

# MIS 0855 Spring 2015 – Data Science

## *Day 7 – Visualizing Data*

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# Data Visualization

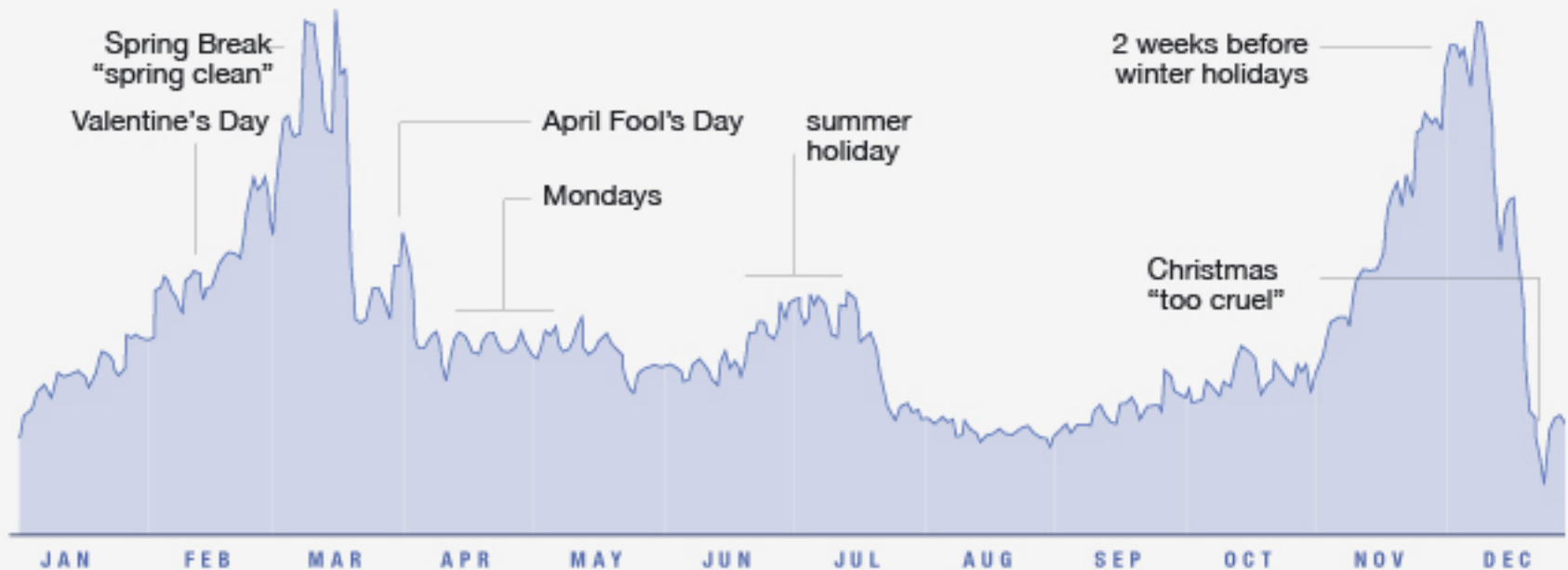
- You have got a good data source.
- You have several hypotheses and sensible theories to support them.
- You have got an interesting analysis result.
- How to present our data and analysis outcome?



<http://golancourses.net/2010spring/01/18/looking-outwards-data-visualization/>

# Peak Break-Up Times

According to Facebook status updates



David McCandless & Lee Byron  
InformationIsBeautiful.net / LeeByron.com

source: searches for "we broke up because"  
taken from the infographic ultrabook  
The Visual Miscellaneum

