**Contact Information**

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[mayernik@ucar.edu](mailto:mayernik@ucar.edu)

**Education**

**University of California, Los Angeles (UCLA)**

- Ph.D. in Information Studies  *June 2011*

Dissertation: *Metadata Realities for Cyberinfrastructure: Data Authors as Metadata Creators.* Advisor: Christine Borgman.

- Master’s in Library and Information Science *June 2007*

Master’s Thesis: *Bibliographic relationships and FRBR in online catalog collocation.* Advisor: Gregory Leazer.

**California Institute of Technology (Caltech)**

- B.S. in Engineering & Applied Science *June 2003*

**Work Experience**

* Project Scientist III & Deputy Library Director *2022-*

Project Scientist II *2016*

Project Scientist I *2013*

Research Data Services Specialist *2011*

NCAR Library

National Center for Atmospheric Research (NCAR)

University Corporation for Atmospheric Research (UCAR)

Boulder, CO

* Adjunct Professor *2023*

Information School, University of Washington, Seattle, WA

* Adjunct Professor *2015, 2016, 2021*

Library & Information Science, University of Denver, Denver, CO

* Graduate Student Researcher *2006 – 2011*

Center for Embedded Networked Sensing (CENS)

Department of Information Studies, UCLA, Los Angeles, CA

* Reference Desk Assistant  *2006*

UCLA, Science and Engineering Library, Los Angeles, CA

* Laboratory Technician *2004 – 2006*

Delsen Testing Laboratories, Inc., Glendale, CA

**Peer-Reviewed Journal Publications**

* Bishop, B.W., Cowan, M., Collier, H.R, **Mayernik, M.S.,** & Organisciak, P. (2023). Job analyses of Earth science data managers: A survey validation of competencies to inform curricula in research data management education. *Journal of Education in Library and Information Science*, 64(2): 104-119.
* **Mayernik, M.S.** (2023). Data science as an interdiscipline: Historical parallels from information science. *Data Science Journal,* 22: 16.
* Nguyen, T., Bates, K., Buenconsejo, R., Charan, S., Cavanna, E., Cocker, D., Day, D., DeVault, M., Donahue, N., Finewax, Z., Habib, L., Handschy, A., Hildebrandt Ruiz, L., Hou, C.-Y., Jimenez, J., Joo, T., Klodt, A., Kong, W., Le, C., Masoud, C., **Mayernik, M.S.**, Ng, N., Nienhouse, E., Nizkorodov, S., Orlando, J.J., Post, J., Sturm, P.O., Thrasher, B., Tyndall, G., Seinfeld, J., Worley, S., Zhang, X., Ziemann, P. (2023). Overview of ICARUS: A curated, open access, online repository for atmospheric simulation chamber data. *ACS Earth and Space Chemistry*, 7(6): 1235-1246.
* Schuster, D., **Mayernik, M.S.,** Mullendore, G., & Marquis, J. (2023). What about model data? Best practices for preservation and replicability. *Bulletin of the American Meteorological Society,* 104(11): E2053-E2064*.*
* **Mayernik, M.S.** & Liapich, Y. (2022). The role of metadata and vocabulary standards in enabling scientific data interoperability: A study of Earth system science data facilities. *Journal of eScience Librarianship,* 11(2): 1238, 1-18.
* **Mayernik, M.S.** (2021). Credibility via coupling: Institutions and infrastructures in climate model intercomparisons. *Engaging Science, Technology, and Society*, 7(2): 10–32.
* Mullendore, G., **Mayernik, M.S.,** & Schuster, D. (2021). Open science expectations for simulation based research. *Frontiers in Climate*, 3: 763420.
* Baker, K.S. & **Mayernik, M.S.** (2020). Disentangling knowledge production and data production. *Ecosphere*, 11(7): e03191.
* **Mayernik, M.S.** (2020). Metadata. *Knowledge Organization*, 47(8): 696-713. Also published in the *Encyclopedia of Knowledge Organization*, edited by Birger Hjørland and Claudio Gnoli, https://www.isko.org/cyclo/metadata
  + Translated into Spanish by S. Saorín Miralles & T. Saorín Pérez as: “Metadatos: Traducción del artículo ‘Metadata’ de la Encyclopedia of Knowledge Organization,” *Anales de Documentación*, 26, 2023. https://doi.org/10.6018/analesdoc.556681
* **Mayernik, M.S.**, Breseman, K., Downs, R.R., Duerr, R., Garretson, A., Hou, C.-Y., EDGI, and the ESIP Data Stewardship Committee. (2020). Risk assessment for scientific data. *Data Science Journal,* 19(1)*.*
* **Mayernik, M.S.** (2019). Metadata accounts: Achieving data and evidence in scientific research. *Social Studies of Science,* 49(5): 732-757.
* Katz, D.S., Allen, G., Barba, L.A., Berg, D.R., Bik, H., Boettiger, C., Borgman, C.L, Brown, C.T., Buck, S., Burd, R., de Waard, A., Eve, M.P., Granger, B.E., Greenberg, J., Howe, A., Howe, B., Khanna, M., Killeen, T.L., **Mayernik, M.S.**, McKiernan, E., Mentzel, C., Merchant, N., Niemeyer, K.E., Noren, L., Nusser, S.M., Reed, D.A., Seidel, E., Smith, M., Spies, J.R., Turk, M., Van Horn, J.D., & Walsh, J. (2018). The principles of tomorrow’s university. *F1000Research*, 7: 1926.
