Dear New Time Interactive Visualization Designers,

In this semester I am taking a course, Information Visualization, which required us to write a letter of suggestions to you for possible modifications to make more perfect your interactive visualization presentation. I am glad to have such a great opportunity to contribute my thoughts. The graphic presentation which I have chosen is spending, “All of Inflation’s Little Part.” (i.e. with URL http://tinyurl.com/6rr22g)

I really appreciate your elaborate graphic design. The treemap-like visualization helps users quickly get a holistic view for average American spending and easily know the relative percentage and importance of each category via its shape size. In addition, we can precisely grasp the extent of price changes from colors on each shape. Take gasoline for instance, it is drawn with brown color (i.e. the highest price change rate) and a larger shape with respect to others (i.e. 5.2% share of spending). Thus, it immediately helps me realize the fact why the gasoline influences Americans so much.

However, users like me might be eager for some additional features which might help your work towards its completion in some way. First of all, when I use the detail-on-demand functionality, it is hard to move the view from one to another place. For example, if I am looking at “tires” in transportation but later want to see “bicycles” in recreation, there are only two ways to move the view. One is to zoom out and select the “bicycles”; the other is to repeatedly click the neighboring categories to move towards “bicycles”. Both ways are inconvenient. Similar designs as google map might help smooth the control flow if users can select levels of detail by the scroll button of mouse and move at random by mouse move or arrow keys. (e.g. http://maps.google.com/)

Secondly, it might be easier to browse the figure with the search functionality. For example, although 200 categories is a small number, at first glance it is hard for
users to locate items in which they are interested most. A search bar can mitigate the
pain of browsing. In addition, the system can provide users with hints for possible
candidates when they type some letters. For example, when I type b, the system may
prompt me “bread” with 0.2% share of spending and “baby food” with 0.1% (or
prompt items in the same big category in sorted order). (e.g. http://www.google.com/)

Finally, what a pity! The figure couldn’t show the data evolving with time. It
would be wonderful if there were a time bar and users could scroll it to see how
shapes and colors of categories vary with time. Furthermore, in the detail-on-demand
mode, it would be better to show histograms of prices and percentage of average
spending over the whole time interval as well. Then, even experts may use it to
explore potential phenomena and predict future trends. (e.g. http://tinyurl.com/kvt9bh)

I wish these suggestions would help your visualization more friendly and useful. If there
are any problems about my ideas, I am more than willing to exchange or discuss ideas with
you.

Yours sincerely,

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