

**The Eyes Have It:  
A Task by Data Type Taxonomy for Information Visualizations By Ben Shneiderman**

### CONTEXT

The paper addresses the need of using many tasks to enhance user interface design for information visualization. It is important to highlight some categories and tasks for information visualization as browsing big information is difficult and hard. Essentially, users tend to take a lot of time to locate an item for big size of information. So, this paper is good as a guideline for any person interested in user-centered design.

### CONTRIBUTIONS

It classifies seven data types for information visualization. These types are 1-dimensional, 2-dimensional, 3-dimensional, Multi-dimensional, Temporal, Tree, and Network. Furthermore, it explores seven tasks that can be used to enhance these types. These tasks are Overview, Zoom, Filter, Details-on-demand, Relate, History, and Extract. In addition, it describes advanced filtering for direct manipulation queries.

### STRUCTURE

The author describes each data type and task in individual subsection. He provides different examples for each one of them.

### RESULTS, METHODS, TECHNOLOGIES, and FIGURES

The paper only explains some guidelines for user interface design. It does not use any method, technology, or experiment. Thus, there is no figures and results.

### CONFUSION

I think the paper is clear. I do not see any contradiction.

### EVALUATION

Although the author explains each task and provides an example for each one, he does not include any picture to show these tasks. I think it would be more appropriate and easy to follow the description of each task if the author had provided some pictures for them.

### RELEVANCE

I consider this paper as a guideline for user-centered design. Thus, It should be related to my work in a sense of choosing between different tasks for information visualization.