Robert S. Chen

Professional Preparation

Massachusetts Institute of Technology	Earth & Planetary Sciences	BA 1976
Massachusetts Institute of Technology	Meteorology & Physical Oceanography	MS 1982
Massachusetts Institute of Technology	Technology & Policy	MS 1982
University of North Carolina-Chapel Hill	Geography	PhD 1987

Appointments

2007-pres. Director and Senior Research Scientist, Center for International Earth Science Information Network (CIESIN), The Earth Institute, Columbia University, Palisades NY; *ex officio* member, Earth Institute Faculty
2006-2007 Interim Director and Senior Research Scientist, CIESIN, Columbia University, Palisades NY
1998-2006 Deputy Director and Senior Research Scientist, CIESIN, Columbia University, Palisades NY
1995-2018 Manager and Principal Investigator, NASA Socioeconomic Data and Applications Center
1993-1998 Associate Director, Interdisciplinary Data Resources Division; Director, Data Center Services Division, Consortium for International Earth Science Information Network, Saginaw MI
1993-1994 Adjunct Associate Professor of World Hunger (Research), Brown University, Providence RI
1987-1993 Assistant Professor of World Hunger (Research), Brown University
1982 Research Scholar, International Institute for Applied Systems Analysis, Laxenburg, Austria
1979-1981 Resident Fellow, Climate Board, U.S. National Research Council, Washington DC
1977-1978 Graduate Fellow, National Center for Atmospheric Research, Boulder CO
1976-1977 General Physical Scientist, U.S. Federal Aviation Administration, Washington DC

Products

PRODUCTS MOST CLOSELY RELATED

1. RDA-CODATA Legal Interoperability Interest Group. 2016. Legal Interoperability of Research Data: Principles and Implementation Guidelines. Research Data Alliance and Committee on Data for Science and Technology. https://doi.org/10.5281/zenodo.162241.
2. Beisheim, M., R.S. Chen, and L. Pinter. 2015. Monitoring and review. In *Review of Targets for the Sustainable Development Goals: The Science Perspective*. Paris: International Council for Science. http://www.icsu.org/publications/reports-and-reviews/review-of-targets-for-the-sustainable-development-goals-the-science-perspective-2015/SDG-Report.pdf.
3. United Nation Secretary-General's Independent Expert Advisory Group on the Data Revolution for Sustainable Development. 2014. *A World That Counts: Mobilising the Data Revolution for Sustainable Development*. http://www.undatarevolution.org/wp-content/uploads/2014/11/A-World-That-Counts.pdf.
4. Janetos, A.C., R.S. Chen, D. Arndt, and M.A. Kenney et al. 2012. *National Climate Assessment Indicators: Background, Development, & Examples*. Washington DC: National Climate Assessment, U.S. Global Change Research Program. 1 March. http://downloads.usgcrp.gov/NCA/Activities/NCA-Indicators-Technical-Input-Report-FINAL--3-1-12.pdf.
5. Dilley, M., R.S. Chen, U. Deichmann, A.L. Lerner-Lam, M. Arnold with J. Agwe, P. Buys, O. Kjekstad, B. Lyon, and G. Yetman. 2005. *Natural Disaster Hotspots: A Global Risk Analysis*. Washington DC: The World Bank. http://hdl.handle.net/10986/7376.

OTHER SIGNIFICANT PRODUCTS

1. Downs, R.R., and R.S. Chen. 2017. Curation of Scientific Data at Risk of Loss: Data Rescue and Dissemination. In *Curating Research Data*, L.R. Johnston, Ed. (Chicago: Association of College & Research Libraries).
2. Downs, R.R. and R.S. Chen. 2010. Self-assessment of a long-term archive for interdisciplinary scientific data as a trustworthy digital repository. *J. of Digital Information* **11**(1). http://dx.doi.org/10.1007/s12145-010-0051-6.

