed at Cornell University, have entered into a strategic partnership.

euroCRIS (www.eurocris.org) is furthering the implementation and linking of Current Research Information Systems (CRIS) based on the Common European Research Information Format (CERIF) - commonly indicated with the acronym CERIF-CRIS - and promotes best practice in CRISs, spanning the field from raw experimental and simulated data through research management systems to research publications.
AgriVIVO is a search portal built to facilitate connections between all actors in the agricultural field, bridging across separately hosted directories and online communities. This is a prototype.

You can search for people, organizations and events. Read more on how to have data included in AgriVIVO. Read our new F.A.Q. and our terms of use.

Last import date: 12/07/2013 - Next import: beginning of August 2013
Hands on:

VIVO & linked data
Hands on: VIVO & linked data

Learning about VIVO adopters
• Browse any of the publicly available VIVO implementations to compare interfaces, branding, and unique features
• Browse the VIVO Map on our wiki
• Visit vivo.vivoweb.org (ask us for a login)

Multi-institutional search
• Experiment with vivosearch.org
• Try Polyglot, a search across multiple NIH Clinical and Translational Research Awards by Dr. David Eichmann of the University of Iowa

Understanding Linked Open Data (LOD) and basic SPARQL queries
• Exercise: Finding VIVO Data with the University of Florida’s public SPARQL endpoint
Kristi Holmes, VIVO Outreach Lead
Bioinformaticist
Becker Medical Library, Washington University
kristi@vivoweb.org

The VIVO Community
VIVO/DuraSpace Partnership

- DuraSpace is a not-for-profit organization supporting the DSpace and Fedora repositories
- Proven track record of managing community developed open source projects
- Two-year initial startup period
- Serves as the open source community home for ISF/VIVO ontology, software, tools, and engagement in eScience, research networking, and other initiatives
The VIVO community worldwide
VIVO community in North America
Where to start?

• Assessing whether VIVO is a good fit for your institution or virtual organization is more about your goals than the technology.

• Fundamentally, it’s about understanding your needs, VIVO’s fit with those needs, and your capacity to sustain the effort.
Important indicators

• Do you have institutional sponsors?
  – Starting as a skunk works project is okay but not the best recipe for long-term success

• Does VIVO align with a key institutional initiative?
  – Strategic reinvestment, new academic programs, new senior hires needing information

• Can you marshal resources?
It takes a network

- VIVO is cross-functional
  - Policy, communications, research, library
  - Multiple sources of data
- Requires stakeholder engagement
- VIVO needs to be transparent and fit the research/scholarship culture
  - Not just an “administrative thing”
- It helps to have strong project management
  - It’s usually obvious whether it’s there
Be realistic

- Small, successful pilots targeting one or two constituencies can build momentum
  - Relates closely to CTSA goals but there are equally dynamic initiatives in earth & atmospheric sciences, social sciences, and humanities

- Timelines must allow for ramping up people and technology
Think sustainability

• Loss leader efforts are tempting but if they can’t be sustained may backfire
  – E.g., entering a lot of data on behalf of people with no clear update path

• Work with data stewards
  – First, to get access to data you need (public data)
  – To help them better meet your needs via improved APIs or web services
  – To alert them to data issues you may discover
  – VIVO is adept at making problems in source data visible
Reach out

• Interview researchers to learn what they need and want
  – Especially up and coming people building a reputation and more interested in strong online presence

• Create and use an advisory board

• Create a support network
  – Duke has “power users”
  – Provide materials and training
Use the VIVO community

• We’re approachable
• Someone very likely has encountered a similar question or issue before
• Your ideas will be welcome
Use and contribute to the VIVO community resources!

- Wiki
- Listservs
- Regular phone calls
- Attend VIVO events
- Develop local interest groups (e.g., NYC-area sites)

https://wiki.duraspace.org/display/VIVO
Collaborations – ORCID

• Open Researcher and Contributor ID
  – Attribution for works of any type

• ORCID and VIVO
  – ORCID is an attribute in a VIVO profile
  – Tools are being developed for submission of researcher registrations from VIVO

http://orcid.org
For more information

vivoweb.org, vivoweb.org/blog

wiki.duraspace.org/display/VIVO

linkedin.com/groups/VIVO-connect-share-discover

facebook.com/VIVOcollaboration

github.com/vivo-project

@VIVOcollab
Julia Trimmer
Manager, Faculty Data Systems and Analysis
Office of the Provost
julia.trimmer@duke.edu

