

Maps & Other Lesser Known Graphs

Topic 7

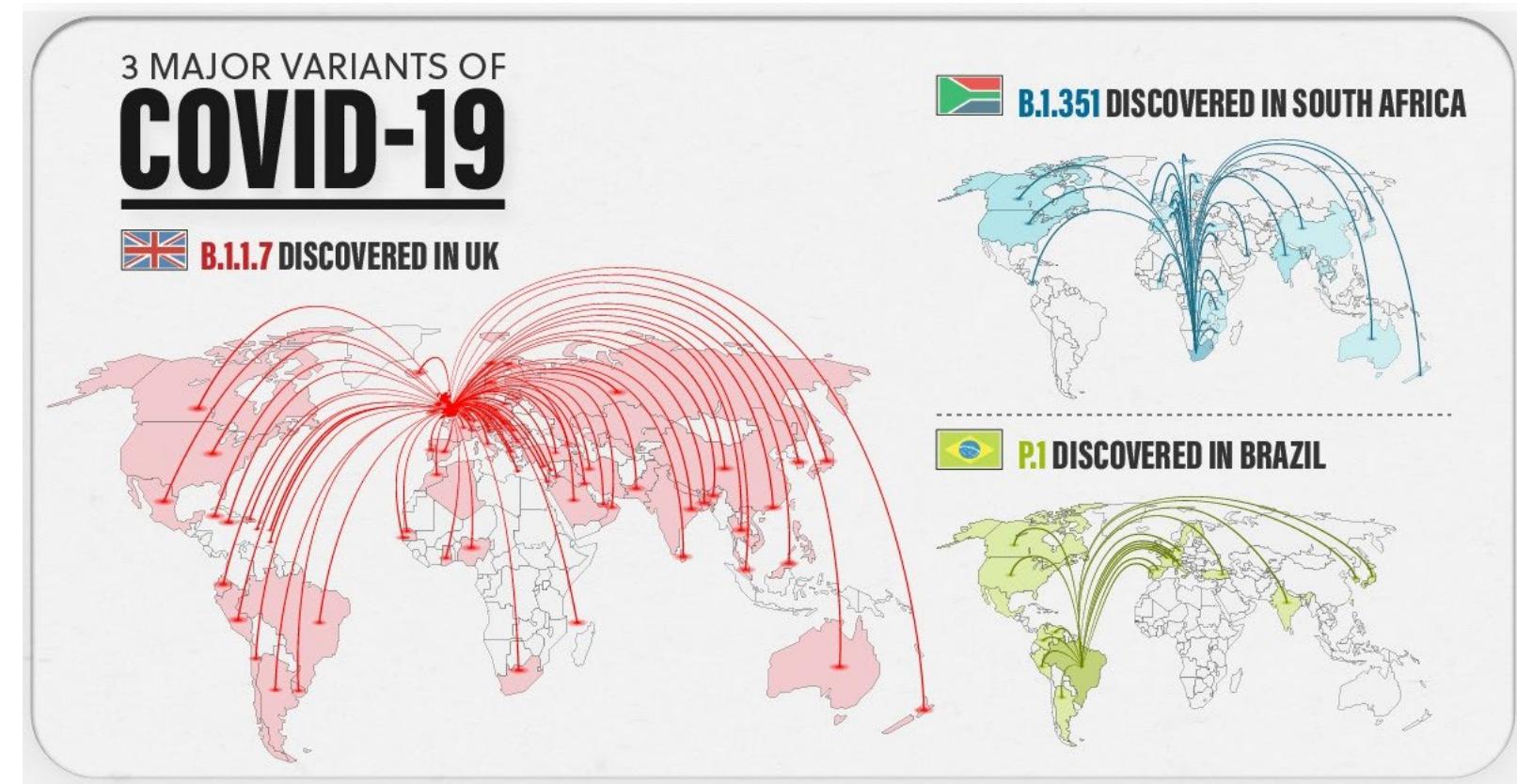
Before the lecture...

- BCR solution for last topic

Maps

Maps

- Maybe the most widely used visualisation nowadays
- The most logical way to understand population trends



<https://www.facebook.com/IFLOVEMAPS>

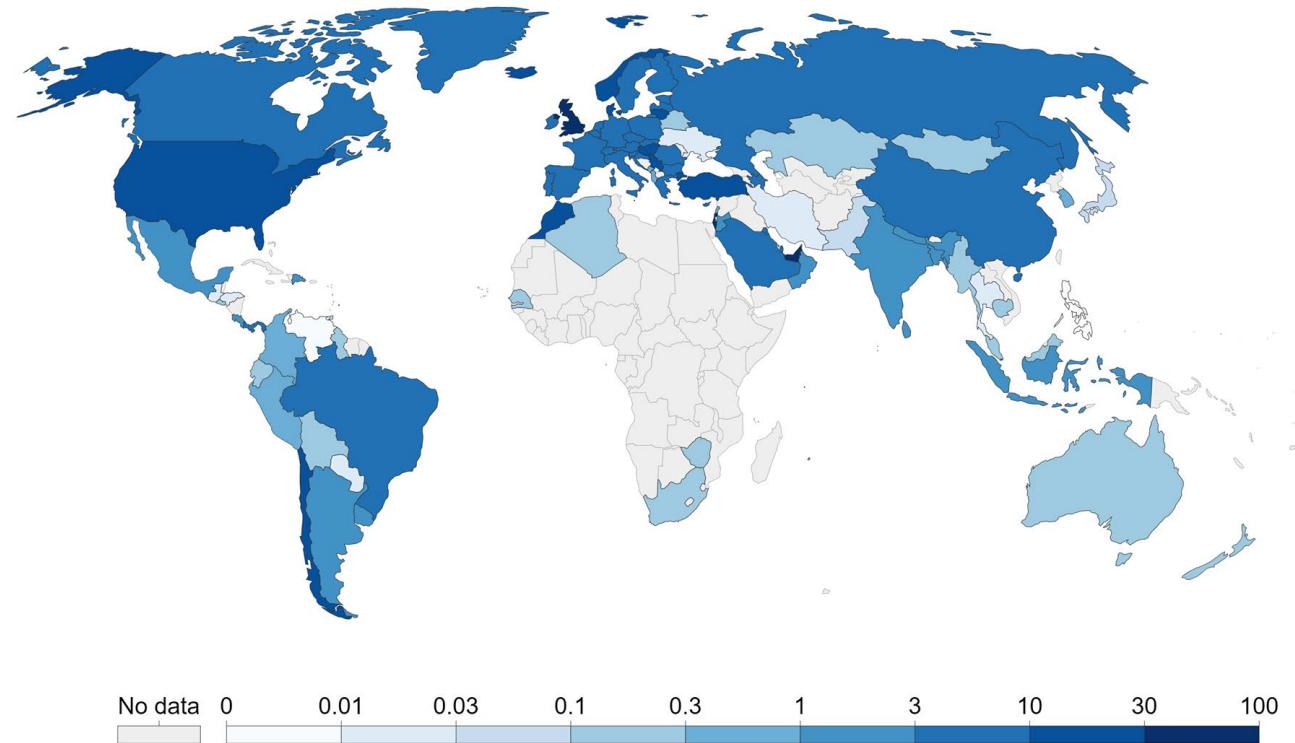
Types of Maps

Choropleth Map

Cumulative COVID-19 vaccination doses administered per 100 people, Mar 4, 2021

Our World
in Data

This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).

