VIVO 2013 Workshop: "Going under the hood of Profiles RNS"

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Content: Profiles Research Networking Software (RNS) (http://profiles.catalyst.harvard.edu) is an open source Semantic Web research networking platform based on the VIVO ontology. It has many similarities to the VIVO software, but it also includes numerous unique features. This workshop explains the algorithms used by several of these features and teaches the audience how to configure and extend the Profile RNS platform. The specific topics of this workshop include:

- Extending the ontology and adding new content types. Profiles RNS has several methods for importing data, scheduling automated updates, and controlling privacy.
- Using the Pubmed Disambiguation Engine. Profiles RNS uses names, affiliations, and other information about investigators to identify their publications. This tool can also be used by other research networking platforms.
- Understanding and tuning the search algorithm. Profiles RNS utilizes the VIVO ontology to assign relevance weights and rank search results.
- Exporting data. Profiles RNS has multiple ways of exporting data, including RDF crawl, SPARQL, and an XML Search web service.
- Adding and configuring Open Research Networking Gadgets (ORNG). ORNG (http://orng.info) combines Linked Open Data and the OpenSocial standard (used by Google, IBM, SciVerse, LinkedIn, and others) to allow social web apps to be added to both Profiles RNS and VIVO.

Audience: This workshop is intended for three types of audiences:

- Institutions using Profiles RNS. The workshop will help existing users of Profiles RNS learn how they can customize the software for their institutions.
- Developers of VIVO and other RN tools. The algorithms used by Profiles RNS will be described in general terms, rather than stepping through actual code. As a result, the workshop will be of interest to developers of other research networking platforms who have implemented or are considering to add similar features to their systems. It will also be helpful to developers creating cross-platform applications.
- Institutions evaluating different RN tools. Profiles RNS was the first research networking tool, other than VIVO itself, to use the VIVO ontology. This workshop will highlight key features of Profiles RNS including data import and export options, automatic Pubmed disambiguation, search algorithms, and ORNG gadgets.

Outcome/Objectives: Attendees will gain a better understanding of the unique features and algorithms in Profiles RNS. Those who are already using Profiles RNS will be able to use the knowledge gained from this workshop immediately at their institutions. Developers of other tools will learn how to integrate their systems with Profiles RNS. Attendees who are still evaluating different RN tools will see how Profiles RNS uses the VIVO ontology in novel ways. The presenters themselves hope to receive questions and feedback from the audience that will help them improve Profiles RNS in the future.

Approach: The workshop will use several instructional methods:

- Features and algorithms of Profiles RNS will be described using PowerPoint presentations.
- Configuring and extending Profiles RNS will be taught using live demonstrations. Attendees may follow along, but will need to connect to their own pre-installed instance of Profiles RNS. A basic understanding of working with databases (relational tables and simple SQL statements) and familiarity with XML and RDF will be helpful.
- Attendees with laptops and internet access will be able to try the various options available for exporting data from Profiles RNS. No coding will be needed.