* **Mayernik, M.S.** & Acker, A. (2018). Tracing the traces: The critical role of metadata within networked communications. *Journal of the Association for Information Science and Technology*, 69(1): 177-180.
* **Mayernik, M.S.**, Huddle, J., Hou, C.-Y., & Phillips, J. (2018). Modernizing library metadata for historical weather and climate data collections. *Journal of Library Metadata*, 17(3/4): 219-239.
* Goldstein, J.C., **Mayernik, M.S.**, & Ramapriyan, H.K. (2017). Identifiers for Earth science data sets: Where we have been and where we need to go. *Data Science Journal*, 16: Article 23.
* **Mayernik, M.S.** (2017). Open data: Accountability and transparency. *Big Data & Society*, 4(2).
* **Mayernik, M.S.**, Hart, D.L., Maull, K.E., & Weber, N.M. (2017). Assessing and tracing the outcomes and impact of research infrastructures. *Journal of the Association for Information Science and Technology*, 68(6): 1341-1359.
* **Mayernik, M.S.** & Maull, K.E. (2017). Assessing the uptake of persistent identifiers by research infrastructure users. *PLoS ONE*, 12(4): e0175418.
* Soyka, H., Budden, A., Hutchison, V., Bloom, B., Duckles, J., Hodge, A., **Mayernik, M.S.**, Poisot, T., Rauch, S., Steinhart, G., Wasser, L., Whitmire, A.L., & Wright, S. (2017). Using peer review to support development of community resources for research data management. *Journal of eScience Librarianship*, 6(2): e1114.
* Cutcher-Gershenfeld, J., Baker, K.S., Berente, N., Carter, D.R., DeChurch, L.A., Flint, C.C., Gershenfeld, G., Haberman, M., King, J.L., Kirkpatrick, C., Knight, E., Lawrence, B., Lewis, S., Lenhardt, W.C., Lopez, P., **Mayernik, M.S.**, McElroy, C., Mittleman, B., Nichol, V., Nolan, M., Shin, N., Thompson, C.A., Winter, S., & Zaslavsky, I. (2016). Build it, but will they come? A geoscience cyberinfrastructure baseline analysis. *Data Science Journal*, 15(8): 1-14.
* Hou, C.-Y. & **Mayernik, M.S.** (2016). Recognising the diversity of contributions: A case study for framing attribution and acknowledgement for scientific data. *International Journal of Digital Curation*, 11(1): 33-52.
* **Mayernik, M.S.** (2016). Research data and metadata curation as institutional issues. *Journal of the Association for Information Science and Technology,* 67(4): 973-993.
* **Mayernik, M.S.**, Gross, M.B., Corson-Rikert, J., Daniels, M.D., Johns, E.M., Khan, H., Maull, K., Rowan, L.R., & Stott, D. (2016). Building geoscience Semantic Web applications using established ontologies. *Data Science Journal*, 15, article 11: 1-10.
* **Mayernik, M.S.**, Callaghan, S., Leigh, R., Tedds, J., & Worley, S. (2015). Peer review of datasets: When, why, and how. *Bulletin of the American Meteorological Society*, 96(2): 191-201.
* Qin, H., Davis, L., **Mayernik, M.S**, Romero Lankao, P., D’Ignazio, J., & Alston, P. (2014). Variables as currency: Linking meta-analysis research and data paths in sciences. *Data Science Journal*, 13: 158-171.
* **Mayernik, M.S.**, DiLauro, T., Duerr, R., Metsger, E., Thessen, A.E., & Choudhury, G.S. (2013). Data Conservancy provenance, context, and lineage services: Key components for data preservation and curation. *Data Science Journal*, 12: 158-171.
* **Mayernik, M.S.**, Wallis, J.C., & Borgman, C.L. (2013). Unearthing the infrastructure: Humans and sensors in field-based scientific research**.** *Computer Supported Cooperative Work,* 22(1):65-101.
* Borgman, C.L., Wallis, J.C., & **Mayernik, M.S.** (2012). Who’s got the data? Interdependencies in science and technology collaborations**.** *Computer Supported Cooperative Work,* 21(6): 485-523.
* Hernandez, R.R., **Mayernik, M.S.**, Murphy-Mariscal, M.L., & Allen, M.F. (2012). Advanced technologies and data management practices in environmental science: Lessons from academia. *BioScience,* 62(12): 1067-1076*.*
* Edwards, P.N., **Mayernik, M.S.**, Batcheller, A., Borgman, C.L., & Bowker, G.C. (2011). Science friction: Data, metadata, and collaboration in the interdisciplinary sciences. *Social Studies of Science,* 41(5): 667-690*.*
* **Mayernik, M.S.** (2010). The distributions of MARC fields in bibliographic records: A power law analysis. *Library Resources & Technical Services*, 54(1): 40-54.
* Pepe, A., **Mayernik, M.**, Borgman, C.L., & Van de Sompel, H. (2010). **From artifacts to aggregations: Modeling scientific life cycles on the semantic web*.*** *Journal of the American Society for Information Science and Technology*, 63(3): 567-582.
* Wallis, J.C., Borgman, C.L., **Mayernik, M.S.**, & Pepe, A. (2008). Moving archival practices upstream: An exploration of the life cycle of ecological sensing data in collaborative field research. *International Journal of Digital Curation*, 3(1).
* **Mayernik, M.S.** (2007). The prevalence of additional electronic features in pure e-journals. *Journal of Electronic Publishing*, 10(3).