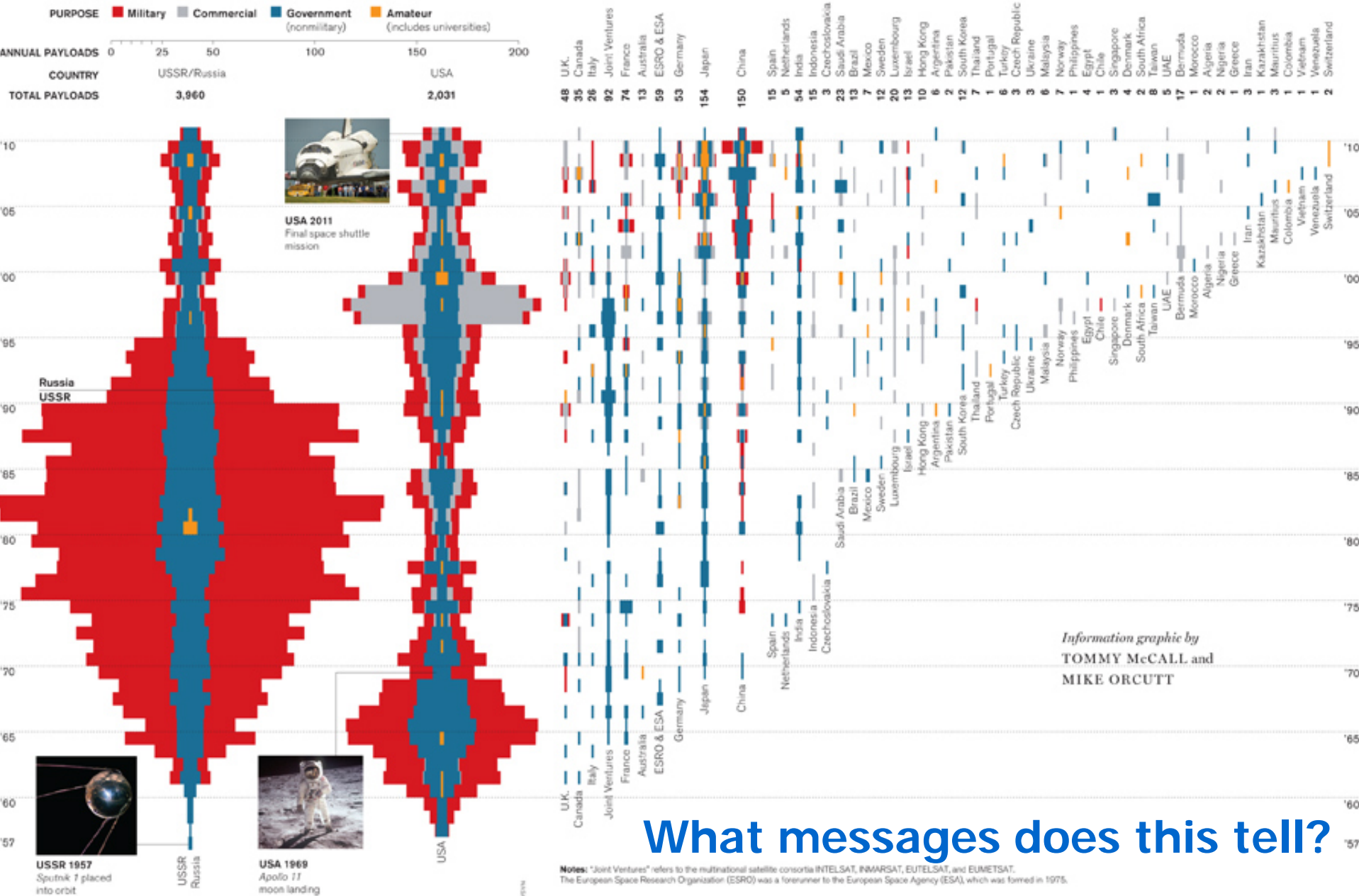
## Best Data Visualization

- Look at the best data visualization examples.
- <http://gizmodo.com/the-best-data-visualizations-of-2013-1485611407>
- <http://blog.visual.ly/the-top-20-interactive-visualizations-of-2013/>
- Why are these *cool*?

# Data Visualization Principles

- from <http://moz.com/blog/data-visualization-principles-lessons-from-tufte>
- Show the data.
- Provoke thoughts about the subject at hand.
- Avoid distorting data.
- Present many numbers in a small place (but not too many).
- Make large datasets coherent.
- Encourage eyes to compare data.
- Reveal data at several levels of detail.
- Serve a reasonably clear purpose.
- Be closely integrated with statistical and verbal descriptions of the dataset.

