

# Jeffrey R. Spies, Ph.D.

## Curriculum Vitae

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### Positions

2018–	Principal	221B LLC
2018–	Consulting Chief Technology Officer	NYU Databrary
2016–2019	Visiting Assistant Professor, Department of Engineering and Society	University of Virginia
2014–2018	Co-director	SHARE
2013–2018	Co-founder and Chief Technology Officer (CTO)	Center for Open Science
2015–2016	Visiting Scholar, Department of Engineering and Society	University of Virginia
2010–2013	Statistical Computing Instructor and Consultant	University of Virginia
2008–2009	National Institute of Aging Training Fellow	University of Virginia
2008	Laboratory Manager, Human Dynamics Laboratory	University of Virginia
2006–2007	Laboratory Manager, Laboratory for the Quantitative Investigation of Human Dynamics	University of Notre Dame
2004–2007	Departmental Graduate Fellow	University of Notre Dame

### Education

2013	Ph.D. Quantitative Psychology	University of Virginia
2007	M.A. Quantitative Psychology (joint Computer Science)	University of Notre Dame
2004	B.S. Computer Science, Second Major: Psychology	University of Notre Dame

### Grants, Honors, and Awards

2013–2020	Grants to COS from Laura and John Arnold Foundation, Alfred P. Sloan Foundation, John Templeton Foundation, National Institutes of Health, William and Flora Hewlett Foundation, National Science Foundation, DARPA, IARPA, and others ( <a href="http://cos.io/about/our-sponsors/">http://cos.io/about/our-sponsors/</a> )	\$31,000,000
2017	Charlottesville Business Innovation Council Startup of the Year Award	-
2016	Association for Psychological Science Rising Star for early career scientists whose “work has already advanced the field and signals great potential for their continued contributions”	-
2016–2017	Grant to ARL & COS from Alfred P. Sloan Foundation and Institute of Museum and Library Services: SHARE Phase 2	\$1,200,000
2015	Co-author of Reproducibility Project: Psychology (published in <i>Science</i> ) that was #8 of Top 100 Stories of 2015 by Discover Magazine, #6 by Science News, #5 in Altmetric100, Nature Magazines Top Science Stories of 2015, Wired Magazines Most Winningest Science 2015, New Yorkers 6 Most Interesting Psychology Papers and Most Notable Medical Findings, and a runner-up for Breakthrough of the Year by Science Magazine	-

2013–2017	Grant from Laura and John Arnold Foundation to establish the Center for Open Science	\$5,250,000
2012	Robert J. Huskey Travel Fellowship	\$550
2012	Graduate Student Choice Colloquium Winner	-
2012	PyCon 2012 Travel Award	\$1,060
2011–2012	Learning Assessment Grant from UVA's Center for Teaching Excellence Program to assess the training and use of the statistical language R in undergraduate statistics education	\$1,750
2010–2013	Teaching and Technology Support Partners Program	Tuition & Stipend
2010	Doris Buffet Fellowship	\$1,750
2008–2013	LIFE Program Fellow	-
2008–2009	National Institute on Aging Quantitative Training Grant	Tuition & Stipend
2005	The Center for Research Computing SGI Award for Computational Science and Visualization	\$1,000
2003–2010	Departmental Graduate Fellowship (accepted through 2007)	Tuition & Stipend

