

PUNEET KISHOR

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Biography



Since 1985 my career has spanned rural appropriate technology design to international development, academia, research and science information policy. I am a science researcher and an open access advocate, an engineer and an environmental scientist with expertise in both scientific information analysis as well as policy. As such, I have expertise in both 'science for policy' as well as 'policy for science.' My current interests are in open sensor-based hardware, ethical issues around citizen-sourced information, licensing open hardware and certification of data quality, novel ways of citizen-engagement, and promoting hacker/maker spaces for learning-by-making, teaching-by-doing. I believe that not only is it possible to be both a practitioner and a policy person at the same time, in today's day and age it is the *only* way to ensure that our work has the highest possibility of making an impact, be it uncovering new knowledge or solving an intractable problem at all scales from local to global. And in a world where the barriers between enterprise, research and community are dissolving fast aided by digital technology, ubiquitous computing and fast network, I work to enable science as a gift that keeps on giving through the use of "private data for public good" as well as "public data for private good." I help domain scientists make sense of data by adopting, adapting and creating novel data acquisition, analysis and access techniques. And I work on the policies to create an environment where information is *open by default*.

Experience

2015-continuing. Researcher and Independent Consultant

Current Projects

Since September 2016, I am a visiting researcher at *SUB (the state and university library), University of Göttingen, Göttingen, Germany*, exploring their various open science/data initiatives with a focus on visualizing and sharing geospatial information as part of the Göttingen Centre for Digital Humanities (GCDH).

As a member of *Plazi, Bern, Switzerland*, a non-profit dedicated to text mining taxonomic literature, I work on open access policy, technology and quality control issues.

I am continuing to work with *The World Bank* to create a Meta-MOOC on spatial information literacy and analysis.

Past Projects

April-June 2016, I was advising *Academy Health, Washington DC, USA*, on [CIELO](#), a web-based platform for storing and sharing data and software by health and medical researchers. In addition, I was helping Academy Health move [eGEMS](#), their peer-reviewed, open access journal on health services research, to an open publishing platform.

At *Homi Bhabha Centre for Science Education, TIFR, Mumbai, India*, I was a visiting scientist at [CUBE](#), a bio learning and hacking space within HBCSE. I still maintain this affiliation.

I was a researcher at the *Department of GeoScience, University of Wisconsin, USA*, working on [Macrostrat Deep Dive](#), a machine reading and learning system, built upon a new kind of digital library resource that analyzes a corpus of more than a quarter million published articles.

2012-2015. Manager, Science & Data Policy, Creative Commons, San Francisco, USA

For three years I led the science program at Creative Commons (CC) advocating, advising, and building a coalition globally in various aspects of open science and data policy. Broadly, my work at CC can be lumped under open data, text and data mining, informal science academies, and policy.

Open Data. My focus was on making the process and products of science as open as possible. This included making data findable, accessible, and usable, and encompassed technical, semantic and legal interoperability and openness in data-intensive research.

Text and Data Mining. I advised university libraries and departments, and led workshops globally on text and data mining (TDM). TDM lies in the realm of fair use outside the reach of copyright restrictions, and is the logical next step in programmatically extracting knowledge from documents designed for human consumption. Promoting TDM is good for both advancing science and for preventing the overreach of copyright. I helped craft [The Hague Declaration on Knowledge Discovery in the Digital Age](#).

Informal Science Academies. I worked with sensor-based hardware, on ethical issues around citizen-sourced information, licensing open hardware and certification of data quality, novel ways of citizen-engagement, and promoting hacker/maker spaces for learning-by-making, teaching-by-doing.

Open Policy. My work on policy and awareness building included contribution to the Research Data Alliance, Group on Earth Resources, California Digital Library, and the Institute for Open Leadership. I am also on the Advisory Board of the Working Group on Open Science, Open Knowledge International.