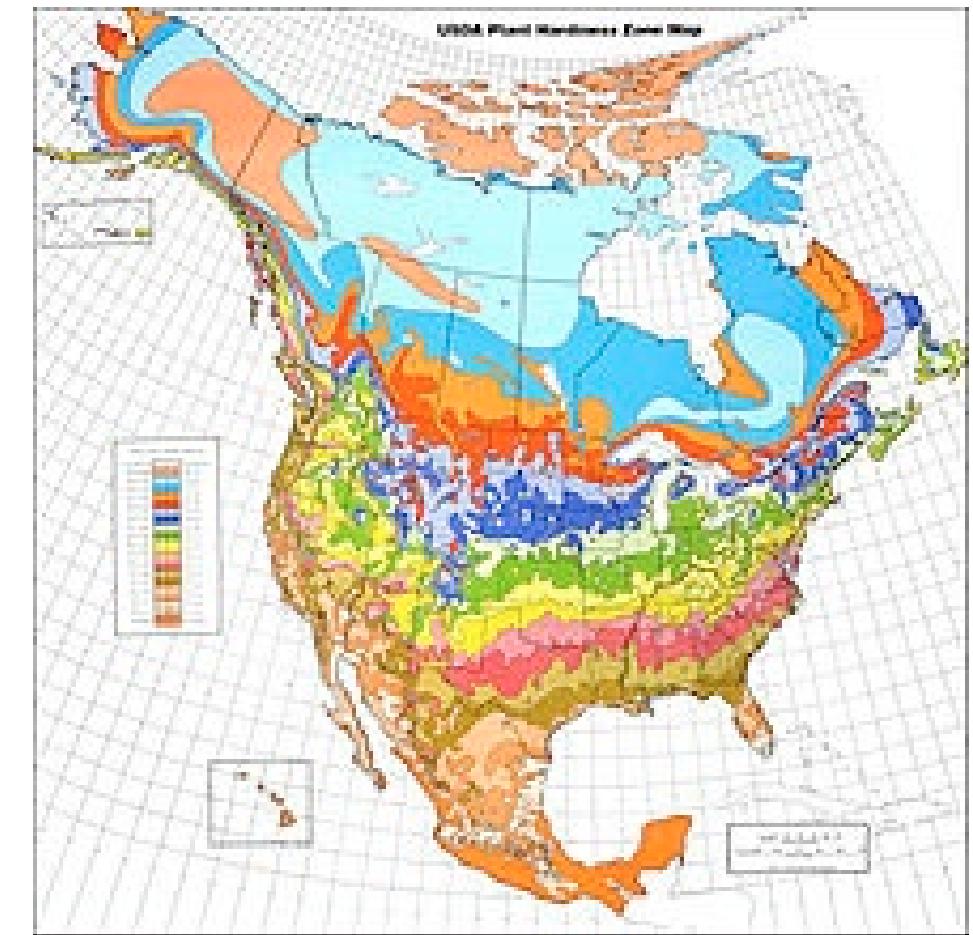
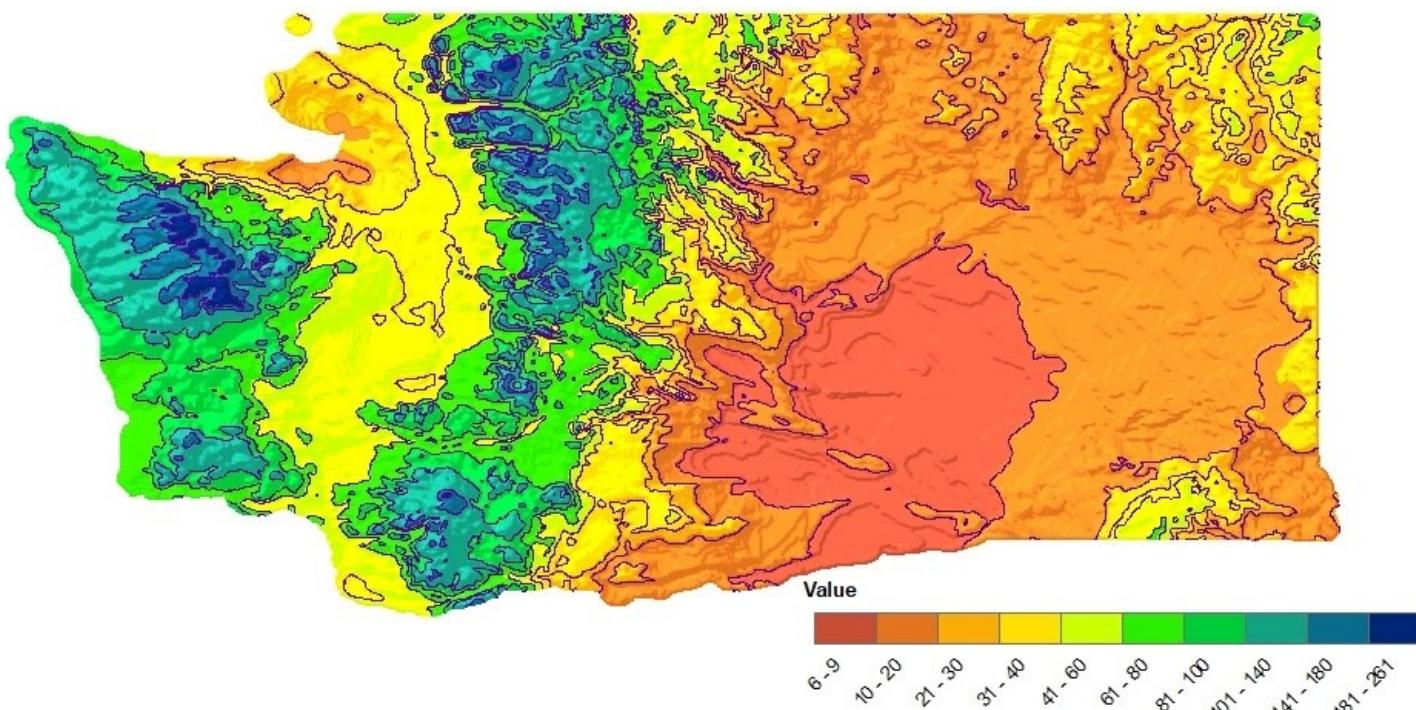


Source: Official data collated by Our World in Data – Last updated 5 March, 09:41 (London time)

