Informatik-Kolloquium

Der Fachbereich Informatik der Johannes Kepler Universität Linz[1] lädt in Zusammenarbeit mit der Österreichischen Gesellschaft für Informatik (ÖGI) zu folgendem Vortrag ein:

Topic: **Visual-Interactive Search and Analysis of Patterns in Complex Data**

Presenter: **Prof. Dr. Tobias Schreck, Graz University of Technology**

Date: **December 15th, 2015, 4:00 pm**

Location: **Johannes Kepler University Linz,**
Science Park 1, MT130

Abstract: Advances in data acquisition and storage technology lead to the creation of increasingly large, complex data sets across many different application domains, including science, engineering, business and social media. Often, this data is of complex nature, involving high-dimensional, temporal and spatial data. Important user tasks for leveraging large, complex data sets include finding relevant information, exploring for patterns and insights, and re-using of data for authoring purposes. If appropriately combined, methods from interactive data visualization and data analysis allow to factor in background user knowledge during the analysis process, and provide solutions for many search and analysis tasks in important applications.
In this talk, we discuss visual-interactive data analysis techniques from our work that can support search and analysis in a variety of different data types and novel application scenarios. These include example- and sketch-based retrieval in scientific data repositories, interactive cluster analysis approaches for time-oriented data, and user-adaptive learning of patterns in high-dimensional data. We also briefly address the question of evaluation based on contests and crowdsourcing. We conclude with an outline of research challenges in the area.

Short Bio: Tobias Schreck holds a Professor position with the Institute for Computer Graphics and Knowledge Visualization at Graz University of Technology, Austria. Between 2011 and 2015, he was an Assistant Professor with the Data Analysis and Visualization Group at University of Konstanz, Germany. Between 2007 and 2011 he was a Postdoc researcher and head of a junior research group on Visual Search and Analysis with TU Darmstadt, Germany. Tobias Schreck obtained a PhD in Computer Science in 2006, and a Master of Science degree in Information Engineering in 2002, both from the University of

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Konstanz. His research interests include visual search and analysis in time-oriented, high-dimensional and 3D object data, with applications in data analysis, multimedia retrieval and

cultural heritage. He has served as co-chair for Posters, Workshops and Panels for IEEE VIS, as well as a co-organizer for the EG Workshop on 3D Object Retrieval. Tobias Schreck is a PI in the EU projects PRESIOUS and CONSENSUS, and leads a state-funded project on Visual Search and Analysis in Time-Oriented, Annotated Research Data. A research profile can be found at http://www.cgv.tugraz.at/schreck.

Einladender: Ass.-Prof. Dr Marc Streit, Institute of Computer Graphics

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