



Geospatial Big Data for decision making: the view from the bottom

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Geospatial science and the science of “big data” share a common attribute in that they are frequently considered out of context in regard to the role of science in decision making. The objective of this contribution is to shed light on the convergence of geospatial data science and big data from a public policy perspective and articulate the opportunities and challenges presented by this situation. The link between these three constructs is just now being considered, with little attention being paid to the end user, or street level bureaucrat, at the end of the data stream. What is missing, and deserving of attention, is the policy context for the use of big data in decision making, specifically in the public sector, with its dynamics, complexities, jurisdictions, elections and political implications and constraints. This contribution will focus attention on geospatial-appropriate decision and policy making institutions, actors, and processes, as the framework for exploring the challenges and opportunities moving forward. To date, big data advocates have assumed that “more data mean better decisions,” when in fact, science and data are often ignored or manipulated rather than applied in an evidence-based decision context. Being able to measure geographic risk and vulnerability with geospatial big data may not translate to better (or any) decisions if the science is in competition with other factors, such as administrative and computational capacity, or the vagaries and temporal dimensions of politics. We will articulate a “view of the bottom,” or the end user perspective, and present findings and observations from two recent big data-related projects, one on wildfire remote sensing and one from the policy domain of community policing. Our findings suggest commonalities across these diverse public sector decision contexts that can contribute to more effective design and implementation of geospatial big data and inform higher level discussions at the critical dimension of the science-policy-practice nexus.