Dear New York Times Visualization Team:

I am a Master's student in Professor Shneiderman's Information Visualization class at the University of Maryland College Park. I am writing concerning your London 2012 Olympics visualization (http://london2012.nytimes.com/results) published in the summer of 2012. The interface provides a visualization of the results of the 2012 Olympics by medal count along with a list of the medals won by sport.

This visualization provides an intuitive Dorling Cartogram where the diameter of the circle is determined by the success of a country in the recent Olympic games. The circles are color coded by continent and the most successful countries in the Olympics have a pop out effect due to the size of their corresponding circle. The Dorling Cartogram is well suited for this task as many viewers of the site may want a quick overview of the top countries. For other users that may want more information concerning each event, a list sorted by sport displays the results of each event in a concise and coherent manner. Above the diagram, a slider allows the user to view the results of past Olympics by simply moving the slider to the specified year. The slider ensures consistency by updating both the diagram and the event breakdown for the selected year using the same format, colors and layout for all of the results. By limiting the user interaction to only a slider, this visualization ensures that a user can not cause an error. While this visualization is both graphically appealing and informative, I have a few suggestions for improving it.

Upon first arriving at the Olympics visualization, an immediate question that arose was whether the circle diameter was determined by medal count or by total gold medals. This ranking differed among news reporting agencies such as NBC Olympic coverage choosing to display the results by medal count and the official London 2012 page displaying the results by the gold medal count. After further inspection, I concluded that the size of the circle was determined by total medal count, but only after seeing the ranking in the list below. I believe a simple solution to alleviate this confusion would be to add a legend to the visualization informing the user of the calculation of the circle size. A better option would be to have radio buttons that would allow the user to redraw the Dorling Cartogram based on total medal count or gold medal count.

Another issue that I quickly noticed was that European countries are displayed in green while African countries are displayed in red. Due to the proximity of these continents, the circles representing the nations are close to each other. This would be nearly impossible to discern without close inspection for nearly 6% of the male population that has some form of red-green colorblindness. To combat this issue a transparent map could be underlaid to give more information concerning the location of the countries. An alternative would be to stripe or texture the circles as opposed to relying solely on color for continent differentiation.
In addition to the above fixes, I believe a few additions could add to the overall user experience and increase your readership. I believe an animation feature should be added to the slider so you can see how countries fared over the years. In order to reduce the required memory load of the user, countries should be focusable and results over a range of years should be displayable. I believe that countries that participated in the Olympics, but did not medal should also be listed. This would be especially useful in years where large countries did not participate such as in 1980 and 1984 to avoid the user from believing that the data is incorrect or incomplete. Over 10% of the American population speaks Spanish, so including Spanish and possibly other languages could draw more readers.

I believe that the London 2012 Olympics visualization displays the Olympic results in a clear and precise manner. With a few modifications, the visualization will be understandable by more users and will add to the overall user experience. Thank you for your time and I look forward to seeing more visualizations.

Sincerely,

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