Human-Centered Information Visualization

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Information visualization is for the eyes and minds of human beings. While visualization and mapping algorithms play a significant role in creating visual structures and views for the abstract information that is otherwise difficult to "see", viewers should always be in control of the whole visualization process. The viewers need to understand how to choose the most appropriate visualization techniques or display formats for their specific information tasks. They need to interact with visualization results and initiate new visualization processes according to their information needs. They need to be able to customize visualization tools to support their thinking, understanding, and collaboration. These are only some of the themes that emerged from recent research on information visualization. Indeed, it is important to include human cognition and intelligence throughout the visualization process and to invite humans to be in the "driver's seat" when they use the visualization results for learning, exploration, and understanding.

Information visualization is rapidly moving from algorithm-driven visualization to human-centered visualization. In this special issue, we seek original research and application development papers that explore the roles of humans in the process of information visualization. Topics may include, but are not limited to:

- Adoption of techniques and methodologies of human-centered computing to information visualization
- Prototypes, tools, and applications of mixed-initiative information visualization systems
- Empirical results on human-driven information visualization processes
- Design of user-centered visual structures and representations
- Collaborative visualization
- Human-computer collaboration in information visualization
- Comparisons of human-generated vs. algorithm-generated visual representations
- Theories on human intelligence and visual perception in the visualization process
- Aesthetics in information visualizations
- Development of effective visual metaphors, interaction, and exploration

Paper Submissions

- Submissions due: 15 October 2008
- Acceptance notices: 15 January 2009
- Final revisions due: 15 March 2009
- **Publication:** 1 September 2009

Inquiries can be made to any of the guest editors. Authors should inform the guest editors of their intent to submit before sending a manuscript. Submissions of manuscripts in PDF or Word format are recommended via email to:

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