

Invited Talk

Interactive Visual Analysis with different levels of complexity

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Abstract

Interactive visual data exploration and analysis is a powerful methodology for enabling insight into complex and also large data. The iterative process of visualization and interaction (and back to visualization, aso.) can be seen as a visual dialog between the user and the data. Thereby, powerful data analysis schemes are enabled such as a step-by-step information drill-down, steered by the users perception, cognition, and knowledge. In this talk, we look at different levels of this methodology (in the sense of levels of complexity), starting at the first level of show & brush, continuing then via relational analysis to a third level that we call complex analysis. The hypothesis is stated that it indeed is useful to have these different levels of complexity for interactive visual data analysis: a large share of all addressed problems can be satisfyingly solved with the simple level of show & brush, while the more complex levels of this methodology are only paying off in special cases. Along with a characterization of these levels, we also take a look at a number of illustrative examples.