**Peer-Reviewed Conference Publications**

* Hou, C.Y. & **Mayernik, M.S.** (2021). Improving the Usability of Organizational Data Systems. *International Journal of Digital Curation*, 16(1): 1-21. [Written for the *14th International Digital Curation Conference*]
* **Mayernik, M.S.** (2018). Scholarly resource linking: Building out a “relationship life cycle.” In L. Freund (Ed.), *Proceedings of the 81st Annual Meeting of the Association for Information Science and Technology (ASIS&T)* (pg. 337-346). Somerset, NJ: Wiley.
* Hou, C.-Y., **Mayernik, M.S.**, & Worley, S. (2017). Building community informed and driven data services at the National Center for Atmospheric Research. *Practice & Experience in Advanced Research Computing 2017 (PEARC17)*, Article No. 21.
* Hou, C.-Y. & **Mayernik, M.S.** (2016). Formalizing an attribution framework for scientific data/software products and collections. *International Journal of Digital Curation*, 11(2): 87-103. [Written for the *11th International Digital Curation Conference*]
* Hou, C.-Y., **Mayernik, M.S.**, Dattore, R., & Worley, S. (2015). Making dataset ingest decisions: A data archive’s appraisal and selection system implementation. *Proceedings of the 78th ASIS&T Annual Meeting,* 52: 1-4.
* **Mayernik, M.S.**, Thompson, C.A., Williams, V., Allard, S., Palmer, C.L., & Tenopir, C. (2015). Enriching education with exemplars in practice: Iterative development of data curation internships. *International Journal of Digital Curation*, 10(1): 123-134. [Written for the *10th International Digital Curation Conference*]
* Thompson, C.A., **Mayernik, M.S.**, Palmer, C.L., Allard, S., & Tenopir, C. (2015). LIS programs and data centers: Integrating expertise. In *Proceedings of the 2015 iConference*.
* **Mayernik, M.S.**, Davis, L., Kelly, K., Dattore, B., Strand, G., Worley, S., & Marlino, M. (2014). Research center insights into data curation education and curriculum. In Ł. Bolikowski, V. Casarosa, P. Goodale, N. Houssos, P. Manghi, & J. Schirrwagen (Eds.), *Theory and Practice of Digital Libraries -- TPDL 2013 Selected Workshops* (Vol. 416, pp. 239–248). Springer International Publishing.
* Callaghan, S., Tedds, J., Kunze, J., Khodiyar, V., Lawrence, R., **Mayernik, M.S.**, Murphy, F., Roberts, T., & Whyte, A. (2014). Guidelines on recommending data repositories as partners in publishing research data. *International Journal of Digital Curation*, 9(1): 152-163. [Written for the *9th International Digital Curation Conference*]
* Palmer, C.L., Thompson, C.A., Tenopir, C., Allard, S., **Mayernik, M.S.**, & Kreft, J. (2014). Responding to emerging data workforce demand: Harnessing data center expertise. In A. Grove (Ed.), *Proceedings of the 77th ASIS&T Annual Meeting*, vol. 51.
* Callaghan, S., Murphy, F., Tedds, J., Allan, R., Kunze, J., Lawrence, R., **Mayernik, M.S.***,* & Whyte, A. (2013). Processes and procedures for data publication: A case study in the geosciences. *International Journal of Digital Curation*, 8(1): 193-203. [Written for the *8th International Digital Curation Conference*]
* Kelly, K., Marlino, M., **Mayernik, M.S.**, Allard, S., Tenopir, C., Palmer, C.L., & Varvel Jr., V.E. (2013). Model development for scientific data curation education. *International Journal of Digital Curation*, 8(1): 255-264. [Written for the *8th International Digital Curation Conference*]
* **Mayernik, M.S.** (2013). Institutional structures for research data and metadata curation. in J. S. Downie, R.H. McDonald, et al. (Eds.), *Proceedings of the 13th ACM/IEEE-CS Joint Conference on Digital Libraries*, JCDL'13 (pp. 401-402), Indianapolis, IN: ACM.
* Weber, N.M., Thomer, A.K., **Mayernik, M.S.**, Dattore, R.E., Ji, Z., & Worley, S. (2013). The product and system specificities of measuring impact: Indicators of use in research data archives. *International Journal of Digital Curation*, 8(2): 223-234. [Written for the *8th International Digital Curation Conference*]
* Pepe, A. & **Mayernik, M.** (2012)**. The use of micro-blogging for field-based scientific research.** *Proceedings of the 45th Hawaii International Conference on System Science (HICSS-45 2012).* Maui, Hawaii.
* **Mayernik, M.S.**,Batcheller, A.L., & Borgman, C.L. (2011). How institutional factors influence the creation of scientific metadata. In *Proceedings of the 2011 iConference (iConference '11)*. New York, NY: ACM (pg. 417-425).
* **Mayernik, M.S.** (2010). Metadata tensions: A case study of library principles vs. everyday scientific data practices. *Proceedings of the American Society for Information Science and Technology*, 47(1).
* **Mayernik, M.S.** (2010). Metadata realities for cyberinfrastructure: Data authors as metadata creators. *iConference 2010 Proceedings* (pp. 148-153). Urbana-Champaign, IL: University of Illinois at Urbana-Champaign.
* Wallis, J.C., **Mayernik, M.S.**, Borgman, C.L., & Pepe, A. (2010). Digital libraries for scientific data discovery and reuse: From vision to practical reality. In *Proceedings of the 10th annual Joint Conference on Digital libraries* (JCDL '10). New York, NY: ACM.
* **Mayernik, M.S.**, Wallis, J.C., Pepe, A., & Borgman, C.L. (2008). Whose data do you trust? Integrity issues in the preservation of scientific data. *iConference 2008*. Los Angeles, CA.
* Wallis, J.C., Pepe, A., **Mayernik, M.S.**, & Borgman, C.L. (2008). An exploration of the life cycle of eScience collaboratory data. *iConference 2008*. Los Angeles, CA.
* Borgman, C.L., Wallis, J.C., **Mayernik, M.S.**, & Pepe, A. (2007). Drowning in data: Digital library architecture to support scientists’ use of embedded sensor networks. *JCDL '07: Proceedings of the 7th ACM/IEEE-CS Joint Conference on Digital Libraries, Vancouver, BC*. Association for Computing Machinery.
* **Mayernik, M.S.**, Wallis, J.C., Borgman, C.L., & Pepe, A. (2007). Adding context to content: The CENS Deployment Center. in Andrew Grove (Ed.), *Proceedings of the 70th ASIS&T Annual Meeting, vol. 44, 2007* (pg. 691-698). Silver Spring, Md.: ASIS&T.
* Pepe, A., Borgman, C.L., Wallis, J.C., & **Mayernik, M.S.** (2007). Knitting a fabric of sensor data and literature. in *Information Processing in Sensor Networks.* Cambridge, MA: Association for Computing Machinery/IEEE.
* Wallis, J.C., Borgman, C.L., **Mayernik, M.S.**, Pepe, A., Ramanathan, N., & Hansen, M. (2007). Know thy sensor: CENS as a case study of the relationship between data integrity, metadata, and data interpretation. *11th European Conference on Research and Advanced Technology for Digital Libraries, 2007*.