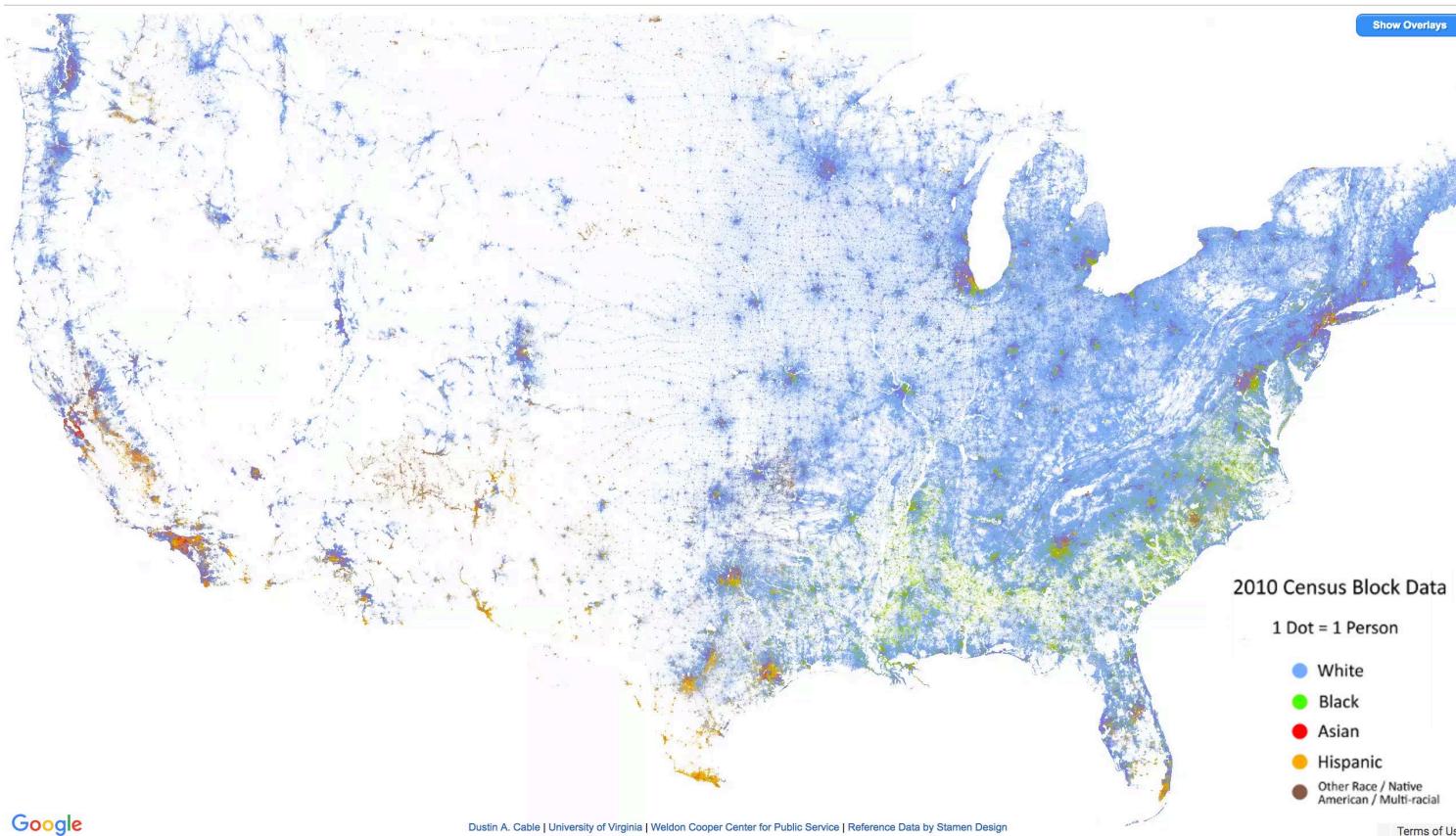
CC BY

Isarithmic Map

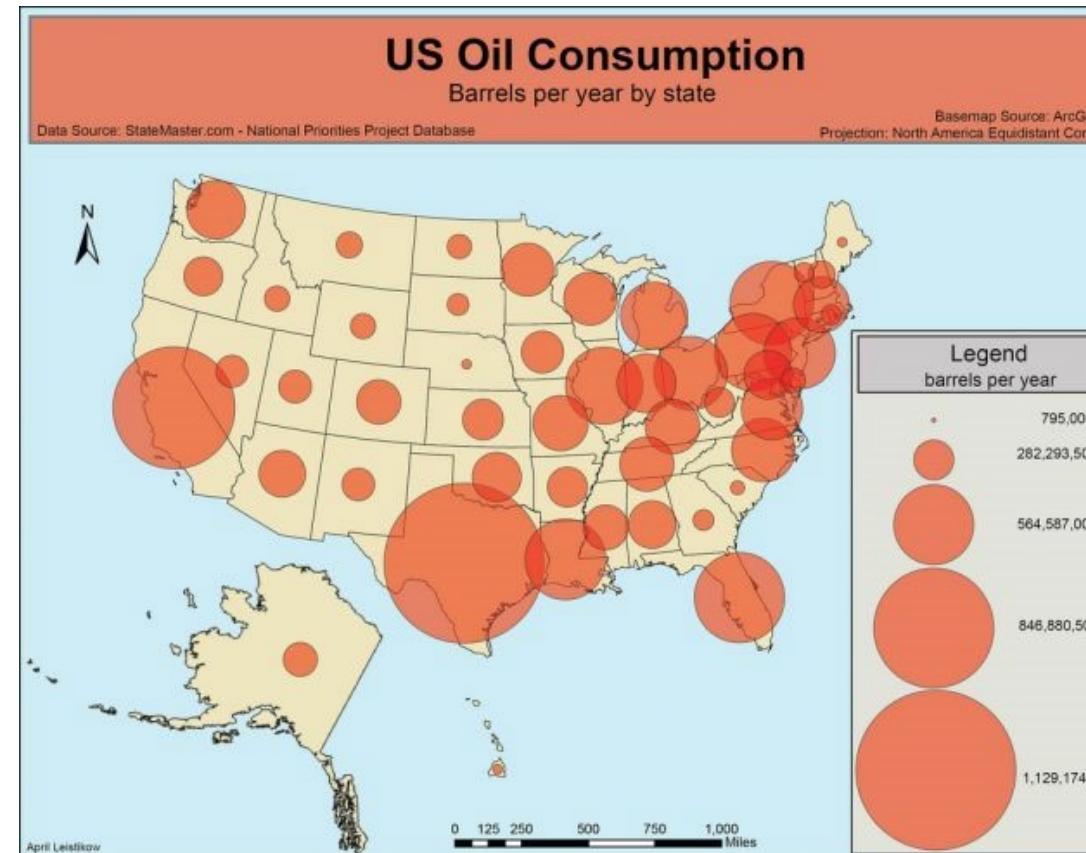
Washington State Annual Precipitation



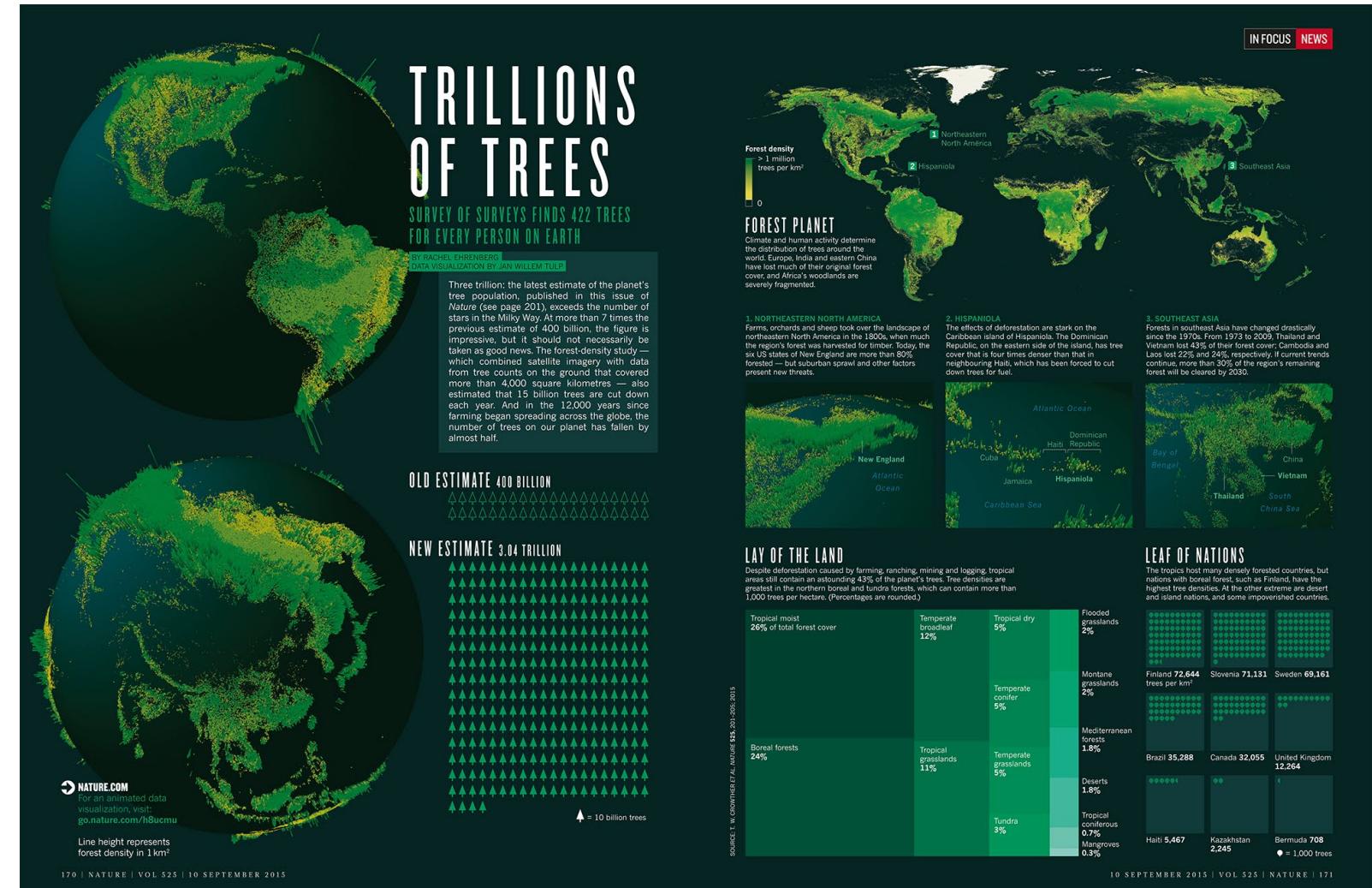
Dot Map



Proportional Symbol Map



Prism Map



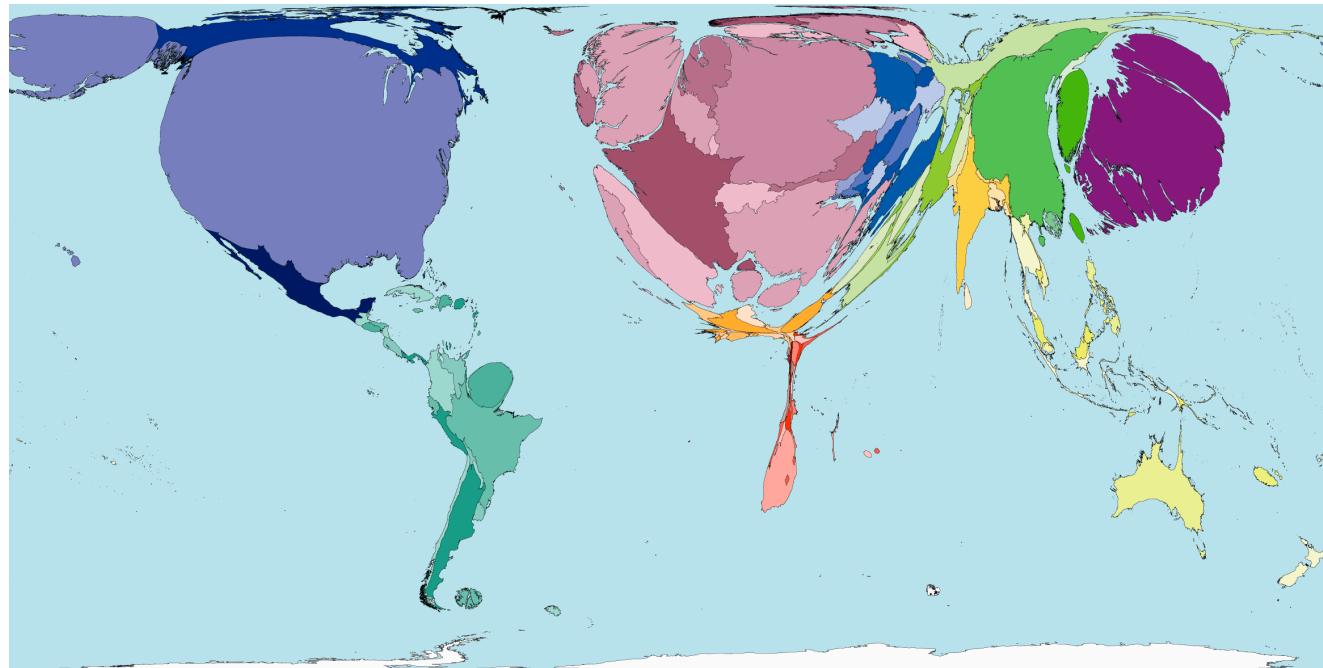
