VIVO Ontology v1.6 Issues

see also VIVO v1.6 release planning

Note

As of 2015-10-24, all VIVO ontology issues have been moved from the VIVOONT JIRA space to the VIVO JIRA space.

Addressing ontology issues during the transition to the ISF

The transition from the VIVO v1.5 ontology to the Integrated Semantic Framework (ISF) for VIVO v1.6 has put on hold some issues the resolution of which will be grounded in changes inherent in the ISF. For example, VIVO currently has a number of parallel subclasses of Person and subclasses of Position; in the ISF, we will be moving toward fewer subclasses of Person and will express distinctions more accurately via distinctions among Positions, where it's more possible to define these distinctions and where we acknowledge that a person may simultaneously be both a student and a faculty member in different contexts. Positions and other forms of relationship are well suited to capturing the contextual information, while declaring that someone "is" a Student or Faculty Member implies a more universal distinction.

Apart from constraints on time, another reason for deferring some of these issues not directly related to the ISF to the next release after VIVO 1.6 is that the VIVO application is changing in other ways that will affect how an ontology issue can be addressed. For example, with the transition to support for multiple languages in the VIVO application there will be implications for how we indicate that a person speaks, writes, or understands a language (see VIVOONT-250). This issue is also addressed quite differently in one of the research information standards we are aligning with, the CASRAI dictionary (see language competencies).

The ISF is such a significant change to the VIVO ontology that there will likely be a shakedown period during which we as a community identify shortcomings, missing axioms, and inconsistencies. One goal is to include many of these deferred issues in our evaluation of the ISF to ensure the are addressed; this will be easier to do when we all have the more tangible and testable target of the VIVO 1.6 release.

Skip down to ontology issues independent of the ISF

Ontology issues closely related to the ISF from NIH project JIRA space

Academic personnel types

- VIVOONT-436 How does one represent academic/faculty tracks?
  - see Understanding Ranks and Tracks and Faculty Ranks and Tracks from the University of Kansas Medical Center, including some nice diagrams
- (Tamy)
  - NARCIS project in the Netherlands is looking at the differences between faculty in the European system vs. the American, where even the word Faculty does not map across in a clear way. British and American systems are likely to be more similar to each other than to continental European models of academic positions and hierarchies. See her related article:

    Genericity versus expressivity - an exercise in semantic interoperable research information systems for Web Science **ABSTRACT** The web does not only enable new forms of science, it also creates new possibilities to study science and new digital scholarship. This paper brings together multiple perspectives: from individual researchers seeking the best options to display their activities and market their skills on the academic job market; to academic institutions, national funding agencies, and countries needing to monitor the science system and account for public money spending. We also address the research interests aimed at better understanding the selforganising and complex nature of the science system through researcher tracing, the identification of the emergence of new fields, and knowledge discovery using large-data mining and non-linear dynamics. In particular this paper draws attention to the need for standardisation and data interoperability in the area of research information as an indispensable precondition for any science modelling. We discuss which levels of complexity are needed to provide a globally, interoperable, and expressive data infrastructure for research information. With possible dynamic science model applications in mind, we introduce the need for a "middle-range" level of complexity for data representation and propose a conceptual model for research data based on a core international ontology

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Address and Authors

- Closed – will be re-thought in the light of the ISF work
  - VIVOONT-354 Evaluate whether (and how) to move author reassignment support into VIVO Core
  - VIVOONT-423 Consider whether to replace vivo:Address modeling with VCard (or other) model, or whether to map to other models
- VIVOONT-444How should we model co-author affiliation when we only know it for one slice of time? This will be solved by the use of a VCard to capture all information known about the authorship – name, email address, affiliation – not as a new foaf:Person but as a VCard. See Why should w
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Agreements

- VIVOONT-316 Consider making a class Partnership under core:Agreement – affected by the evolution of Agreement to be a subclass of the new vivo:Relationship

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Credentials

- [VIVOONT-430](#) Classes for specialties, licenses, and global health specialty
- [VIVOONT-440](#)
- both moved to   Unable to locate Jira server for this macro. It may be due to Application Link configuration.

Degrees

- [VIVOONT-99](#) Should "major field of degree" data property be free text or have vocabulary with free text option?
- [VIVOONT-190](#) Develop a vocabulary for the Thesis degree class
  - ○
  - ○   Unable to locate Jira server for this macro. It may be due to Application Link configuration.
- [VIVOONT](#)
  - referred to development: Unable to locate Jira server for this macro. It may be due to Application Link configuration.

Equipment use by people

- [VIVOONT-208](#)How to search people by equipment they use?
  - the contact person for a piece of equipment is straightforward
  - it's less clear how the use of equipment should be modeled – our preference would be to build this out through the OBI:investigation, which is being linked to dataset through the Datastar work

Grants

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-                     e specific types of grants

Roles

Roles have been a major area of work in the ISF, making issues 406 and 437 moot. The creation of new roles will likely be addressed during the evaluation of the ISF – including how much if any ability to create new roles through the application is appropriate.

