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 in the Department of Information and Library Science, 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 Center for Complex Networks and Systems Research and Biocomplexity Institute, Member of the Advanced Visualization Laboratory, Leader of the Information Visualization Lab, and Founding Director of the Cyberinfrastructure for Network Science Center (CNS) at Indiana University in Bloomington, IN and Visiting Professor at the Royal Netherlands Academy of Arts and Sciences (KNAW) in The Netherlands. She is a curator of the international Places & Spaces: Mapping Science exhibit. She holds a MS in Electrical Engineering from the University of Technology in Leipzig, 1991 and a Ph.D. in Computer Science from the University of Kaiserslautern, 1997. She became an American Association for the Advancement of Science (AAAS) Fellow in 2012.

CNS products, datasets, tools, interactive displays, and more: http://cns.iu.edu
Börner’s research agenda, teaching, and other activities: http://info.ils.indiana.edu/~katy

Five major publications (if applicable)

Link to data or software you serve (if applicable)
- Scholarly Database: http://sdb.cns.iu.edu
- Sci2 Tool: http://sci2.cns.iu.edu

General Questions

1) What are your main interests in attending the workshop?

I would like to understand how the OSGi/CIShell architecture that our tools use relates to other efforts that aim to support the plug-and-play of algorithms by non-computer scientists. Ideally, the workshop provides a means to identify system architectures that support modular software development and scale to BIG data—including healthcare data. I am also interested to identify synergies among existing tool and service
development efforts—the more teams agree on basic standards the easier the exchange of know-how and plugins. Identification of joint funding opportunities would be a plus.

2) What challenges do you see in applying analytics and visualization to health care data for population health monitoring and management?

Data visualization literacy is rather low but health care data is complex.

Privacy issues.

3) Are you or your group working on any of these challenges? If yes, please explain.

The Information Visualization MOOC (http://ivmooc.cns.iu.edu) teaches students from 100+ countries how to use the tools our team developed to convert data into insights. The visualization framework introduced in the Atlas of Knowledge: Anyone Can Map provides theoretically grounded yet practically useful guidance on how to represent complex data by insightful visualizations.

4) How do you currently use healthcare data for population health monitoring and management?

We have a BD2K project with Harvard U to visualize patterns in patient data retrieved via i2b2. CNS also designs novel tools and visualizations for NIH in close collaboration with companies in DC.

5) If the workshop could fulfill one wish that you have for using analytics and visualization of healthcare data for population health monitoring and management, what would it be?

CNS/I am not the one to make wishes but we/I would be interested to help make wishes come true.