<https://www.nature.com/news/trillions-of-trees-1.18333>

Flow Map



<https://multimedia.scmp.com/culture/article/SCMP-printed-graphics-memory/lonelyGraphics/201210A113.html>

Area Cartogram



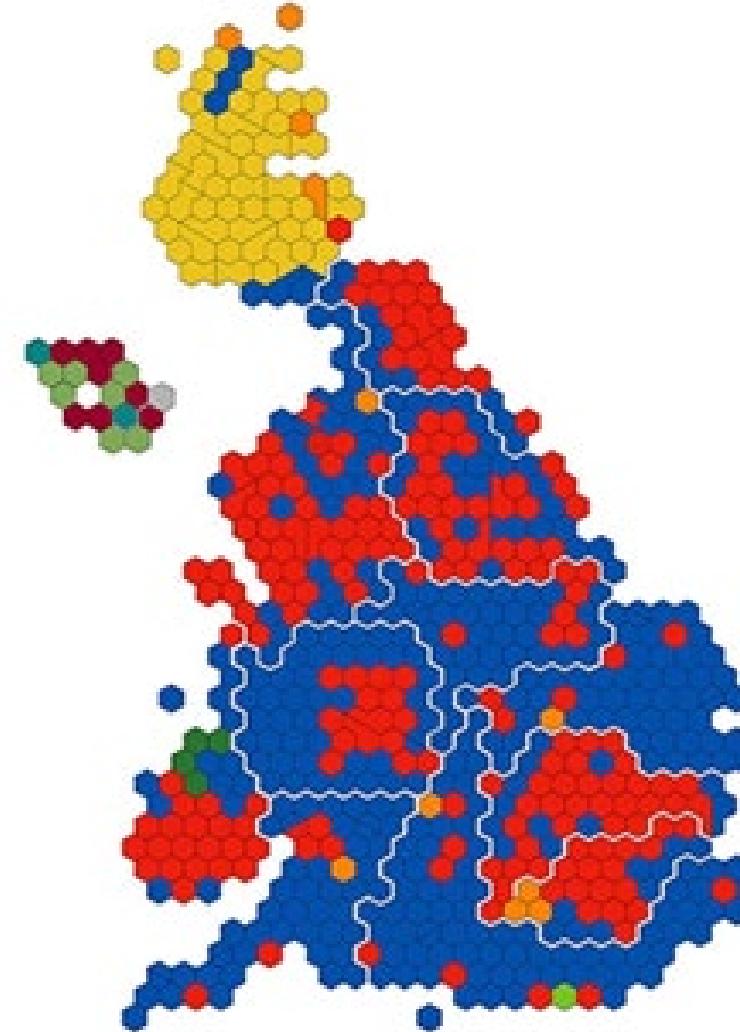
<https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.0040001>