**Book Chapters**

* **Mayernik, M.S.** (2023). Towards stronger coupling between technical infrastructures and institutional processes in data-intensive science. In X. Ma, M. Mookerjee, L. Hsu, & D. Hills (Eds.), *Recent Advancement in Geoinformatics and Data Science*. Geological Society of America.
* Maull, K.E. & **Mayernik, M.S.** (2019). Scholarly metrics services at the National Center for Atmospheric Research. In E. Lasda (Ed.), *The New Metrics: Practical Assessment of Research Impact* (pp. 15-38)*.* Bingley, UK: Emerald Publishing.
* Glushko, R.J., McPherson, K., Greenberg, R., & **Mayernik, M**.**S.** (2013). Resource description and metadata. In R.J. Glushko (Ed.), *The Discipline of Organizing* (pp. 139-187). Cambridge, MA: MIT Press.
* Glushko, R.J., **Mayernik, M.S.**, Pepe, A., & Maloney, M. (2013). Describing relationships and structures. In R.J. Glushko (Ed.), *The Discipline of Organizing* (pp. 189-234). Cambridge, MA: MIT Press.

**Technical Reports & White Papers**

* **Mayernik, M.S.**, Schuster, D., Hou, C.-Y., & Stossmeister, G. (2018). *Geoscience Digital Data Resource and Repository Service (GeoDaRRS) Workshop Report.* NCAR Technical Note, NCAR/TN-552+PROC, Boulder, CO: National Center for Atmospheric Research.
* **Mayernik, M.S.**, Downs, R.R., Duerr, R., Hou, C.-Y., Meyers, N., Ritchey, N., Thomer, A., & Yarmey, L. (2017). *Stronger together: The case for cross-sector collaboration in identifying and preserving at-risk data*. Figshare. https://doi.org/10.6084/m9.figshare.4816474.v1
* **Mayernik, M.S.** (2013). *Bridging data lifecycles: Tracking data use via data citations workshop report.* NCAR Technical Note, NCAR/TN-494+PROC, Boulder, CO: National Center for Atmospheric Research.
* **Mayernik, M.S.** (2012). Quality control and peer review of data sets: How do data archiving processes map to data publication requirements? In G. Marchionini, C.A. Lee, H. Bowden, & M. Lesk (Eds.), *Curating for Quality: Ensuring Data Quality to Enable New Science*, Final Report: Invitational Workshop Sponsored by the National Science Foundation (pp. 57-58).
* **Mayernik, M.S.**, Daniels, M.D., Dattore, R.E., Davis, E.R., Ginger, K., Kelly, K.M., Marlino, M., Middleton, D.E., Phillips, J., Strand, G., Williams, S.F., Worley, S.J., & Wright, M.J. (2012). *Data citations within NCAR/UCP*. NCAR Technical Note, NCAR/TN-492+STR, Boulder, CO: National Center for Atmospheric Research.

**Additional Publications – Editor Reviewed**

* VandenBosch, A., Maull, K.E., & **Mayernik, M.S.** (in press). Jupyter notebooks and institutional repositories: A landscape analysis of realities, opportunities and paths forward. *Code{4}Lib*.
* Parsons, M.A. & **Mayernik, M.S.** (2023). 20 Years of Data Science: An Editorial. *Data*

*Science Journal*, 22: 1–3.