2008-2012. Researcher, University of Wisconsin, Madison, WI, USA

Over four years, I was at the *Department of Forestry & Forest Ecology* and then at the *Department of GeoScience*. The focus of my work was on creating applications and APIs for distributed data management, access and analysis. At Forestry I implemented [Carbonmodel](#), an ecosystem process model for calculating C, N and water budgets of large-scale terrestrial ecosystems that ran on a computer cluster utilizing open source geospatial and related technologies. At GeoScience, I designed, and coded [Earth-Base](#), an interdisciplinary, multifaceted geoscience data platform based on open architecture, technology, protocols and free and open access principles. The platform is geared toward data discovery and integration of science and research, and for assisting in education.

2009-2010. Science Fellow, Creative Commons, USA

My work focused on scientific data in general and geospatial data specifically. I advised the [Solutions from the land](#) dialog on sustainable agriculture at the UN Foundation, a high-level working group on [Riding the Wave](#) under the European Commission FP7, and a W3C workshop on [The Future of the Web for Collaborative Science](#) at WWW2010. I also helped developed the [CC0 Public Domain Dedication](#) designed explicitly for scientific data.

1997-2006. Senior Analyst Programmer, GeoAnalytics, Madison, WI.

I worked on projects involving development of best practices for geographic information management, strategic planning and information policy formulation. I was also called upon to write the technical and governance related components of project proposals.

1993-1997. GIS Specialist, The World Bank, Washington DC.

Fresh out of university, I joined the only GIS laboratory at the Bank headquarters in Washington DC. As part of the Asia Technical Department, I accompanied operational missions to South Asia and Latin American and the Caribbean, helping the borrowing countries create funding proposals, analyzing agency-wide information workflows, and identifying the components vital to the project's success. Subsequently I continued in the same role with additional research responsibilities in the Central Environment Department. I also provided GIS/MIS support for improving sectoral business processes, liaised with research and development institutions in Europe, North America, and the Caribbean, and assisted in research involving spatial analysis, econometrics and databases.

1991-1992. Graduate Fellowships in India and the Caribbean

As a visiting researcher at the Indian Institute of Management, Bangalore, in 1992, I coded a allocation-deallocation model on Arc/INFO at IIM, and conducted remote sensing and GIS workshops in India. Earlier, in a project funded by the Economic Commission for Latin America and the Caribbean (ECLAC), I conducted an assessment of the Ministry of Transportation and Planning of Trinidad and Tobago in Port of Spain, Trinidad, to determine their capability to modernize land records.

1985-1987. Research Scientist, Development Alternatives, New Delhi.

My first job after getting an undergraduate degree in engineering focused on changing the income-earning potential of rural textile sector. Working with rural artisans and master-weavers, I designed and manufactured a more efficient and modern jacquard mechanism for handlooms to be used in the rural textile sector in India.

Publications

Micah Altman, Daniel Cohen, and **Puneet Kishor**. 2013. Emerging Principles for Data Citation. In Yvonne M Socha (Ed.) [Out of Cite, Out of Mind](#). Data Science Journal 12: 1–76. doi:10.2481/dsj.OSOM13-043

Shanan E. Peters, Miron Livny, Kurt Squire, Jack Williams, Bill Hibbard, **Puneet Kishor**, Sam Batzli, Patrick McLaughlin, Susan Millar, Tom Whittaker, Nancy Wiegand, and Terry Millar. 2011. Towards a New Distributed Platform for Integrative Geoscience: An EarthCube Design Approach and Prototype Plan. White paper submitted to the NSF as part of the EarthCube Initiative, Washington DC.

Puneet Kishor, Oshani Seneviratne, and Noah Giansiracusa. 2009. [Policy Aware Geospatial Data](#). In, ACM. Seattle: ACM

Puneet Kishor & Oshani Seneviratne. 2009. [Public Policy: Mashing up Technology and Law](#). COUNTER2010 Mashing-up Cultures: The Rise of User-generated Content. In the Proceedings from the COUNTER2010 workshop on Mashing-up Culture, Uppsala University, Uppsala, Sweden.

