

## Karl Benedict

College of University Libraries and Learning Sciences, University of New Mexico.  
MSC05 3020, 1 University of New Mexico, Albuquerque, NM 87131. kbene@unm.edu, (505) 277-5256

### Professional Preparation

University of New Mexico	Albuquerque, NM	Anthropology	2004 - Ph.D. with distinction
University of New Mexico	Albuquerque, NM	Anthropology	1995 - M.A. with distinction
University of California	Berkeley, CA	Anthropology	1986 - B.A.

### Relevant Appointments

University of New Mexico	UNM College of University Libraries & Learning Sciences Assoc. Professor, Director of Research Data Svc. Subject Librarian: Geography & Environmental Studies, Earth & Planetary Sciences, Life Sciences (2015-16)	2014-Present
University of New Mexico	UNM College of University Libraries & Learning Sciences Assistant Professor, Geospatial and Env. Data Scientist	2014
University of New Mexico	UNM Department of Geography & Environmental Studies Affiliated Faculty	2008-Present
University of New Mexico	UNM Earth Data Analysis Center Director	2008-2014
University of New Mexico	UNM Department of Anthropology. Adjunct Professor	2004-Present
University of New Mexico	UNM Earth Data Analysis Center Senior Research Scientist, Research Scientist, IT Manager	2001-2008
University of New Mexico	UNM Office of Evaluation Project Assistant - Data Analyst	2000
University of New Mexico	UNM Earth Data Analysis Center Project Assistant - Web Application Developer	1999-2001
National Park Service	Pecos National Historic Park Data Analyst	1999-2001
University of New Mexico	UNM Department of Anthropology Graduate Assistant - Computer Lab Manager	1994-1997
Ebert & Associates	Data Analyst	1994-1995
University of New Mexico	UNM Computer Information Resources & Technology Help Desk Liaison	1993-1996

### Products

#### Five Most Related Publications and Other Products

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](https://doi.org/10.1080/15420353.2015.1035474).

Qunying Huang, Chaowei Yang, Karl Benedict, Abdelmounaam Rezgui, Jibo Xie, Jizhe Xia Songqing Chen. 2013. '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](https://doi.org/10.1080/13658816.2012.715650).

Brookshire, David G., David Goodrich, Mark D. Dixon, L. Arriana Brand, Karl Benedict, Kevin Lansey, Jennifer Thacher, Craig Broadbent, Steve Stewart, Molly McIntosh, and Doosun Kang. 2010. 'Ecosystem

Services and Reallocation Choices: A Framework for Preserving Semi-Arid Regions of the Southwest'. *Journal of Contemporary Water Research & Education*. Issue 144: 60-74. DOI:[10.1111/j.1936-704X.2010.00075.x](https://doi.org/10.1111/j.1936-704X.2010.00075.x)

Huang, Qunying, Jizhe Xia, Manzu 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. DOI:[10.1201/b16106-14](https://doi.org/10.1201/b16106-14)

"New Mexico Resource Geographic Information System". 2002. Web application developed by Karl Benedict to provide browsing, discovery and download of geospatial data published as part of the New Mexico Resource Geographic Information System Program at the Earth Data Analysis Center at the University of New Mexico. <https://web.archive.org/web/20020913053314/http://rgis.unm.edu/>

## Five Other Significant Publications and Other Products

Leptoukh, G, R Kiang, R Soebiyanto, D Tong, P Ceccato, S Maxwell, R Rommel, G Jacquez, K Benedict, S Morain, P Yang, Q Huang, M Golden, R Chen, J Pinzon, B Zaitchik, D Irwin, S Estes, J Luvall, M Wimberly, X Xiao, K Charland, R Stumpf, Z Deng, C Tilburg, Y Liu, L McClure, and A Huff. 2012. 'Data Discovery, Access and Retrieval', in *Environmental Tracking for Public Health Surveillance*. Morain and Budge, eds. CRC Press, pp. 229–291.

Watson, Richard, Manfred Ehlers, Thomas K. Budge, and Karl Kent Benedict. 2006. 'New and Emerging Instruments and Some Emerging Trends for Remote Sensing of Human Settlements'. Chapter 12 in *Remote Sensing of Human Settlements*. Manual of Remote Sensing, 3rd ed., Volume 5. Merrill Ridd and James D. Hipple eds. ASPRS, Bethesda, Maryland. pp. 713-738.

Eric Fritzinger, Sergiu M. Dascalu, Daniel P. Ames, Karl Benedict, Ivan Gibbs, Michael J. McMahon, Jr., Frederick C. Harris, Jr. 2012. 'The Demeter Framework for Model and Data Interoperability'. *Proceedings of the 2012 International Congress on Environmental Modelling and Software: Managing Resources of a Limited Planet: Pathways and Visions under Uncertainty*, R Seppelt, A.A. Voinov, S. Lange, D. Bankamp (Eds.). International Environmental Modelling and Software Society (iEMSs) Sixth Biennial Meeting, Leipzig, Germany.

Watson, Richard, Louis A. Scuderi, Karl Kent Benedict, and Theresa R. Kuntz. 2004. 'Data Fusion for Environmental Assessment: Integrating MODIS Imagery and NEXRAD Weather Radar'. International Society for Photogrammetry and Remote Sensing, 20th International Congress, Istanbul, June. *Archives B-4*:906-909

"Geographic Storage, Transformation and retrieval Engine Version 3". 2013. Geospatial data management, discovery and access platform and associated Application Programming Interface. Developed at the Earth Data Analysis Center at UNM under the direction of Karl Benedict. <https://web.archive.org/web/20130704202601/http://gstore.unm.edu>

## Synergistic Activities

- President of the *Federation of Earth Science Information Partners* - 2012-2014
- Member of the Board of Directors for the *Foundation for Earth Science* - 2010-Present (Chair/President 2012-Present)
- *Technical Advisory Committee* (Chair), Digital Preservation Network - 2015-Present
- *External Advisory Board Member*, US Virgin Islands NSF EPSCoR Track 1 Project - 2014-Present
- *Member of the Data Management and Communications (DMAC) Steering Committee* of the Interagency Ocean Observation Committee (IOOC) - 2011-2014
- *Member of the National Advisory Council for Environmental Policy and Technology* for the US Environmental Protection Agency (EPA) - 2010-2012