Maps & Other Lesser Known Graphs
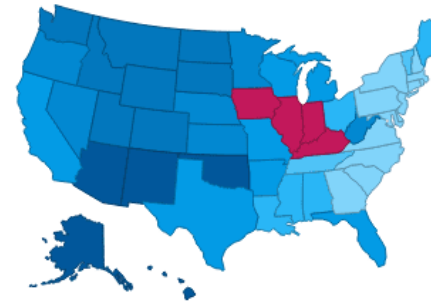
CM4125 – Week 8

Announcements

- BCR solution for last week
    - Available?
    - Review them!
    - Anyone did BCR with another tool?

Maps

Maps

- Maybe the most widely used visualisation nowadays

- The most logical way to understand population trends

Types of Maps

Choropleth Map

American Community Survey 5-year Estimates
Percentage of Rural Population in Poverty for the United States: 2011-2015

Percent by state
- 19.0 or more
- 15.0 to 18.9
- 12.0 to 14.9
- 9.0 to 11.9
- Less than 9.0
- No Rural Component

U.S. percent is 15.5

Source: U.S. Census Bureau,
2011-2015 American Community Survey, 5-year Estimates
For more information, visit census.gov/programs-surveys/acs
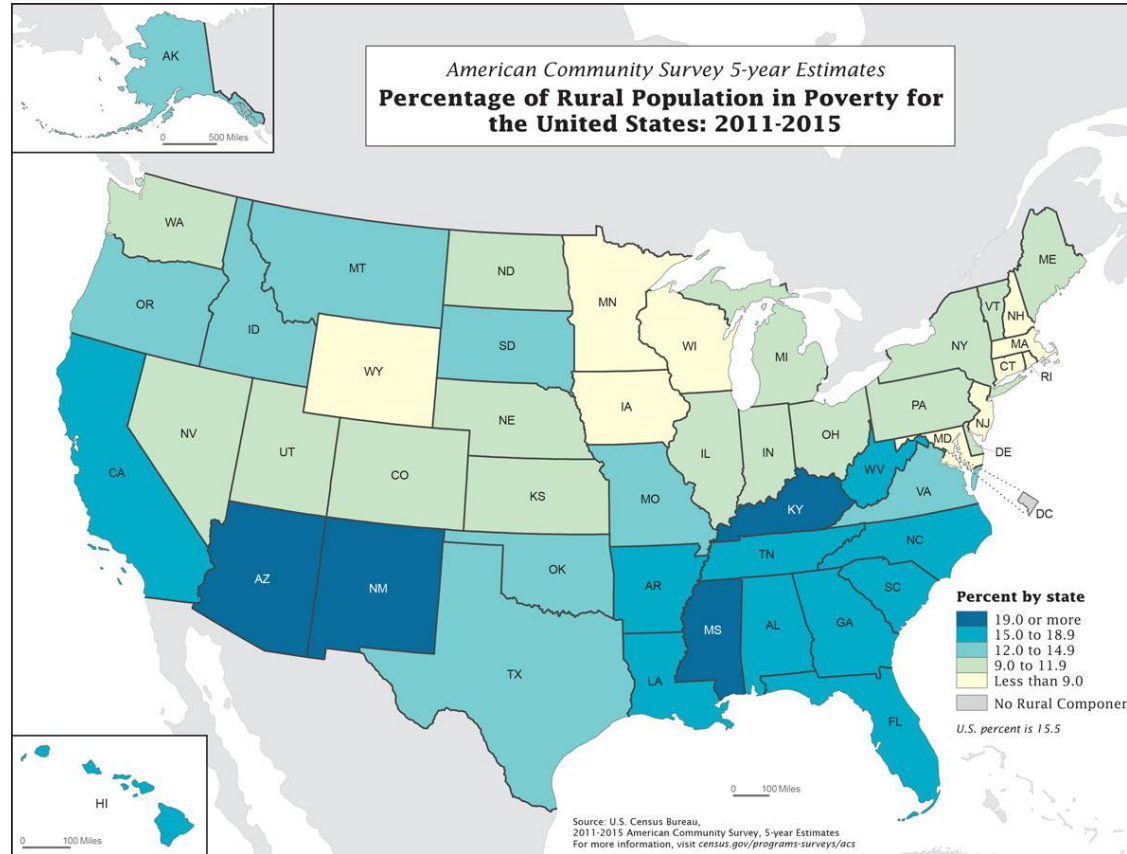
Isarithmic Map

Washington State Annual Precipitation
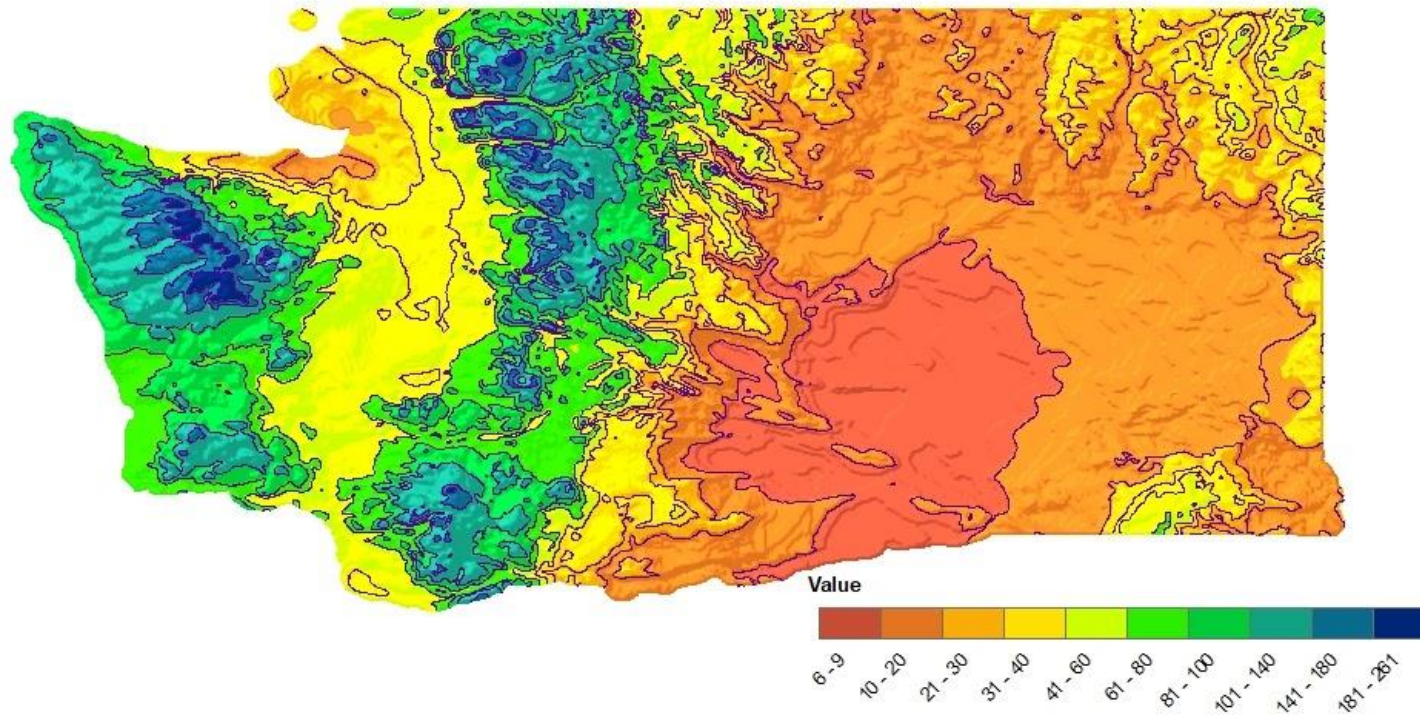
See, cumulonimbus!

