

DISTINGUISHED LECTURER SERIES



Ben Shneiderman

Department of Computer
Science; UMIACS; ISR
University of Maryland

Lecture

Friday, October 8
3:00 pm
1110 Jeong H. Kim Bldg.

Reception

Immediately following the
lecture

Hosts

The Institute for Systems
Research and the Department
of Electrical and Computer
Engineering

Friday, Oct. 8, 2010 3:00 p.m.

Information Visualization for Knowledge Discovery

Abstract

Interactive information visualization tools provide researchers with remarkable capabilities to support discovery. These telescopes for high-dimensional data combine powerful statistical methods with user-controlled interfaces. Users can begin with an overview, zoom in on areas of interest, filter out unwanted items, and then click for details-on-demand. With careful design and efficient algorithms, the dynamic queries approach to data exploration can provide 100msec updates even for million-record databases.

This talk will start by reviewing the growing commercial success stories such as www.spotfire.com, www.smartmoney.com/marketmap, and www.hivegroup.com. Then it will cover recent research progress for visual exploration of large time series data applied to financial, medical, and genomic data. These strategies of unifying statistics with visualization are applied to electronic health records and social network data. Demonstrations will be shown.

Biography

Ben Shneiderman is a Professor in the Department of Computer Science and Founding Director (1983-2000) of the Human-Computer Interaction Laboratory at the University of Maryland. He was elected as a Fellow of the Association for

Computing (ACM) in 1997, a Fellow of the American Association for the Advancement of Science (AAAS) in 2001, and a Member of the National Academy of Engineering in 2010. He received the ACM SIGCHI Lifetime Achievement Award in 2001.

Ben is the co-author with Catherine Plaisant of *Designing the User Interface: Strategies for Effective Human-Computer Interaction* (5th ed., 2010). With Stu Card and Jock Mackinlay, he co-authored "Readings in Information Visualization: Using Vision to Think" (1999). With Ben Bederson he co-authored "The Craft of Information Visualization" (2003). His book *Leonardo's Laptop* appeared in October 2002 (MIT Press) and won the IEEE book award for Distinguished Literary Contribution.

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