

SFB/TR 8 Spatial Cognition / IQN Video Conference

Dr. Alexander Klippel
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A Geographic Perspective on Spatial Cognition

The talk will discuss geographic perspectives on spatial cognition and provide an overview of research projects at the Human Factors in GIScience Lab at the GeoVISTA Center at Penn State. The first part of the talk will detail a research framework on cognitively assessing qualitative spatial calculi for modeling human conceptualizations of geographic scale movement patterns. The question addressed is the relationship between formal calculi, cognitive conceptualizations, and different externalization modalities. Besides first results, visual analytics software will be demonstrated that allows for efficiently analyzing behavioral data. Further topics will be (a) how Tobler's First Law of Geography, that everything is related to everything else but that near things are more related than distant things, is perceived by human map readers and how their map interpretation corresponds to formal measurements of TFL such as spatial autocorrelation; (b) how salient shape characteristics influence the interpretation of map symbols and how these effects can be leveraged; (c) how a combination of methods from computational linguistics, georeferencing, and visual analytics, allows for working with large, spatially stratified samples to answer questions such as regional linguistic preferences.

Freitag, 06. November 2009
informelle Kaffeerunde: 15:15
Vortragsbeginn: 15.30 Uhr

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