

Geovisualization and synergies with InfoVis and Visual Analytics

Panel position statement

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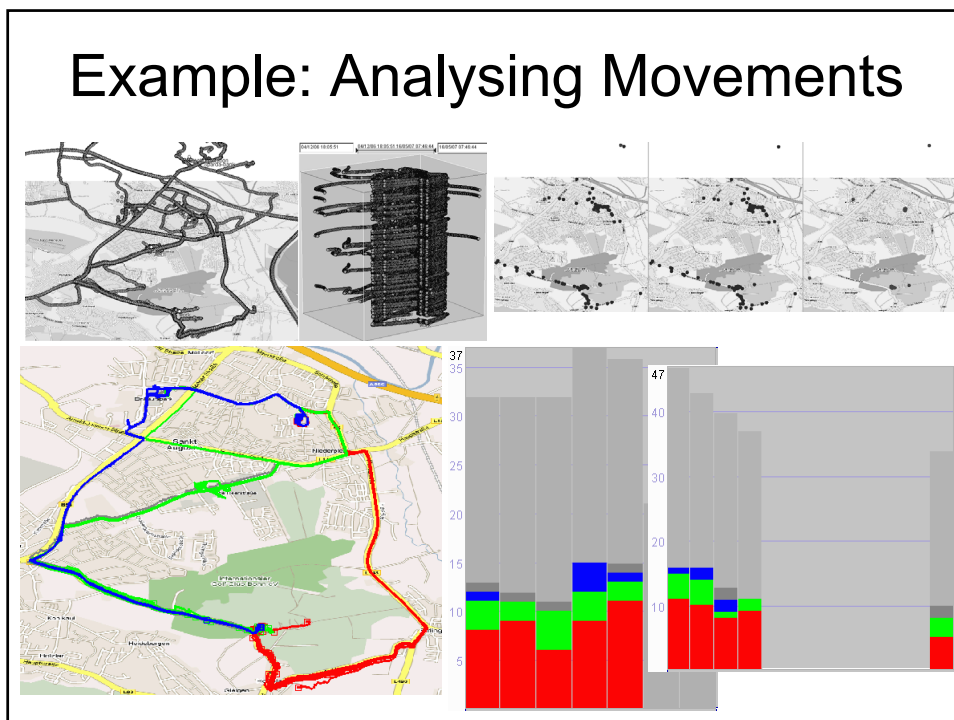
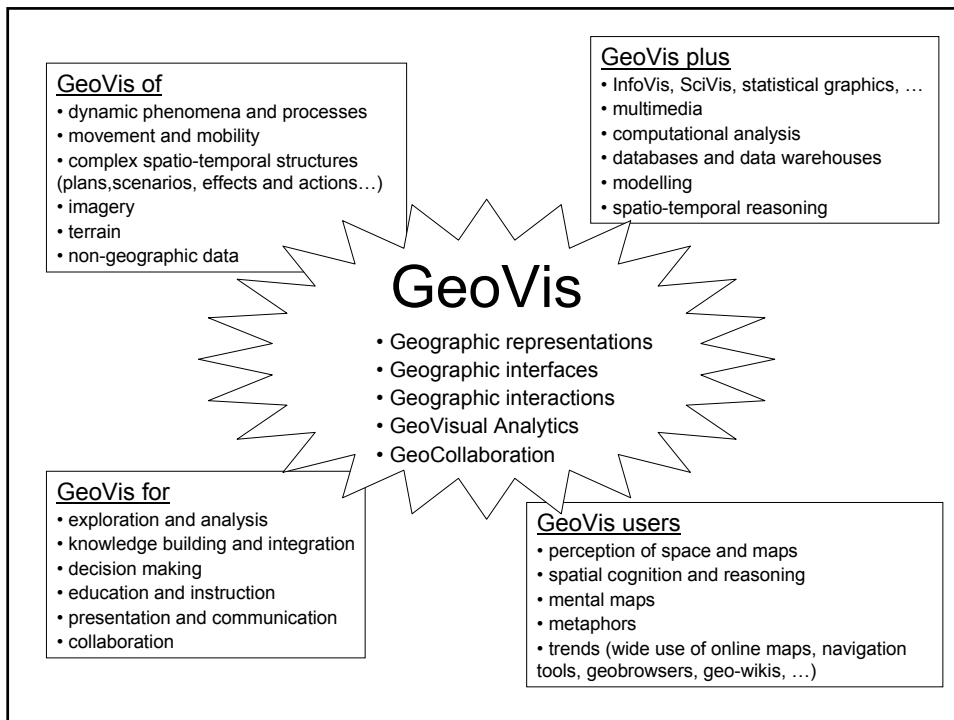
<http://www.ais.fraunhofer.de/and>



