Knowledge Synthesis-Based Tool Development for Spatiotemporal Analysis

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The need for advanced processing of information sources and uncertainty in spatiotemporal studies is addressed in a two-fold manner: On a conceptual level, new frameworks emerge that embrace the different information forms so as to incorporate additional knowledge and produce more accurate predictions than existing theories. A prime example of a well-founded approach in this category is the Knowledge Synthesis framework. At the implementation level, new tools are developed to test the novel concepts, materialize and make them accessible to specialists of any discipline. The Spatiotemporal Epistemic Knowledge Synthesis and Graphical User Interface (SEKS-GUI) is presented as one such tool that is characterized by its many attractive features, produces a wealth of useful output, and has a wide applicability in real-world analyses.