Dorling Cartogram



<https://blog.datawrapper.de/cartograms/>

Grid Map



Map Word Cloud



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GREAT BRITISH BANDS

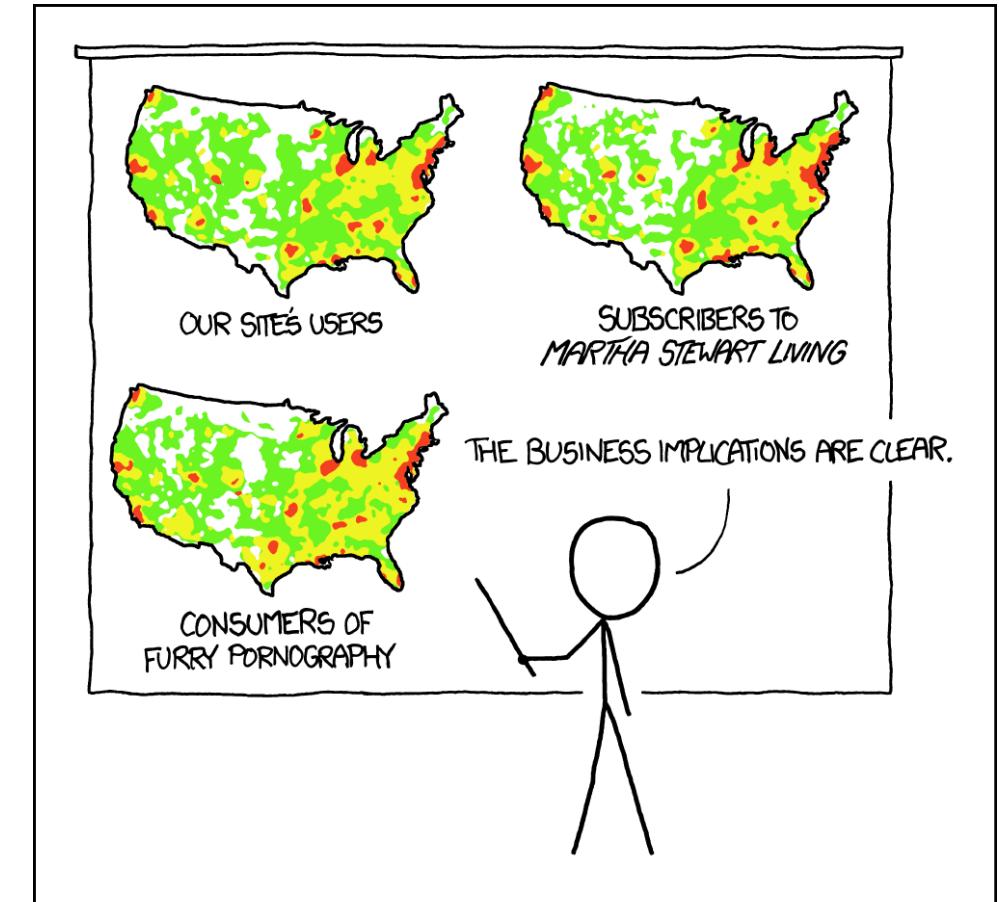


Problems with Maps



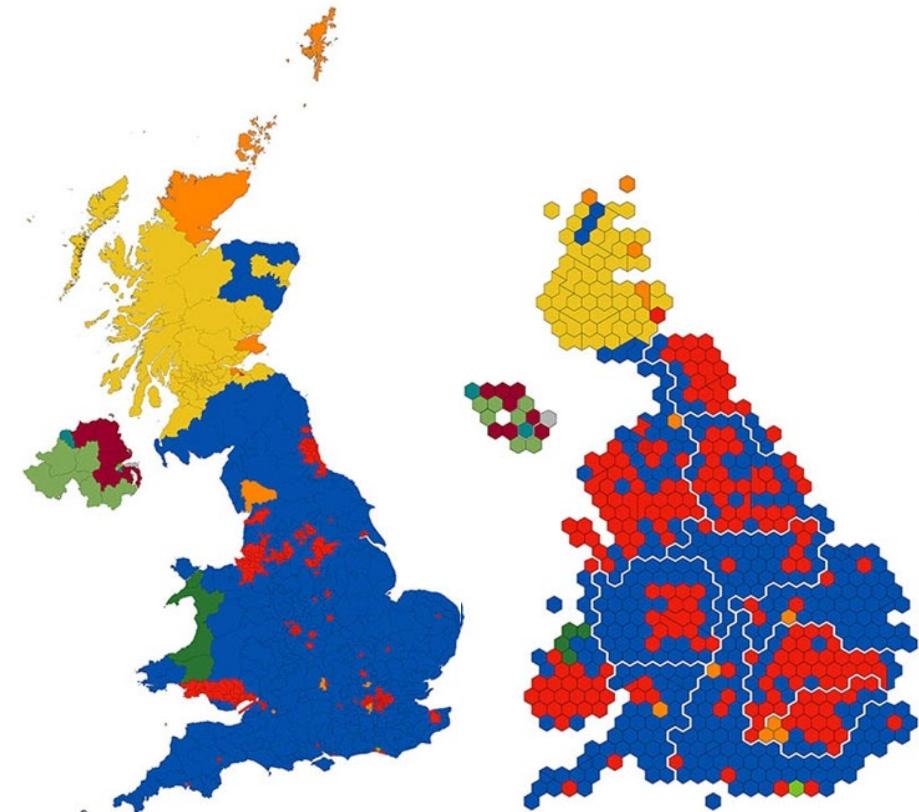
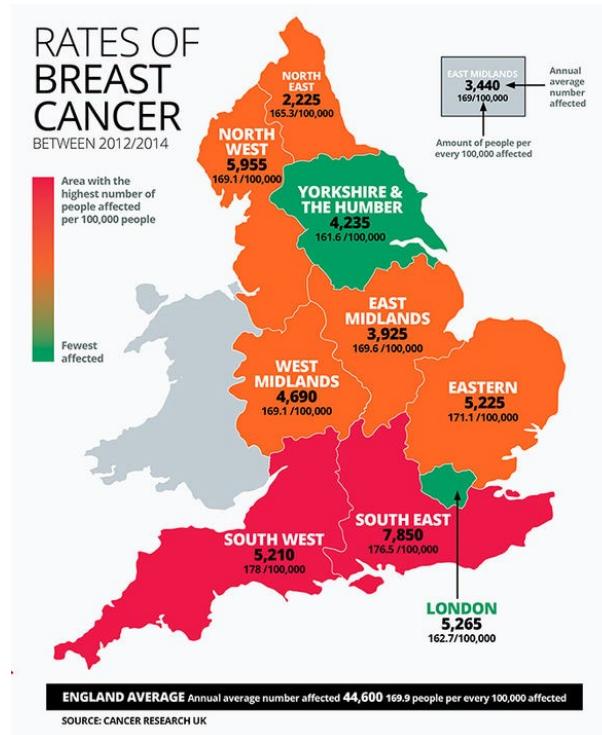
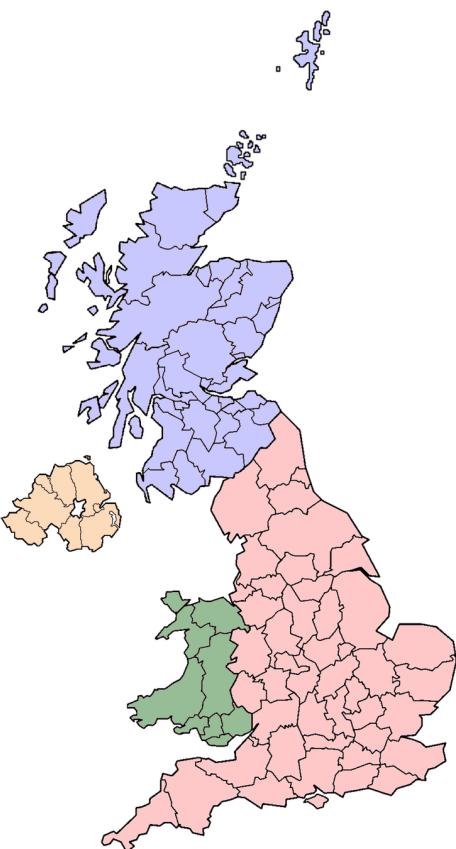
<https://thetruesize.com/>