Puneet Kishor. 2009. Public Policy—bringing technology and law together for open access. Presented at AAAS ST Global Conference, Washington DC, USA.

Boll, Susanne, Christopher Jones, Eric Kansa, **Puneet Kishor**, Mor Naaman, Ross Purves, Arno Scharl, and Erik Wilde. 2008. LOCWEB '08: Proceedings of the first international workshop on Location and the web. ACM, New York, NY.

Puneet Kishor. 2008. Public Policy and the Geospatial Information Commons. 2008 Conference on Science and Technology for Society, AAAS, Washington DC.

CODATA. 2007. Strategies for Open and Permanent Access to Scientific Information in Latin America: Focus on Health and Environmental Information for Sustainable Development. D. A. L. Canhos, V. Canhos, W. Anderson, P. Uhler, B. Carroll, R. Sharif and **P. Kishor**, eds., Atibaia, Brazil.

Puneet Kishor. 2007. Open GeoSpatial Data: Difficult But Necessary. CODATA and NAS Workshop on “Strategies for Open and Permanent Access to Scientific Information in Latin America: Focus on Health and Environmental Information for Sustainable Development,” Atibaia, Brazil.

Puneet Kishor and Steve Ventura. 2006. What Can GIS Learn From Open Source, Proceedings of the 9th International Conference of the Global Spatial Data Infrastructure Committee, Santiago, Chile.

Puneet Kishor. 2000. "Are you ready to do business online?" URISA News.

Puneet Kishor. 1997. Using GIS for Pollution Control. Environment Department Dissemination Notes, The World Bank, Washington, DC, 20433.

Puneet Kishor. 1996. Strategies for Disseminating Large Spatial Databases. Environment Department Dissemination Notes, The World Bank, Washington, DC, 20433.

William Magrath, Charles Peters, Nalin Kishor, and **Puneet Kishor**. 1995. [The Economic Supply of Biodiversity in West Kalimantan](#). Environmental and Economic Issues in Forestry: Selected Case Studies in Asia, Ed. Susan Shen and Arnolando Contreras-Hermosilla, The World Bank, Washington, DC, 20433.

Puneet Kishor. 1995. When Tools Become the Barrier: Modernizing Spatial Information Against All Odds. National Center for Geographic Information and Analysis (NCGIA), Maine.

Puneet Kishor, Kristine Kuhlman, Ben Niemann, Jr., Steve Ventura, Earl Epstein, John Bossler, D. David Moyer, and William Holland. 1993. Law that Drives Change: Wisconsin Land Information Program and GIS Adoption by Local Governments, GIS/LIS '93, Minneapolis.

Puneet Kishor. 1991. Land Rationalization Study, Trinidad & Tobago, Inter-American Development Bank.

Puneet Kishor, Bernard J. Niemann, Jr., and D. David Moyer. 1991. Diffusion of GIS/LIS in Local Governments, presented at GIS/LIS '91, Atlanta, GA.

Puneet Kishor, Steve Ventura, and Peter Thum. 1991. Saving the Past for the Future GIS in Archaeology, Proceedings of URISA '91, San Francisco, CA.

Puneet Kishor, Bernard J. Niemann, Jr., D. David Moyer, Stephen J. Ventura, Robert W. Martin, and Peter Thum. 1990. Evaluating GIS/LIS. GIS/LIS '90, Anaheim, CA.

Puneet Kishor and Bernard J. Niemann, Jr. 1990. Geographic Information Systems in India: A "Look Before You Leap" Caveat to Technology Transfer, URISA '90, Edmonton, Canada.

Education

University of Wisconsin-Madison

2006-continuing. Ph.D. Candidate, Environment and Resources, Institute for Environmental Resources. My research is on the nature of "open" and how it is affected by and affects policies for access to data, software and literature.

1987-1990. M.S., Land Resources, Institute for Environmental Studies. Dissertation titled [Geographic information systems in developing countries: A "look before you leap" caveat to technology transfer](#).

Indian Institute of Technology

1981-1985. B. Tech., Textile Technology. My final project was on comparing tensile strengths of different kinds of fibers used in industrial applications.

