

## Problem 1: Good and Bad Visualizations

### Good Visualization

URL: <https://visage.co/10-inspiring-examples-of-data-visualization/>

Screenshot:



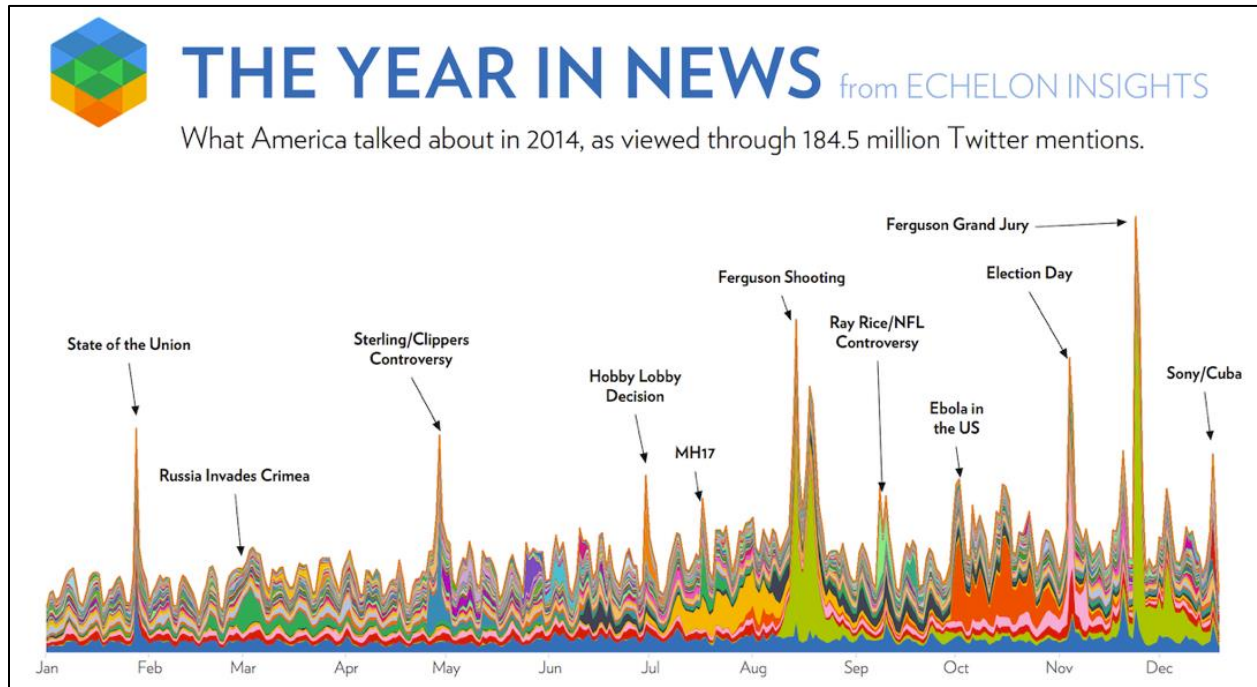
Discussion:

This visualization is the result of survey conducted by Northwestern University concerning media and entertainment of 6 Middle Eastern countries. The title is "Entertainment Media Use in the Middle East". This is an example of a good visualization, and in my opinion, it would be a 4 on a scale of 1-5. The positives are that the visualization makes good use of pre-attentive variables, such as color, and length. The colors consistently represent the different countries across the various graphs, and additionally, they do not change order, which makes them easier to track across the graphs. Also, the graphs seem to follow the same y-axis scale, and are not manipulated between graphs to influence the user. Negatives about the visualization include small print and the inclusion of the filters in the bottom while they are not adding to the graph itself. While it is an interactive visualization, the graph could have made use of the bottom third, if the filter options were not there.

## Bad Visualization

URL: <https://visage.co/10-inspiring-examples-of-data-visualization/>

Screenshot:



## Discussion:

This visualization is from Echelon Insights, a social media analytics company, and it displays twitter mentions throughout 2014 year. The title is "The Year In News". This is an example of a bad visualization, and in my opinion, it would be a 2 on a scale of 1-5. The positives are that it identifies specific peaks of twitter activity with clear text labels. The negatives are that it does not properly identify the value of those peaks with some sort of numerical label or y-axis scale. Additionally, there is poor use of pre-attentive variables here, with colors that are not labeled or explained. Additionally, certain text labels point to areas in the graph that don't seem to indicate significant more activity than its surroundings, leading to the question of why those specific events were pointed out. Overall, a poor graph with from which there is limited ability to draw insights.

## **Problem 2: Exploratory vs Explanatory Visualizations**

### You Draw It: How Family Income Predicts Children's College Chances

This visualization is explanatory visualization, as it is trying to get a point across, and not exploring various aspects of the data. The question the authors are trying to answer is "how much does household income affect chances of college admissions?". The insight I learned from this visualizations is that there is roughly linear relationship with household income and percent of children that attend college, which lends support to arguments for that government should provide more support to poorer households for education in order to create a more equitable educational system. The audience is wide ranging in this particular instance. Though NYT publication tends to be liberal in its viewership, the interactive nature of the visualization may pull in curious users from different backgrounds. I think the point of the visualization is easily received. It points to the fact that children from poorer households are not attending college at the same percentages of wealthier households, which leads to less social mobility over time.

### An Interactive Visualization of Every Line in Hamilton

This visualization is exploratory. It is exploratory because the authors allow data filtering and explorations, and there are no explicit messages that the author is attempting to convey. I don't believe there are specific questions the author is trying to answer. For the author, this was just an exploration out of curiosity of the script of the play. However, from this exploration and resulting visualization, we learned that the play has reoccurring themes such as ambition and fulfillment (i.e. being enough) that the major characters each experience in their own way. The audience of this visualization is likely individuals interested in musicals.

### Bussed out: How America Moves its Homeless

This visualization is explanatory, as it is trying to paint a picture of the irresponsibility of homeless relocation programs. The authors tried to answer the questions of what happens to people in homeless relocation programs, and what is the scale and extent of the relocation programs across the various US cities. We learned from the various visualizations that homeless is concentrated in certain states, namely the west coast states, New York, Massachusetts, and Florida. We also learned that New York City has relocated 2,350 homeless people to Puerto Rico, with additional homeless individuals being relocated elsewhere. We also learned that 88% of relocation tickets were to destinations that had lower median incomes. The audience for these various visualizations are likely voters who are interested in tackling the homeless crisis in the US, and are interested in informing themselves of various issues surrounding homelessness. The article conveys the message that the homeless relocation program is not a long term solution, and often misleads homeless individuals to travel to destinations that are not suitable for them.