INFSCI 2725: Data Analytics
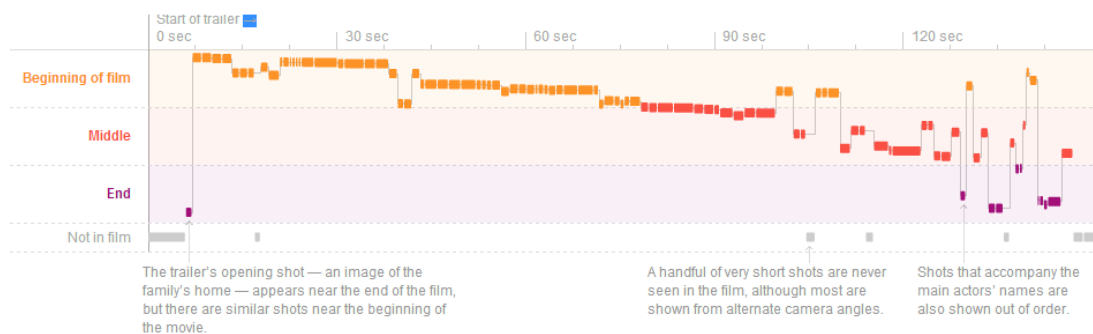# Assignment 9: Data visualization

1. Movie Trailer Visualization

http://www.nytimes.com/interactive/2013/02/19/movies/awardsseason/oscar-trailers.html?_r=0

Silver Linings Playbook

"Silver Linings Playbook" follows the standard model for trailers, according to Bill Woolery, a trailer specialist in Los Angeles who once worked on trailers for movies like "The Usual Suspects" and "E.T. the Extra-Terrestrial." While introducing the movie's story and its characters, the trailer largely follows the order of the film itself.

This graph is "Time Series" visualization.

Advantages:
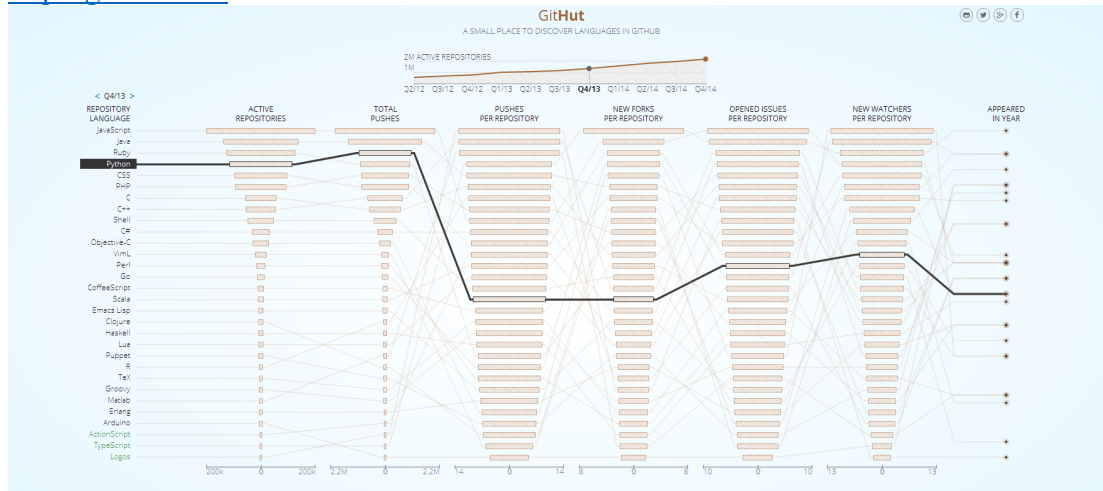• Graphical excellence is that which gives to the viewer the greatest number of ideas in the shortest time with the least ink in the smallest space.
• Graphical excellence is nearly always multivariate.
• Graphical excellence can tell the truth about the data.

Weaknesses:
Graphical did not show us how to divide the "Beginning of film", "Middle" and "End" with precision time interval.

2. Programming language trends visualization.

http://githut.info/

This graph is a combination of "Bar Chart" and "Line Chart" visualization.

Advantages:
• Graphical excellence consists of complex ideas communicated with clarity, precision, and efficiency.
• Graphical excellence is that which gives to the viewer the greatest number of ideas in the shortest time with the least ink in the smallest space.
• Graphical excellence is nearly always multivariate.
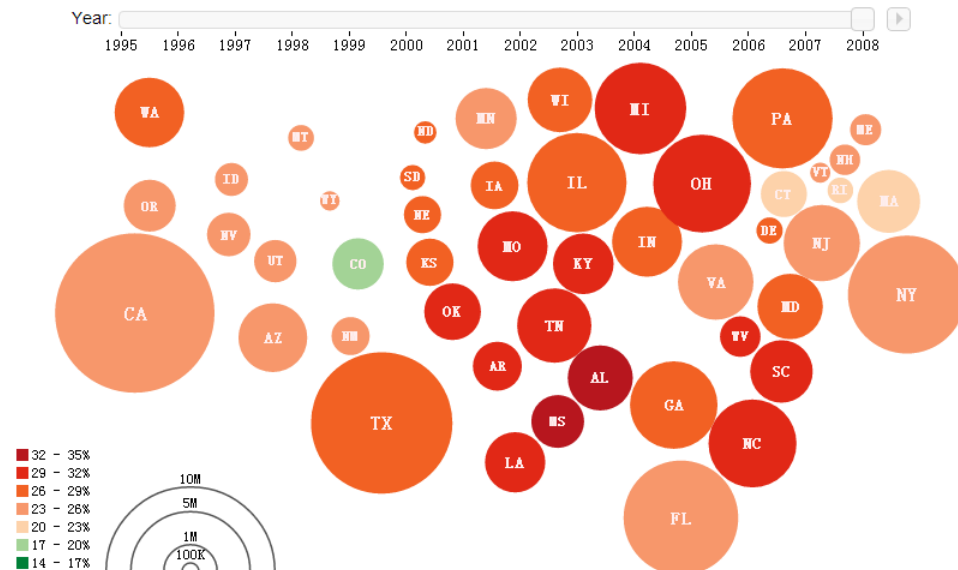• Graphical excellence can tell the truth about the data.

Weaknesses:
We cannot find any weaknesses from this visualization.

3. Dorling Cartogram of Obesity in the United States (1995 to 2008)
http://homes.cs.washington.edu/~jheer//files/zoo/ex/maps/cartogram.html

Dorling Cartogram of Obesity in the United States (1995 to 2008)

Year: 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008

Legend:
- 32 – 35%
- 29 – 32%
- 26 – 29%
- 23 – 26%
- 20 – 23%
- 17 – 20%
- 14 – 17%

10M, 5M, 1M, 100K

Absolute number of obese people per state and percentage of obese people, represented with circle area and color respectively. California dominates the map due to its large population size, while color indicates that Mississippi and Alabama are the states with the highest obesity rate.

Source: National Center for Chronic Disease Prevention and Health Promotion

This graph is a "Spatial" visualization.

Advantages:
• Graphical excellence consists of complex ideas communicated with clarity, precision, and efficiency.
• Graphical excellence is nearly always multivariate.

Weaknesses:
The first Visual impression of the diameter of each circle was not very clear. We cannot distinguish directly that they are the total population or total area of land. And also the chromatography of each color rank is not clear enough. We should use one color with different level of shade to show the differences of each value.