

Curriculum Vitae - Karl Kent Benedict

(m)(505) 239-4115 | kbene@unm.edu | ORCID: 0000-0002-9109-2072

Education

July 2004, Ph.D., with Distinction, Anthropology, University of New Mexico.

May 1995, M.A., with Distinction, Anthropology, University of New Mexico.

May, 1986, B.A., Anthropology, University of California, Berkeley.

Selected Employment/Professional Experience

8/24-Present (planned), University of New Mexico, College of University Libraries and Learning Sciences (CUL&LS): *Emeritus Professor*

7/21-7/24, University of New Mexico, CUL&LS: *Professor*: Director of Information Technology, Director of Research Data Services (RDS, through 6/24), Director of Digital Initiatives and Scholarly Communications (DISC, 6/24), Director of newly combined RDS/DISC and Learning and Outreach Services unit (7/24).

7/14-6/21, University of New Mexico, CUL&LS: *Associate Professor*: Director of Information Technology (5/19-6/21), Director of Research Data Services (7/14-6/21)

7/08-6/14, University of New Mexico, Earth Data Analysis Center: *Director* / Department of Geography: *Research Assistant Professor*

9/11-3/14, University of New Mexico, CUL&LS: *Research Assistant Professor*

2/01-6/08, University of New Mexico, Earth Data Analysis Center: *Senior Research Scientist, Research Scientist, IT Manager*

Selected Publications & Products

Benedict, K., & Wheeler, J. (2022). "Complementary Scales for Learning, The Feedback Loop between Short-Form Technical Workshops and Long-Form Carpentries Workshops." In Bauder, J. (ed.), *Teaching Research Data Management* (pp. 133-151). ALA Editions, Chicago.

Molder, Edmund B., Schenkein, Sarah F., McConnell, Abby E., Benedict, Karl K., & Crista L Straub. (2022). "Landsat Data Ecosystem Case Study: Actor Perceptions of the Use and Value of Landsat" *Frontiers in Environmental Science Environmental Informatics and Remote Sensing*. <https://doi.org/10.3389/fenvs.2021.805174>

Fundeen, J., Percivall, G., Baros, S., Baumann, P., Becker, P., Behnke, J., Benedict, K., Colaiacomo, L., Di, L., Doescher, C., Dominguez, J., Edberg, R., Ferguson, M., Foreman, S., Giaretta, D., Hutchison, V. B., Ip, A., James, N. L., Khalsa, S. J. S., ... Young, J. (2020). "Chapter 6: Archiving and Access Systems for Remote Sensing." In *ASPRS Manual of Remote Sensing* (Fourth Edition, pp 451-639). American Society for Photogrammetry and Remote Sensing

Gregory, A., Chen, C., Wu, R., Miller, S., Ahmad, S., Anderson, J. W., Barrett, H., Benedict, K., Cadol, D., Dascalu, S. M., Delparte, D., Fenstermaker, L., Godsey, S., Harris, F. C., McNamara, J. P., Tyler, S. W., Savickas, J., Sheneman, L., Stone, M., & Turner, M. A. (2020). "Efficient Model-Data Integration for Flexible Modeling, Parameter Analysis and Visualization, and Data Management." *Frontiers in Water*, 2, 21 pages. <https://doi.org/10.3389/frwa.2020.00002>

Benedict, K. (2017). "The Geographic Storage, Transformation and Retrieval Engine (GSToRE): A Platform for Active Data Access and Publication as a Complement to Dedicated Long-Term Preservation System." In *Curating research data. Volume two, A handbook of current practice* (Vol. 2, pp. 207-209). Association of College and Research Libraries.

Wheeler, Jonathan, Karl Benedict. 2015. 'Functional Requirements Specification for Archival Asset Management: Identification and Integration of Essential Properties of Services Oriented Architecture Products'. *Journal of Map and Geography Libraries* 11(2). pp. 155-179. DOI: 10.1080/15420353.2015.1035474.

Del Rio, N., Villanueva-Rosales, N., Pennington, D., Benedict, K., Stewart, A., Grady, C. J. (2013). "ELSEWeb Meets SADI: Supporting Data-to-Model Integration for Biodiversity Forecasting." Paper presented at *Discovery Informatics: AI Takes a Science-Centered View on Big Data*. AAAI Technical Report FS-13-01. pp 8-15.

Qunying Huang, Chaowei Yang, Karl Benedict, Abdelmounaam Rezgui, Jibo Xie, Jizhe Xia Songqing Chen. 2012. 'Using adaptively-coupled models and high performance computing for enabling the computability of dust storm forecasting'. *International Journal of Geographical Information Science*. 27(4):765-784. DOI:10.1080/13658816.2012.715650.

Huang, Qunying, Jizhe Xia, Manzhu Yu, Karl Benedict, and Myra Bambacus. 2013. 'Cloud-enabled Dust Storm Forecasting', in *Spatial Cloud Computing, a Practical Approach*. Chaowei Yang and Qunying Huang, eds. CRC Press. <http://dx.doi.org/10.1201/b16106-14>

Benedict, K. (2017). 'The Geographic Storage, Transformation and Retrieval Engine (GSToRE): A Platform for Active Data Access and Publication as a Complement to Dedicated Long-Term Preservation System'. In *Curating research data. Volume two, A handbook of current practice* (Vol. 2, pp. 207-209), Lisa R. Johnston, ed. Chicago, IL: Association of College and Research Libraries.

"Geographic Storage, Transformation and Retrieval Engine Version 3 (GSToRE)." 2018. Geospatial data management, discovery and access platform and associated Application Programming Interface. Developed by the development team at the Earth Data Analysis Center at the University of New Mexico. <https://web.archive.org/web/20130704202601/http://gstore.unm.edu>, <https://github.com/edac-epscor/gstore-ansible>.

"Data Management Training Clearinghouse (DMTC)." 2020 - 2023. Curated clearinghouse for distributed research data management training materials accessible over the web. <https://dmtclearinghouse.esipfed.org/>. Related software releases: a. Barrett, Hays, Benedict, Karl, Hoebelheinrich, Nancy, & Wong, Mona. (2023). Application Programming Interface code for the Data Management Training Clearinghouse (0.1.0-2022-07ESIPDemo). Zenodo. <https://doi.org/10.5281/zenodo.7787156>; b. Benedict, Karl, Wong, Mona, Hoebelheinrich, Nancy, & Barrett, Hays. (2023). User interface code for the Data Management Training Clearinghouse (0.1.0-2022- 07ESIPDemo). Zenodo. <https://doi.org/10.5281/zenodo.7787157>

Selected Synergistic Experience

2019 - Present, Earth Science Information Partners (ESIP) Group on Earth Observations (GEO) alternate Programme Board Representative, GEO Data Working Group Member, and GEOSS Infrastructure Development Task Team Member.

2019 - Present, Certified *Carpentries Instructor* (2/2019-Present), *Carpentries Instructor Trainer* (4/2022 - Present).

2017 - Present, *DataONE Management Team* member.

2012-14, 2019-2020, *President*, Earth Science Information Partners (ESIP).

2015 - 2018, *Technical Advisory Committee* (Chair), Digital Preservation Network

2011 - 2014, *Member of the Data Management and Communications (DMAC) Steering Committee* of the Interagency Ocean Observation Committee (IOOC)

2010 - 2012, *Member of the National Advisory Council for Environmental Policy and Technology* for the US Environmental Protection Agency (EPA)