Geographic Visualization: Concepts, Tools and Applications

MARTIN DODGE, MARY MCDERBY, MARTIN TURNER, All of University of Manchester, UK

Geographic Visualization: Concepts, Tools and Applications is a ‘state-of-the-art’ review of the latest developments in the subject. It examines how new concepts, methods and tools can be creatively applied to solve problems relevant to a wide range of topics. The text covers the impact of three-dimensional displays on user interaction along with the potentialities in animation and clearly explains how to create temporally sensitive visualizations. It also explores the potential for handling mobile data and representing uncertainty; as well as the role of participatory visualization systems and exploratory methods.

Hallmark Features:

- An introduction to the diverse forms of geographic visualization which draws upon a number of theoretical perspectives and disciplines to provide an insightful commentary on new methods, techniques and tools.
- Richly illustrated in full colour throughout, including numerous relevant case studies and accessible discussions of important visualization concepts to enable clearer understanding for non-technical audiences.
- Chapters are written by leading scholars and researchers in a range of cognate fields, including, cartography, GIScience, architecture, art, urban planning and computer graphics with case studies drawn from Europe, North America and Australia.

This book is an invaluable resource for all graduate students, researchers and professionals working in the geographic information sector, computer graphics and cartography.

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1. The Power of Geographical Visualizations (Martin Dodge, Mary McDerby and Martin Turner).
2. What does Google Earth mean for the Social Sciences (Michael F. Goodchild).
3. Coordinated Multiple Views for Exploratory GeoVisualization (Jonathan C. Roberts).
4. The Role of Map Animation for Geographic Visualization (Mark Harrower and Sara Fabrikant).
5. Telling an Old Story with New Maps (Anna Barford and Danny Dorling).
7. Visualization with High-resolution Aerial Photography in Planning-related Property Research (Scott Orford).
9. The Visual City (Andy Hudson-Smith).
12. Landscape Visualization: Science and Art (Gary Priestnall and Derek Hampson).
13. Visualization, Data Sharing and Metadata (Humphrey Southall).
16. Visualizing Data Gathered by Mobile Phones (Michael A. E. Wright, Leif Oppermann and Mauricio Capra).

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