Problems with Maps



PET PEEVE #208:
GEOGRAPHIC PROFILE MAPS WHICH ARE
BASICALLY JUST POPULATION MAPS

Problems with Maps

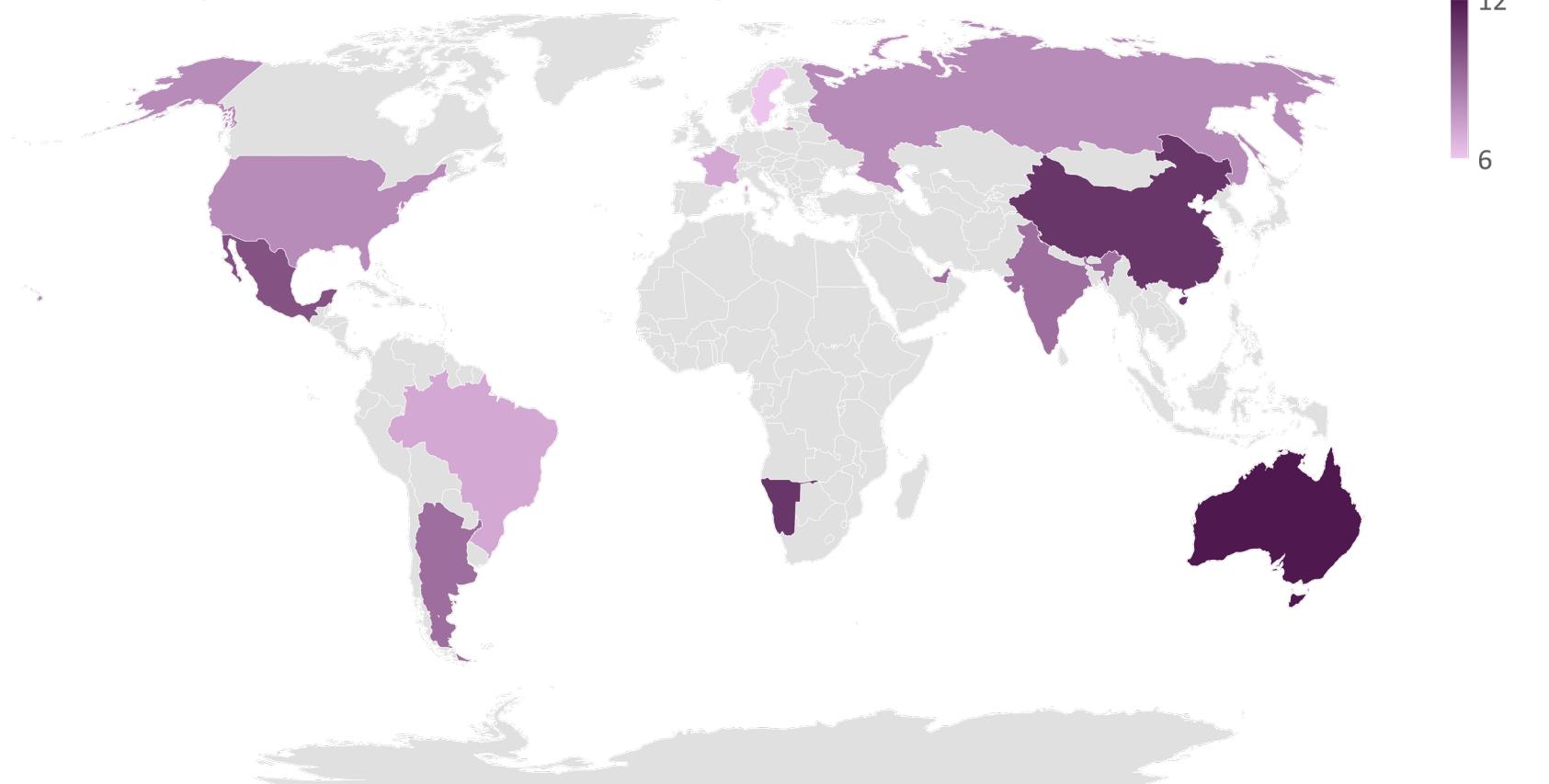


Other interesting ideas for maps

- Create your own maps!
 - <https://artsexperiments.withgoogle.com/ocean-of-books>



How to easily create maps...



Powered by Bing
© Australian Bureau of Statistics, GeoNames, Microsoft, Navinfo, TomTom, Wikipedia

