Cyberinfrastructure for Network Science Center & InfoVisLab

Open House

October 15th, 2007, 4-6PM

IU Well Library, Room LI 001 | 1320 E. 10th Sreet | Bloomington, IN 47405

Members

Sumeet Ambre

Katy Börner

John Burgoon

Jon Burgoyne

Roxana Cazan

Joseph Cottam

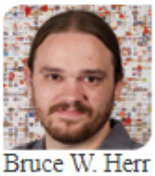
Russell J. Duhon

Papers

- **Börner, Katy, Hardy, Elisha F., Herr II, Bruce W., Holloway, Todd M. & Paley, W. Bradford.** (2007). *Taxonomy Visualization in Support of the Semi-Automatic Validation and Optimization of Organizational Schemas*. Journal of Informetrics. Vol. 1(3), 214-225, Elsevier.
- **Holloway, Todd M., Božičević, Miran & Börner, Katy.** (2007). *Analyzing and Visualizing the Semantic Coverage of Wikipedia and Its Authors*. Complexity, Special Issue on Understanding Complex Systems. Vol. 12(3), 30-40.
- **Börner, Katy**. (2007). *Making Sense of Mankind's Scholarly Knowledge and Expertise: Collecting, Interlinking, and Organizing What We Know and Different Approaches to Mapping (Network) Science*. Environment and Planning B: Planning and Design. Vol. 34(5), 808-825.
- **Börner, Katy, Sanyal, Soma & Vespignani, Alessandro**. (2007). *Network Science*. In Cronin, Blaise (Eds.), Annual Review of Information Science & Technology (Vol. 41, pp. 537-607), chapter 12, Medford, NJ: Information Today, Inc./American Society for Information Science and Technology.
- **Herr II, Bruce W., Huang, Weixia, Penumarthy, Shashikant & Börner, Katy**. (2007). *Designing Highly Flexible and Usable Cyberinfrastructures for Convergence*. In Bainbridge, William S. & Roco, Mihail C. (Eds.), Progress in Convergence - Technologies for Human Wellbeing (Vol. 1093, pp. 161-179), Annals of the New York Academy of Sciences, Boston, MA.
- **Hook, Peter A.** (2007). *Visualizing the Topic Space of the United States Supreme Court*. Proceedings of the 11th International Conference on Scientometrics and Informetrics (ISSI 2007), Madrid, Spain, June 25-27, pp. 387-396.
- **Hook, Peter A.** (2007). *Network Derived Domain Maps of the Work of the United States Supreme Court: 50 Years of Co-Voting Data and a Case Study on Abortion*. International Workshop and Conference on Network Science (NetSci 2007), New York, May 20-25.
- **La Rowe, Gavin, Ambre, Sumeet A., Burgoon, John W., Ke, Weimao & Börner, Katy.** (2007). *The Scholarly Database and Its Utility for Scientometrics Research*. Proceedings of the 11th International Conference on Scientometrics and Informetrics (ISSI 2007), Madrid, Spain, June 25-27, pp. 457-462.
- **Boyack, Kevin W., Börner, Katy & Klavans, Richard.** (2007). *Mapping the Structure and Evolution of Chemistry Research*. Proceedings of the 11th International Conference on Scientometrics and Informetrics (ISSI 2007), Madrid, Spain, June 25-27, pp. 112-123.
- **Mane, Ketan K. & Börner, Katy.** (2007). *Computational Diagnostics: A Novel Approach to Viewing Medical Data*. Proceedings of the Fifth International Conference on Coordinated and Multiple Views in Exploratory Visualization (CMV 2007), July 2, IEEE Computer Society, pp. 27-34.
- **Neirynck, Thomas & Börner, Katy.** (2007). *Representing, Analyzing, and Visualizing Scholarly Data in Support of Research Management*. Conference Proceedings of 11th Annual Information Visualization International Conference (IV 2007), Zürich, Switzerland, July 4-6, IEEE Computer Society, pp. 124-129.
- **Hook, Peter A.** (2007). *Domain Maps: Purposes, History, Parallels with Cartography, and Applications*. Conference Proceedings of 11th Annual Information Visualization International Conference (IV 2007), Zürich, Switzerland, July 4-6, IEEE Computer Society, pp. 442-446.
- **Herr II, Bruce W., Ke, Weimao, Hardy, Elisha F. & Börner, Katy.** (2007). *Movies and Actors: Mapping the Internet Movie Database*. Conference Proceedings of 11th Annual Information Visualization International Conference (IV 2007), Zürich, Switzerland, July 4-6, IEEE Computer Society, pp. 465-469.
- **La Rowe, Gavin, Ichise, Ryutaro & Börner, Katy.** (2007). *Visualizing Japanese Co-Authorship Data*. Conference Proceedings of 11th Annual Information Visualization International Conference (IV 2007), Zürich, Switzerland, July 4-6, IEEE Computer Society, pp. 459-464.
- **Hook, Peter A.** (in press).*The Aggregate Harmony Metric and a Statistical and Visual Contextualization of the Rehnquist Court: 50 Years of Data*. Constitutional Commentary.
- **Boyack, Kevin W., Klavans, Richard, Paley, W. Bradford & Börner, Katy.** (2007).*Mapping, Illuminating, and Interacting with Science*. Siggraph Sketch.