## Publications

### Refereed Articles

1. Choudhury, S., Johnson, R., Spies, J., & Wilcox, D. (2017). Weaving together preservation and active research. In *12th International Digital Curation Conference*.
2. Anderson, C. J., Bahník, Š., Barnett-Cowan, M., Bosco, F. A., Chandler, J., Chartier, C. R., Cheung, F., Christopherson, C. D., Cordes, A., Cremata, E. J., Della Penna, N., Estel, V., Fedor, A., Fitneva, S. A., Frank, M. C., Grange, J. A., Hartshorne, J. K., Hasselman, F., Henninger, F., van der Hulst, M., Jonas, K. J., Lai, C. K., Levitan, C. A., Miller, J. K., Moore, K. S., Meixner, J. M., Munafò, M. R., Neijenhuijs, K. I., Nilsson, G., Nosek, B. A., Plessow, F., Prenoveau, J. M., Ricker, A. A., Schmidt, K., Spies, J. R., Stieger, S., Strohminger, N., Sullivan, G. B., van Aert, R. C. M., van Assen, M. A. L. M., Vanpaemel, W., Vianello, M., Voracek, M., & Zuni, K. (2016). Response to comment on "Estimating the reproducibility of psychological science". *Science*, **351**(6277), 1037–1037. doi:[10.1126/science.aad9163](https://doi.org/10.1126/science.aad9163). eprint: <http://science.sciencemag.org/content/351/6277/1037.3.full.pdf>
3. McKiernan, E. C., Bourne, P. E., Brown, C. T., Buck, S., Kenall, A., Lin, J., McDougall, D., Nosek, B. A., Ram, K., Soderberg, C. K., Spies, J. R., Thaney, K., Updegrove, A., Woo, K. H., & Yarkoni, T. (2016). How open science helps researchers succeed. *eLife*, **5**, e16800. doi:[10.7554/eLife.16800](https://doi.org/10.7554/eLife.16800)
4. Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science*, **349**(6251). doi:[10.1126/science.aac4716](https://doi.org/10.1126/science.aac4716)
5. Brandt, M. J., IJzerman, H., Dijksterhuis, A., Farach, F. J., Geller, J., Giner-Sorolla, R., Grange, J. A., Perugini, M., Spies, J. R., & van 't Veer, A. (2014). The replication recipe: What makes for a convincing replication? *Journal of Experimental Social Psychology*, **50**(0), 217–224. doi:[10.1016/j.jesp.2013.10.005](https://doi.org/10.1016/j.jesp.2013.10.005)
6. Nosek, B. A., Spies, J. R., & Motyl, M. (2012). Scientific Utopia II: Restructuring incentives and practices to promote truth over publishability. *Perspectives on Psychological Science*, **7**, 610–626. doi:[10.1177/1745691612459058](https://doi.org/10.1177/1745691612459058)
7. Open Science Collaboration. (2012). An open, large-scale, collaborative effort to estimate the reproducibility of psychological science. *Perspectives on Psychological Science*, **7**, 652–655. doi:[10.1177/1745691612462588](https://doi.org/10.1177/1745691612462588)
8. Boker, S. M., Cohn, J. F., Theobald, B.-J., Matthews, I., Mangini, M., Spies, J. R., Ambadar, Z., & Brick, T. R. (2011). Something in the way we move: Motion dynamics, not perceived sex, influence head movements in conversation. *J Exp Psychol Hum Percept Perform*, **37**(3), 874–91. doi:[10.1037/a0021928](https://doi.org/10.1037/a0021928)
9. Boker, S., Neale, M., Maes, H., Wilde, M., Spiegel, M., Brick, T., Spies, J., Estabrook, R., Kenny, S., Bates, T., Mehta, P., & Fox, J. (2011). OpenMx: An open source extended structural equation modeling framework. *Psychometrika*, **76**(2), 306–317. doi:[10.1007/s11336-010-9200-6](https://doi.org/10.1007/s11336-010-9200-6)
10. Jones, C. R. G., Claassen, D. O., Yu, M., Spies, J. R., Malone, T., Dirnberger, G., Jahanshahi, M., & Kubovy, M. (2011). Modeling accuracy and variability of motor timing in treated and untreated Parkinson's disease and healthy controls. *Front Integr Neurosci*, **5**, 81. doi:[10.3389/fnint.2011.00081](https://doi.org/10.3389/fnint.2011.00081)

11. Boker, S. M., Cohn, J. F., Theobald, B.-J., Matthews, I., Brick, T. R., & Spies, J. R. (2009). Effects of damping head movement and facial expression in dyadic conversation using real-time facial expression tracking and synthesized avatars. *Philos Trans R Soc Lond B Biol Sci*, **364**(1535), 3485–95. doi:[10.1098/rstb.2009.0152](https://doi.org/10.1098/rstb.2009.0152)
12. Brick, T. R., Spies, J. R., Theobald, B.-J., Matthews, I., & Boker, S. M. (2009). High-presence, low-bandwidth, apparent 3d video-conferencing with a single camera. In *Proceedings of the 9th International Workshop on Image Analysis for Multimedia Interactive Services*.
13. Theobald, B.-J., Matthews, I., Mangini, M., Spies, J. R., Brick, T. R., Cohn, J. F., & Boker, S. M. (2009). Mapping and manipulating facial expression. *Lang Speech*, **52**(Pt 2-3), 369–86.
14. Spies, J. R. (2005). HDTreeV: A multidimensional visualization tool. In *Proceedings of the North American Association for Computational, Social, and Organizational Science*.
15. Lakens, D., Adolphi, F., Albers, C., Anvari, F., Apps, M., Argamon, S., Assen, M., Baguley, T., Becker, R., Benning, S., Bradford, D., Buchanan, E., Caldwell, A., Calster, B., Carlsson, R., Chen, S.-C., Chung, B., Colling, L., Collins, G., Crook, Z., Cross, E., Daniels, S., Danielsson, H., DeBruine, L., Dunleavy, D., Earp, B., Feist, M., Ferrell, J., Field, J., Fox, N., Friesen, A., Gomes, C., Grange, J., Grieve, A., Guggenberger, R., Harmelen, A.-L., Hasselman, F., Hochard, K., Hoffarth, M., Holmes, N., Ingre, M., Isager, P., Isotalus, H., Johansson, C., Juszczyk, K., Kenny, D., Khalil, A., Konat, B., Lao, J., Larsen, E., Lodder, G., Lukavsky, J., Madan, C., Manheim, D., Gonzalez-Marquez, M., Martin, S., Martin, A., Mayo, D., McCarthy, R., McConway, K., McFarland, C., Nilsson, G., Nio, A., Oliveira, C., Parsons, S., Pfuhl, G., Quinn, K., Sakon, J., Saribay, S., Schneider, I., Selvaraju, M., Sjoerds, Z., Smith, S., Smits, T., Spies, J., Sreekumar, V., Steltenpohl, C., Stenhouse, N., Swiatkowski, W., Vadillo, M., Williams, M., Williams, S., Williams, D., Xivry, J.-J., Yarkoni, T., Ziano, I., & Zwaan, R. (in press). Justify your alpha. *Nature Human Behavior*.

