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Product Review OpenVIVO

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PRODUCT REVIEW

OpenVIVO

created by OpenVIVIO Task Force

Free (with institutional support)

According to their website, VIVO is “member-supported, open source software and an ontology for representing scholarship” and “supports recording, editing, searching, browsing, and visualizing scholarly activity. VIVO encourages showcasing the scholarly record, research discovery, expert finding, network analysis,” and “assessment of research impact.”¹ The project began in 2010 with seven participating institutions and funding from the National Institutes of Health. Since then, 141 additional entities spanning the globe have or are implementing VIVO or producing VIVO-compatible data. The list includes government agencies, academic associations, and a growing number of universities. Among VIVO’s partners are the Consortium Advancing Standards in Research Administration Information (CASRAI), Current Research Information Systems (EuroCRIS), and the Open Researcher and Contributor ID Initiative (ORCID). VIVO is supported by Duraspace, a long-standing supporter of open technology projects committed to providing “long term, durable access to and discovery of digital assets.”²

VIVO is a research-focused discovery tool that enables collaboration among researchers across disciplines. One of its most powerful features is the ability to interact and function with a myriad of repository software packages including Fedora, Samvera (formally the Hydra Project), Blacklight, and a number of other highly configurable software repository products that allow for searching full text and/or metadata. What makes VIVO unique is that it uses ontologies to represent data, which provides distinct advantages over the use of traditional relational models and provides data-mapping capabilities that differ significantly from other software solutions.

¹ <http://vivoweb.org/info/about-vivo>

² <http://duraspace.org/whatwedo>



OpenVIVO is a demonstration of VIVO in a virtual space that anyone can access.³ In order to log in and create a researcher profile, you must have a registered ORCID identifier (free and easy to obtain at <https://orcid.org/>). In addition to entering personal information, researchers can enter a list of research interests using VIVO-controlled vocabulary. This vocabulary is part of the “out of the box” software implementation and is customizable to meet the specific research terminology needs of an institution. Researchers can also upload digital research to their profile by entering digital object identifiers (DOIs) or PubMed IDs. Institutions using the full VIVO package also allow for uploading data in a number of different formats and containing many different format extensions.

The developers of OpenVIVO are not trying to replace or challenge institutional VIVO instances. Rather, the goal is to show that VIVO has the capacity to span institutions and be inclusive of all researchers who set up an ORCID. Researchers clearly value such broad interinstitutional connections, as demonstrated by the popularity of ResearchGate, Academia.edu, and other academic networking platforms. According to the OpenVIVO documentation, OpenVIVO routes information back to institutional VIVOS and then becomes a data-harvesting entity for the institutional VIVO. Institutional VIVOS could subscribe to a feed from OpenVIVO updating information in a manner controlled by the institution. According to OpenVIVO’s developers, no other research profile system provides this kind of relationship between the hosted, open, community version and the institutional version. It is worth noting that OpenVIVO documentation (as opposed to VIVO documentation) is difficult to find. A page on the VIVO wiki provides some information about the OpenVIVO task force.⁴ The richest source of information found, through a web search, was a shared Google folder that gives basic information about the project.⁵ The documentation indicates that the original plan was to have OpenVIVO stay online through September 2016, at which time the developers planned to archive the system and its data. If OpenVIVO is going to remain online (and it would appear it will, as the membership continues to grow), it would make sense for its developers to provide easier access to documentation, a project overview, and answers to frequently asked questions.⁶

Like VIVO, OpenVIVO uses Faceted Application of Subject Terminology (FAST) from OCLC as a standard vocabulary for research areas. With more than 500,000 terms, FAST

³ <http://openvivo.org/>

⁴ <https://wiki.duraspace.org/display/VIVO/OpenVIVO+Task+Force>

⁵ <https://drive.google.com/drive/folders/0B5Xjkn6MNCVDOHpyeDlyY1plUUU>

⁶ To learn more and see slides of VIVO presentations given at conferences, search for “openvivo” at <https://vivo.figshare.com/>.

provides a supported, standard, comprehensive taxonomy for scholarship. All other features of VIVO are accessible in OpenVIVO, including visualizations, index, faceted search, and data with semantics defined by open ontologies. Full institutional VIVO installations are managed locally but offer cross-institutional searching and browsing. VIVO's distributed indexing capability enables individuals to search across institutions and find collaborators where they have no known connections, and to discover the existence and patterns of collaboration across multiple institutions and ultimately at the national level.

VIVO's ability to obtain and interlink data from a variety of sources, including institutional systems of record and online databases, combined with the use of open semantic web technologies (controlled vocabularies and rules for handling data) makes VIVO an exciting and powerful data platform. In addition, downloading the software and documentation is free at the VIVO web site.⁷ Despite being "free," implementing VIVO comes with a significant investment of time and a monetary cost. Anybody considering VIVO should arrange to sit down with technology staff to discuss the myriad of implementation details after getting the support and backing of institutional administration. The latest VIVO release documentation runs just over 400 pages. Fortunately, OpenVIVO presents the opportunity for scholars to participate in the VIVO environment even if their organization cannot support its own instance of VIVO.

VIVO's members list will continue to grow as more and more institutions find themselves facing challenges related to fostering collaborations that push research forward and managing grants related to these endeavors. OpenVIVO takes the strengths of the VIVO platform and makes them available to all scholars. Scholarship happens across institutions, and OpenVIVO affords the opportunity for broader collaboration.

BIOGRAPHY

David Dettman is the Library Instruction Program Coordinator and an assistant professor at the University of Wisconsin-Stevens Point, where he provides library instruction and reference service. David has nearly 20 years of experience in the University of Wisconsin System working primarily with information literacy and outreach.

⁷ <http://vivoweb.org/>