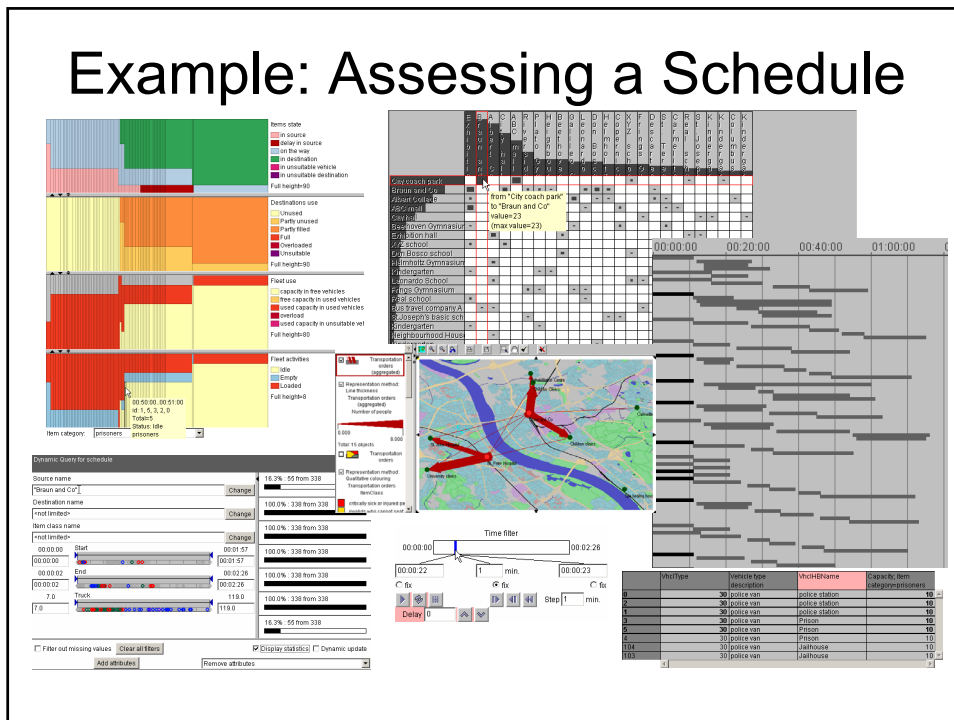
What is geovisualization research?

- fundamental research aimed at increasing the understanding of how visual representations facilitate discovery, cognition and understanding of geographically related information and phenomena
- applied research aimed at designing and developing techniques and tools that support this activity in application domains