Dot Map

2010 Census Block Data

1 Dot = 1 Person

- ● White
- ● Black
- ● Asian
- ● Hispanic
- ● Other Race / Native American / Multi-racial

Dustin A. Cable | University of Virginia | Weldon Cooper Center for Public Service | Reference Data by Stamen Design
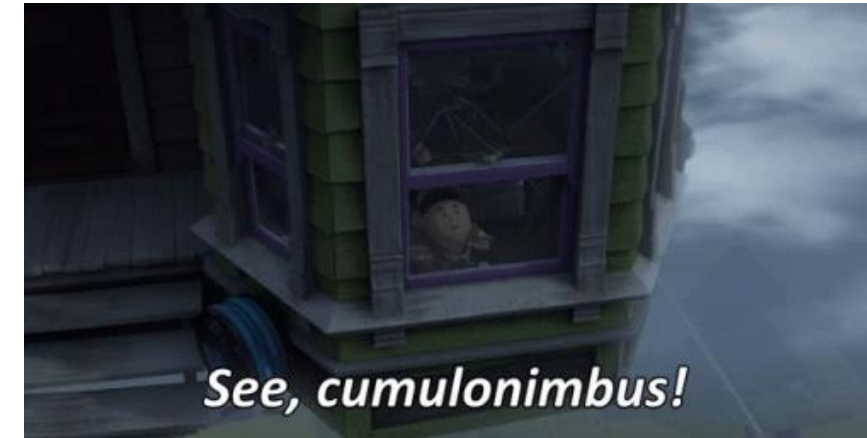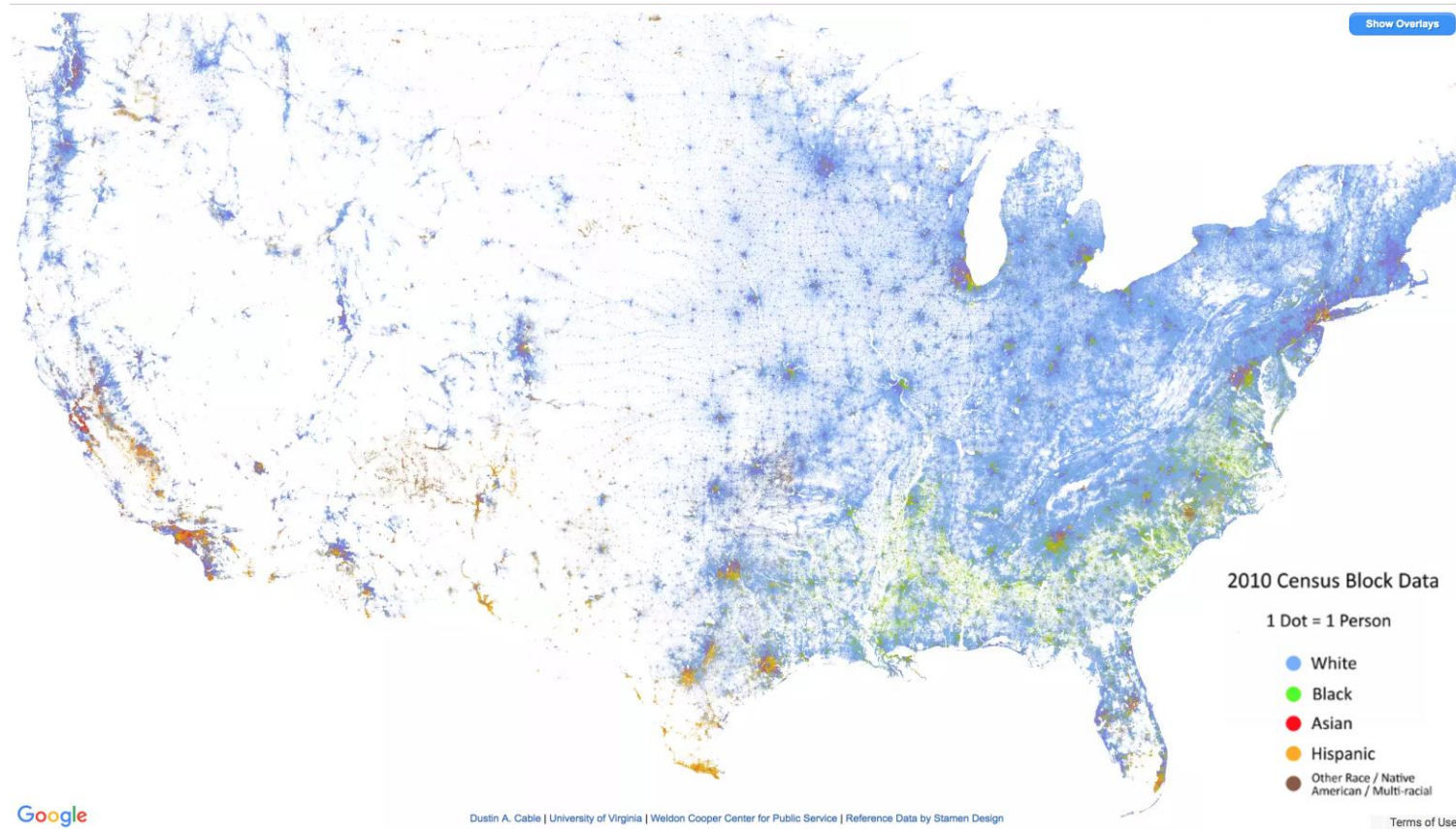
Proportional Symbol Map
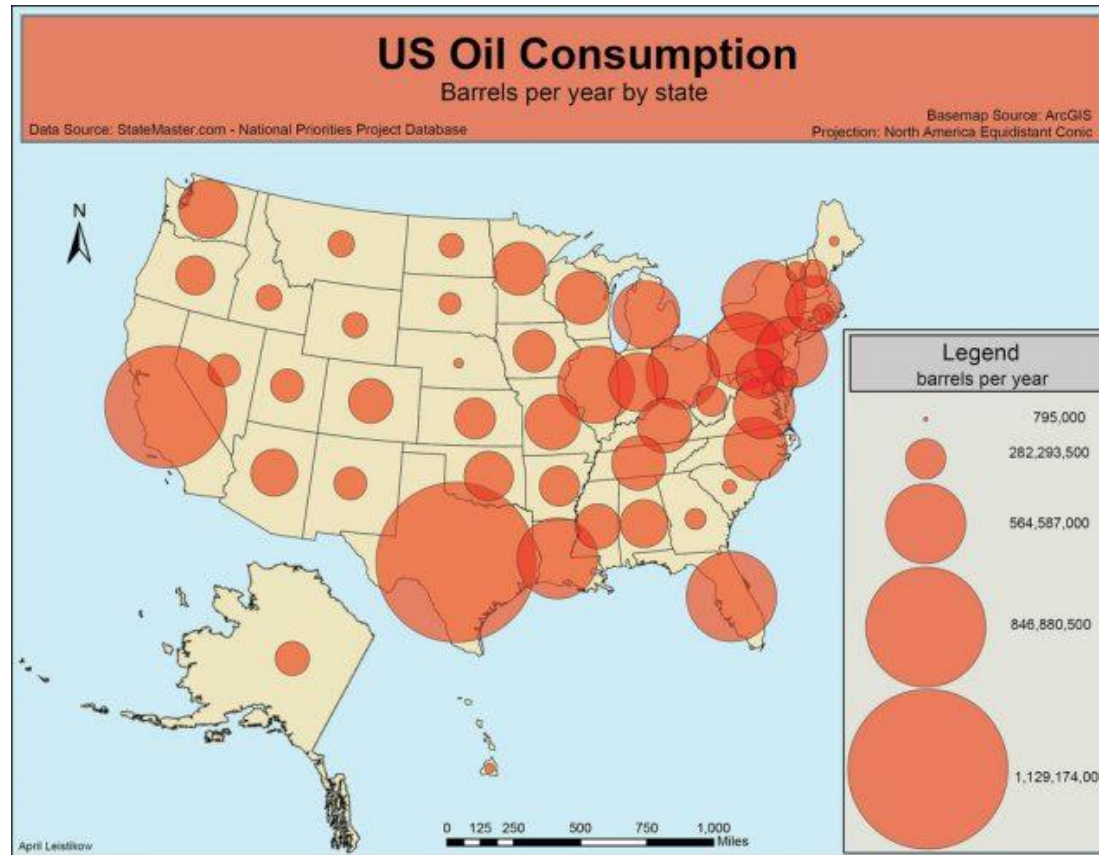
Prism Map