Meetings

Over the course of the past half a dozen years I have organized or been invited to conferences, meetings and workshop around the world in almost two dozen countries on five continents. While I have listed only a few very recent ones below, these meetings have been instrumental in strengthening a worldwide community of practitioners and policy makers supporting open science and data.

- 2016 [Pathways to Sustainable Urbanisation Conference](#), Jawaharlal Nehru University, New Delhi, India; [Gathering of Open Science Hardware \(GOSH\)](#), CERN, Geneva, Switzerland; [GET \(Genomes, Environments and Traits\) Conference](#), Harvard Medical School, Boston, US; [ARM 2016 \(Academy Health Research Meeting\)](#), Boston, US
- 2015 [RWJF Workshop on reconciling privacy and sharing of health information](#), Washington DC; [Opportunities and Challenges in Citizen Science](#), ETH Zürich, Switzerland; [ClinGen/DECIPHER Meeting](#), Washington, DC; [Research Data Alliance 5th Plenary](#), San Diego; Science 2.0 Keynote at [i-KNOW Conference](#), TU Graz, Austria
- 2014 [Global Declaration for Knowledge Creation in the Digital Age](#), Den Haag, Holland; [World Congress on Open Access to Learning](#), Dubai; [SciDataCon 2014](#), Conference of CODATA and World Data Systems, New Delhi, India; [Sloan Workshop on Open Hardware Licensing](#), NYU Law School; [Condatos](#), Mexico City, Mexico; [Open Knowledge Festival](#), Berlin; [Recontre Mondial Logiciel Libre](#), Montpellier, France; [2nd Open Access Colloquium](#) at Ecole Normal Supérieure, Paris, France; [Research Data Alliance 3rd Plenary](#), Dublin, Ireland
- 2013 [Research Data Alliance 1st Plenary](#), Göteborg, Sweden; OKCon, Geneva, Switzerland; Open Data Workshop, Indian Statistical Institute, Bangalore, India
- 2012 [CODATA 2012](#), Annual Conference of CODATA, Taipei; [CODATA Task Group on Data Citation](#), Taipei; China US Workshop on Data intensive Research, Shanghai; [Open Knowledge Festival](#), Helsinki; [CODATA Task Group on Data Citation](#), Copenhagen

Awards

2009-2011. Science Commons Fellow on Geospatial Information

2008. Award to attend the Summer Doctoral Program at the Oxford Internet Institute

2007. Science and Technology Policy Fellow, National Academies, Washington DC

1995. International Young Scholar, NCGIA, Maine, USA

1991-1992. Fellow, American Institute of Indian Studies

1987-1988. Wisconsin Alumni Research Foundation Fellowship

Memberships

Global Alliance for Genomics and Health Data Products Licensing Task Force

Working Group on Science, Open Knowledge International

Elected Charter Member, Open Source Geospatial Foundation

Life member, National Association of Geographers, India

Electronic Frontier Foundation

Association of Computing Machinery

Plazi

Committees

2015. [Manylabs science hackspace](#), San Francisco, CA

2013. Poster Committee, WWW 2013, Rio de Janeiro, Brazil

2012-continuing. Data Sharing Working Group, Group on Earth Observations (GEO).

2012-continuing. Advisor, Content Mine, Cambridge, UK.

2011. Program Committee, Open Knowledge Conference OKCon 2011, Berlin, Germany

2011. Working Group on Research, Data and Knowledge Sharing, UN Foundation

2008-2010. Internet-Based Computing and Systems, The 4th, 5th, and 6th International Conferences on Signal-Image Technology and Internet-Based Systems (SITIS)

2009-2010. OneSpace, the 2nd and 3rd International Workshops on Blending Physical and Digital Spaces on the Internet, Berlin, Germany

2009. 2nd International Workshop on Location and the Web, CHI 2009, Boston, MA

2008. 1st International Workshop on Location and the Web, WWW 2008, Beijing, China