3. Downs, R.R., and R.S. Chen. 2010. Designing submission and workflow services for preserving interdisciplinary scientific data. *Earth Science Informatics* **3**(1):101-110. http://journals.tdl.org/jodi/article/view/753.
4. Uhlir, P.F., R.S. Chen, J.I. Gabrynowicz, and K. Janssen. 2009. Toward Implementation of the Global Earth Observing System of Systems Data Sharing Principles. *Journal of Space Law* **35**(1):201–290 & *CODATA Data Science Journal* **8**: GEO2-GEO91. http://doi.org/10.2481/dsj.35JSL201.
5. Downs, R.R. and R.S. Chen. 2006. Organizational needs for managing and preserving geospatial data and related electronic records. *Data Science Journal* **4**: 255-271. http://doi.org/10.2481/dsj.4.255.

Synergistic activities

1. Initiated and managed the development and dissemination of a wide range of *interdisciplinary data products and services* to support both research and applications through the NASA Socioeconomic Data and Applications Center (SEDAC). This includes data on population, urbanization, emissions, land use, hazards and risk, climate impacts and vulnerability, poverty and food security, health, and international treaties, as well as policy-relevant indicators and socioeconomic scenarios. SEDAC also offers a range of open, standards-based interactive mapping and visualization tools. SEDAC co-hosts the Intergovernmental Panel on Climate Change (IPCC) Data Distribution Center and is a regular member of the International Council for Science (ICSU) World Data System.
2. Leadership roles related to *interdisciplinary scientific data management and stewardship*. Secretary-General of the ICSU Committee on Data for Science and Technology (CODATA) from 2004-12, addressing diverse data policy issues and initiatives including a key role in the Group on Earth Observations (GEO) data sharing activities since 2005. *Ex officio* member of the National Research Council (NRC) Board on Research Data and Information (2009-12) and member of the Board on International Scientific Organizations (2012-14). Contributed to several NRC and ICSU data-related studies since 2000. Current co-chair of the Legal Interoperability Interest Group of the Research Data Alliance; member of the Governing Council of the Interuniversity Consortium for Political and Social Research at the University of Michigan (2014-18); Councilor of the American Geographical Society (2015-18); Board member of the National Ecological Observatory Network (2013-16).
3. In the area of *education*, contributed to the NSF-funded project, Interaction Research in Complex Informal Learning Environments (IRCILE), led by the New York Hall of Science (NYSCI), which developed the innovative, immersive, interactive exhibit, Connected Worlds (open since mid 2015). Co-investigator of another NSF-funded project, EI: Computational Thinking in Ecosystems: A-Program-to-Play-Approach to Infusing Computational Thinking into Environmental Science Learning. Recent host to an Earth Institute postdoctoral fellow and a Fulbright-Nehru fellow; oversight on the visits of numerous graduate and other visiting scientists from a range of institutions around the world.
4. With respect to interdisciplinary research on *climate impacts, vulnerability, and adaptation* and *disaster risk management*, *ex officio* member of the IPCC Task Group on Data and Scenario Support for Impact and Climate Assessment since 2004; member of the Science Advisory Board of the Climate Change Science Institute at Oak Ridge National Laboratory since 2012. Member of the Scientific Leadership Group of the NSF Datanet project, Terra Populus, led by the University of Minnesota (2011-16); co-Investigator of the Consortium for Climate Risk in the Urban Northeast (CCRUN) funded by NOAA; and co-leader of several projects with ImageCat, Inc. on improving hazard exposure and vulnerability data. Led CIESIN activities supporting risk assessment projects for private sector clients, the intelligence community, and international organizations.
5. Lead role on *data and indicators related to sustainable development*. Member of the UN Secretary-General's Independent Expert Advisory Group on the Data Revolution for Sustainable Development (fall 2014). Co-chair of the UN Sustainable Development Solutions Network (SDSN) Thematic Network on Sustainable Development Data and member of the Programme Committee for the United Nations World Data Forum (Cape Town, South Africa, January 2017).