Flow Map

Area Cartogram

https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.0040001

Dorling Cartogram

https://blog.datawrapper.de/cartograms/
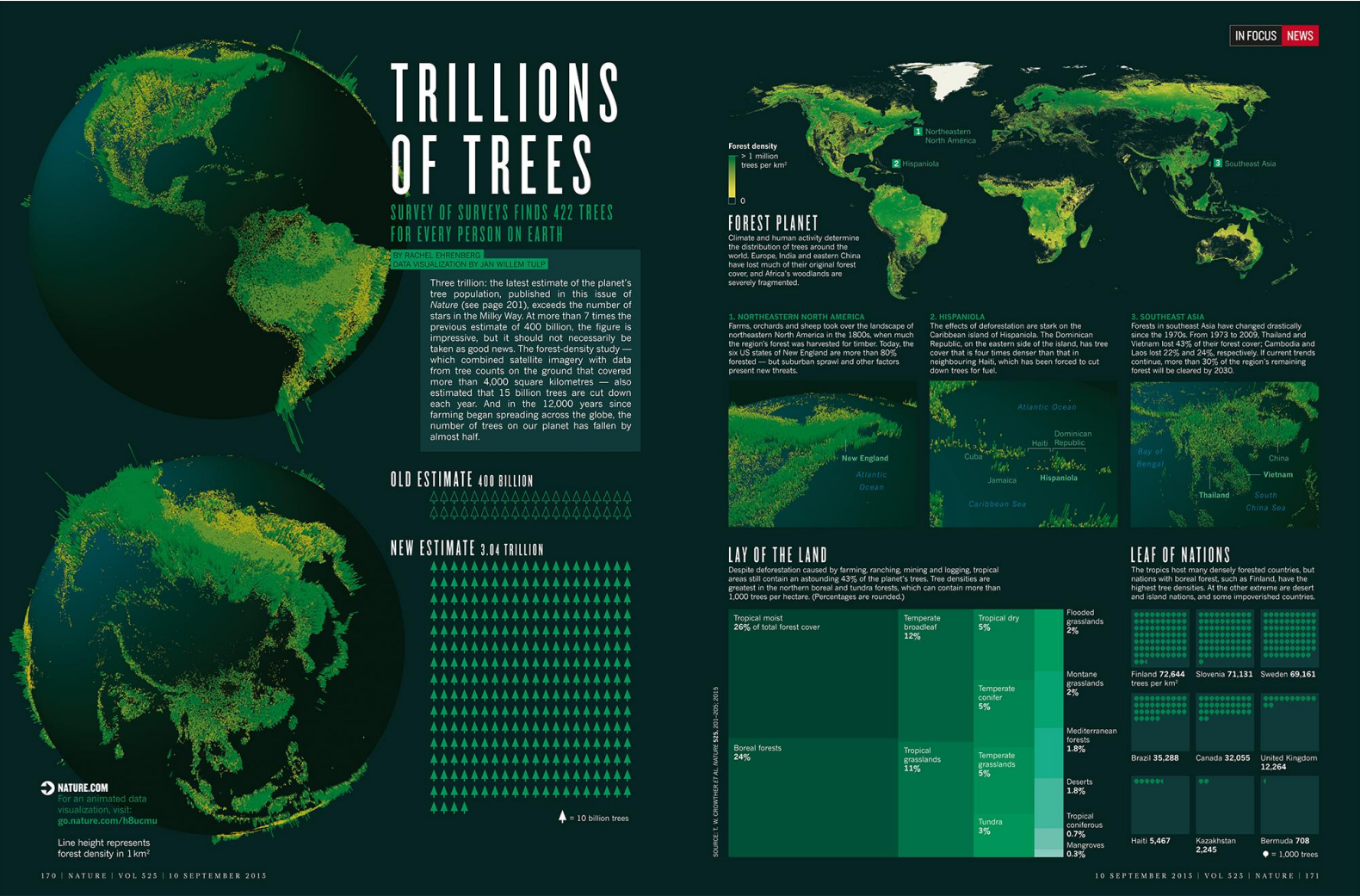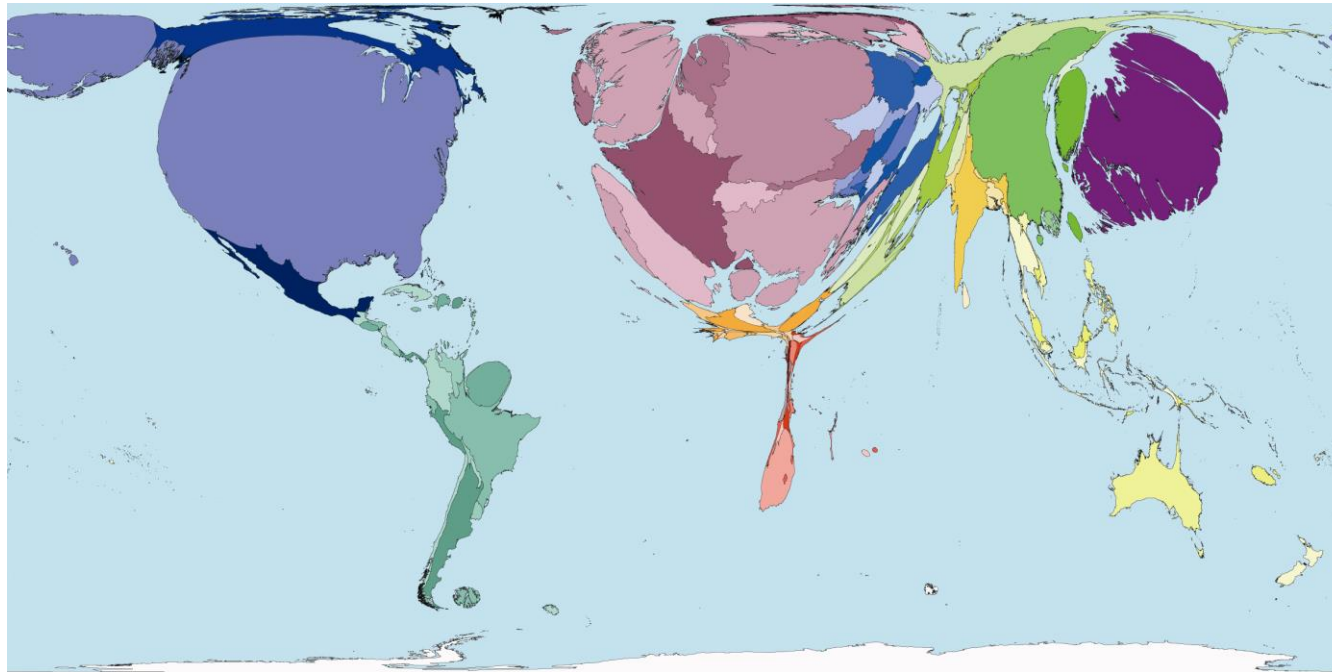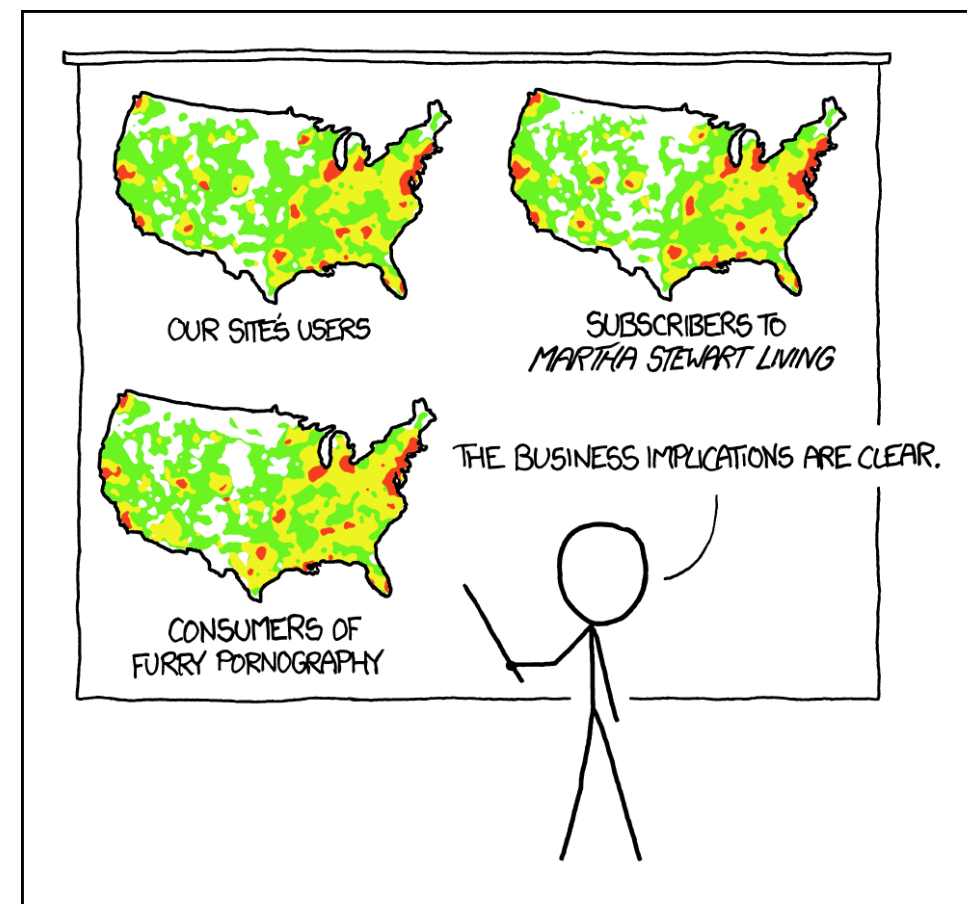
Grid Map

