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Future Directions for Geographic Information Science

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Abstract

Geographic information science (GISci) can be defined as the set of basic research issues raised by the handling of geographic information. Although geographic information systems are often seen merely as tools, there is ample historical precedent for the role of tools in stimulating science, and provoking new ways of thinking about problems. GISci is a distinct specialty within a more broadly defined information science, with a multidisciplinary base that ranges from surveying to cognitive science. The paper addresses two topics among the many potentially fruitful areas for research within GISci at this time. It traces the development of debate in the U.S. over the National Spatial Data Infrastructure, and its implications for the research and education communities. Spatial data provides a distinct set of problems for the development of digital libraries, and the paper reviews the Alexandria Project and some of its more fundamental objectives. The paper concludes with comments on the current status of GISci within the sciences generally.