COLLABORATIVE DATA ANALYSIS WITH SMART TANGIBLE DEVICES

We present a tangible approach for exploring and comparing multi-dimensional data points collaboratively by combining Sifteo Cubes with glyph visualizations. Various interaction techniques like touching, shaking, moving or rotating the displays support the user in the analysis. Context dependent glyph-like visualization techniques make best use of the available screen space and cube arrangements. As a first proof of concept we apply our approach to real multi-dimensional datasets and show with a coherent use case how our techniques can facilitate the exploration and comparison of data points. Finally, further research directions are shown when combining Sifteo Cubes with glyphs and additional context information provided by multi-touch tables.

Johannes Fuchs, Roman Rädle, Dominik Sacha, Fabian Fischer and Andreas Stoffel, "**Collaborative data analysis with smart tangible devices**", Proc. SPIE 9017, Visualization and Data Analysis 2014, 90170C (December 23, 2013), DOI: 10.1117/12.2040011