* Cutcher-Gershenfeld, J., Baker, K.S., Berente, N., Berkman, P.A., Berman, H.M., Canavan, P., Feltus, F.A., Garmulewicz, A., Rock, A.G., Hutchins, R., King, J.L., Kirkpatrick, C., Lenhardt, C., Levin, P., Lewis, S., Maffie, M., **Mayernik, M.S.**, Mittleman, B., Nusser, S.M., Plale, B., Sampath, R., Shin, N., Stall, S., Towns, J., Winter, S., Veazey, P., Zarecor, K.E. (2022). When launching a collaboration, keep it agile. *Stanford Social Innovation Review,* 20(2): 41-47.
* Staunton, C., Barragán, C. A., Canali, S., Ho, C., Leonelli, S., **Mayernik, M.S.,** Prainsack, B., & Wonkham, A. (2021). Open science, data sharing and solidarity: who benefits? *History and Philosophy of the Life Sciences*, 43(4): Article #115.
* Schuster, D.C., **Mayernik, M.S.**, Hou, C.Y., Stossmeister, G., Zhang, F., Nguyen, T.B., Downs, R.R., Kinkade, D., & Ramamurthy, M. (2019). Challenges and future directions for data management in the geosciences. *Bulletin of the American Meteorological Society,* 100(5): 909-912.
* Cutcher-Gershenfeld, J., Baker, K.S., Berente, N., Flint, C., Gershenfeld, G., Grant, B., Haberman, M., King, J.L., Kirkpatrick, C., Lawrence, B., Lewis, S., Lenhardt, W.C., **Mayernik, M.S.**, McElroy, C., Mittleman, B., Shin, N., Stall, S., Winter, S., & Zaslavsky, I. (2017). Five ways consortia can catalyse open science. *Nature*, 543(7647): 615-617.
* **Mayernik, M.S.**, Phillips, J., & Nienhouse, E. (2016). Linking publications and data: Challenges, trends, and opportunities. *D-Lib Magazine,* 22(5/6).
* **Mayernik, M.S.**, Ramamurthy, M.K., & Rauber, R.M. (2015). Data Archiving and Citation within AMS Journals. [Two-page editorial published simultaneously in the April 2015 issue of ten American Meteorological Society journals.]
* Ma, X., Fox, P., & **Mayernik, M.S.** (2014). Strengthening an interagency network for geoscience data sets. *Eos, Transactions, American Geophysical Union*, 95(45): 411.
* **Mayernik, M.S.** (2012). Data citations: Initiatives, issues, and first steps. *Bulletin of American Society for Information Science and Technology,* 8(5): 23-28.
* **Mayernik, M.S.** (2012). Session summary: The RDAP12 data citation panel. *Bulletin of American Society for Information Science and Technology,* 8(5): 31.
* **Mayernik, M.S.**, Choudhury, G.S., DiLauro, T., Metsger, E., Pralle, B., Rippin, M., & Duerr, R. (2012). The Data Conservancy Instance: Infrastructure and organizational services for research data curation. *D-Lib Magazine,* 18(9/10).

**Grants Received**

* Co-P.I. – “Data Landscaping and FAIRification to Support the NIAID Mission.” PI Keith Maull (NCAR), Sub-award from UC-San Diego, $99,999, Oct. 2023.
* P.I. – “Embedding Personal Digital Identifiers into UCAR|NCAR Business and Research Information Systems,” UCAR President’s Strategic Initiative Fund, $63,212, Mar. 2023.
* P.I. – “FAIR Facilities and Instruments: Enabling transparency, reproducibility, and equity through persistent identifiers,” Co-PI Andrew Johnson (U. Colorado-Boulder), Renaine Julian (Florida State U.), NSF, NCAR award $235,337, total $471,846, Oct. 2022.
* Co-P.I. – “EarthCube Publication Metrics Analysis,” PI Keith Maull (NCAR), Sub-award from NSF-funded EarthCube Office at UC-San Diego, $64,881, Oct. 2020.
* Co-P.I. – “‘What About Model Data?’: Determining Best Practices for Archiving and Reproducibility,” PI Gretchen Mullendore (U. North Dakota), Co-PI Doug Schuster (NCAR), NSF, NCAR award $119,386, total $262,585, Oct. 2019.
* Co-P.I. – “Geoscience Digital Data Resource and Repository Service (GeoDaRRS) Workshop,” PI Doug Schuster (NCAR), NSF, $99,499, June 2017.
* P.I. – “Rescue of Data at Risk Workshop”, Alfred P. Sloan Foundation, $20,000, Sept. 2016.
* P.I. – “Repository Cross-Linking for Open Archiving and Sharing of Scientific Data and Articles”, Co-PI Don Middleton (NCAR), NSF, $72,553, Dec. 2014.
* P.I. – “Tracing the Use of Research Resources using Persistent Citable Identifiers”, Co-PI Keith Maull (NCAR), NSF, $281,718, Oct. 2014.
* P.I. – “Enabling Scientific Collaboration and Discovery through Semantic Connections”, Co-PIs Mike Daniels (NCAR), Linda Rowan (UNAVCO), Dean Krafft (Cornell University), NSF, NCAR award $856,480, total $1,650,000, Sept. 2014.

**Archived Data & Software**

* Schuster, D., **Mayernik, M.S.**, & Mullendore, G. (2023). *Products developed through the "What About Model Data?, Determining Best Practices for Preservation and Replicability, EarthCube Research Coordination Network" project*. Version 3.0. UCAR/NCAR - GDEX. https://doi.org/10.5065/g936-q118
* Liapich, Y. & **Mayernik, M.S.** (2021). *Investigation of metadata standard use by geoscience data repositories* [data set]. UCAR/NCAR - DASH Repository. Version 2.0. https://doi.org/10.5065/z9ch-wk24
* **Mayernik, M.S.** & Maull, K.E. (2017). *Data and software from: Assessing the uptake of persistent identifiers by research infrastructure users*. Zenodo. https://doi.org/10.5281/zenodo.437885
* Hernandez, R.R., **Mayernik, M.S.**, Murphy-Mariscal, M.L., & Allen, M.F. (2012). *Data from: Advanced technologies and data management practices in environmental science: Lessons from academia.* Dryad Data Repository. https://doi.org/10.5061/dryad.cv86385c