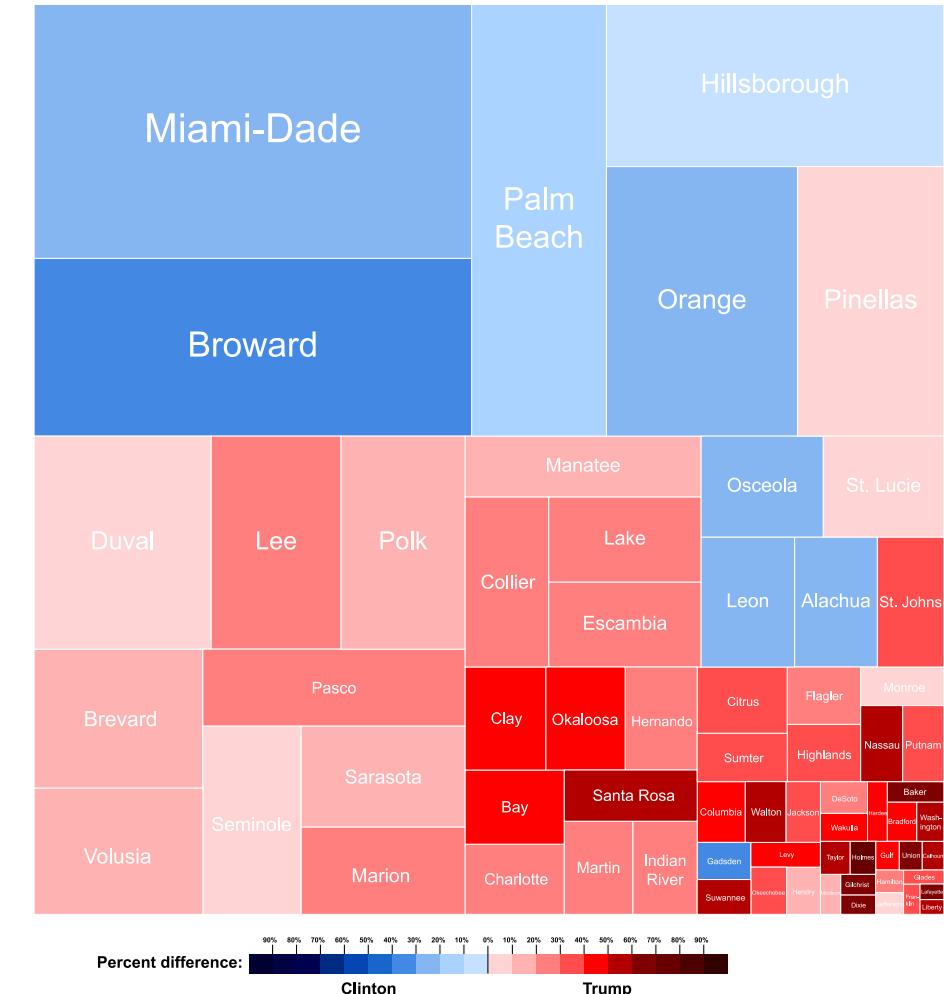
<https://mapchart.net/>

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/>

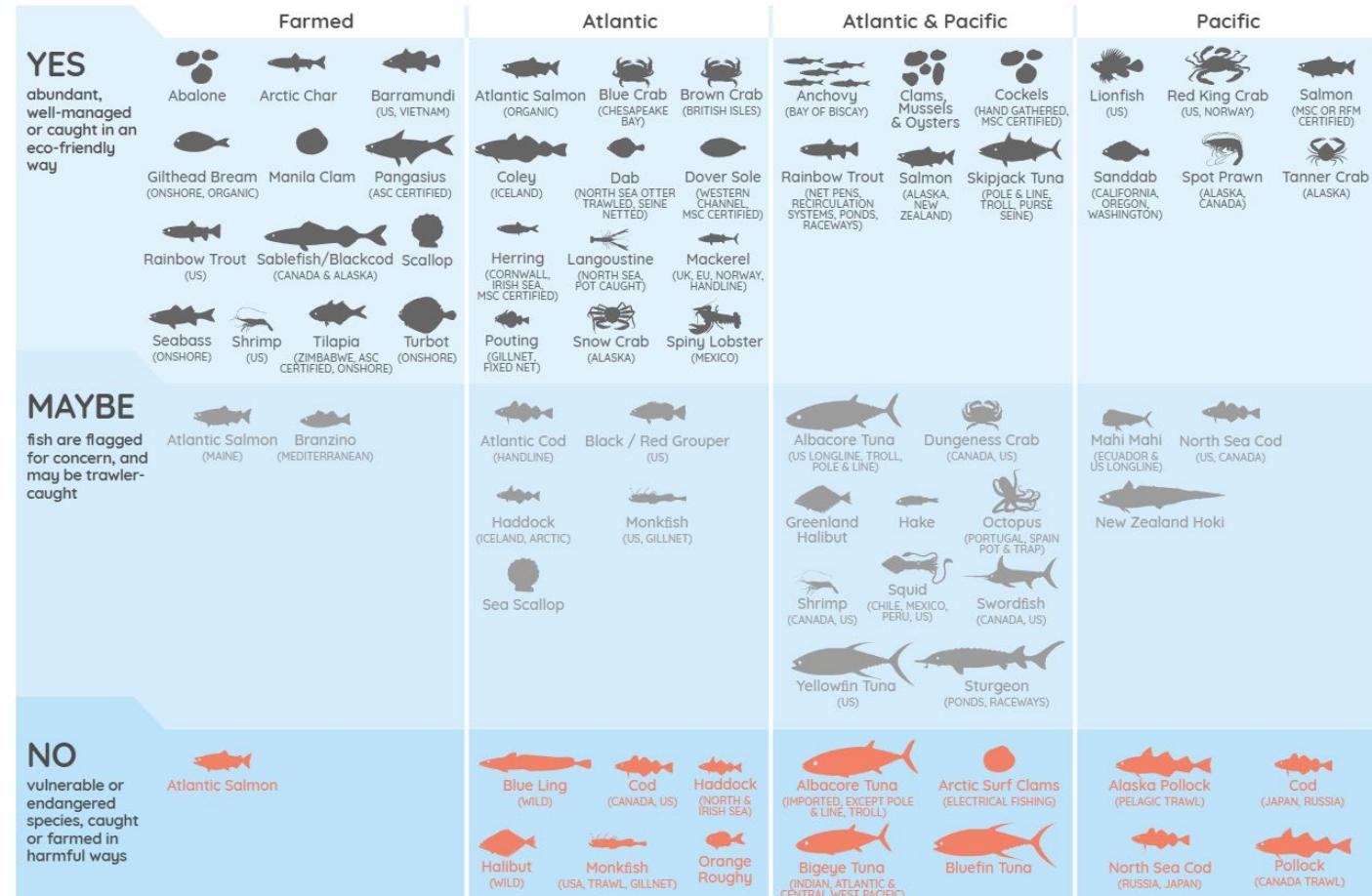
Florida Counties
United States presidential election, 2016



<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/>

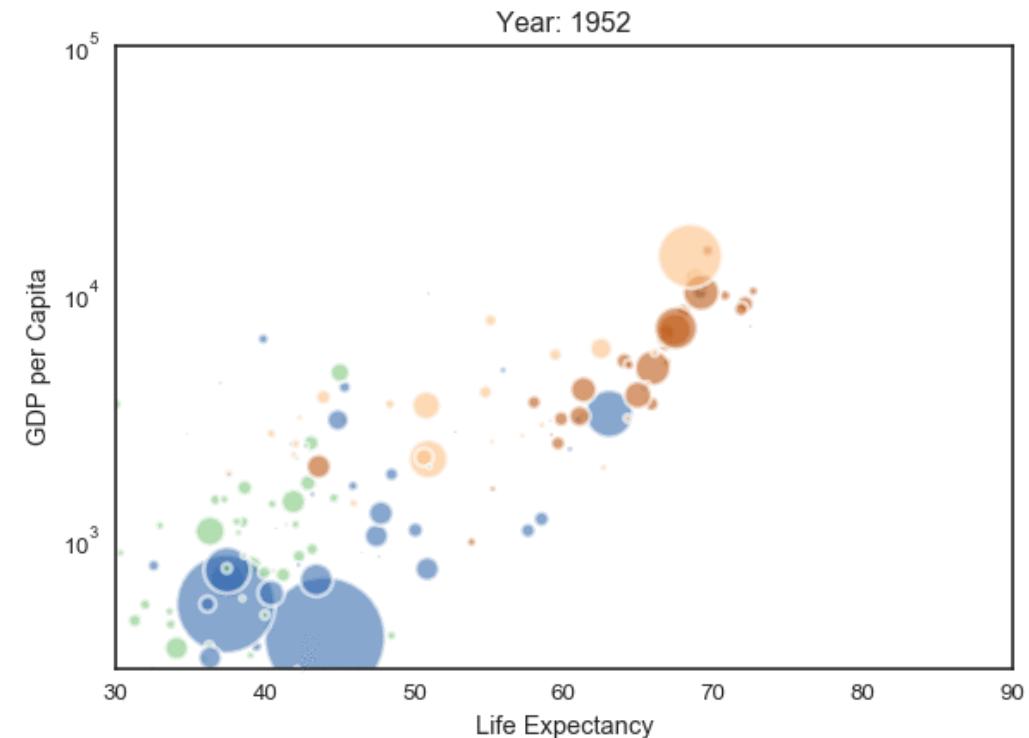


<https://www.informationisbeautifulawards.com/showcase/2620-which-fish-are-okay-to-eat>

