VIS 2013 Capstone Speaker

Information Visualization: Challenges and Opportunities

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Abstract

In the past decades many new techniques have been developed to visualize and interact with abstract data, but also, many challenges remain. In my talk I will reflect on how to make progress in our field: how to identify interesting problems and next how to find effective solutions. I will begin with an attempt to identify characteristics of interesting problems, and discuss windows of opportunity for data, tasks, and users. Some problems have been solved, some are too hard to deal with, what is the range we should aim at? And what impact can be obtained? Next, I discuss strategies and approaches for finding novel solutions, such as combining existing approaches and finding inspiration in other disciplines, including art and design. This talk is based on lessons we learned while developing new techniques, and will be illustrated with a variety of cases and demos from our group at TU/e, showing successes and failures.

Bio

Jarke van Wijk is professor in visualization at Eindhoven University of Technology (TU/e). His research focuses on information visualization, visual analytics, and mathematical visualization. His background is in computer graphics and geometric modeling. He holds a MSc degree in industrial design engineering and a Ph.D. in Computer Science from Delft University. Before joining TU/e, he has worked at the Netherlands Energy Research Foundation ECN. He is cofounder and VP Scientific Affairs of MagnaView BV. Jarke has been paper cochair for IEEE Visualization (2003, 2004), IEEE InfoVis (2006, 2007), IEEE VAST 2009, IEEE PacificVis 2010 and EG/IEEE EuroVis 2011. He received the IEEE Visualization Technical Achievement Award in 2007 for his work on flow visualization and the Eurographics Outstanding Technical Contributions Award in 2013.