**Instructional Activities**

* Adjunct Professor – LIS 545 B, “Data Curation - Fundamentals” *2023*

Master’s program in Library & Information Science, University of Washington

* Adjunct Professor – LIS 4700 and 4220, “Data Curation” *2015, 2016, 2021*

Master’s program in Library & Information Science, University of Denver

* Federation of Earth Science Information Partners (ESIP) Data Management Short Course
  + Eight educational modules authored *2011-2012*

<http://commons.esipfed.org/datamanagementshortcourse>

* Special Reader - IS 260: Information Structures *2010*

UCLA, Department of Information Studies

Instructor: Prof. Gregory Leazer

* Special Reader - IS 260: Information Structures  *2009*

UCLA, Department of Information Studies

Instructor: Prof. Gregory Leazer

**Student Advising and Mentoring**

* Doctoral dissertation committee member

Cheryl Thompson, University of Illinois at Urbana-Champaign *Completed 2017*

Karen Baker, University of Illinois at Urbana-Champaign *Completed 2017*

* Master’s practicum/independent study advisor:

University of Denver, Library and Information Science *2015, 16, 20-22*

University of Tennessee, Knoxville, School of Information Sciences *2021*

Hong Kong University, Division of Information and Technology Studies *2016*

University of Illinois at Urbana-Champaign, Lib. and Info. Science *2014-15*

* Mentor – DCERC internship program *2012-14*

Digital Curation Education in Research Centers (DCERC)

Mentored nine Master’s and three Ph.D. library and information science students

* Mentor – NCAR CISL SIParCS internship program *2012, 2019*

Summer Internships in Parallel Computational Science (SIParCS)

* Mentor – Summer@CENS, Center for Embedded Networked Sensing *2008*

Mentored one high school summer intern

**Invited Presentations**

* “FAIR & Persistent Identifiers (PIDs)”, Accelerating and Deepening Approaches to FAIR Data Sharing: A Workshop, National Academies of Sciences, Engineering, and Medicine's Board on Research Data and Information (BRDI), Apr. 20, 2023, online.
* “Considerations for Prospective Data Curation Professionals,” Guest speaker, University of Michigan, Master’s course in Data Curation, Apr. 5, 2023, online.
* “Data Citation,” Guest speaker, University of Tennessee, Knoxville, Master’s course in Data Management, Oct. 20, 2022, online.
* “Considerations for Prospective Data Curation Professionals,” Guest speaker, University of Michigan, Master’s course in Data Curation, Mar. 14, 2022, online.
* Invited panelist in webinar on “Science Impact Metrics,” National Science Foundation, Feb. 16, 2022, online.
* Invited panelist in plenary session, “Open Science, Data Sharing, and Solidarity: Who Benefits?” International Society for the History, Philosophy, and Social Studies of Biology (ISHPSSB) Biennial Conference, July 14, 2021, online.
* “Considerations for Prospective Data Curation Professionals,” Guest speaker, University of Michigan, Master’s course in Data Curation, Apr. 29, 2021, online.
* (with Doug Schuster). “Determining Best Practices for Archiving and Reproducibility of Model Data,” US CLIVAR Inter-Agency Group Meeting, Sept. 18, 2020, online.
* (with Keith Maull). “Packaging data and software: Jupyter as a publication platform,” USGS Community for Data Integration, Oct. 9, 2019, webinar.
* “What does data curation mean to library technical services?” 2019 Council on East Asian Libraries (CEAL) Cataloging Workshop, Mar. 19, 2019, Boulder, CO.
* “How should information professionals approach data management and curation?” Rocky Mountain Special Libraries Association's 5th Annual Rocky Mountain Mini-Conference, Oct. 19, 2018, Denver, CO.
* (with Amelia Acker) “Metadata and Networked Communications: Contributions of Information Science,” ASIS&T Meet the Authors Webinar Series, May 3, 2018.
* “Measuring Data Sharing through Data Citation,” NIH-NSF SciSIP Workshop on the Value of Data Sharing, Oct. 13, 2017, Washington, D.C.
* “Making Data Visible: Moving Towards Openness and Transparency through Data Citations,” U.S. Department of Agriculture, Animal and Plant Health Inspection Service, National Wildlife Research Center, Aug. 24, 2017, Fort Collins, CO.
* “Data Management in the Field,” UCLA, Department of Information Studies, April 20, 2017.
* “EarthCollab: Enabling Scientific Collaboration and Discovery Through Linked Scientific Resources,” EarthCube Webinar Series, Aug. 5, 2016.
* “Building Geoscience Semantic Applications Using Established Ontologies,” Ontology Summit 2016, Feb. 25, 2016, web conference.
* “Data and Software Citation,” 2015 Unidata Users Workshop, June 25, 2015, Boulder, CO.
* “Conversations about Data Citation,” EZID Webinar, Sept. 24, 2014.
* “Data Attribution, Traceability, and Transparency: Initiatives at NCAR,” University of Leicester, March 13, 2013, Leicester, UK.
* “Library Contributions to Institutional Research Data Curation Challenges,” DataDay Workshop, Univ. of Colorado, Boulder, Libraries, Dec. 11, 2012, Boulder, CO.
* “Making Data Visible: Moving Towards Accessibility, Openness, and Transparency through Data Citations,” 18th Biennial AMS/AGU Joint Heads and Chairs Meeting, October 19, 2012, Boulder, CO.
* “Emergent Research Questions in Data Curation,” University of Illinois at Urbana-Champaign, Graduate School of Lib. and Info. Science, Sept. 27, 2012.
* “(Un)ambiguous citations to web-based research products: data, software, and services,” 2012 Unidata Users Workshop, July 12, 2012, UCAR, Boulder, CO.
* (with Mary Marlino and Carole Palmer). “You Can't Use Something You Can't Find: Data Citation and Data Workforce Dependencies,” Brown-bag presentation, National Science Foundation, May 23, 2012, Washington, D.C.
* “Library Contributions to Institutional Research Data Curation Challenges,” TechBytes Workshop Series, ASIS&T student chapter of the University of Denver Library and Information Science program, May 15, 2012, Denver, CO.
* “Making Data Visible: Moving Towards Openness and Transparency through Data Citations,” Natural Resources Ecology Lab Spring 2012 Seminar Series, Colorado State University, March 9, 2012, Fort Collins, CO.
* “Data Citations at NCAR: Motivations, Measurements, and Organizational   
  Alignments,” Institute of Cognitive Science, University of Colorado, Boulder, Nov. 18, 2011, Boulder, CO.
* (with Michael Stealey). “Designing Data Driven Systems for Real-world Applications,” CENS 5th Annual Research Review, Oct. 10, 2007, UCLA.

