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Speaker Series

QuanTM hosts a number of themed speaker series. Normally these events take place Wednesdays from 12:00-1:30pm in room 201 of the Modern Languages building unless otherwise specified. Interested in attending a lecture? Please register for the event using the form included at the bottom of each series page.

Data Visualization (2015-16) »

Annual Theme: Data Visualization

Data visualization is the graphic presentation of information which supports the exploration, examination, and communication of complex data (Few 2009). In short, it is a method by which scientists and researchers can transform data and evidence into explanations (Tufte 2006). Beyond serving as a means of effective and efficient communication, data visualization affords researchers and consumers alike the opportunity to process large quantities of data and develop a deeper understanding of the world in which we live. The unprecedented quantity and quality of data now available has created a renewed interest in and demand for data visualization techniques (Yau 2011). Recent advances in data visualization have made possible the analysis of such information which previously may have been too complex to uncover substantively important patterns and relationships. The applications and development of data visualizations techniques, which span nearly every field from the humanities to hard sciences, constitute an important and vibrant area of research highly relevant across academic disciplines and professions.

Katy Börner

From the Department of Information and Library Science, Indiana University

February 4, 2016 at 1:15 to 2:30 pm

Atwood Chemistry Center, Room 316 (space is limited)

Data Visualizations: Drawing Actionable Insights from Data

In an age of information overload, the ability to make sense of vast amounts of data and to render insightful visualizations is as important as the ability to read and write. This talk explains and exemplifies the power of visualizations not only to help locate us in physical space but also to help us understand the extent and structure of our collective knowledge, to identify bursts of activity, pathways of ideas, and borders that beg to be crossed. It introduces a theoretical visualization framework meant to empower anyone to systematically render data into insights together with tools that support temporal, geospatial, topical, and network analyses and visualizations. Materials from the Information Visualization MOOC and maps from the Places & Spaces: Mapping Science exhibit will be used to illustrate key concepts and to inspire participants to visualize their very own data.

Ben Schmidt

from the History Department at Northeastern University

Historical data visualization and presenting rich data archives

Talk held November 11, 2015. In the contemporary humanities, datasets are not just evidence but archives, demanding reinterpretation; visualization provides one of the richest and most widespread ways facilitating this. This talk will describe the reception and remarkable misrepresentations of the most influential single data visualization in the historical profession, the US Census's maps of the frontier line from the late 19th century; and then describe an agenda of web-based data visualizations using D3 geared towards exploratory analysis that can allow freer exploration of data archives as evidence. These platforms--for exploring census data, historical shipping routes, and text collections with metadata--embody an approach towards humanities data visualization not simply as presenting single views, but as creating weak domain-specific-languages for sharing data archives with scholars and a wider public.

John Stasko

from the School of Interactive Computing at **Georgia Institute of Technology**

The Value of Visualization for Exploring and Understanding Data

Talk held October 1, 2015. Investigators have an ever-growing suite of tools available for analyzing and understanding data. While techniques such as statistical analysis, machine learning, and data mining all have value, visualization provides an additional unique set of beneficial capabilities. In this talk I identify the particular advantages that visualization brings to data analysis beyond other techniques, and I describe the situations in which it can be most beneficial. Additionally, I identify three key tenets for success in data visualization: understanding purpose, embracing interaction, and identifying value. To help support these arguments, I will draw upon and illustrate a number of current research projects from my lab. One particular system demonstrates how visualization can facilitate exploration and knowledge acquisition from a collection of thousands of narrative text documents.

Polo Chau

from the College of Computing at Georgia Institute of Technology

Catching Bad Guys with Visualization and Data Mining

Talk held October 14, 2015. Big data has redefined crime. We now see new breeds of crime where technologically savvy criminals cover their tracks with the large amount of data generated, and obfuscate law enforcement with multiple fake virtual identities. I will describe major data mining and visualization projects from my group that combat malicious behaviors by untangling sophisticated schemes crafted by criminals.

Source: Emory
http://quantitative.emory.edu/news/podcasts-and-videos-directory-page.html