Map Word Cloud

Problems with Maps

https://thetruesize.com/
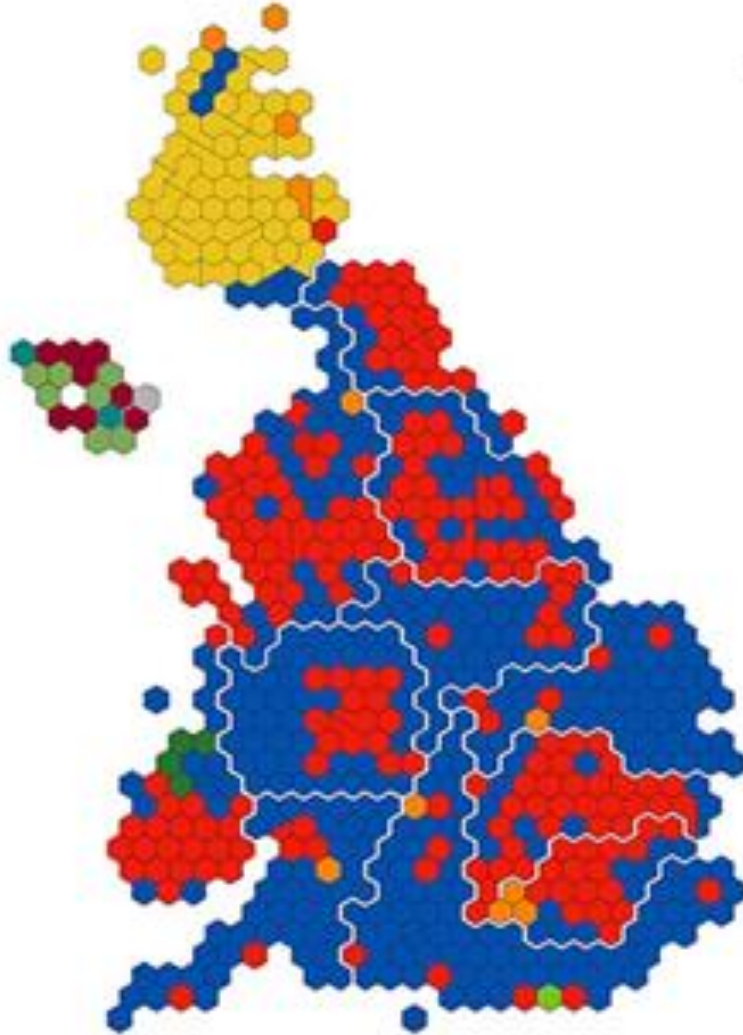
Problems with Maps

Problems with Maps
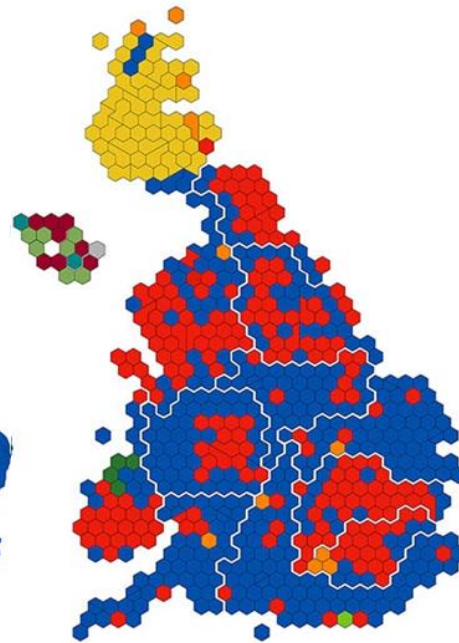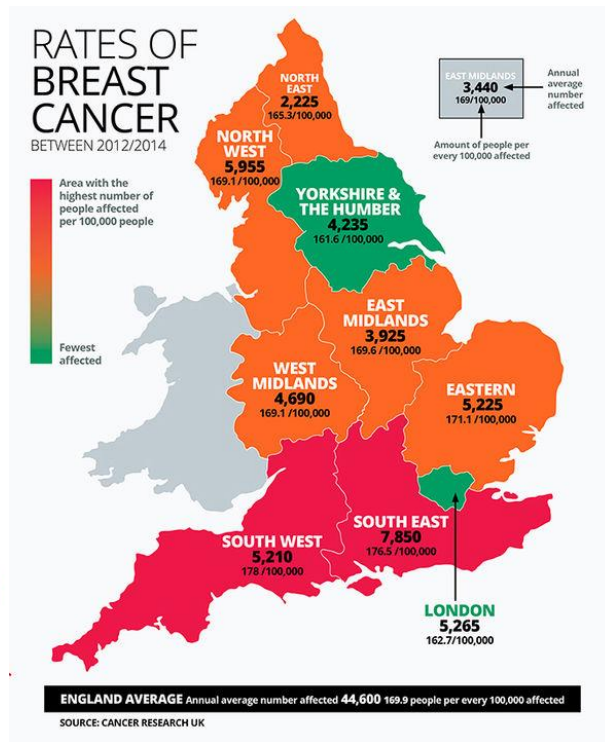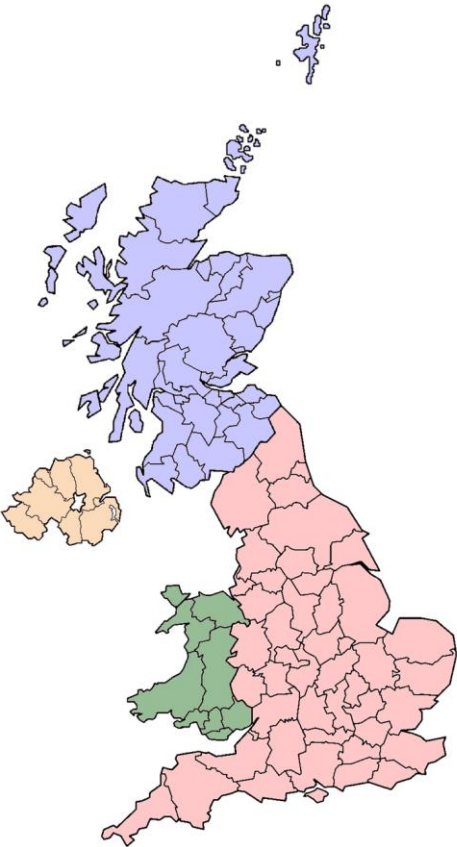
US 2020 Election Maps Special

