

Steven Van Tuyl

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Professional Experience

Data Services Librarian - Carnegie Mellon University

October 2013 - Present

- Continued to develop and expand CMU's Data Management Services infrastructure including
 - Facilitated the creation of governance and charter documents for data management services
 - Facilitated the creation and congregation of an Executive Steering Committee to oversee data management services including the Dean of Libraries, University Chief Information Officer, and Associate Vice Provost of Sponsored Programs
- Developed short and long-term program proposals for Data Management Services including tiered proposals for implementation of services
- Initiated research data management training for Liaison Librarians and other interested library faculty and staff using the New England Collaborative Data Management Curriculum
- Prototyped data registry/repository system using current digital library/archives infrastructures (bepress, Archivalware)
- Initiated study to investigate research data management practices among CMU faculty
 - Study includes broad faculty surveys and multiple in-depth faculty data interviews
 - Uses in-depth interview experiences as functional elements of Liaison Librarian training
- Built and augmented relationships with university faculty, staff, and administrators at CMU and at other universities in the Pittsburgh region

Emerging Technologies and Computer Science Librarian - Carnegie Mellon University

Jan 2012 - October 2013

- Chair of the library Emerging Technologies Committee responsible for reviewing and prototyping technologies resulting in the adoption of new technologies and the development of new budget lines for experimental technology
 - Committee responsible for setting direction of emerging technologies projects for the University Libraries and liaising with Library Administration, Library Information Technology, and all other departments in the library
 - Initiated over a dozen new technology programs of varying size and complexity and assisted with project planning, management, evaluation, and closure
 - Managed the Emerging Technology Committee (8 members) including personnel from 5-6 departments across the library system) including identification and prioritization of projects, creation of project teams, and facilitating project operations throughout the project lifecycle

- o Successfully lobbied for the creation of a budget line for the Emerging Technologies Committee to fund experimental technology purchases
- o Solicited by library administration and library faculty and staff to participate in high-level discussions about functional elements of library technology and technology workflows
- Developed a program, BiblioTech Labs, to bring research into the library space to help solve technological problems in the library and to offer real-world research topics for undergraduates in computer science and engineering
 - o Solicited and managed two prototype projects which lead to new chains of communication and collaboration with faculty in the School of Computer Science
 - o Received Berkman Faculty Development Grant to help develop BiblioTech Labs projects across two years (\$3000)
- Acted as liaison to the CMU School of Computer Science with responsibility for outreach, marketing, and library collection management for the School of Computer Science
- Participated widely in workshops and conferences related to library technology and research data management including presenting poster and written materials at conferences
- Initiated the development of a university-wide program to provide research data management services to CMU research faculty and staff in response to federal granting agency mandates

Reference Librarian - University of Pittsburgh

Mar 2011 - Dec 2011

- Provided in depth business and engineering research assistance for students and faculty
- Conducted instruction sessions to orient students to library resources
- Developed web-based research guides for library patrons resulting in increased faculty and student use of library services

Research Assistant - University of Pittsburgh School of Information Science

Sep 2010 - Mar 2011

- Developed automation systems for extracting, processing, and formatting data from websites and bibliographic databases for professional and social networking research
- Created system user surveys
- Assisted with writing and processing project documentation

Library Intern - Carnegie Mellon University Libraries

Jun 2010 - Oct 2010

- Investigated automation systems for extracting and uploading documents into the university institutional repository
- Created faculty outreach documentation for the institutional repository
- Participated in Scholarly Communications Committee Meetings

Biologist/Contractor - US Department of Agriculture - Forest Service

Nov 2003 - Nov 2009

- Acted as technical lead on a number of large research projects including research methods development, data collection and analysis, and reporting in scientific literature and at conferences
- Responsible for acquisition, reduction, processing, and dissemination of large spatial and tabular datasets for simulation modeling and data fusion
- Co-Authored multiple scientific publications
- Acted as lead writer on a successfully funded grant proposal (USDA Forest Service, Forest Health Monitoring Program)

Research Assistant - Oregon State University

Mar 1999 - Jun 2003

- Developed and implemented complete research programs including plan development, data collection, and data analysis
- Responsible for acquisition, reduction, processing, and dissemination of large spatial and tabular datasets for simulation modeling and data fusion

Education

Master of Library and Information Science - focus in data curation, public services, and digital libraries

University of Pittsburgh - December 2012

Master of Science in Forest Ecology - Master's Thesis: Carbon storage and fluxes in forests of western Oregon: successional patterns and environmental controls

Oregon State University - May 2003

Bachelor of Arts in Biology - Graduation with Distinction in Biology; Undergraduate Thesis: Spatial variability in soil surface CO₂ efflux in a plains-montane ecotone

The Colorado College - May 1998

Selected Presentations

see also: works.bepress.com/steven_vantuyl

Van Tuyl, Steven. (2014 - forthcoming). Anything but a policy - Building institutional support for data services at Carnegie Mellon University. Presented at the Research Data Access and Preservation 2014 conference. (poster).