Case Study – Scholars@Duke
VIVO at Duke

- Project team under Provost’s Office
- Developers in University IT group
- Elements team in Library
- Currently: 3,500 faculty in 29 departments and centers, 100K pubs
- By Dec: adding 2,100 faculty in 16 schools and institutes, 60K pubs
- Replacing two legacy systems
Data Sources

- DukeSpace Open Access Repository
- Manual entry
- Harvested from bibliographic sources
- Legacy
  - FReD
  - FDS
- Others
  - PubMed
  - Google Books
  - arXiv
  - CiNii
  - DBLP
  - Mendeley
  - EndNote
  - RefWorks
  - BibTex

Hub (vivo)

Institutional data

APT (FDR) grants (SPS) courses (PeopleSoft) others later

Overview, keywords, more
Scholars@Duke publications

Harvest
• Source of articles and keywords
• Identifies authors
• Works well in STEM fields

Manage
• Harvests from REACH NC
• Adds other pubs
• Links to full text publications
• Private profiles

Display
• Publication list displayed on profile
• Profile data can be re-purposed
• Public profiles
Rollout Plan

- School of Medicine: May 13
- Business, Environment, Engineering, Nursing: July 15
- Arts & Sciences, Divinity, Law, Public Policy: October?
- Faculty Annual Reporting tool: 2014
Scholars@Duke

Scholars@Duke is a hub that brings together the research and teaching activities of all Duke faculty members. Information about faculty comes from institutional and public data sources, gathered by a suite of tools. Scholars@Duke includes an expertise network, web profiles, and an archive of publications.

Based on VIVO, the research-focused discovery tool, Scholars@Duke helps local and global communities connect to Duke scholarship.
Organizations

Duke University
SCHOLARS@DUKE

Schools and Institutes
Select an organization to see the people and grants. Click the plus sign to display the organizations within schools.

- Divinity School
- Fuqua School of Business
- Nicholas School of the Environment
- Pratt School of Engineering
- Sanford School of Public Policy
- School of Law
- School of Medicine
- School of Nursing
- Trinity College of Arts & Sciences
- University Institutes and Centers
Michael Louis Platt
Professor of Neurobiology, with tenure

Our lab tries to understand how the brain makes decisions. We are particularly interested in the biological mechanisms that allow people and other animals to make decisions when the environment is ambiguous or complicated by the presence of other individuals. We use a broad array of techniques, including single neuron recordings, microstimulation, neuropharmacology, eye tracking, brain imaging, and genomics to answer these questions. Our work is motivated by ethology, evolutionary biology (... more)

Appointments and Affiliations
- Professor of Neurobiology, with tenure, Neurobiology, Basic Science Departments 2010 -
- Professor in the Department of Evolutionary Anthropology and Anatomy, Evolutionary Anthropology, Trinity College of Arts & Sciences 2010 -
- Professor in the Department of Psychology and Neuroscience, Psychology and Neuroscience, Trinity College of Arts & Sciences 2010 -
- Director of the Duke Institute for Brain Sciences, Duke Institute for Brain Sciences, University Institutes and Centers 2011 - 2017
- Director of the Center for Cognitive Neuroscience, Duke Institute for Brain Sciences, University Institutes and Centers 2009 - 2014

Contact Information
8243F LSRC Building, Center for Cognitive Neuroscience, Durham, NC 27708
Box 90999, Center for Cognitive Neuroscience, Durham, NC 27708
Profile Page, part 2
Widget Example
Support for Scholars@Duke

• Small army of “power users”
• First level of support for faculty
• Liaisons for issues or problems
• Support page lists power users plus learning and support materials
Exploration:

Will VIVO map to SciENCV?
SciENcv
Science Experts Network Curriculum Vitae
Mission:
Create a researcher profile system for all individuals who apply for, receive or are associated with research investments from federal agencies, in order to:

- Eliminate the need to repeatedly enter biosketch information and therefore reduce the administrative burden associated with federal grant submission and reporting requirements
- Provide access to a researcher-claimed data repository with information on expertise, employment, education, and professional accomplishments
- Allow researchers to describe their scientific contributions in their own language.