Bubble Charts

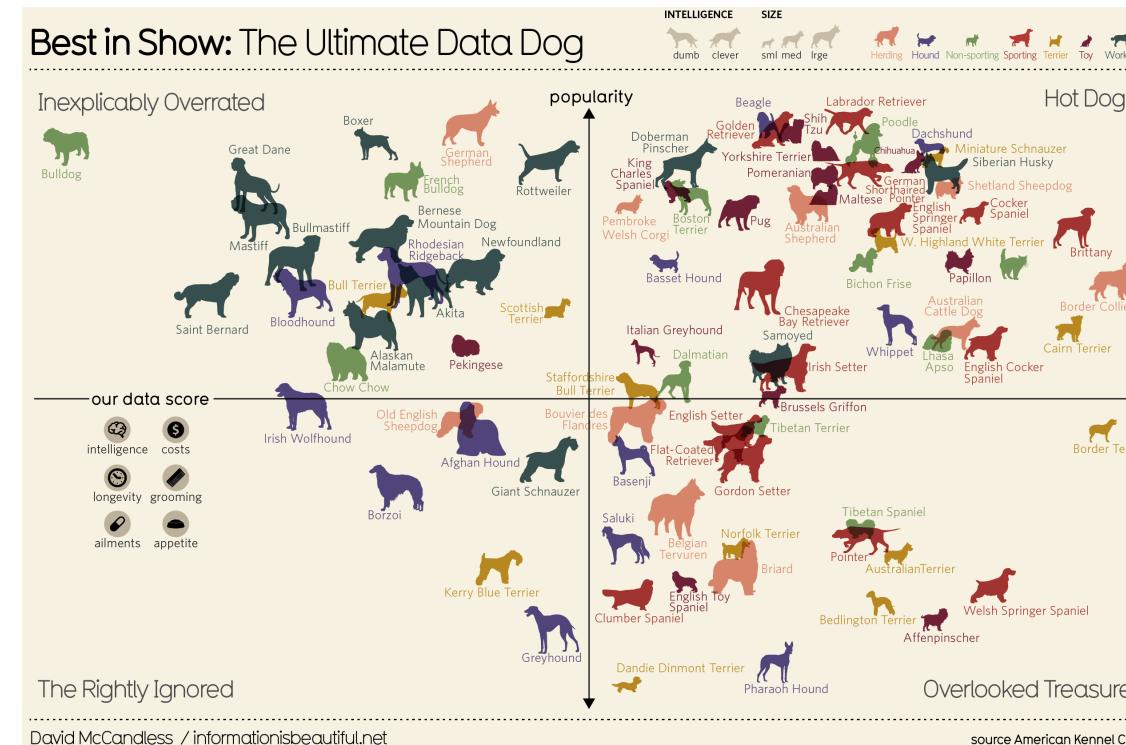
- The gapminder dataset is a very popular chart to use
- You can find many tutorials on how to do “running” bubble charts with this dataset

<https://pypi.org/project/gapminder/>



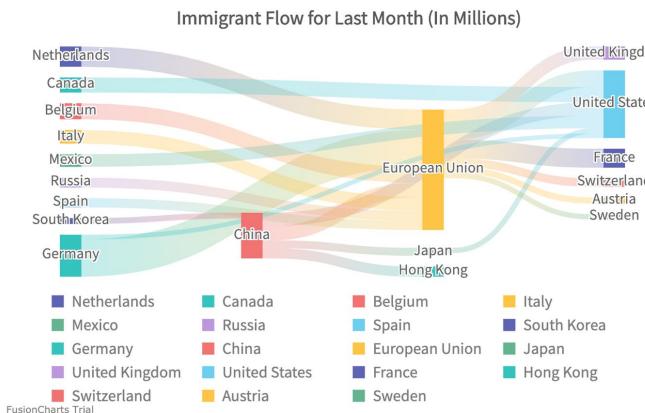
Bubble Charts

- They don't have to move necessarily!?



<https://www.informationisbeautiful.net/visualizations/best-in-show-whats-the-top-data-dog/>

Sankey/Chord Diagrams

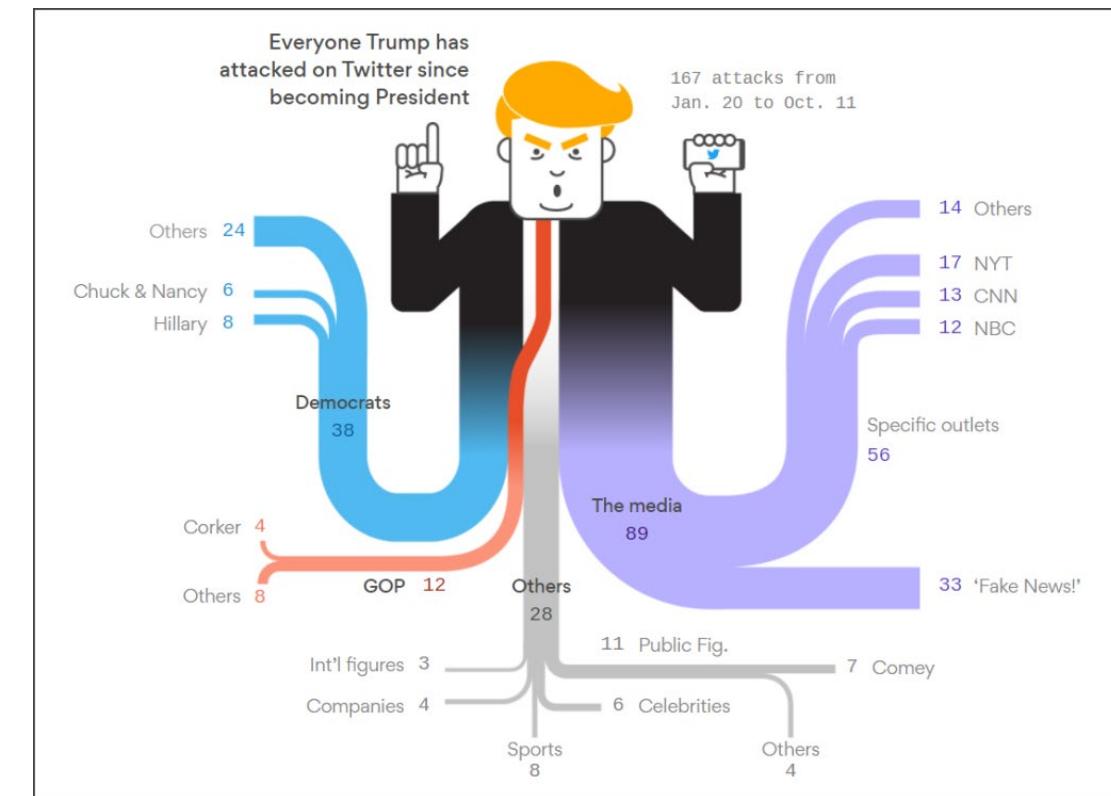


<https://www.fusioncharts.com/dev/chart-guide/standard-charts/sankey-diagram>

- 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-attack-the-most-on-twitter/>

Lab: “Running Maps” in Python