- https://www.anychart.com/blog/2020/11/06/election-maps-us-vote-live-results/

- https://www.wired.com/story/is-us-leaning-red-or-blue-election-maps

- https://twitter.com/BettinaForget/status/1324139878666391555

Other interesting ideas for maps

- Create your own maps!
  - https://artsexperiments.withgoogle.com/ocean-of-books
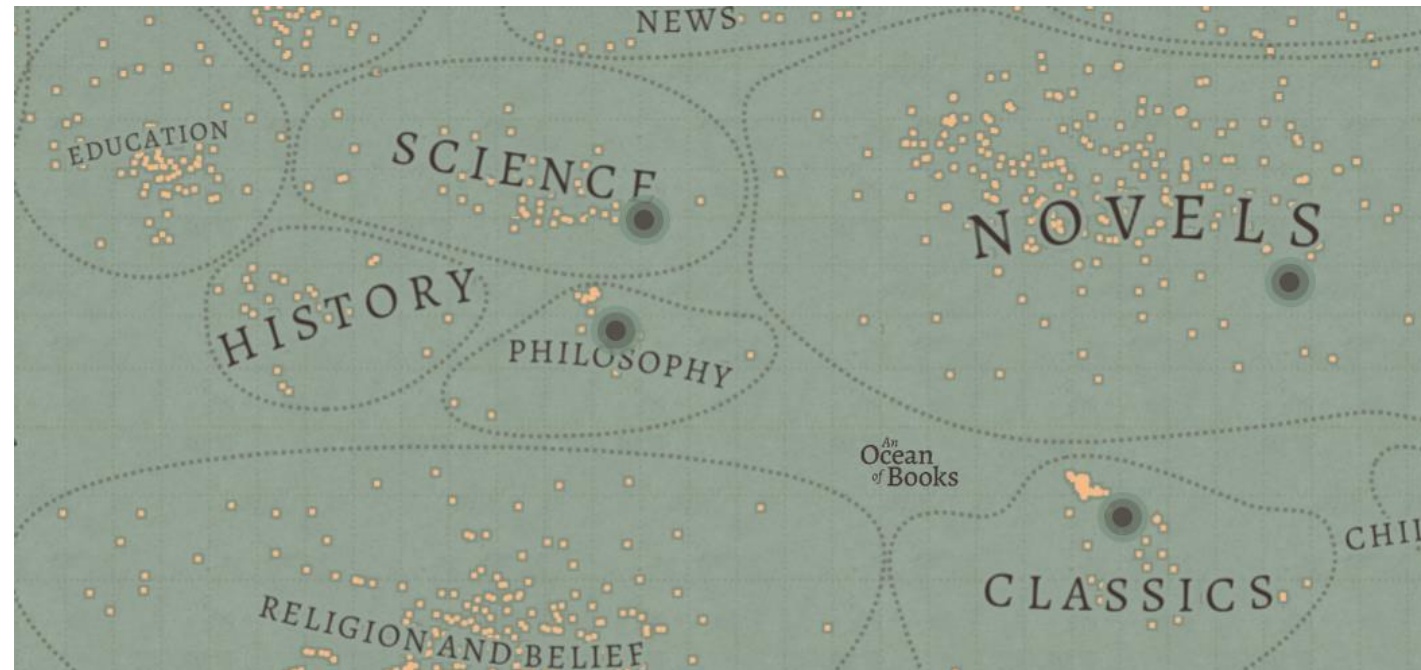
How to easily create maps…

https://mapchart.net/

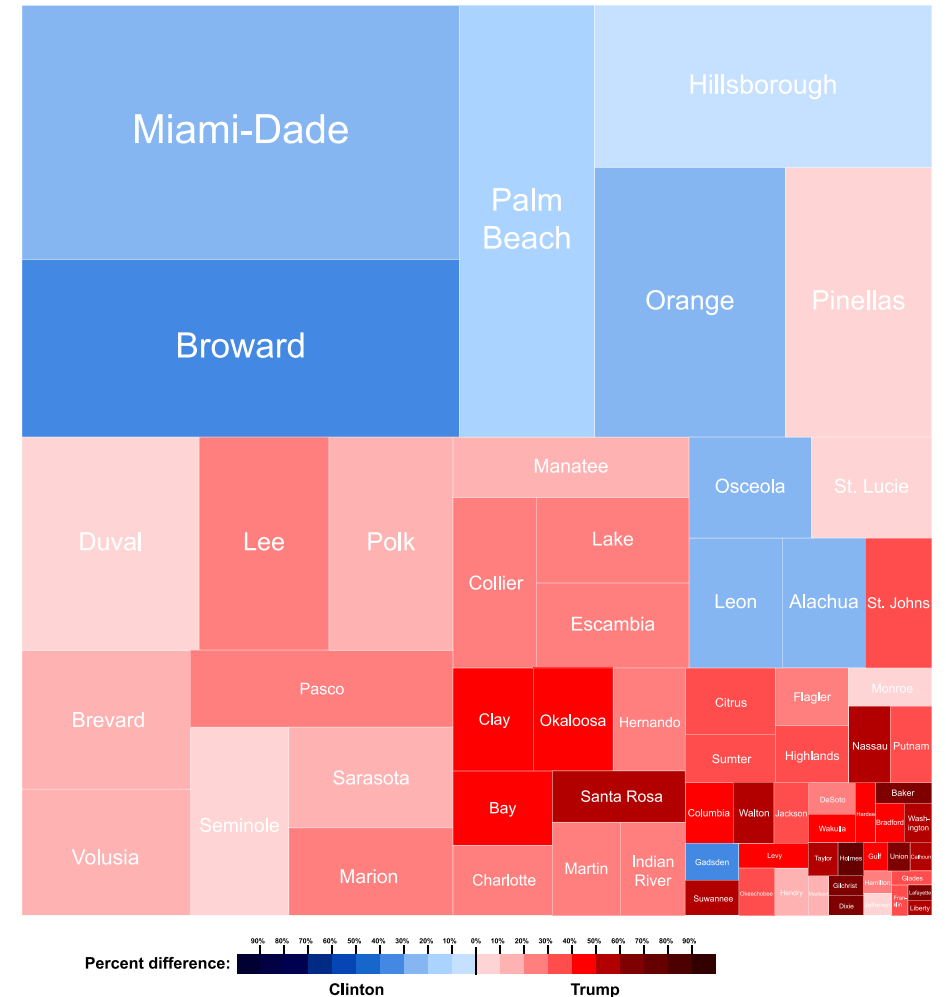# Other Viz

Treemap

- Like a Word cloud, but with areas instead of words

- More accurate

- Can be more impactful/exhibitory
    - https://www.informationisbeautiful.net/visualizations/the-billion-dollar-gram/

Florida Counties
United States presidential election, 2016

https://en.wikipedia.org/wiki/Treemapping

Matrix Charts

- Instead of simply doing a matrix or a heatmap, you can be more visual!
  - Moral matrix
    - https://lucyxwalker.wordpress.com/2014/02/04/moral-matrix/

https://www.informationisbeautifulawards.com/showcase/2620-which-fish-are-okay-to-eat

Bubble Charts

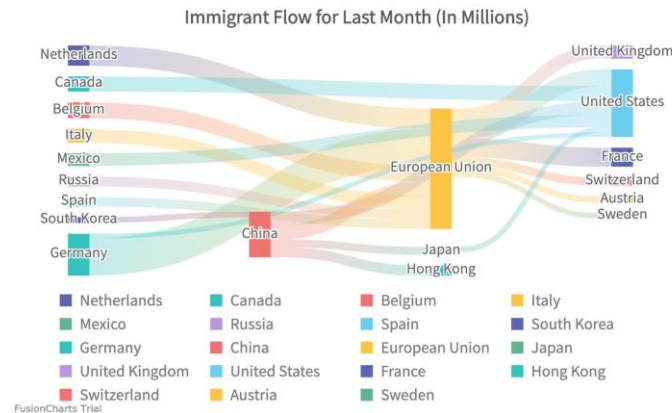- As said before, these make more sense when moving (i.e. GapMinder)

https://www.gapminder.org/for-teachers/
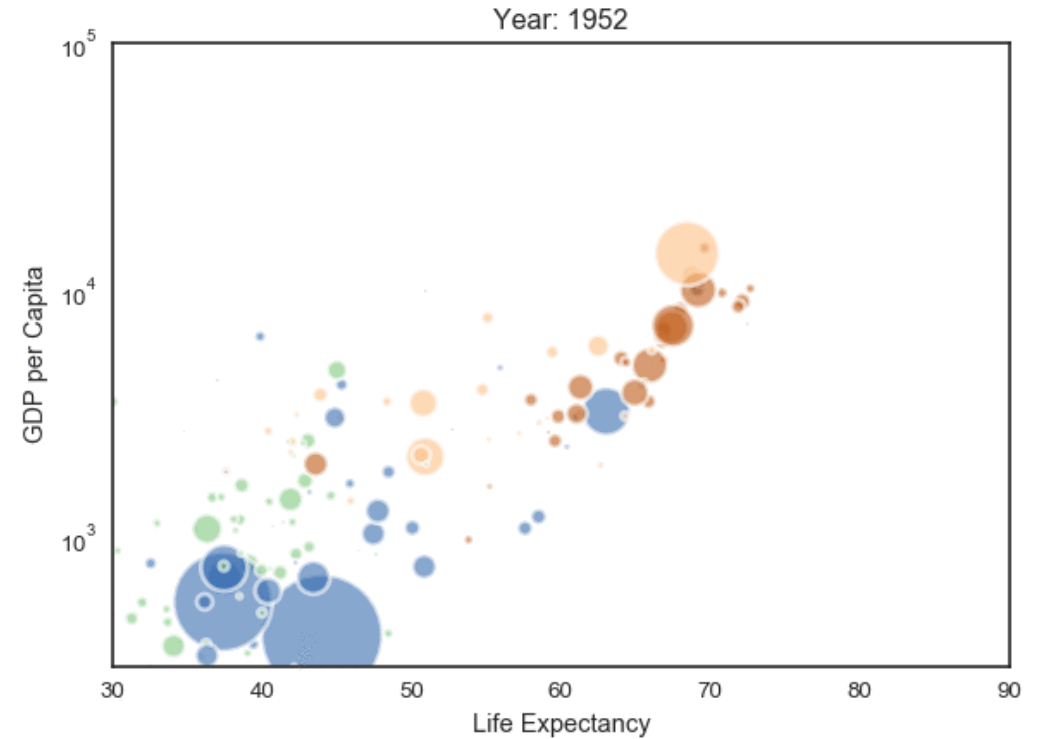
Bubble Charts

- They don't have to move necessarily!?

