

SLIS Faculty News

Börner to Present Mapping Technology at Duke Research Center



On February 29, 2008, at noon, SLIS faculty member **Katy Börner** will present a seminar entitled "Studying and Communicating the Structure and Evolution of Science" at the National Science Foundation-sponsored National Evolutionary Synthesis Center (**NESCent**) at Duke University. The talk will focus on work for the **Places and Spaces: Mapping Science** project that Börner has conducted as director of the **IU Information Visualization Lab** and the Cyberinfrastructure for Network Science Center.

Abstract

Cartographic maps of physical places have guided mankind's explorations for centuries. They enabled the discovery of new worlds while also marking territories inhabited by unknown monsters.

Domain maps of abstract semantic spaces (see <http://scimaps.org>) aim to serve today's explorers understanding and navigating the world of science. These maps are generated through scientific analysis of large-scale scholarly datasets in an effort to connect and make sense of the bits and pieces of knowledge they

contain. They can be used to objectively identify major research areas, experts, institutions, collections, grants, papers, journals, and ideas in a domain of interest. Local maps provide overviews of a specific area: its homogeneity, import-export factors, and relative speed. They allow one to track the emergence, evolution, and disappearance of topics and help to identify the most promising areas of research. Global maps show the overall structure and evolution of our collective scholarly knowledge.

This talk will present an overview of the techniques and cyber-technologies used to study science by scientific means together with sample science maps and their interpretations.

Related slides from Börner's January 2008 **Science Information Talks in Germany and the Netherlands** are now available:

- **Science from Above** - Amsterdam, The Netherlands
- **Network Analysis, Modeling, and Visualization** - Den Haag, Germany
- **Mapping the Evolution of Science** - Ban Honnef, Germany
- **Evolution and Physics - Concepts, Models and Applications** - Ban Honnef, Germany

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