Van Tuyl, Steven. (2014 - forthcoming). Developing a cross-institutional data management plan for a major particle physics project. Presented at the Research Data Access and Preservation 2014 conference. (lightning talk).

Van Tuyl, Steven. (2013). Data Management Services at Carnegie Mellon University. Presented at the CMU University Libraries Liaison Librarian Forum, Winter 2013, Pittsburgh, PA. (presentation).

Joranson, Kate, Clements, N, **Van Tuyl, S.** (2013). Effective e-browsing: Access, discovery, and connections. Presented at the 2013 Charleston Conference, Charleston, SC. (presentation).

Van Tuyl, Steven. (2013). Mind the gap: Building bridges between student research and library technology with BilioTech Labs. Presented at ACRL 2013, Indianapolis, IN. (poster).

Publications

see also: works.bepress.com/steven_vantuyl

Joranson, Kate, Clements, N., **Van Tuyl, S.** eBrowsing: Serendipity and questions of access and discovery. Proceedings of the 2013 Charleston Conference (in review)

Van Tuyl, Steven. (2013). Developing a research data management services infrastructure at Carnegie Mellon University. Published as part of the 2013 CASC/NSF Research Data Management Implementations Workshop, Arlington, VA.

Kretchun, Alec M., Scheller, R.M., Lucash, M.S., Clark, K.L., Hom, J., **Van Tuyl, S.** (2013). Predicted effects of multiple disturbances and climate change on forest carbon dynamics in the New Jersey Pine Barrens. PLoS One (in review)

Scheller, Robert M, Kretchun, A. M., **Van Tuyl, S.**, Clark, K. L., Lucash, M. S., & Hom, J. (2012). Divergent carbon dynamics under climate change in forests with diverse soils, tree species, and land use histories. Ecosphere, 3(11), art110.

Van Tuyl, Steven. (2012). Open Access to STM Information: Trends, Models, and Strategies for Libraries (review). portal: Libraries and the Academy, 12(3), 341.

Miao, Z., Lathrop Jr., R. G., Xu, M., LaPuma, I. P., Clark, K. L., Hom, J., ... **Van Tuyl, S.** (2011). Carbon dynamics modeling and uncertainty analysis in the New Jersey Pinelands. In American Society of Agricultural and Biological Engineers Annual International Meeting 2011 (Vol. 5, pp. 3622-3631). Grant F. Walton Center for Remote Sensing and Spatial Analysis, Rutgers University, 14 College Farm Road, New Brunswick, NJ 08901-8551, United States.

Miao, Z., Lathrop, R. G., Xu, M., La Puma, I. P., Clark, K. L., Hom, J., ... **Van Tuyl, S.** (2011). Simulation and sensitivity analysis of carbon storage and fluxes in the New Jersey Pinelands. Environmental Modelling and Software, 26(9), 1112-1122.

Scheller, R M, **Van Tuyl, S.**, Clark, K. L., Hom, J., & La Puma, I. (2011). Carbon Sequestration in the New Jersey Pine Barrens Under Different Scenarios of Fire Management. Ecosystems, 14(6), 987-1004.

Hom, J., **Van Tuyl, S.**, Scheller, R., Pan, Y., Clark, K., Cole, J., ... Gallagher, M. (2009). Interaction of Insect Defoliation, Wildfires and Climate Change on Carbon Dynamics. In AGU Spring Meeting Abstracts (Vol. 1, p. 5).