- [VIVOONT-394](#) Revisit ServiceProviderRole
- [VIVOONT-406](#) Create restrictions to indicate what type of thing a particular role may be in
- [VIVOONT-437](#) Investigate whether a Role should be connected with an EventSeries with roleRealizedIn or roleContributesTo

Temporal

- [VIVOONT-431](#) Represent DateTimePrecisions with an enumerated class – we have a set of individuals that may not be explicitly declared as an enumerated class
- [VIVOONT-460](#) Decide what to do with currentlyHeadedBy/currentlyHeadOf and currentMemberOf/hasCurrentMember
  - we're getting rid of these asserted properties that are so prone to going out of date, and will rely on the VIVO application to evaluate any time bounds in preparing a page for display

Vocabularies

- [VIVOONT-350](#) Integrate SKOS into VIVO core – this has been done with the ISF, and VIVO 1.6 has enhanced linking to external vocabularies, including the ability to bring back skos:broader and skos:narrower relationships to other terms in an external vocabulary and add assertions to the relevant broader or narrower term if that term has already been referenced in VIVO.

Other

- [VIVOONT-358](#) Should we remove the remaining dcterms and dcelem object properties? – yes

Ontology issues independent of the ISF

Most of these issues have not been addressed for VIVO 1.6 due to time constraints and/or the existence of parallel discussions, or in some cases the availability of new or updated ontologies that merit research before deciding whether changes to the VIVO-ISF ontology will be necessary.

See the interest groups listed under the [VIVO-ISF Ontology Working Group](#) for more information and context.

Conflict of Interest

- [VIVOONT-379](#) Add
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Courses

Ongoing "canonical" courses (e.g., English 101 taught since the beginning of time) vs. the course or semester class as taught in a given semester or quarter. Informed by the situation in the State of Florida where common course numbers have been defined statewide to allow transfer of credits.

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Datasets

The ISF includes a basic notion of a dataset, as did the VIVO ontology. However, this is a very active area for standards development that overlaps issues of data citation, attribution, annotation, and provenance.

- VIVOONT-404 Create optional modules for Datastar dataset metadata ontology extension, recognizing the emergence of the Datacite schema and other active work in the domain of dataset description (e.g., the Research Data Alliance's Standardisation of Data Categories and Codes WG, Data Foundation and Terminology WG, and Metadata Standards Directory WG, all addressing different but potentially overlapping aspects of represen
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Geographic focus

- VIVOONT-421 Consider deprecating or removing the vivo:domesticGeographicFocus and vivo:internationalGeographicFocus properties and their inverses
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Identifiers

- VIVOONT-320 Create data property for NCBI/PubMed author ID under core:identifier; ❷ was this ever implemented?
- VIVOONT-305 Add
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Knowledge Mobilization

see also Knowledge Mobilization Ontology interest group section of this wiki

- VIVOON⋯eas for research opportunities
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Languages

- VIVOONT-250 Should we add a "languages spoken" data property to a person's profile?
  - check the thread, but we think this we can include something from the lingvoj ontology via some bridging properties, with a separate optional language module
- Note that the CASRAI dictionary includes the notion of language competencies that include "can read," "can write," "can speak," "can understand spoken," and "can peer review"

Names

- (Tamy) Ability to alphabetize on the actual surname portion of a Dutch last name – van der Groot with the G's – see her VIVO Conference presentation, A Bilingual VIVO Instance: Using Both Dutch and English to Model Researchers at VU University of Amsterdam (Vrije Universiteit)
- VIVOONT-455 New property for a person's "display name" – isn't this what the rdfs:label is?

Patents

- we need someone familiar with patent processes and sources of data who is ready to take this on
  - VIVOONT-427 Need to represent an invention's issuance as a patent in multiple countries (i.e. by multiple patent authorities)
  - VIVOONT-429 Create a subclass of DocumentStatus and create status individuals to represent Patent statuses

Provenance

- see Provenance Ontology interest group on this wiki
- VIVOONT-219 Provenance object property - an internally facing property in which editors log purposeful deviations between VIVO and the system of record
- VIVOONT-312 Evaluate Open Provenance Model vocabulary for possible inclusion in VIVO core or as module
- VIVOONT-388 Consider adding a vitro:creationDate for all individuals and a way to distinguish modification by ingest vs. interactive editing

Publications

- VIVOONT-433 How should we represent whether a journal is open access?
  - (Paul) There are potentially three types of assertions here. In order of increasing complexity:
    1. A journal is and always has been open access.

2. A journal is open access for a particular year range.

3. Independent of any particular date range, a journal has some articles which are open access and others which are not.

The problem with an open access journal class is that it will only honor condition #1. What if we took cues from our friends at DOAJ – which would probably end up being our source anyway – and indicated the year range (see new attachment for sample of data). This would take care of condition #2. At present, there is no source for open access articles, so the question of how to represent #3 is less urgent. But, I would think there ought to be some option to indicate open access status at the article level.

- This needs an owner for whom being able to distinguish PubMed types is important – and will require analysis of what those types are and their frequency in data
  - VIVOONT-434 How to represent PubMed types (primarily for the Harvester) – see attached spreadsheet
- VIVOONT-447 Consider how to connect any Information Resource to full text online
  - is it clear what this would mean – too often there will be some interposing web page, such as on a publisher's website-
- VIVOONT-449 eISSN should be a subproperty of ISSN
  - if BIBO hasn't made that subsumption, there must be a reason why
- VIVOONT-451 Consider adding an Encyclopedia Entry type of publication – can we just use bibo:ReferenceWork?
- **Align publication types between Elements and VIVO/BIBO** – is this a mapping table, or do they have types we should add? There are also an increasing number of VIVO sites also using Symplectic Elements, and agreement on alignment of publication types between Elements and VIVO would be mutually beneficial.