Provenance and Credibility in Spatial and Platial Data

Today, data are being generated, contributed, collected and processed at rates faster than any other time in history. While considerable research has gone into organizing, synthesizing and making sense of these data, provenance of both the original data and the methods applied to them is often ignored or considered as an after thought. However, the need for data provenance continues to play an important role in information science, arguably more so in today’s sensor-rich data universe than in previous years. As the amount of data contributed through social media applications, mobile devices, and other user-generated sources continues to increase, so too does the need to investigate the trustworthiness of the information and the expertise of the people contributing it. Not only does a focus on provenance improve accountability but it also allows scientists, policy makers, and the public to consider questions surrounding the credibility of the content, sources, and methods used in collecting and contributing geospatial data.

The geospatial sciences offer a unique perspective to the discussion of credibility and provenance. As all data are generated with some level of location information, space and place are highly relevant to questions of credibility. What components are important for assessing credibility in spatial information? Is assessing platial information credibility any different than investigating other forms of information credibility? Does the location at which data are generated, collected, organized, or processed impact their trustworthiness? Do the terms used to describe these data imply the same thing to different users and across cultures?

The motivation for this special feature stemmed from a discussion concerning the increased use of non-authoritative datasets in the geoinformation sciences. While user-generated and crowd-sourced data are not new to the field, the age of big data has arguably brought with it a decrease in concern over how the data were generated, who created them and for what purpose. In many cases, this type of meta-data are not available and researchers use data without knowledge of the biases of the creators or the parties that created the technology through which the data were published. The purpose of this issue was to shine a light on these concerns and ask interested researchers to think about the provenance of the data they are using. In certain cases, the credibility of the information should be the focus of discussion. Important decisions are made based on information generated by people and/or processes and the credibility of this information should be put under scrutiny. In working with these data, researchers should have some degree of trust in the people or process and understand the expertise of those generating or contributing the information.
This special feature received a number of thought-provoking submissions on a wide range of topics pertaining to provenance and credibility of spatial and platial data. The interest in the topic is encouraging and speaks to the fact that this is a subject very much on the minds of many geospatial scientists. We hope that this interest remains and that researchers continue to consider aspects of these topics as they move forward in their scientific endeavors. We would like to thank the authors who submitted manuscripts for consideration in this special feature, the reviewers who provided essential feedback on the submissions, and the JoSIS editors for their input and patience throughout the process.

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