Dear Mr Bostock and Mr Ericson,

This is a critique of my favorite New York Times 2012-13 visualization, titled “At the Republican Convention, the Words Being Used”. My personal belief is that the purpose of visualization is insight, and this particular visualization is one of the most insightful I have ever come across. Not only do I find it to be a very clever idea, it is also very well executed, and it was a lot of fun comparing and contrasting it with the similar visualization “At the Democratic Convention, the Words Being Used”.

At the Republican Convention, the Words Being Used
A look at how often speakers at the Republican National Convention have used certain words and phrases so far, based on an analysis of transcripts from the Federal News Service.

Figure 1: Words being used at the Republican convention.
An important mantra in Information Visualization is “Overview first, Zoom and Filter, then details on demand” [1]. I find that this pair of visualizations follows this mantra to a tee. First, we are given an overview of the most frequently occurring words in the convention speeches. Then, we can filter either by clicking on those words that we are especially interested in, or by typing in any query of our choice in the text box you have provided. We can then look at the exact paragraph and sentence in the bottom half of the page, providing details on demand (Figure 1). This adherence to the mantra makes this visualization a very exemplary one, and provides insights into the thought processes in the Democratic and Republican parties.

For example, a common consensus is that the Iraq war was a mess created by the Republicans, and that the Obama government had to clean up the mess. One can see this reflected in the word counts, where the word “Iraq” appears in the Republican convention just seven times, but in the Democratic convention 34 times. Many of the references made by the Democrats in Iraq are self-congratulatory – praising the Obama government for ending the war, while the Republicans mentioned Iraq much less frequently, mostly in the context of the bravery of their troops.

Similarly, the Democrats mention “women” nearly five times more frequently than the Republicans, and the Grand Old Party does not use the word “abortion” even once. The word “gay” is mentioned five times by the Democrats (in the context of support for gay rights and gay marriages), but never by the Republicans. The Democrats spoke about “education” and “middle class” a lot more than the Republicans.

One of the benchmarks of a good visualization is to see how much they adhere to Shneiderman’s “Eight Golden Rules of Interface Design” [2]. I was glad to note that the visualizations for the Democratic and Republican conventions were had identical interfaces (except for the color change) – or in other words, they were consistent with each other. Another one of the eight tenets is the usage of shortcuts, and one of the salient points of your visualization is that the user can search for words in the bubbles just by using a short-cut Ctrl+F on their browser. In this way, it helps us locate words quickly in case there are lots of bubbles (and therefore, words). I also like how the user has complete control in the sense that he can search for any query he is interested in, and isn’t just limited to a small set of words.

One minor improvement I can suggest is : I wish there was a simple way to undo a query. For example, an accidental typo would result in a bubble with zero matches. It would have been useful to select accidental typos to get rid of them, or undo them. It would also have been nice to have a delete functionality, just to remove those terms that the user isn’t very interested in. I must note that clicking the “go back one page” button on the web-browser does not perform an undo. Error handling and reversal of actions are desirable properties of an information visualization.
Also, when overcrowded, I find that the words on some bubbles get jumbled with the words on other bubbles (Figure 2). This is alright, of course, but sometimes, some of the words on the tiny bubbles get completely obscured, which isn’t aesthetically pleasing.

![Figure 2: Jumble of bubbles with other bubbles.](image)

Apart from these minor drawbacks, I found this visualization very fun and interactive, and I look forward to more visualizations from your team in the coming year.

Yours Sincerely,

Varun Manjunatha

References:
