T-61.5010 Information visualization

Exercise 4. Mon Feb. 20, 2006, 10-12 T2

- Attention
- Focus & context
- Graph drawing

1. Find an example of both good and bad website design. Consider issues related to structuring of information (Is the site easy to navigate?) and visual attention (Is relevant information easily found on a page?). Explain and justify your choices.

2. Calculate the thoeretical time it takes a user to get from the main page of the "good" website (see problem 1) to an interesting page of your choice on the same site. Repeat this for the "bad" website.

   Take into account the selection time and time constants for different simple tasks (see lecture notes). You can assume the page takes about 1 s to load. For more information Card et al. p 597 and lecture notes.

3. Construct a mind map of the most important things you have learned so far on this course. Use Graphviz (neato) to visualize the graph. Try different parameter settings.

4. Suppose you have to design an algorithm for drawing very large graphs. The graphs may contain over 1 million vertices (and even more edges). Give a list of problems you might encounter and think about possible solutions. Consider both the quality of the visualization and computational complexity of the algorithm. Keep it simple – do not go too much into detail.