Visualization Techniques to Map Scientific Knowledge

by Katy Borner

SLIS

Date  Friday, January 17, 2003
Time   2:30 p.m.
Place  LI001

Abstract

This talk reviews visualization techniques to map the ever-growing knowledge domain structure of scientific disciplines, including emerging techniques in interactive data analysis and information visualization.

Diverse algorithms are applied to demonstrate different analysis and visualization techniques on a bibliographic data set that includes articles from the citation analysis, bibliometrics, semantics, and visualization literatures.

This serves to map the relationships within and between the four fields that together form domain visualization. The talk concludes with a discussion of her recent work and an outlook.

Biography

Katy Borner is Assistant Professor of Information Science and Cognitive Science at Indiana University School of Library and Information Science. Her talk—in expanded form—appeared as a chapter on visualization techniques in the 2002 Annual Review of Information Science & Technology (v37), co-authored with Chaomei Chen of Drexel University and Kevin W Boyack of Sandia National Laboratories.

Her research interests are information visualization, virtual reality interfaces, human computer interaction, cognitive science, and artificial intelligence. Her recent publications include articles and reports on visual interfaces for semantic information retrieval and browsing, visualization for improving learning and collaboration, virtual worlds, digital libraries, and adaptive human-computer interaction and computer-aided design.

Information about her projects can be found at ella.slis.indiana.edu/~katy.

Colloquium Provided By:

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