Who We Are:
The Federal Demonstration Partnership (FDP), an association of academic research institutions and federal agencies, is developing the requirements for the SciENcv platform in concert with an Interagency Workgroup that operates under the NSTC’s Research Business Models and Science of Science Policy Committees. The SciENcv project is closely connected to the STAR METRICS program. The underlying data model is being built by the National Center of Biotechnology Information (NCBI) at the National Institutes of Health (NIH) in collaboration with FDP and the Department of Defense, the Department of Energy, the Environmental Protection Agency, the National Science Foundation and the United States Department of Agriculture.

Most importantly, the development of the SciENcv platform will be based on input from the broader research community.

Guiding Principles:

- Any researcher may register in the system (i.e., no criteria for registration)
- Profile data will be owned by the researcher
- Researchers will control which data elements the system makes publicly available
- Researchers will be able to auto-populate their profile from existing data sources.
- Researchers will be able to augment and modify information in the system
- Profile data will be available to federal agencies and if desired by the researcher - to the public
- Federal agencies will be encouraged to use profile data in lieu of biosketches and to pre-populate forms (e.g., grant applications and progress reports) submitted by the researchers
SciENCV is live for testing

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**NAME**  [Edit]  
Corson-Rikert, Jonathan

**ORCID**  
0000-0002-2017-9698

**EDUCATION/TRAINING**  [Show/hide entries]  
(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

<table>
<thead>
<tr>
<th>INSTITUTION AND LOCATION</th>
<th>DEGREE (if applicable)</th>
<th>MM/YY</th>
<th>FIELD OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvard University, Cambridge, MA, USA</td>
<td>BACHELOR OF ARTS</td>
<td>06 / 73</td>
<td>Visual and Environmental Studies</td>
</tr>
</tbody>
</table>

.add another degree/training

**A. PERSONAL STATEMENT**  [Edit statement]  
You have not yet provided a personal statement. Please create one.

**B. POSITIONS AND HONORS**

**Positions and Employment**  [Show/hide entries]  
2006  
Head of Information Technology Services, Cornell University, Cornell University Library, Albert R. Mann Library, Ithaca, NY, USA

.add another entry
Exploration:

Modeling the Humanities
Desired humanities work display
Roles and relationships

Role focused
(roles important to nature of relationship to a process)
Entity page for artistic work

Faculty page showing roles in artistic works
Case Study – VIVO@CU Boulder
VIVO at CU-Boulder

- Project led by Faculty Information System (FIS) team in the Office of Faculty Affairs
- 1 domain expert FTE, 2.5 developer FTEs, <0.5 system admin FTE
- Original developers and IT group had Java and SQL/RDBMS expertise, but no prior Semantic Web work experience
- Partner with campus IT Managed Services group for web and database hosting
- Reuse existing FIS database and web servers
CU-Boulder Rollout

- Demos for CU-Boulder Provost, VC of Research and Dean of the Graduate School in late 2010
- Implementation started in January 2011
- Initial campus launch in April 2011
- Public WWW launch in September 2012
- Current status
  - Covers 64 academic units in seven schools and colleges, as well as the libraries, 11 research institutes and more than 40 non-academic units
  - 1,750+ profiles updated twice a week
  - No direct edits, no publications or grants data yet
- Publications ingest project starting Summer 2013
CU-Boulder FIS Overview

from VIVO: A Semantic Approach to Scholarly Networking and Discovery, Figure 4.1
http://www.morganclaypool.com/doi/abs/10.2200/S00428ED1V01Y201207WBE002
Welcome to VIVO CU-Boulder
VIVO is a research and expertise discovery tool that enables collaboration among researchers across all disciplines. Browse or search information on CU-Boulder people and research.

Search VIVO

For Faculty
Need to update your faculty profile? Click here to find out how.

A Celebration of Faculty Achievement
Faculty Affairs is pleased to recognize CU-Boulder's faculty for their important work. This annual publication features awards at the campus level and beyond.

Cox, Jeffrey N
Professor and Associate Vice Chancellor for Faculty Affairs

Positions
Professor, Humanities
Assoc Vice Chancellor, Academic Affairs
Professor, English

Research Areas
English Language/Literature
Humanities Planning/Policy
Language and/or Literature, Comparative Literature
Language and/or Literature, Drama
Language and/or Literature, Poetry
Language and/or Literature, Romantic
Literary Criticism
Literary History

Research
keywords
romanticism, British literature, French literature, drama, poetry, comparative literature, cultural studies, literary theory, literary history, literary criticism
VIVO CU-Boulder About Page