Visualizations Designed

Elisha F. Hardy


Bruce W. Herr II

Todd M. Holloway

Bryan Hook

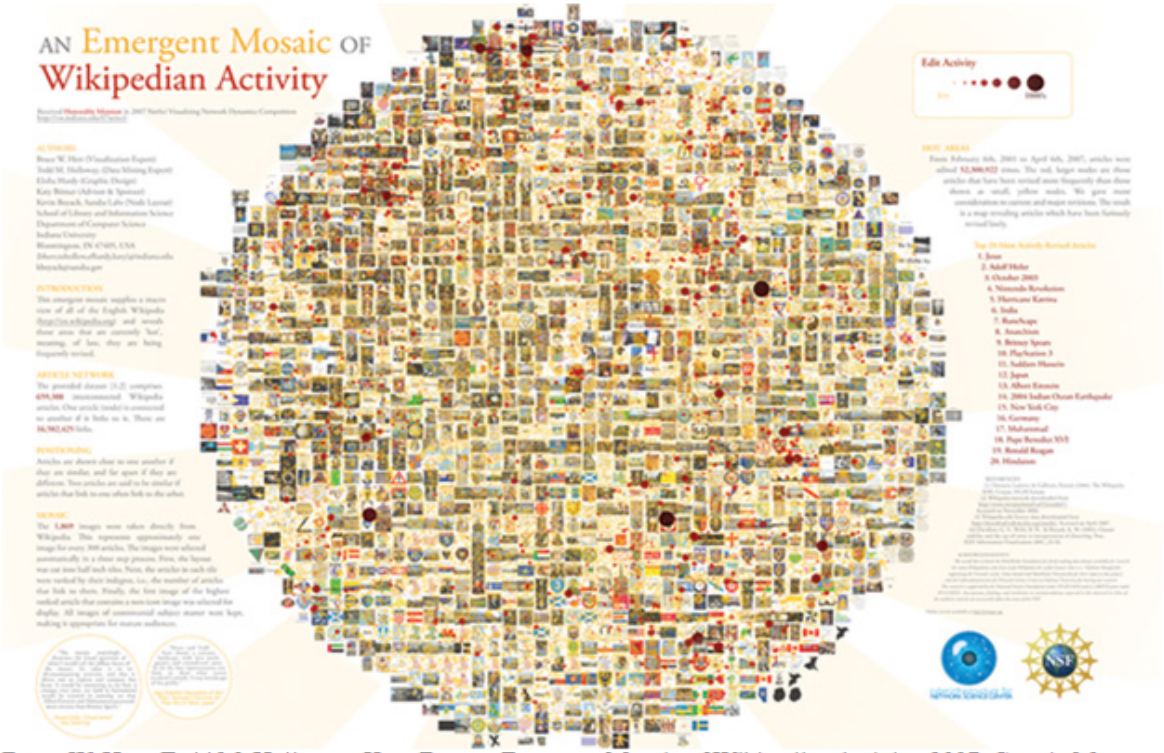
Peter A. Hook

Renpeng Hu

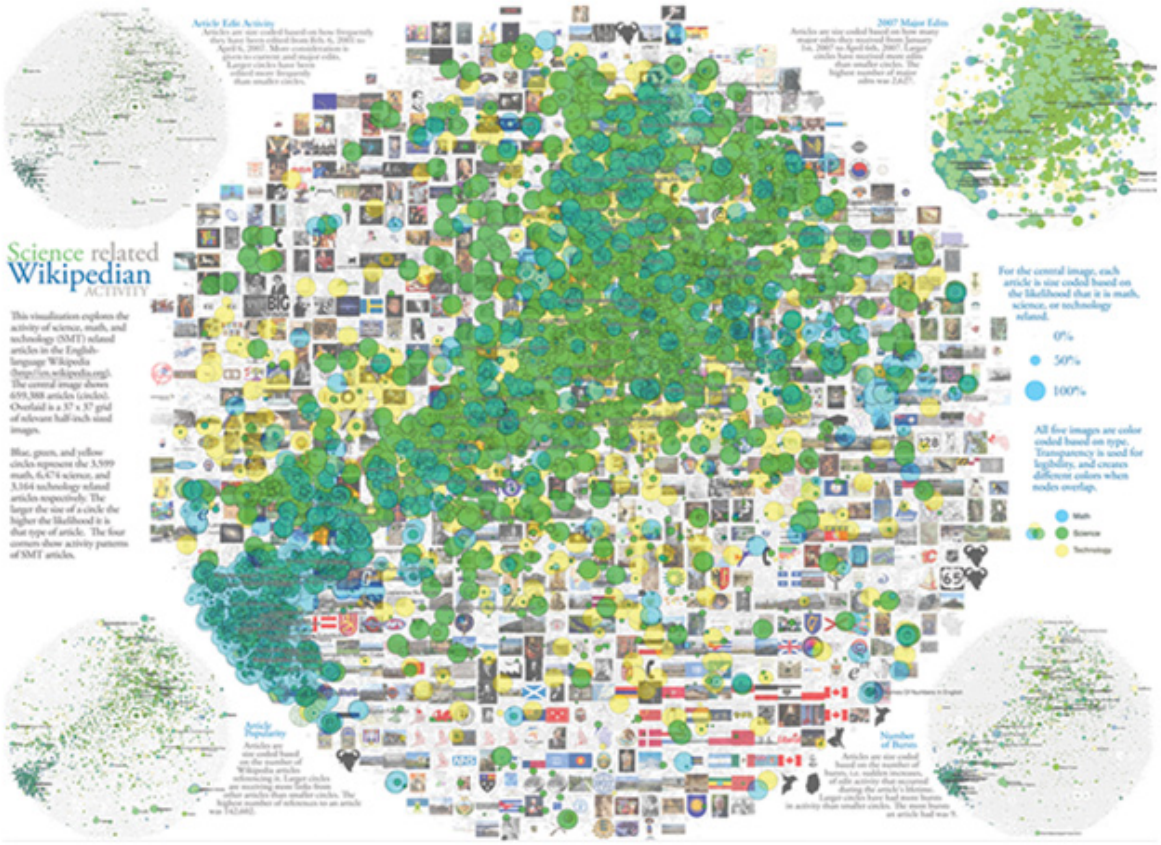
Weixia (Bonnie) Huang

Timothy Kelley

Stacy Kowalczyk



Bruce W. Herr, Todd M. Holloway, Katy Börner, Emergent Mosaic of Wikipedian Activity, 2007. Google Map at http://scimaps.org/maps/wikipedia/



Bruce W. Herr II, Todd M. Holloway, Katy Börner, Elisha F. Hardy, Kevin Boyack, Science Related Wikipedian Activity, 2007.

