

DISTINGUISHED LECTURER SERIES

T H E I N S T I T U T E F O R S Y S T E M S R E S E A R C H



April 16, 10:00 a.m.

From Hierarchies to Polyarchies: Visualizing Multiple Relationships

George G. Robertson, ACM Fellow and Senior
Researcher, Microsoft Research

Hierarchy visualization has been a hot topic in the Information Visualization community for over a decade. A number of hierarchy visualization techniques have been invented, with each having advantages for some applications, but limitations or disadvantages for other applications. No technique has succeeded for a wide variety of applications. We continue to struggle with basic problems of high cognitive overhead (e.g., loss of context), poor fit to the data (e.g., problems of scale), and poor fit to the user's task at hand (e.g., handling multiple points of focus). At the same time, information access improvements have made available to us much richer sources of information, including multiple hierarchies and other relationships. I call this broader problem Polyarchy Visualization. In this talk, I will review what we know about hierarchy visualization, illustrate the broader polyarchy visualization problem with some examples, and describe some polyarchy visualization techniques and a series of user studies evaluating them.

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Biography

George G. Robertson is an ACM Fellow and a Senior Researcher at Microsoft Research, where he manages a project on 3D user interfaces and information visualization. Before coming to Microsoft, he was a Principal Scientist at Xerox PARC, working on 3D interactive animation interfaces for intelligent information access. He was the architect of the Information Visualizer and invented a number of information visualization techniques. He has been a Senior Scientist at Thinking Machines, a Senior Scientist at Bolt Beranek and Newman, and a faculty member of the Computer Science Department at Carnegie-Mellon University. In the past, he has made significant contributions to machine learning, multimedia message systems, hypertext systems, operating systems, and programming languages.

Date and time

Lecture

Friday, April 16, 10:00 a.m.

Judith Resnik Lecture Hall

1202 Glenn L. Martin Hall

University of Maryland, College Park, MD 20742

Roundtable discussion

Friday, April 16, 1:30 p.m.

2168 A.V. Williams Building

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