About VIVO CU-Boulder

Learn how VIVO enables (SMALL CHANGE) discovery >>

Who's Included in VIVO CU-Boulder?
Most CU-Boulder faculty are included >>

How to Update VIVO Profile Data
For faculty - quick tips on how to add a photo, research areas and more >>

How VIVO Supports the Mission of the Boulder Campus
Collaboration, connections, vision. Get a sense of VIVO CU-Boulder and the big picture >>

Features List and Project Plan
See what's in store as VIVO grows >>

Known Bugs and Technical Issues
Nothing's perfect. Here's what we're working on >>

About VIVO CU-Boulder

"The VIVO National Network enables the discovery of researchers across institutions. Participants in the network include institutions with local installations of VIVO or those with research discovery and profiling applications that can provide semantic web-compliant data. The information accessible through VIVO's search and browse capability will therefore reside and be controlled locally, within institutional VIVOs or other semantic web-compliant applications.

VIVO is an open source semantic web application originally developed and implemented at Cornell. When installed and populated with content at an institution, it enables the discovery of research and scholarship across disciplines at that..."
Regional Linked Data Efforts

Host institution of 2012 and 2013 VIVO Implementation Fests
http://2013vivoimplementationfest.sched.org
CU-Boulder Lessons Learned

• An incremental, value focused approach works for VIVO implementation
• Address faculty concerns as a priority
  – Limit launch to campus users to allow for review
• Data quality
  – All data requires clean up before public display
  – FIS VIVO Curation Module
• Building the campus initiative with internal PR
  – Address perceived competition with similar efforts
• VIVO’s low cost – harder to justify resource needs
  – A small, entrepreneurial team worked for us
• VIVO builds conversation about Big Data, Linked Open Data, Open Access
Implementation & the Open Source Community

Alex Viggio
FIS Lead Developer
Office of Faculty Affairs
alex.viggio@colorado.edu
Implementation from a technical vantage point

- Options and typical solutions
- Skills and FTE requirements
- Learning about your source data
- Developing an ingest and update strategy
- Leveraging vendor solutions as well as open source communities
Major options

• Physical or virtual hardware
• Choice of OS and base software
• Division of labor
• Approach to data
  – Especially for publications
• Staging strategy
• Hosted options?
Physical or virtual?

• Likely depends mostly on your institution’s IT environment
  – Physical servers take an up-front investment but may give you more control
  – Virtual servers can usually be scaled according to need
  – Hosted virtual servers can compensate for lack of server administration resources
Choice of OS and software

- Windows or Linux
  - Linux more common, but some IT shops have a big Windows investment
- Database – MySQL is default, Oracle Enterprise Database an option
- Servlet engine – Tomcat is default, Glassfish and others supported
- Web server optional but recommended – Apache HTTP Server
Division of Labor

• Skills/roles needed (often from the same person)
  – Sysadmin
  – Database Admin
  – Data conversion/ETL specialist (Java/Python)
  – Data curator
  – Web developer (HTML/CSS)
  – Java developer (optional) for customizing VIVO or adding custom forms
  – User training and support
  – Project management

• Not all need to be full time
Approach to data

• Negotiate with data stewards
• Tools options
  – Harvester and other XML tools
  – Karma, Open (Google) Refine and RDF/semantic tools
  – Python and R
• Commercial options
• Important to think through data updates, not just a one-time load
Staging strategy

• Give your techs time to learn Semantic Web concepts and tools
• Don’t start with the hardest data
• Think through what will be interactively updated vs. batch update/replacement
• Work with data sources to make it easier on both ends
Resources

- VIVO DuraSpace Wiki
- VIVO Mailing lists
- Weekly dev/implementation and biweekly ontology calls
  - Updates
  - Bug reports and issue discussion
  - Demos of implementations
  - Invited guest presentations
- [https://wiki.duraspace.org/display/VIVO](https://wiki.duraspace.org/display/VIVO)
VIVO working groups

- Ontology
- Implementation
- Core development
- Engagement
- Apps & Tools
VIVO Implementation Fests

• Successful events in 2011, 2012, and 2013
• Increasingly about sharing and collaboration more than presentations
• Emphasis on small-group interactions
• Reaching out to related tool providers
• Internationalization code sprint after 2013 IFest
4 kinds of open source communities

• Single vendor open source projects
• Development communities
• User communities
• Open source competence centers

What are/will be the salient features of the VIVO community?
Highlights of the conference
Discussion

Starting a VIVO and participating in the community
Wrap up

Q&A: technical, policy, or strategic