## Brief Bio and (PR)$^2$: Problems & Pitches – Rants & Raves by *Katy Börner*

**Self Introduction**

Katy Börner is the Victor H. Yngve Professor of Information Science at the School of Library and Information Science, Adjunct Professor at the School of Informatics and Computing, Adjunct Professor at the Department of Statistics in the College of Arts and Sciences, Core Faculty of Cognitive Science, Research Affiliate of the Biocomplexity Institute, Fellow of the Center for Research on Learning and Technology, Member of the Advanced Visualization Laboratory, and Founding Director of the Cyberinfrastructure for Network Science Center (http://cns.iu.edu) at Indiana University.
She is a curator of the *Places & Spaces: Mapping Science* exhibit, http://scimaps.org.

Her research focuses on the development of data analysis and visualization techniques for information access, understanding, and management. She is particularly interested in the study of the structure and evolution of scientific disciplines; the analysis and visualization of online activity; and the development of cyberinfrastructures for large scale scientific collaboration and computation.

She is the co-editor of the Springer book on 'Visual Interfaces to Digital Libraries' and of a special issue of *PNAS* 101 (Suppl. 1) on 'Mapping Knowledge Domains' (April 2004). She also co-edited a special issue on 'Collaborative Information Visualization Environments' in *PRESENCE: Teleoperators and Virtual Environments*, MIT Press (Feb. 2005), 'Information Visualization Interfaces for Retrieval and Analysis' in the *Journal of Digital Libraries* (March 2005), 'Mapping Humanity's Knowledge' in *Environment and Planning B (*Sept 2007), 'Science of Science: Conceptualizations and Models of Science' in *Journal of Informetrics* (July 2009), and 'Descriptive and Dynamic Models of Science' in *Scientometrics* (2011). Her book 'Atlas of Science: Visualizing What We Know' was published by MIT Press (Oct. 2010) and a co-edited book on 'Models of Science Dynamics' by Springer will appear in 2011.

Relevant Publications

- Börner, Katy. (2011). Plug-and-Play Macroscopes. *Communications of the ACM*, ACM Press.
- Börner, Katy. (2010). *Atlas of Science: Visualizing What We Know*. The MIT Press.
- Börner, Katy, Noshir S. Contractor, Holly J. Falk-Krzesinski, Stephen M. Fiore, Kara L. Hall, Joann Keyton, Bonnie Spring, Daniel Stokols, William Trochim & Brian Uzzi. (2010). A Multi-Level Systems Perspective for the Science of Team Science. In *Science Translational Medicine*. Vol. 2*(49)*, 49(cm)24.

She and her colleagues at the Cyberinfrastructure for Network Science Center serve the

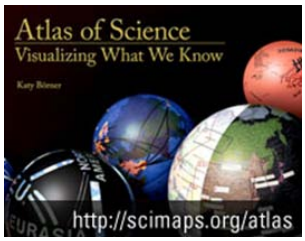
- Scholarly Database of 25 million scholarly records (SDB), http://sdb.cns.iu.edu
- Information Visualization Cyberinfrastructure, http://iv.cns.iu.edu

- Network Workbench Tool (NWB) and Community Wiki, http://nwb.cns.iu.edu
- Science of Science Tool (Sci$^2$), http://sci2.cns.iu.edu
- Epidemics Tool and Marketplace, under development

See also http://cns.iu.edu/cyber.html

**Link to your home page:**
http://info.slis.indiana.edu/~katy
http://cns.iu.edu/research

**Figure or logo to be used on your name tag:**




**General Questions**

**1) What is (are) your main interest(s) in attending the workshop?**
I would like to understand how Semantic Web data can best be used to study the structure and evolution of science and technology and to improve the conduct and management of science.

**2) What three features or functions of researcher networking (i.e., tools and services related to assisting researchers with finding people, resources, data, projects, and scholarly works) are most critical to adoption?**
Easy to use; easy to read in data, e.g., via EndNote files; Digital Vita

**3) What three features of researcher networking are most critical to success after adoption, or sustainability?**
Institution and researcher buy-in; critical mass/mass adoption; adoption and usage by major societies and funding agencies.

**4) Are you aware of especially innovative approaches to any of these features or functions?**
Mendeley has great ways to support community building/input. We should learn from Facebook but also from Craigslist—researchers need a marketplace for data, software, expertise.

**5) What features of researcher networking are most important to you as a researcher, for your own use?**
Efficient and fun tools to

- gain access to relevant data, tools, publications, and expertise
- compile, submit, and administer externally funded projects.
- manage 10-50 large, interdisciplinary, geospatially distributed teams with a highly diverse range of skills and expertise that aim to make a continuous stream of deadlines for 10-30 projects
- efficiently communicate with 1000 people

- communicate research results to colleagues and friends, sponsors and institutional leadership, press and the general public.

**6) Are you or your group working on any of these features?**
We are working on social networking support for VIVO (http://vivoweb.org) plug-and-play macroscopes, (http://cishell.org), and the Mapping Science exhibit (http://scimaps.org) an effort to bring effective science maps to a large and diverse audience.

**7) What would you like to learn / achieve at the workshop?**
I would like to gain an overview of existing and planned tool and service development that can make semantic web (and other) data such as VIVO more useful to perform the tasks listed in 5). We are interested to partner with the best teams to develop highly efficient tools that help improve the conduct and management of science.