

Are We Ready for Revisiting Epistemology in GIScience 2.0?

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Information system ontology research, fuelled by the need to explicate data semantics and improve semantic interoperability of diverse geodatabases, is now an established research topic in GIScience. In contrast, philosophical ontologies and epistemologies that can explicitly situate geographic information and spatial analytical methods within the appropriate social and cultural context remain marginal research topics in GIScience. I contend that computational representation and analysis of geographic phenomena need not be only inspiration for GIScience research. With the democratization of processes that create geographic information, GIScience 2.0 needs to become a science of *geographic information first*, and *systems later*. I envision a *post-positivist* GIScience 2.0 research program that offers us an account of *people's geographic activities* based on *their contextual* conceptualizations of geographic space and phenomena. Recognizing the contingent and contextual nature of geographic information should not mean entrenched philosophical debates (c.f. GIS & Society debates of the nineties), but must be done in a constructive and collaborative spirit. The goals should be pragmatic and result in new analytical frameworks and information systems that can manage multiple epistemologies and ontological commitments at varying levels of semantic and spatial precision. I therefore exhort UCGIS to establish a working group for promoting and coordinating this difficult research agenda over the next decade. I will make my case by sharing problems and insights from an NSF research project for which context-driven fusion and opportunistic prioritization of information from both local and western epistemologies is essential for understanding linkages between geophysical and human dimensions of climate change within and across three communities in rural Tanzania.