Exploring and Explaining 3D Data Representations

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EXPLORING ANG EXPLAINING 3D DATA

REPRESENTATIONS

Van

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1. exploring complex multidimensional data by means of visualization is a main topic in scientific visualization.
-Chapter 2

2. Interactive manipulation of 3D scenes is a key part of scientific visualization and other fields.
-Chapter 3 and 4

3. Extracting salient structures in the visualization and reducing these to their skeletons can be used as 3D rotation axes directly. This can make interaction more flexiblely.
-Chapter 3 and 4

4. Multidimensional projections are effective methods for visualizing high-dimensional datasets to find structures in the data like groups of similar points and outliers.
-Chapter 5 and 6

5. Computing a hierarchical explanation, where projection regions are recursively split by additional explanations, is another direction someone could explore in the future.
-Chapter 7

6. If interaction methods are just like real human behavior, we can have a realistic experience in the virtual world.

7. The world will become more interesting if general users can use and understand visualization applications easily.