

Visual Mapping for Human-Data Communication

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Abstract

Visual computing uses computer-assisted visual representations of data and has been applied in various scientific and industrial areas to amplify human cognition on data comprehension. Mapping is an essential step that transforms focus data to geometric data in the visualization pipeline. The challenge of this step is to find a meaningful mapping between data attributes and geometric objects so that they can be understood faithfully. In this talk, I will show examples of how to properly map data in visualization and physicalization. First, visual metaphors will be introduced to show how to untangle biological networks. Second, mapping data on physical objects facilitates intuitive in-hand data observation. Finally, scalability, usability, and potential applications will be discussed.