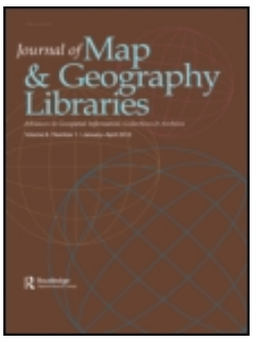

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Guest Editorial

Reflections on the Management, Curation, and Preservation of Geospatial Data

Issue 12(1) completes the *Journal of Map & Geography Libraries* theme on the Management, Curation, and Preservation of Geospatial Data. Altogether, the three issues of this theme include 16 articles that describe research, development, and practices for improving the stewardship of geospatial data. Three issues is much more than we had originally envisioned when distributing the Call for Papers for a special issue on this theme. It is quite gratifying to see the strong interest in geospatial data stewardship and the noteworthy accomplishments of the authors and their collaborators that have contributed to these three themed issues.

The articles that have been published in issues 11(2), 11(3), and 12(1) of *JMGL* demonstrate the level of effort and the diversity of approaches that are being taken by libraries, data centers, government agencies, and researchers to ensure that the digital geospatial data products and services of today will be discoverable, accessible, and usable in the future. The articles in these themed issues also offer insight into the current state of geospatial data stewardship research, development, and practice and serve as a testimony to the commitment of the authors and their sponsors for improving the sustainability of our digital geospatial information heritage.

Like the previous two *JMGL* issues on this theme, this issue offers diverse perspectives on the data stewardship, spatial data infrastructure (SDI), and user capabilities needed to facilitate the sharing and continuing use of geospatial data. The articles in this issue include reports on research, development, and operations, covering concerns that range from strategic issues and statewide geospatial data management to interdisciplinary geospatial data integration and dissemination both nationally and internationally.

The first two articles in this issue report on organizational and strategic issues that have been addressed to improve the management of infrastructures and capabilities for enabling the long-term use of geospatial data and related information resources. Establishing and maintaining sustainable SDIs often requires planning, organizing, and leadership to ensure that the geospatial data of today will be available and usable by future generations.

The article by de La Beaujardière provides an overview of the efforts to coordinate current data management practices at the U.S. National Oceanic and Atmospheric Administration (NOAA). Activities conducted throughout the data lifecycle are described in terms of the NOAA Environmental Data Management Framework, which specifies how data that are acquired or produced by NOAA are managed to ensure broad and continuing access and use by the public. In addition, de La Beaujardière reports on recent activities and new directions that are being taken to further improve data management at NOAA and offers recommendations for improving data stewardship practices within other similar organizations.

Locher reports on an explorative Delphi study conducted to identify the major preservation challenges for legacy geospatial data while recognizing both resource constraints and increasing demand. Finding that organizational issues often represent long-term challenges in comparison to technological issues, she offers several starting points for geospatial data preservation efforts when facing resource constraints. These include selection and appraisal to reduce potential volume, and increasing the discoverability of the data that have been selected for preservation as a means to increase their potential for reuse. Among other recommendations, Locher also advocates adherence to the adoption of standards for data formats and metadata, and increasing training for both data producers and users.

The next two articles in this issue each describe approaches that coordinate the stewardship and dissemination of geospatial data that represent locations within individual states of the United States, those of Minnesota and Florida, respectively. Both articles provide historical context for the geospatial initiatives within their respective states and also report on recent developments.

Dyke, Mattke, Kne, and Rounds provide context for the development of a framework for archiving geospatial data about Minnesota by reviewing research on geospatial data management and describing the history of geospatial data management activities that have been conducted during the last half-century by the state of Minnesota and the University of Minnesota (UM). Suggesting ways of cooperatively leveraging a current SDI and capabilities of the state and the UM, the authors propose a framework for archiving the geospatial data of the state of Minnesota. Further, they recommend that the UM Libraries serve as the archive where geospatial data representing Minnesota would be preserved and curated to enable free and open access to sharable geospatial data about the state in the future.

Goodison, Thomas, and Palmer discuss the Florida Geographic Data Library (FGDL), which has been developed and managed by the University of Florida Geo-Facilities Planning and Information Research Center (GeoPlan) to serve as the primary clearinghouse for Geographic Information System (GIS) data about the state of Florida. They describe its early history, its use as a case study for transportation project planning, and as part of the development, a Quality Assurance/Quality Control (QAQC) process to meet

increasing needs while managing and ensuring the quality of the data disseminated by the FGDL. They also report on how QAQC has improved growth management and overall efficiency, and on how tracking QAQC processes has facilitated timely updates.

The final article in this issue addresses concerns that are confronted when integrating geospatial data with other kinds of data. In particular, the article focuses on the integration of geospatial data products and services with data that have been produced from the administration of social science surveys.

Schweers, Kinder-Kurlanda, Müller, and Siegers initially describe the benefits and challenges of using geospatial data that have been merged with social science survey data, including the legal barriers for conducting social science research with geospatial data in Germany. Then, employing the use of environmental noise data as an exemplar for using integrated geospatial and social science data, the authors propose the workflow and SDI for establishing capabilities to enable the research community to merge geospatial data with social science survey data. The article describes various issues to be considered when merging geospatial data with social science survey data, including overcoming legal barriers and protecting confidential information that otherwise could be exposed when enabling access to such merged data.

Altogether, the articles in these three themed issues of the *Journal of Map & Geography Libraries* offer much insight into the management, curation, and preservation of geospatial data. While the articles in the issues demonstrate progress that has been achieved to improve the stewardship and sharing of geospatial data, they also offer insight into many of the challenges that still need to be addressed so that geospatial data and related resources that exist today will be discoverable and usable by future generations of users representing various disciplines and levels of expertise. I am confident that we can build on these and other efforts of the environmental informatics, library professional, and scientific data stewardship communities by working collaboratively to enable continuing use of the geospatial data products and services of today that represent our scientific and intellectual heritage. It has been an honor to serve as the Guest Editor of these three issues on the theme of Management, Curation, and Preservation of Geospatial Data for the *Journal of Map & Geography Libraries*.

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