### Invited Papers

1. Spies, J. R. (2017). National Science Foundation Part II: Future Opportunities and Challenges for Science. Hearing before the Subcommittee on Research and Technology of the House Committee on Science, Space, and Technology, 115th Cong. Written testimony of retrieved from the Committee on Science, Space, and Technology website: <https://science.house.gov/legislation/hearings/research-and-technology-subcommittee-hearing-national-science-foundation-part/>.

### Book Chapters

1. Open Science Collaboration. (2014). The Reproducibility Project: A model of large-scale collaboration for empirical research on reproducibility. In V. Stodden, L. Friedrich, & R. D. Peng (Eds.), *Implementing Reproducible Computational Research*. Chapman and Hall/CRC.
2. Lubke, G. & Spies, J. (2008). Choosing a correct mixture model: Power, limitations, and some help from graphics. In G. R. Hancock & K. M. Samuelson (Eds.), *Mixture Models in Latent Variable Research* (pp.343–362). Information Age Publishing.
3. Open Science Collaboration. (in press). Maximizing the reproducibility of your research. In *Psychological Science Under Scrutiny: Recent Challenges and Proposed Solutions*. Wiley.

### Software Projects, Libraries, & Patents

#### Current

Director & Architect:

- [SHARE Database and Tools](#) (66M scholarly research events, 177 sources)
- [Databrary](#), an NYU/PSU video and time-series data library; including associated software (e.g., [Datavyu](#))

#### Past

Director & Architect:

- [OSF Platform as a Service](#) (including libraries and services)
- [Open Science Framework \(osf.io\)](#) workflow management system (150k users, 2M public files, 27k project registrations)

- [OSF Preprints](#) and community servers (8.3k preprints, 25 community servers, e.g., [SocArXiv](#))
- [OSF Institutions](#) (60 institutions)
- [OSF Meetings](#) (176 meetings)
- [Experimenter](#) data collection platform powering [MIT Lookit](#) and [UC Riverside International Situations Project](#)
- [COS Labs \(R&D\)](#) e.g., PASS prototype, [TritonSHARE](#) research dashboard built atop SHARE

#### Product, Architecture, & Software Consulting:

- [Public Access Submission System \(PASS\)](#) for Open Access policy compliance in collaboration with JHU, MIT, & Harvard; architect of the inspiring model.

#### Architecture Advisor:

- IARPA CREATE Decision-Making Platform

#### Core Developer:

- [OpenMx: Multipurpose Software for Statistical Modeling](#)

#### Provisional Patent:

- Boker, S. M., Brick, T. R., & Spies, J. R. System and Method for Low Bandwidth Image Transmission. U.S. Patent Application No. 13/059,586, February 17, 2011.

