

Title: Role of Librarians in the Development of Community Research Networks  
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The development of community research networks is one of the four interconnected components identified by the NSF in its efforts to develop the Cyberinfrastructure for the 21st Century (CIF21) and hence included as a priority in its FY2012 budget. The CIF21 is anticipated to provide a more integrated framework for researchers, resources, and tools in order to address analysis of complex problems and multidisciplinary research. Community Research networks are essential in terms of globally building on and interconnecting resources, knowledge and researchers (Cyberinfrastructure Framework for 21st Century Science and Engineering (CIF21) [http://www.nsf.gov/about/budget/fy2012/pdf/40\\_fy2012.pdf](http://www.nsf.gov/about/budget/fy2012/pdf/40_fy2012.pdf)).

The VIVO research network (<http://vivo.ufl.edu>) is an open source, semantic web application designed to enable discovery and collaboration among researchers. Originally developed at Cornell University, VIVO has been expanded for national use through a \$12 million American Recovery Act grant from the National Institutes of Health and led by the University of Florida and six other institutions known as the VIVO collaboration: Cornell University, Indiana University, Ponce School of Medicine, Washington University in St. Louis School of Medicine, the Scripps Research Institute, and Weill Cornell Medical College ([http://ncrr.nih.gov/publications/ncrr\\_reporter/winter2010/funding\\_matters.asp](http://ncrr.nih.gov/publications/ncrr_reporter/winter2010/funding_matters.asp)). What distinguishes VIVO and similar research networks (e.g. Harvard's Profiles Research Networking Software: <http://profiles.catalyst.harvard.edu/default.asp>) from other computer-mediated social networks (e.g. LinkedIn or Facebook) is that VIVO and related systems harvest much of their data from authoritative sources such as institutional directories, grants databases, publication databases, and faculty reporting systems. This minimizes researchers' involvement in populating their own profiles and improves consistency across profiles.

The resulting inter-linked profiles, along with other network visualization tools, allow the research community to discover content and find experts and potential interdisciplinary collaborators. Furthermore, students can use VIVO to locate mentors and events and display their own research. VIVO also offers administrators, such as deans and vice presidents of research, a way to showcase particular programs and manage institutional data in one place (Holmes et al, 2010).

#### Roles of Librarians in the development of community research networks

Librarians should seriously consider getting involved in the development of the network component of the cyberinfrastructure at their institutions. Participating in the development of community research networks is a unique opportunity to realign the library with the mission and goals of the institution, and to re-position the library as a full partner in scholarly research (Russell Gonzalez et al, 2010). Librarians' competencies and expertise in information organization and management, instruction, usability, subject expertise, makes them desirable partners in the implementation of research networks, specifically in developing core and local ontologies; locating and selecting subject vocabularies; developing user-centered interface design; engaging potential users through presentations and demonstrations; performing usability studies and focus groups; providing local support and training on the system; engaging with local and external data providers; and providing project management leadership and assistance with governance (Russell Gonzalez et al, 2010; Holmes et al, 2010).

A recent analysis made by librarians involved in VIVO implementation and outreach at the University of Florida and Washington University in St. Louis School of Medicine explored some of the challenges and

benefits of working on such a large inter-disciplinary team and multi-institutional project through seven main themes:

- Interaction with technology
- Teamwork and team dynamics
- Changing nature of the project
- Workload balance
- Engaging with the wider community
- Project management
- Communication

Working on this community research network project enabled librarians to expand their traditional roles and acquire new teamwork skills and technical knowledge. Project members will be able to translate these experiences to future multidisciplinary team endeavors, such as e-science and translational science initiatives. VIVO librarians and others involved in community research networking can apply their learnings about work on multidisciplinary, collaborative teams and share this new-found expertise with their science colleagues (Garcia-Milian et al 2011).

## References

Holmes, K.L., Tennant, M.R., Hack, G., Davis V., Devare M.H., Russell Gonzalez, S., Conlon, M. and VIVO Collaboration .2010. VIVO: a national resource discovery tool for the biomedical community.

Contributed paper, Biomedical and Life Sciences Division contributed papers session, Special Libraries Association Annual Conference, New Orleans, LA. June 2010. Retrieved from [http://units.sla.org/division/dbio/events/conf\\_current/papers/VIVO\\_SLA\\_Holmes.pdf](http://units.sla.org/division/dbio/events/conf_current/papers/VIVO_SLA_Holmes.pdf)

Russell Gonzalez, S., Davis, V., Tennant, M.R., Holmes, K.L., Conlon, M. and VIVO Collaboration. 2010. Letting the good times roll through alignment: meeting institutional missions and goals with VIVO, a web-based research discovery tool. Contributed paper, Biomedical and Life Sciences Division contributed papers session, Special Libraries Association Annual Conference, New Orleans, LA. June 2010. Retrieved from [http://www.sla.org/PDFs/Conf/SLA\\_VIVO\\_Contributed\\_Paper.pdf](http://www.sla.org/PDFs/Conf/SLA_VIVO_Contributed_Paper.pdf)

Garcia-Milian, R., Norton, H.F., Auten, B., Buhler, A., Davis, V.I., Ferree, N., Holmes, K.L., Johnson, M., Tennant, M.R., Conlon, M. VIVO Collaboration Role of Librarians in the Development of Computer-Mediated Social Networks: Challenges and Lessons Learned From VIVO Implementation and Outreach. Biomedical and Life Sciences Division Contributed Papers, Special Libraries Association, 2011, Philadelphia, PA ( Conference ) <http://ufdc.ufl.edu/IR00000565/00001>