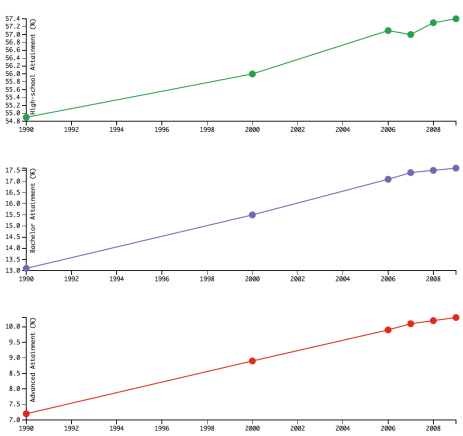
Information Visualization(D3.js)

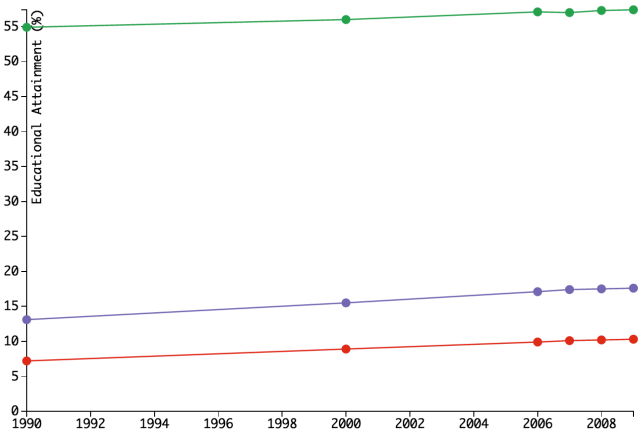
The first task:

Generate visualizations to compare the Educational Attainment data by states, by categories, and by time. And there are three types of graphs.

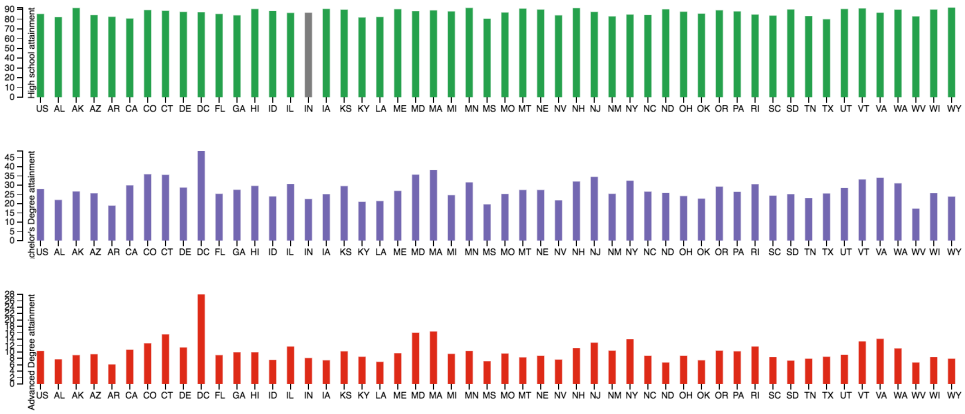
I listed several examples.

LineChart:

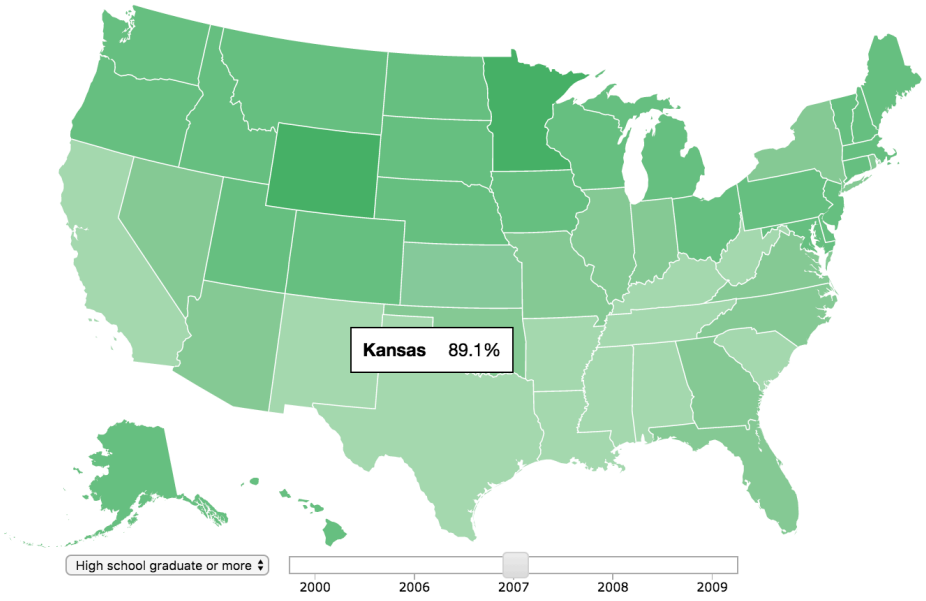




BarChart:



Geo-Map:



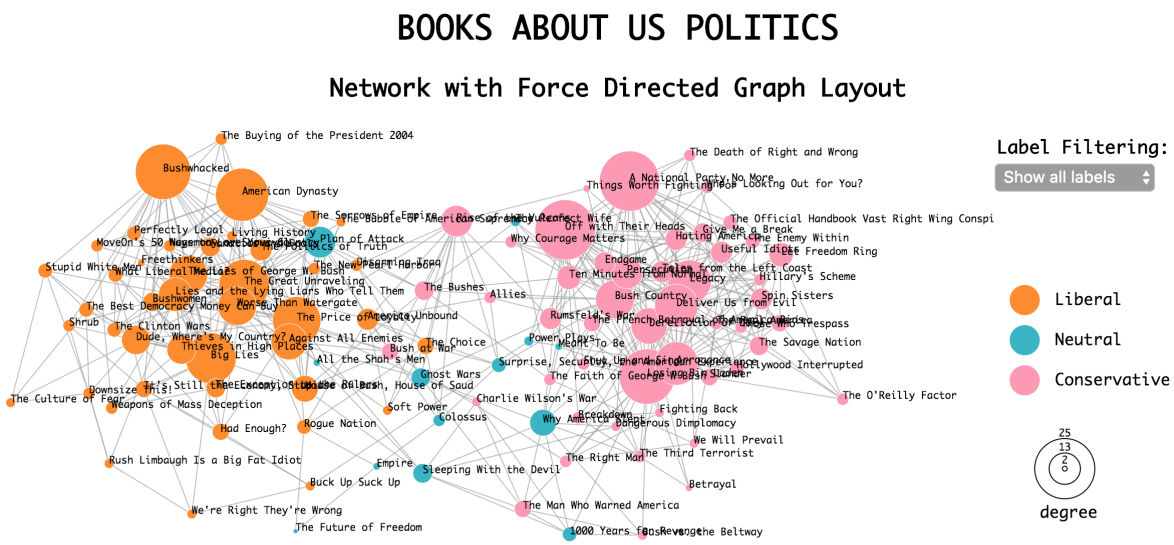
Future work:

1. As for the bar chart, it would be better to sort them, then present it.
2. When users mouse over the item in the bar chart, highlight the corresponding item in other graphs.
3. There is a bug in geo-map caused by Callback Hell, users must mouse over the map after moving the slider or select the category to display corresponding map. I will fix it later.

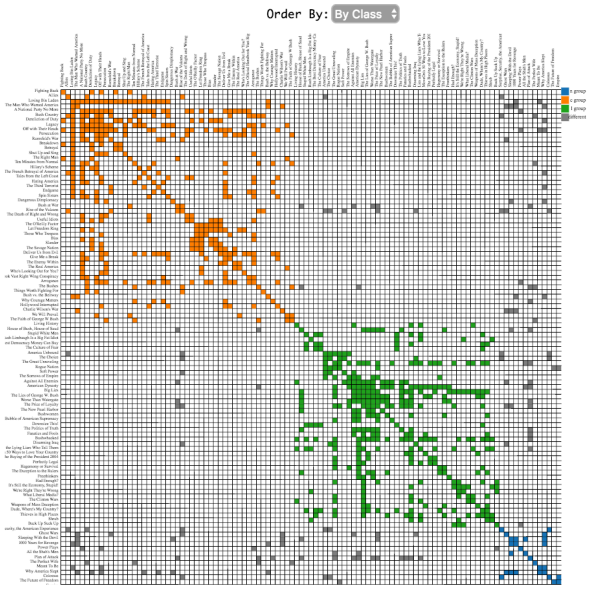
The second task:

Generate network visualizations using D3.

Node-Link:

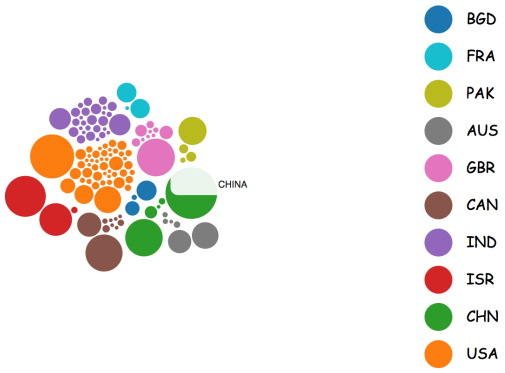


Matrix:



The Third task:

Using d3.js to visualize the aids provided by international organizations after the 2015 Nepal Earthquake



Next project:

Now I just started my next project, present Pittsburgh biking sharing data to show users' demand by stations over time.

Data:

Bike ID	From_Station	To_Station	Start_Time	End_Time

I plan to plot a line chart.

1. X: time; Y: number of bikes in this station.
2. This could be a very long line chart, so I decided to add user interaction functions. Zoom in or zoom out to change the time span. The time span could be a day, or a month….
3. Drag to the left or right to check the data in another day.
4. This graph can be used to check the number of bikes within a day, or reveal a cyclic pattern.

Then a geo-map.

1. Showing the connections within those stations.
2. Each station can be presented as a circle. And the amount of bikes can be the size of the circle.

3. This can be used to check whether there is any unbalance in allocating bikes.

Note:

I type `python –m SimpleHTTPServer in the command line`
`And use localhost:8000 to open it`

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