#### Refereed Talks

- 2019.04 Is Openness Really Worth It? Rethinking the ROI of Open, Coalition for Networked Information, Spring 2019 Meeting, St. Louis, MO
- 2018.12 Prototypes for Enhancing the Discoverability of Digital Humanities Scholarship, Coalition for Networked Information Fall 2018 Meeting, Washington, DC
- 2018.04 A Practical, Incremental Approach to a Decentralized Future, Coalition for Networked Information Spring 2018 Meeting, San Diego, CA
- 2018.04 Distributed Digital Assets: Digital Humanities & the Future Direction of SHARE, Coalition for Networked Information Spring 2018 Meeting, San Diego, CA
- 2017.06 The SHARE Dashboard and the Importance of Institutional Identifiers, Virginia Scholarly Communications Interest Group, Charlottesville, VA
- 2017.06 OSF and Fedora: Removing the Barriers Between Preservation and Active Research (Presented by co-authors), Open Repositories 2017, Brisbane, AU
- 2017.06 Breaking Free of the Platform: Journals Leveraging Distributed Web Technology, Society for Scholarly Publishing, Boston, MA
- 2017.04 Institutional Analytics Dashboards with SHARE: The UC San Diego Experience, Coalition for Networked Information Spring 2017 Meeting, Washington, DC
- 2017.04 Data Integrity for Librarians, Archivists, and Criminals: What We Can Steal from Bitcoin, BitTorrent, and Usenet, Coalition for Networked Information Spring 2017 Meeting, Washington, DC
- 2016.12 A Store of Preprints and Curation Networks: Efficiently Scaling Community Outreach Using Public Goods Infrastructure, Coalition for Networked Information Fall 2016 Meeting, Washington, DC
- 2016.12 Weaving Together Preservation and Active Research, Coalition for Networked Information Fall 2016 Meeting, Washington, DC

- 2016.12 Building Tools and Services to Support Research Software Preservation and Sharing, Coalition for Networked Information Fall 2016 Meeting, Washington, DC
- 2016.10 Learning to Learn: Technology's Demand of a Next-Generation Mindset, Teaching and Technology Summit, Charlottesville, VA
- 2016.04 Expert Curation of SHARE Dataset, Coalition for Networked Information Spring 2016 Meeting, San Antonio, TX
- 2015.06 Making Connections: SHARE and the Open Science Framework, Open Repositories 2015, Indianapolis, IN
- 2015.04 SHARE Project Update, Coalition for Networked Information Spring 2014 Meeting, Seattle, WA
- 2014.12 Update on SHARE Developments, Coalition for Networked Information Fall 2014 Meeting, Washington, DC
- 2014.05 Open Science Opening Doors for Student Contribution, Association for Psychological Science, San Francisco, CA
- 2013.06 The Open Science Framework: Improving, by Opening, Science, SciPy 2013, Austin, TX
- 2013.05 Open Source Software in Open Science Pre-conference, Association for Psychological Science, Washington, DC
- 2013.01 Openness in Scientific Report Symposium, Society for Personality and Social Psychology, New Orleans, LA
- 2012.03 Open Science Framework Lightning Talk, PyCon 2012, Santa Clara, CA

## Invited Talks

- 2019.03 National Academies of Sciences, Engineering, and Medicine's Forecasting Costs for Preserving, Archiving, and Promoting Access to Biomedical Data, Washington, DC
- 2018.12 New York Digital Humanities Symposium **Keynote**, Buffalo, NY
- 2018.11 University at Buffalo Libraries Lecture, Buffalo, NY
- 2018.10 Trusted CI, the NSF Cybersecurity Center of Excellence, Webinar Series, Online
- 2018.09 Preservation Quality Tool (PresQT) Kickoff Meeting, Notre Dame, IN
- 2018.06 Columbia University Library, New York City, NY
- 2018.04 MIT Better Science Ideathon, Boston, MA
- 2018.04 OECD Global Science Forum: Open Data for Science, Paris, France
- 2018.02 Integrating Digital Humanities into the Web of Scholarship with SHARE: A Workshop, Denver, CO
- 2018.02 ACM Publications Board, New York City, NY
- 2018.01 Standards for Peer Review Transparency Workshop, Boston, MA
- 2017.12 University of Tennessee Library Council Retreat, Gatlinburg, TN
- 2017.11 Tufts/Duke Cost Effectiveness Analysis Models Repository Meeting, Washington, DC
- 2017.11 Council of Principal Investigators at Texas A&M, College Station, TX
- 2017.11 Texas A&M Library, College Station, TX
- 2017.10 Open Scholarship for the Social Sciences **Keynote**, College Park, MD
- 2017.10 Iowa State University Inaugural VPR-Library Lecture, Ames, IA
- 2017.10 Virginia Tech Library, Blacksburg, VA
- 2017.10 Grand Challenges Annual Meeting, Washington, DC
- 2017.09 OhioLINK Webinar, Online
- 2017.08 NSF Cybersecurity Summit **Keynote**, Arlington, VA
- 2017.07 Learning to Learn IV: CS Institute **Keynote**, Charlottesville, VA
- 2017.07 University of California Council of University Librarians, San Diego, CA
- 2017.06 MIT Library, Boston, MA
- 2017.05 Preservation Quality Tool (PresQT) Workshop **Keynote**, Notre Dame, IN