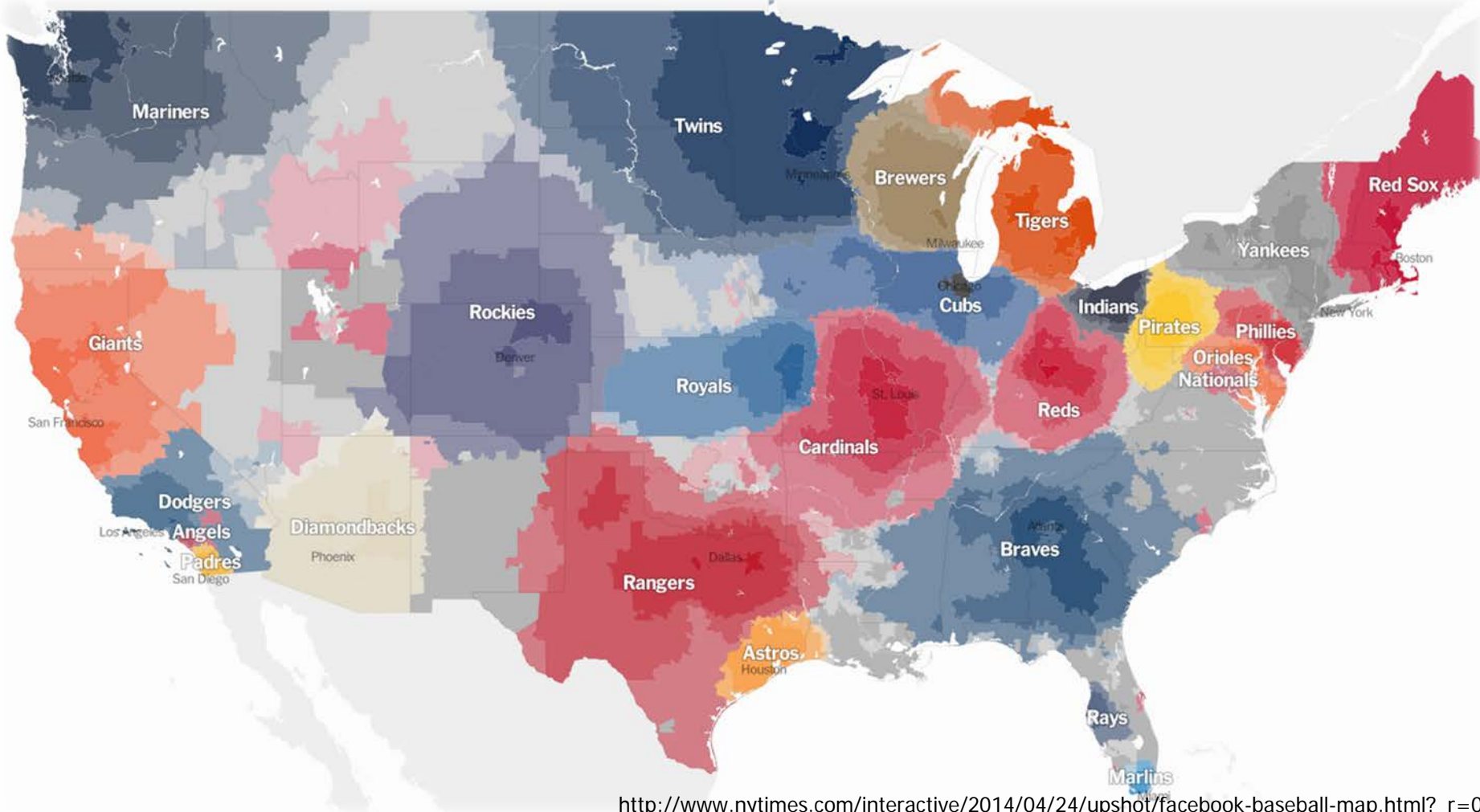
# SPACE LAUNCHES (payloads by country and purpose, annually)



## What messages does this tell?

<http://www.technologyreview.com/graphiti/425120/space-over-time/>

# What messages does this tell?



[http://www.nytimes.com/interactive/2014/04/24/upshot/facebook-baseball-map.html?\\_r=0](http://www.nytimes.com/interactive/2014/04/24/upshot/facebook-baseball-map.html?_r=0)