

SFB/ TR 8 Spatial Cognition / IQN  
Video Conference**Matt Duckham, University of Melbourne & Michael Worboys, University of Greenwich, London****1. Causal relationships in movement patterns (Matt Duckham)**

Abstract:

The environmental context for, and drivers of movement patterns are arguably just as important as the patterns themselves. This talk will present collaborative work (with Susanne Bleisch, Patrick Laube, Antony Galton, and Jarod Lyon) that aims to help domain experts identify candidate causal relationships between movement patterns and their environmental context. Using as input data about movement, its dynamic environmental context, and definitions of the states and events of interest, the approach can generate candidate causal and causal-like relationships of potential interest. The analysis has been applied to real data about fish movement in the Murray River in Australia, helping to identify a number of expected and unexpected candidate causal relationships.

Bio: Matt Duckham is an Associate Professor in Geographic Information Science at the University of Melbourne, Australia. He also holds an Australian Research Council (ARC) Future Fellowship (2010-2014) for research on the topic of ambient spatial intelligence (AmSI). Before coming to Melbourne in 2004, he worked at the NCGIA (National Center for Geographic Information and Analysis) at the University of Maine, US. Matt is author of the recent book "Decentralized Spatial Computing: Foundations of Geosensor Networks" (Springer, 2012, <http://ambientspatial.net/book>), and co-author with Mike Worboys of the second edition of the popular GIS textbook "GIS: A Computing Perspective" (CRC 2004, <http://worboys.duckham.org>).

**2. A brief survey of indoor spaces (Michael Worboys)**

Abstract:

Most geo-scale digital spatial technology has focused on outdoor spaces. Recent rapid advances in indoor positioning open indoor spaces to a range of technologies and applications. This talk briefly surveys work on the informatics of indoor spaces, and challenges facing the development of informatics support for integrated outdoor-indoor space.

Background paper:

Worboys, M.F., Modeling indoor space (Keynote). Third ACM SIGSPATIAL International Workshop on Indoor Spatial Awareness (ISA 2011), November, Chicago, IL. 2011.

Downloadable from: <http://worboys.org/publications/sigspatial%202011.pdf>

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informelle Kaffeerunde: 15:15

Vortragsbeginn: 15:30

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