- 2017.04 University of Virginia Engineering and Society Seminar Series, Charlottesville, VA
- 2017.04 7th National Data Service Consortium Workshop, Chicago, IL
- 2017.04 United States House Subcommittee on Research and Technology Hearing Testimony, Washington, DC
- 2017.04 AAU/APLU Public Access Working Group, Washington, DC
- 2017.02 IARPA CREATE Kick-off Plenary, McLean, VA
- 2016.10 Preservation and Archiving Special Interest Group Fall 2016 Meeting, New York, NY
- 2016.10 Rigor and Relevance in Scholarly Publishing, Notre Dame, IN
- 2016.10 University of Virginia Materials Science and Engineering Seminar, Charlottesville, VA
- 2016.09 Association of Research Libraries Annual Director's Meeting, Washington, DC
- 2016.07 SHARE Community Meeting, Charlottesville, VA
- 2016.07 Jisc/CNI Conference, Oxford, UK
- 2016.06 International Workshop on Scholarly Gateways **Keynote**, Rome, Italy
- 2016.05 Association of Research Libraries/Canadian Association of Research Libraries Joint Meeting, Vancouver, BC, CA
- 2016.04 Society for Applied Multivariate Research **Keynote**, Dallas, TX
- 2016.03 SPARC MORE, Austin, TX
- 2016.02 Rensselaer Polytechnic Institute Center for Open Source Software, Troy, NY
- 2016.02 AAAS/Arnold Workshop: Modeling and Code, Washington, DC
- 2016.01 University of Virginia Developmental Psychology Seminar Series, Charlottesville, VA
- 2016.01 CENDI Meeting: Public Access Infrastructure, Ft. Belvoir, VA
- 2015.09 University of Notre Dame Computer Science and Entrepreneurship, Notre Dame, IN
- 2015.06 IndyPy, Indianapolis, IN
- 2014.10 SHARE Fall Meeting 2014, Washington, DC
- 2014.06 Virginia Scholarly Communications Forum, Charlottesville, VA
- 2013.10 DMPTool Webinar Series 11: Complementary Tools, Online
- 2013.09 Quantitative Research Retreat, Charlottesville, VA
- 2013.08 HackYourPhD aux States, Online
- 2012.12 University of Virginia Graduate Student Choice Psychology Colloquium, Charlottesville, VA
- 2012.11 Models of Infectious Disease Agent Study Network Workshop on Best Practices, Arlington, VA
- 2012.10 Open Science Summit, Mountain View, CA
- 2012.10 University of Virginia Cognitive Seminar Series, Charlottesville, VA
- 2012.04 University of Virginia Data Management Day, Charlottesville, VA
- 2010.03 University of Virginia Body Sensor Networks Seminar, Charlottesville, VA
- 2009.10 LIFE Fellows Research Academy, Ann Arbor, MI
- 2005.05 Max Planck Institute for Human Development, Berlin, Germany

## Classroom Teaching

- Instructor of Record • Fundamentals of Statistical Computing (Fall 2010, Fall 2011)
- Engineering Projects in Community Service (Fall 2005, Spring 2006, Fall 2007)
- Teaching Assistant • Graduate Statistics (Fall 2005)

## Non-Departmental Teaching

- Director • Software Engineering Internship Program, 129 interns, 27 later hired as full-time staff; COS, Charlottesville, VA (2013–2018)
- Lead Instructor • Agent-Based Modeling of Lifespan Development Workshop (2005)

- Faculty • International Workshop On Methodology Of Twin And Family Studies (2008, 2010)
- Teaching Assistant • APA Advanced Training Institute - Structural Equation Modeling in Longitudinal Research (2008, 2010)

## Service

- 2018– Michael J. Fox Foundation Data Sharing Advisory Committee
- 2017– US Research Software Sustainability Institute Advisory Board
- 2017– Whole Tale Publishers Working Group
- 2017– Databrary Advisory Board
- 2017– Curating for Reproducibility, Advisory Group
- 2016– Annotating All Knowledge (AAK) Coalition Steering Committee
- 2013– Center for Open Science Board of Directors (2017 onward: ex-officio, non-voting status)
- 2017 University of Virginia Datapalooza Steering Committee
- 2016 OpenCon Program Committee
- 2015–2016 SPARC Meeting Program Committee
- 2008–2013 Quantitative Curriculum Committee, University of Virginia
- 2005 Graduate Curriculum Committee, University of Notre Dame