Visual Analytics Validation – Notes

Slide 4

These levels are nested; the output from an **upstream** level above is input to the **downstream** level below. A **block** is the outcome of the design process at that level. The challenge of this nesting is that choosing the wrong block at an upstream level inevitably cascades to all downstream levels. If you make a poor choice in the abstraction stage, then even perfect choices at the idiom and algorithm levels will not result in a vis system that solves the intended problem.

The value of separating these concerns into four levels is that you can separately analyze the question of whether each level has been addressed correctly, independently of whatever order design decisions were made in the process of building the vis tool. Although I encourage you to consider these four levels separately for analysis, in practice you wouldn’t finalize design decisions at one level before moving on to the next. Vis design is usually a highly iterative refinement process, where a better understanding of the blocks at one level will feed back and forward into refining the blocks at the other levels.

Slide 17

There is also a discussion of both basic interaction idioms and more complex interaction via interactive reordering and clustering. In both cases the authors use the immediate validation method of justifying these design decisions.