

Short Tour: VIVO as data

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This page is **part 5** of a short, self-paced tour introducing VIVO for use in an interactive workshop or online.

VIVO as data

Structured data

Because VIVO models data in a very granular way, it can be combined and reused more easily than web pages composed only of unstructured text and HTML markup.

Linked data

The [Linked Open Data](#) movement has been gaining traction for several years through promotion by [Sir Tim Berners Lee](#), the [W3C](#), and members of the VIVO community active in the U.S. [data.gov](#) effort.

VIVO display web pages, but can also return the same information as data directly readable by other computers, locally or anywhere in the world. To see this in action, try [browsing a VIVO page in a linked data browser](#) such as [LinkSailor](#), where the structure underlying the [HTML display of the same data](#) in VIVO can be clearly seen.

By fully complying with Linked Open Data standards, VIVO data is accessible, discoverable, reusable, and portable – all important factors making accurate and complete information about researchers and what they do visible to the world.

SPARQL endpoints

A number of VIVO institutions maintain public SPARQL endpoints – a Web address for querying data using the [SPARQL query language](#) against the VIVO [triplestore](#), VIVO's database of RDF. SPARQL endpoints allow anyone to harvest not only the data about one person or other entity in VIVO but to run general-purpose queries.

Very often the goal in querying a VIVO is to extract RDF to include in another VIVO instance. For example, the American Psychological Association queries VIVO's at several universities for updates on the authors of APA publications in [vivo.apa.org](#).

Dr. David Eichmann of the Institute for Clinical & Translational Science at the University of Iowa leverages SPARQL endpoints from four different software platforms to build a [CTSAsearch](#) extending the concept of [vivosearch.org](#), which relies only on linked open data requests.

Web-focused semantic services

Consuming [RDF triples](#) from VIVO in common web content management system may take some translation to more common XML, JSON or HTML formats. Tools to help with this conversion are multiplying, with [JSON-LD](#) emerging in the JSON arena, [Java](#) and a Google code [PHP](#) implementations of a [linked data API](#), and John Ferreira's [semantic services](#) used in production at Cornell.

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next: [VIVO in production](#)