**Invited Workshops Attended**

* “Workshop on Open Data and Reuse in Social Science Weather Research”, National Oceanic and Atmospheric Administration & National Science Foundation, April 11-12, 2023, Boulder, CO.
* “Fostering Data Reusability Workshop,” National Science Foundation, June 14, 15, & 22, 2021, online.
* “National Cyberinfrastructure Coordination Service: Rethinking the Computational Ecosystem for 21st Century Science and Engineering,” National Science Foundation, June 27-28, 2019, Washington, DC.
* “EarthCube Architecture Refinement Workshop,” National Science Foundation, July 10-12, 2017, Boulder, CO.
* “Imagining Tomorrow's University,” National Science Foundation, March 8-9, 2017, Chicago, IL.
* “NEON Cyberinfrastructure Workshop,” National Science Foundation, June 13-14, 2016, Boulder, CO.
* “NSF Software Infrastructure for Sustained Innovation (SI2) Principal Investigator (PI) workshop,” National Science Foundation, Feb. 17-18, 2015, Arlington, VA.
* “EarthCube Assembly Synthesis Workshop,” National Science Foundation, April 16-18, 2014, Tucson, AZ.
* “Data and Software Preservation for Open Science Workshop 2: Survey of Commonality with other Disciplines,” July 25, 2013, Indianapolis, IN.
* “Curating for Quality: Ensuring Data Quality to Enable New Science,” National Science Foundation, Sept. 10-11, 2012, Arlington, VA.
* “Big Data and Long Tails: Addressing the Cyber-Infrastructure Challenges for Research on a Budget,” Institute for Computing in Science, July 28-August 4, 2012, Park City, UT.
* “Developing Data Attribution and Citation Practices and Standards: An International Symposium and Workshop,” US CODATA and the Board on Research Data and Information in collaboration with CODATA-ICSTI Task Group on Data Citation Standards and Practices, Aug. 22-23, 2011, Berkeley, CA.
* CENS Student Representative. “2009 National Science Foundation Science and Technology Center Directors Meeting,” Sept. 16-17, 2009, Boulder, CO.

**Conference Presentations (last four years)**

* [Oral] Embedding Persistent Identifiers into Organizational Information and Data Services at the National Center for Atmospheric Research, *CNI Spring 2023 Membership Meeting,* Denver, CO, Apr. 4, 2023.
* [Oral] Increasing the Discoverability and Traceability of Research Facilities and Instruments through Persistent Identifiers, *103rd Annual Meeting of the American Meteorological Society*, Denver, CO, Jan. 9, 2023.
* [Oral] Managing File Formats in a Data Search System, *103rd Annual Meeting of the American Meteorological Society*, Denver, CO, Jan. 10, 2023.
* [Oral] The Use of Metadata and Vocabulary Standards in Scientific Data Repositories. *102nd Annual Meeting of the American Meteorological Society*, online, Jan. 26, 2022.
* [Oral] Towards a Critical Technical Practice of Metascience: Comparison Between 21st Century Data Science and 20th Century Information Science. *Annual Meeting of the Society for Social Studies of Science,* online, Oct. 6, 2021.
* [Oral] Institutional Repository as Connection Point: Linking Papers, Data, Software, and Grants. *24th Annual Conference of Atmospheric Science Librarians International (ASLI)*, online, Jan. 14, 2021.
* [Oral] Determining Best Practices for Preservation and Replicability of Model Data. *American Geophysical Union Annual Meeting,* online, Dec. 11, 2020.
* [Oral] Connecting People and Data Via a Collaborative Data Repository, *Research Data Access & Preservation (RDAP) Summit*, Santa Fe, NM, Mar. 11, 2020.
* [Oral] Managing Diverse Data Submissions within a Multirepository Ecosystem, *100th Annual Meeting of the American Meteorological Society*, Boston, MA, Jan. 16, 2020.
* [Oral] Achieving Scientific Reliability in Climate Science via Intercomparisons: Institutional and Infrastructural Coupling, *Annual Meeting of the Society for Social Studies of Science,* New Orleans, LA, Sept. 6, 2019.
* [Oral] Developing a Cross-Organizational Search and Discovery System at the National Center for Atmospheric Research, *99th Annual Meeting of the American Meteorological Society*, Phoenix, AZ, Jan. 10, 2019.
* [Oral] Scholarly Resource Linking: Building Out a “Relationship Life Cycle.” *81st Annual Meeting of the Association for Information Science and Technology (ASIS&T)*, Vancouver, BC, Canada, Nov. 13, 2018.
* [Oral] Categorizing Data Risk Factors, *Earth Science Information Partners (ESIP) 2018 Summer Meeting*, Tucson, AZ, July 17, 2018.