- Scheller, R M, **Van Tuyl, S.**, Clark, K., Hayden, N. G., Hom, J., & Mladenoff, D. J. (2008). Simulation of forest change in the New Jersey Pine Barrens under current and pre-colonial conditions. *Forest Ecology and Management*, 255(5-6), 1489-1500.
- Clark, K., Pan, Y., Birdsey, R., Hom, J., **Van Tuyl, S.**, & Skowronski, N. (2007). Scaling Eddy Flux Measurements to Regional Carbon Dynamics. In *The Fourth USDA Greenhouse Gas Conference*.
- Birdsey, R., Pan, Y., Potter, C., Hom, J., Clark, K., & **Van Tuyl, S.** (2006). Linking Forest Carbon Monitoring with Management Decisions. In *AGU Fall Meeting Abstracts (Vol. 1, p. 5)*.
- Law, Beverly E, Turner, D., Campbell, J., Lefsky, M., Guzy, M., Sun, O., **Van Tuyl, S.**, Cohen, W. (2006). Carbon fluxes across regions: Observational constraints at multiple scales. In *Scaling and Uncertainty Analysis in Ecology (pp. 167-190)*. Springer.
- Van Tuyl, Steven**, Law, B. E., Turner, D. P., & Gitelman, A. I. (2005). Variability in net primary production and carbon storage in biomass across Oregon forests - An assessment integrating data from forest inventories, intensive sites, and remote sensing. *Forest Ecology and Management*, 209(3), 273-291.
- Law, B E, Turner, D., Campbell, J., Sun, O. J., **Van Tuyl, S.**, Ritts, W. D., & Cohen, W. B. (2004). Disturbance and climate effects on carbon stocks and fluxes across Western Oregon USA. *Global Change Biology*, 10(9), 1429-1444.
- Turner, D. P., Guzy, M., Lefsky, M. A., Ritts, W. D., **Van Tuyl, S.**, & Law, B. E. (2004). Monitoring forest carbon sequestration with remote sensing and carbon cycle modeling. *Environmental Management*, 33(4), 457-466.
- Law, B E, Sun, O. J., Campbell, J., **Van Tuyl, S.**, & Thornton, P. E. (2003). Changes in carbon storage and fluxes in a chronosequence of ponderosa pine. *Global Change Biology*, 9(4), 510-524.
- Turner, D. P., Guzy, M., Lefsky, M. A., **Van Tuyl, S.**, Sun, O., Daly, C., & Law, B. E. (2003). Effects of land use and fine-scale environmental heterogeneity on net ecosystem production over a temperate coniferous forest landscape. *Tellus, Series B: Chemical and Physical Meteorology*, 55(2), 657-668.
- Van Tuyl, Steven.** (2003). Carbon storage and fluxes in forests of western Oregon: successional patterns and environmental controls. Master of Science Thesis. Oregon State University.
- Anthoni, P. M., Unsworth, M. H., Law, B. E., Irvine, J., Baldocchi, D. D., **Van Tuyl, S.**, & Moore, D. (2002). Seasonal differences in carbon and water vapor exchange in young and old-growth ponderosa pine ecosystems. *Agricultural and Forest Meteorology*, 111(3), 203-222.

Treuhaft, R. N., Asner, G. P., Law, B. E., & Van Tuyl, S. (2002). Forest leaf area density profiles from the quantitative fusion of radar and hyperspectral data. *Journal of Geophysical Research D: Atmospheres*, 107(21), XXIII-XXIV.

Law, B E, Kelliher, F. M., Baldocchi, D. D., Anthoni, P. M., Irvine, J., Moore, D., & Van Tuyl, S. (2001). Spatial and temporal variation in respiration in a young ponderosa pine forest during a summer drought. *Agricultural and Forest Meteorology*, 110(1), 27-43.

Law, B E, Thornton, P. E., Irvine, J., Anthoni, P. M., & Van Tuyl, S. (2001). Carbon storage and fluxes in ponderosa pine forests at different developmental stages. *Global Change Biology*, 7(7), 755-777.

Law, B E, Van Tuyl, S., Cescatti, A., & Baldocchi, D. D. (2001). Estimation of leaf area index in open-canopy ponderosa pine forests at different successional stages and management regimes in Oregon. *Agricultural and Forest Meteorology*, 108(1), 1-14.

Service

- Meeting Planning: Panel organizer for Research Data Access and Preservation 2014 (RDAP 14)
- Research/Digital Data Management Outreach Consultations: Pittsburgh Parks Conservancy, Livingstone Spectral Image Archive, WQED (Pittsburgh Public Television)
- Advisory Board Member: Livingstone Online
- Panelist - "Build Your Own Box" - Pittsburgh Special Library Association, Nov 2012

Awards and Honors

- Library Innovation Award, Carnegie Mellon University Libraries, 2013
- Excellence Award, USDA Forest Service Northern Research Station, 2007
- Richard G. Beidleman Award, Colorado College, 1998

Computer Skills

- Programming - elementary Java, R, and Python
- Statistical Analysis - R, SPLUS
- Geographic Information Systems - ArcGIS, ArcInfo, Qgis, elementary KML
- Markup - XML, HTML
- Database Management Systems - MS Access, elementary SQL
- Integrated Library Systems - Sirsi Unicorn Workflows, Ex Libris Voyager
- Office Applications