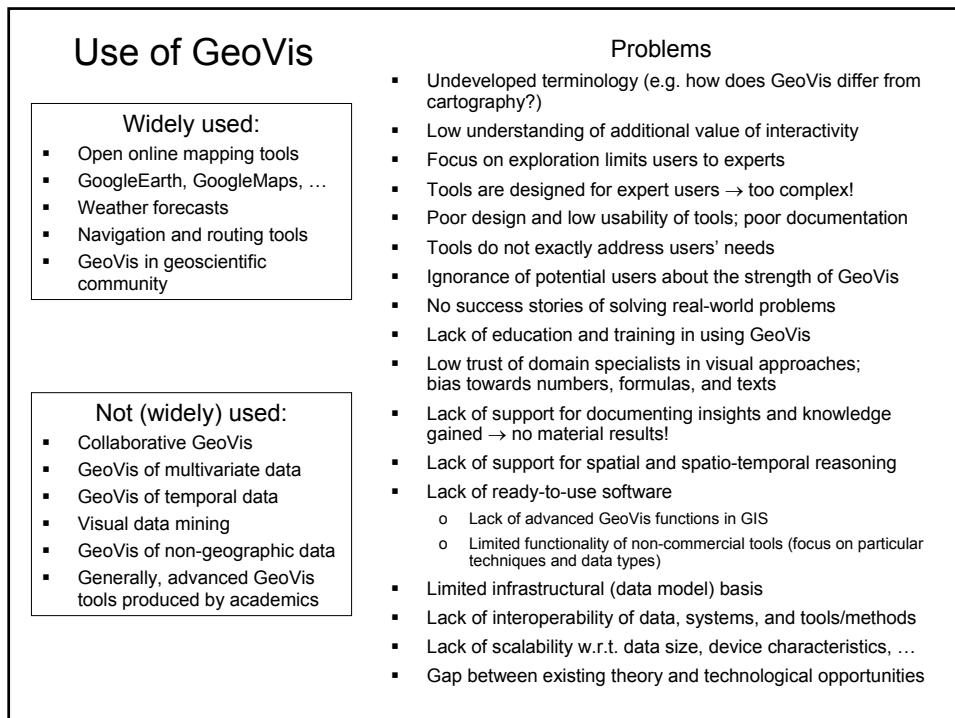
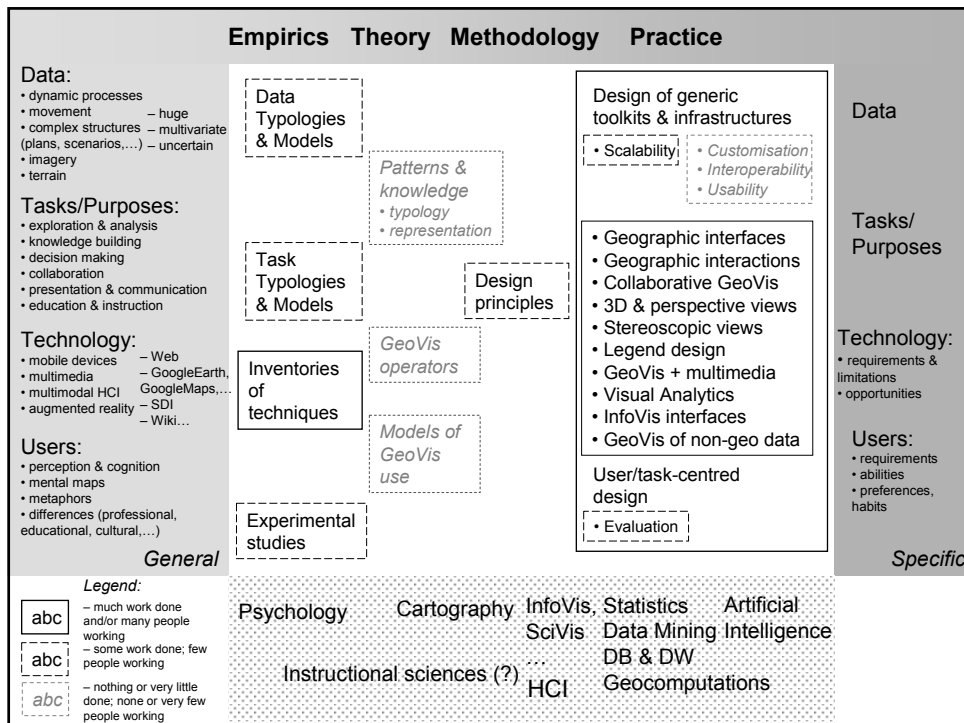


Example: Assessing a Schedule



GeoVis @ Visualisation Summit

- ✓ Workshop of 17 scientists working on GeoVis, InfoVis, and Visual Analytics
- ✓ All answered 3 questions in advance:
 1. What topics of GeoVis you are working on now?
 2. What are, in your opinion, the major difficulties that prevent wide usage of geovisualizations?
 3. In which areas of GeoVis you expect the major progress in next years?



Challenges

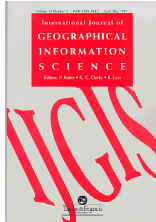
- Handle huge volumes of data
- Handle complex and heterogeneous information
- Handle dynamic phenomena and processes
- Support time-critical analysis and decision making
- Support externalisation of insights and synthesis of knowledge
- Embrace new hardware and technologies
- Increase the use of GeoVis tools, broaden the user community and application scope
- Develop adequate theory and methodology

InfoVis faces the same challenges !

Common opinion

- We need research in multidisciplinary teams (including cartography & GeoVis, InfoVis, data mining, databases, HCI, cognitive sciences)
- ✓ for solving real-life spatio-temporal problems (characterized by huge volumes of complex data)
- ✓ in tight cooperation with domain experts

Where to learn more?



- Special issue on “GeoVisual Analytics for Spatial Decision Support”, edited by G.Andrienko, N.Andrienko, P.Jankowski, and A.MacEachren
Int.J.GIScience, 2007, v.21(8)



International Cartographic Association
Commission on Visualization

<http://kartoweb.itc.nl/icavis/index.html>

Next workshop: Helsinki, August 2-3, 2007