CSE591-Assignment 7

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**Paper1:A Task Taxonomy for Network Evolution Analysis-IEEE Transactions on Visualization and Computer Graphics, Vol.20,No.3, March2014**

In order to offer strong temporal network visualization systems for users, it is very important for designers to understand what tasks the users have to accomplish. Therefore this paper primarily explains a taxonomy of temporal network visualization tasks.

At the beginning, the author defines three dimensions of temporal network evolution tasks by reviewing 53 existing temporal network visualization systems and academic papers. The three dimensions in taxonomy are network entities, network properties and temporal features. Then this paper uses the Nation of Neighbors and TempoVis as the example to elaborate how taxonomy and its three dimensions were constructed. Also, the author explains two cases of compound task: inferential compound task and comparative/correlational compound task.

Additionally, the author structures the long list of network evolution analysis tasks based on the discussion of the three dimensions. Tis paper provides two tables to complement the list: a design space view of temporal network visualization tasks and a design space of three dimensions. After examining the network evolution design space and lost of tasks, the author gives a summary of design opportunities and data manipulation tasks.

Finally, this paper analyzes the results of the evaluation from 12 network analysis experts. The results show that these experts were positive about the comprehensiveness of taxonomy. However, they indicated that complex relationships among low-level temporal need to be examined because they are not simple sequence of independent tasks. Moreover, two experts were confused with temporal features. Thus the differences of some entries need to be highlighted.

**Paper2: Narrative Visualization: Telling Stories with Data-** **IEEE Transactions on Visualization and Computer Graphics, Vol. 16, No. 6, November/December 2010**

This paper discusses the design of narrative visualizations and identifies these design strategies for telling stories with graphics.

Firstly, the author reviews several crucial concepts in narrative visualization: narrative structure, visual narratives and storytelling with data visualization.

Secondly, this paper illustrates the approach of how to examine design features by representing five case studies of narrative visualization. The author highlights the design strategies used in these five examples such as annotation, progress bar, timeline slider and martini glass structure etc.

Next, this paper gives the design space analysis of narrative visualization and represents it in a table that relates each visualization example to the design strategies discussed in previous section. The table cuts design space into three divisions of features: genre, visual narrative tactics and narrative structure tactics. Also, the author defines three patterns in the table: the clustering of different ordering structures, the consistency of interaction design, and the under-utilization of narrative messaging.

After illustrating the table, the author summarizes the seven genres of narrative visualization including magazine style, annotated chart, partitioned poster, flow chart, comic strip, slide show, and video. These seven basic genres can be combined with interactivity and messaging to generate author-driven and reader-driven approaches. And then three interactive examples of a mix of two approaches were given.