Gavin Larowe

Chung-Yang (Kenneth) Lee

Micah Linnemeier

Ketan Mane

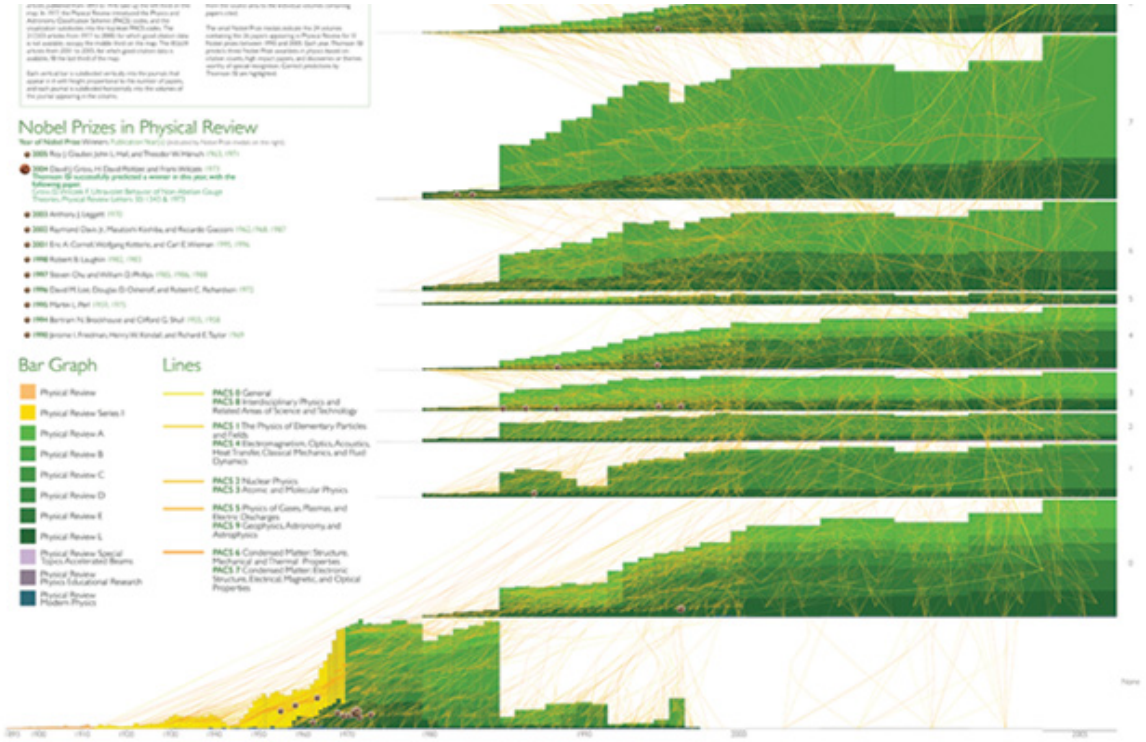
Sheetal Narayanan

Thomas Neirynck

Mathias Niepert

Fileve Palmer

Shashikant



Bruce W. Herr II, Russell J. Duhon, Katy Börner, Elisha F. Hardy, Shashikant Penumarthy, 113 Years of Physical Review, 2007.

Events Organized

- **Symposium on Knowledge Domain Visualizations** organized by Chaomei Chen, Katy Börner, and Jasna Kuljis @ IV 2007, ETH Zürich, Switzerland, July 4-6, 2007.
- **InfoVis Software Infrastructures Workshop** organized by Katy Börner, Bruce W. Herr II, and Jean-Daniel Fekete @ Visualization Summit, ETH Zürich, Switzerland, July 3, 2007.
- **Network Science Workshop and Conference** organized by Zoltán Toroczkai, Stephen M. Uzzo, Albert-László Barabási, Katy Börner, and Marc Vidal @ New York Hall of Science, Queens, NY, May 20-25, 2007.
- **Visualizing Network Dynamics Competition** organized by Katy Börner, Elisha F. Hardy, Marcia Rudy, and Stephen M. Uzzo @ NetSci07, New York Hall of Science, Queens, NY, May 20-25, 2007.
- **SPIE Conference on Visualization and Data Analysis** organized by Robert F. Erbacher, Katy Börner, Matti Gröhn, and Jonathan C. Roberts @ San Jose, CA, Jan 29 -30, 2007.
- **Workshop on Science (Weather) Forecasts** organized by Katy Börner, Julie M. Smith, and Stephen M. Uzzo @ New York Hall of Science, New York, Oct 26, 2006.

Places & Spaces Exhibit

- **December 9, 2006 - February 25, 2007**. On display at the New York Hall of Science, Queens, NY.
- **March 25-28, 2007**. On display at the 233rd ACS National Meeting & Exposition, Chicago, IL.
- **May 1-30, 2007**. On display at the Monroe County Public Library, Bloomington, IN.
- **September 7, 2007 - January 7, 2008**. On display at the American Museum of Science and Energy, Oak Ridge, TN.

