September 9, 2009

For the attention of the Interactive News Team

Dear visualization team:

This letter is regarding the “Swine Flu Cases Map” visualization found at the interactive portal of your website. Although it only contains data from a limited amount of time, I found it an informative and useful resource. Among the characteristics of this visualization that I liked, is the dynamic slider used to easily toggle between the amounts of cases confirmed each date. As Dr. Shneiderman states in his book “The craft of information visualization: readings and reflections”, dynamic query sliders let the users fly through the data by adjusting widgets and viewing animated results. In my experience with this visualization, it was pleasant to easily navigate your data without major efforts. Another aspect of the interactive map that helped me to gain more insights about the swine flu data are the markings and tooltip information shown when the mouse pointer is placed over a shape. This interaction helped me to see more information about the number of cases in a particular place in an unobtrusive way.

In the other side, the limited amounts of data that the map contains make the visualization almost irrelevant for the present days. In times where a second wave of the swine flu is feared and predicted by experts, it would be useful to have in hand such a nice tool like the one discussed in this letter. Nevertheless, I am aware that showing all the data of the confirmed cases up to date could bring scalability issues to the visualization. According to the latest figures of the World Health Organization (WHO), there have been more than 209,000 confirmed cases of swine flu worldwide. Showing all that information in one map is complicated and visualizing it could be harder. Furthermore, the overlapping of shapes of different sizes would make the map unreadable. A solution for this problem could be showing the data by countries, instead that by using rounded shapes. That is, using the shape of the countries, without varying its size, but introducing color as a scale of the count of confirmed swine flu cases in each country. In that case, there would be no overlapping of shapes, and the map would be easy to read, without depending of the amount of data that will be visualized.

Another possible improvement to the interactive map would be the addition of a scatterplot showing the amounts of cases confirmed over time. In that way, trends of a possible outbreak
or significant reduction of cases could be noticed easily by looking at the plot. Even better, if, by highlighting the data of interest in the plot, the data is highlighted in the map too, the analyst could gain more insights about the countries that are experiencing either the outbreak, reduction or whichever important event he or she noticed in the plot. Without further ado, I hope you continue using the well-established principles of Information Visualization to keep your readers informed of such an important topic.

All the best,

Miguel A. Ríos-Berrios
CS Graduate Student
University of Maryland, College Park
mrios@cs.umd.edu