

## Brief Bio and (PR)<sup>2</sup>: Problems & Pitches – Rants & Raves by *Katy Börner*

### Self Introduction



Katy Börner is the Victor H. Yngve Associate Professor of Information Science at the School of Library and Information Science, Adjunct Associate Professor in the School of Informatics, 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 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' published in 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), and 'Mapping Humanity's Knowledge' in Environment and Planning B (Sept 2007).

Her new book 'Atlas of Science: Guiding the Navigation and Management of Scholarly Knowledge' published by ESRI will become available end of 2008.

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

- Scholarly Database of 18 million scholarly records, <https://sdb.slis.indiana.edu>
- Information Visualization Cyberinfrastructure, <http://iv.slis.indiana.edu>
- Network Workbench Tool and Community Wiki, <http://nwb.slis.indiana.edu>

For more information on her research agenda, teaching, and other activities, visit:

<http://ella.slis.indiana.edu/~katy/>

## General Questions

1) What is (are) your main interest(s) in attending the workshop?

I would like to truly understand what data/knowledge/expertise access, navigation, and management needs biomedical researchers and science policy makers have.

2) What information/knowledge management needs do you have?

Explain your 'dream tool' for scientific discovery and innovation.

My thoughts on a 'dream tool' for knowledge management can be found in a position paper I prepared for a GSF Workshop on "Developing our Understanding of Public Investments in Science" in Helsinki, Finland on July 12, 2006, <http://ella.slis.indiana.edu/~katy/events/06-gsf-paper.pdf>.

3) What is the most insightful visualization of static or dynamic phenomena you know?

Gapminder by Hans Rosling: <http://www.gapminder.org>

- Worldprocessor by Ingo Gunter: <http://worldprocessor.com/catalog/world>
- Science maps in the Places & Spaces exhibit: <http://scimaps.org>

show complex, global data using easy to understand projections and metaphors.



4) What would you like to learn / achieve at the workshop?

I would like to identify opportunities and challenges for the development of qualitatively new tools to make sense and to utilize mankind's scholarly knowledge. We need to understand what we collectively know (and don't know), see trends, patterns, and outliers in massive amounts of data/information/knowledge/expertise or we will be doomed to 're-invent the wheel' forever.

Given the global challenges our species is facing this workshop is very timely.