Cyberinfrastructure Developed

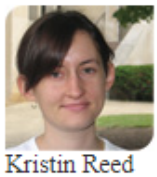
- **Scholarly Database** https://sdb.slis.indiana.edu/
- **Cyberinfrastructure Shell** http://cishell.org
- **Information Visualization Cyberinfrastructure** http://iv.slis.indiana.edu
- **Network Workbench – Community Wiki** https://nwb.slis.indiana.edu/community/

Funding

Penumarthy

Shravan Rajagopal

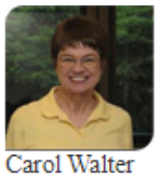
Megha Ramawat


Kristin Reed

Soma Sanyal

Julie M. Smith

Felix Terkhorn


Carol Walter

Heng (Michael) Zhang

- **TLS: Towards a Macroscope for Science Policy Decision Making**. NSF award (Katy Börner, Weixia Huang , Kevin Boyack, $399,870) Jan. 08-Dec. 09.
- **I-IKM: "Visualizing Network Dynamics" Competition at the International Conference on Network Science 2007**. NSF IIS-0724282 award (Katy Börner, $11,890) April 07-March 08.
- **Creative Metaphors to Stimulate New Approaches to Visualizing, Understanding, and Rethinking Large Repositories of Scholarly Data**. NSF IIS-0715303 award (Katy Börner, $198,812) June 07-May 09.
- **Mapping Science Exhibit at the 233rd National Meeting & Exposition of the American Chemical Society in Chicago, IL**. NSF award (Katy Börner, $75,708) March 07-March 08.
- **Collaborative Research: Social Networking Tools to Enable Collaboration in the Tobacco Surveillance, Epidemiology, and Evaluation Network (TSEEN)**. Collaborative Systems NSF IIS-0534909 award (Katy Börner, $197,591) March 06-Feb. 09. Collaborative proposal with Noshir S. Contractor, NCSA, Tom Finholt, University of Michigan, and Gary Giovino, University at Buffalo.
- **Modeling the Structure and Evolution of Scholarly Knowledge**. James S. McDonnell Foundation grant in area Studying Complex Systems (Katy Börner & Robert L. Goldstone, $420,164) Jan. 06-Dec. 08.
- **SEI: NetWorkBench: A Large-Scale Network Analysis, Modeling and Visualization Toolkit for Biomedical, Social Science and Physics Research**. NSF IIS-0513650 award (Katy Börner, Albert-László Barabási, Santiago Schnell, Alessandro Vespignani & Stanley Wasserman, Eric Wernert (Senior Personnel)), $1,120,926) Sept. 05-Aug. 08.
- **Center of Excellence for Computational Diagnostics**. 21st Century Grant (Susanne Ragg, David Clemmer, Sven Rahmann, and Ilka Ott, Terry Vik, R Clement McDonald, Nunroe Pecock, Zina Ben Miled & Katy Börner, $1,994,951) Sept. 04-Aug. 08.
- **Quest Atlantis: Advancing a Socially-Responsive Meta-Game for Learning**. NSF Role-0411846 award (Sasha Barab & Susan Herring, Daniel Hickey, William Blanton, Katy Börner (Senior Personnel), $1,516,075) Sept. 04-Aug. 07.
- **CAREER: Visualizing Knowledge Domains**. NSF IIS-0238261 award (Katy Börner, $536,250) Sept. 03-Aug. 08.
- **NSF Workshop on "Knowledge Management and Visualization Tools in Support of Discovery"**. NSF IIS-0750993 award (Katy Börner, $49,461) Jan. 08-Dec. 08.

Open House Event Pages

http://ella.slis.indiana.edu/~katy/gallery/07-openhouse/
http://ella.slis.indiana.edu/~katy/gallery/06-openhouse/
http://ella.slis.indiana.edu/~katy/gallery/05-openhouse/
http://ella.slis.indiana.edu/~katy/gallery/04-openhouse/
http://ella.slis.indiana.edu/~katy/gallery/03-openhouse/

Acknowledgements

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James S. McDonnell Foundation

Image Credit: Daniel Zeller, Hypothetical Model of the Evolution of Science, 2007.

Graphic Design by Elisha F. Hardy

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