Sankey/Chord Diagrams

Immigrant Flow for Last Month (In Millions)

https://www.fusioncharts.com/dev/chart-guide/standard-charts/sankey-diagram
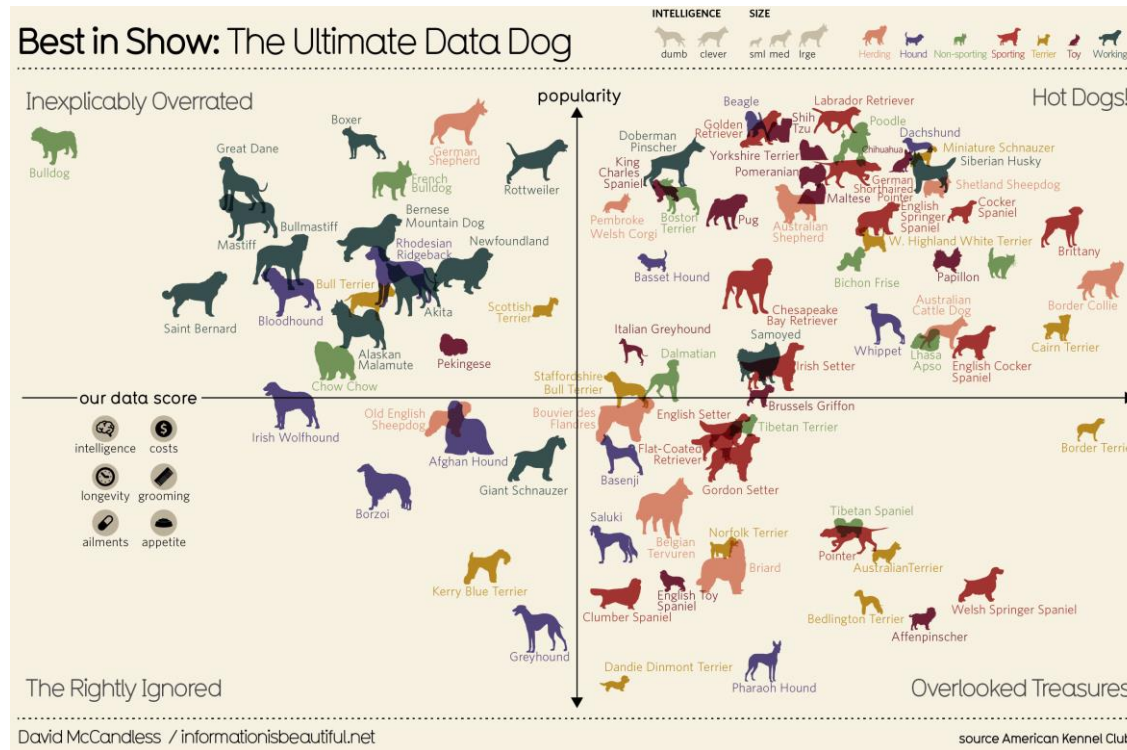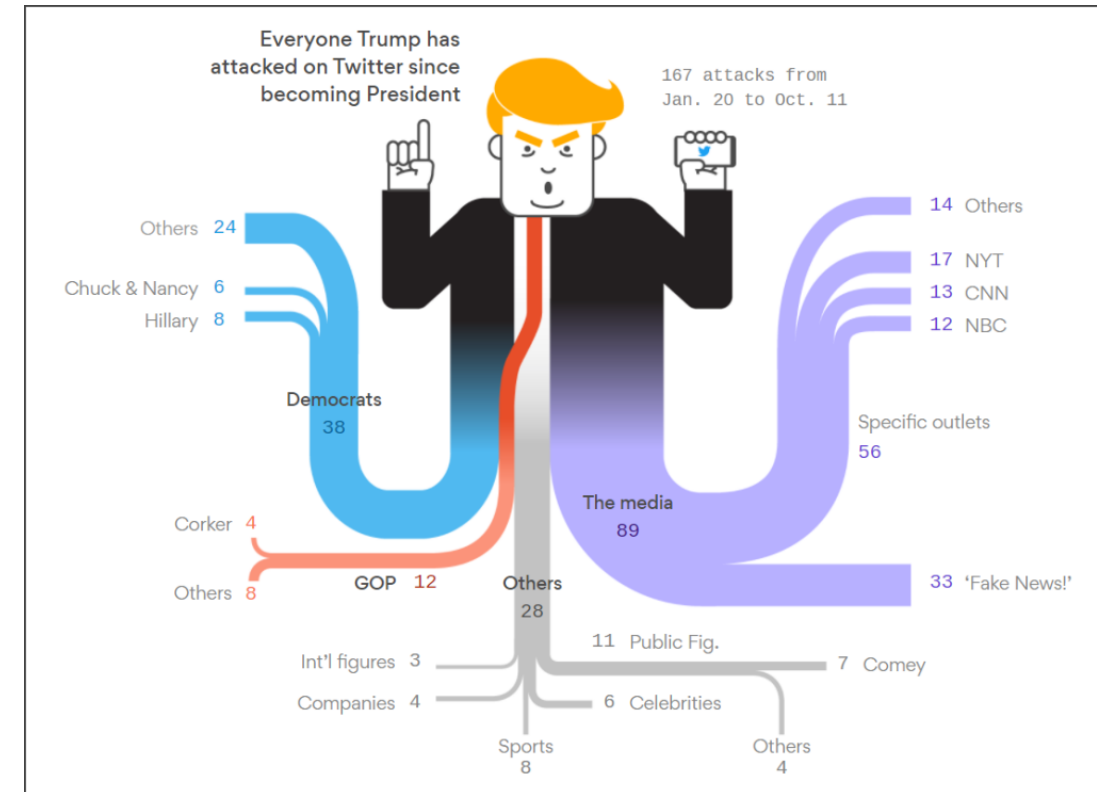
- Sometimes they are hard to interpret, but they can be very appealing!
  - Timelines
    - https://www.informationisbeautiful.net/visualizations/timelines-time-travel-in-popular-film-and-tv/

https://datavizblog.com/2017/10/16/sankey-diagram-who-does-president-trump-attach-the-most-on-twitter/

27

Lab: "Running Maps" in Python