**Honors**

* Graduate of UCAR Leadership Academy, 2020.
* Winner - NSF EarthCube Program, Community Service Award, 2019.
* Winner - Association for Information Science and Technology (ASIS&T) Bob Williams History Fund Award, 2017.
* Nominee - UCAR Outstanding Accomplishment Award in Mentoring, 2014, 2015.
* Best Poster Award (with Karon Kelly, Mary Marlino, and Mike Wright): Making Data Visible: Data Citation Policy and Implementation at NCAR. *International Digital Curation Conference*, Dec. 6, 2011, Bristol, UK.
* UCLA Dept. of Information Studies, Ph.D. Dissertation Proposal Award, 2010.
* UCLA Graduate Division Dissertation Year Fellowship, 2010-2011 academic year.

**Organizational Service**

* Member **-** UCAR CIO Advisory Council *2022-*
* Member **-** UCAR Human Subjects Committee *2017-*
* Member & co-organizer **-** NCAR Data Stewardship Engineering Team (DSET) *2014-*
  + DSET Chair *2017-*
* Member **-** UCAR Information Technology Council *2017-2018*
* Member **-** UCAR Strategic Plan writing team *2014*
* Co-lead **-** UCAR Information Technology Council strategic plan working group on Data Services *2013*

**Workshop & Conference Organizing**

* Member of organizing committee – “SciDataCon,” October 23-26, 2023, Salzburg, Austria.
* Co-organizer - “EarthCube Annual Meeting,” June 12-14, 2019, Denver, CO, 90 participants.
* Co-organizer - “Geoscience Digital Data Resource and Repository Service (GeoDaRRS) Workshop,” August 7-9, 2018, Boulder, CO, 65 participants.
* Lead organizer - “EarthCube All-Hands Meeting,” June 7-9, 2018, Washington, DC, 125 participants.
* Co-organizer - “Rescue of Data at Risk,” Sept. 8-9, 2016, Boulder, CO, 50 participants.
* Lead organizer - “Data & Publication Linking,” Jan. 5, 2016, Washington, D.C., 19 participants.
* Co-organizer - “GeoData 2014,” June 17-19, 2014, Boulder, CO, 80 participants.
* Lead organizer - “Bridging Data Lifecycles: Tracking Data Use via Data Citations,” April 5-6, 2012, Boulder, CO, 80 participants.

**Professional Activities**

* **Joint Editor-in-Chief** - ***Data Science Journal 2021-***
* **Editorial board member** 
  + ***Journal of the Association for Information Science & Technology 2019-***
  + ***Data Science Journal 2015-21***
* Member - ASIS&T ProQuest Doctoral Dissertation Award committee *2020-21*
* Member - Committee on Open Environmental Information Services, American Meteorological Society *2020-*
* Member - “Future of 4S Archival and Research Infrastructure” Committee,

Society for Social Studies of Science (4S) *2019*

* Member - Board on Data Stewardship, American Meteorological Society *2014-19*
  + Chair - Revision Committee for AMS data policy statement *2018*
  + Chair - AMS Ad Hoc Committee on Data Archiving and Citation *2015*
* Chair - Data Stewardship Committee, Earth Science Information Partners (ESIP) *2017-18*
* Member - Community Engagement and Outreach Working Group,

Data Observation Network for Earth (DataONE) *2014-16*

* Proposal Reviewer
  + Institute for Museum and Library Services
  + National Science Foundation
    - **Computer and Information Science and Engineering (CISE)**
    - **Geoinformatics**
    - **Methodology, Measurement, and Statistics (MMS)**
    - **Science of Science and Innovation Policy (SciSIP)**
    - **Science, Technology, and Society (STS)**
* **Peer Reviewer** 
  + **Frequent:**

***Data Science Journal;*** *Journal of the Association for Information Science & Technology (JASIS&T);* ASIS&T Annual Meeting; iConference

* + **Periodic/One-time:**

***Beilstein Journal of Nanotechnology; Bulletin of the American Meteorological Society; Big Data & Society; Computer Supported Cooperative Work (****CSCW****); Computers and Geosciences; Data; Earth and Space Science; Earth Science Informatics; Frontiers in Marine Science; Geoscience Model Development; Harvard Data Science Review,*** *Journal of Chemical Information and Modeling; Journal of Cheminformatics; Journal of Informetrics; Library and Information Science Research; Meteorologische Zeitschrift; Publications; Quantitative Science Studies, Science & Technology Studies;* *Science as Culture; Social Studies of Science*; Conference on Computer Supported Cooperative Work (CSCW); **Joint Conference on Digital Libraries (JCDL); SciDataCon**

**Professional Memberships**

* American Geophysical Union (AGU)
* **American Meteorological Society (AMS)**
* Association for Information Science & Technology (ASIS&T)
* Atmospheric Science Librarians International (ASLI)
* Research Data Access and Preservation (RDAP)
* Research Data Alliance (RDA)
* Society for Social Studies of Science (4S)