

Data Viz Milestone2

[Link to our initial website](#)

Tips: You can click on a country to the answers flows from the top 20 most closely connected countries. Take the USA as an example, if you click on it, you will see flows from India, UK, Canada etc. And the flow from India is widest, thus there are most questions of USA users answered by Indian users.

Final Goal

1. **Visualizing "knowledge flow" on map[geng]** We plan to visualize knowledge flow as paths between countries with flow directions indicated by animations and flow size indicated by width and color. We will let the user choose which direction he wants to see(import /export), and how many partner countries to be shown.
2. **Sidebar on right displaying information on the selected country[liang]** We plan to use D3.js combined with SVG to show some statistic information about the selected country such as the occupation of users, questions and answers. We would also want to extract the yearly information and show the change in the number of users, questions and answers over different years.
3. **Choropleth graph showing temporal evolution in terms of user number and user activities [Frank]**
We also consider showing the evolution of changes of population and users' activities by showing different Choropleth map over the years. We will add a slider for user to drag to exact years they want to visualize
4. **Dynamic map** Ideally, we would want showing the label of the country name so that users have a better idea which country's statistics they are viewing. However, since there are so many country labels to display, the map gets messy quickly. Hence, we would want a way to dynamically show and hide these labels so that we can show the most information to the user without overwhelming them
5. **Temporal evolution** Temporal evolution in terms of user number, user activities on the Cholerpeth with a slider as use input API. We want to present how the number of users evolved in different countries.

Extra ideas

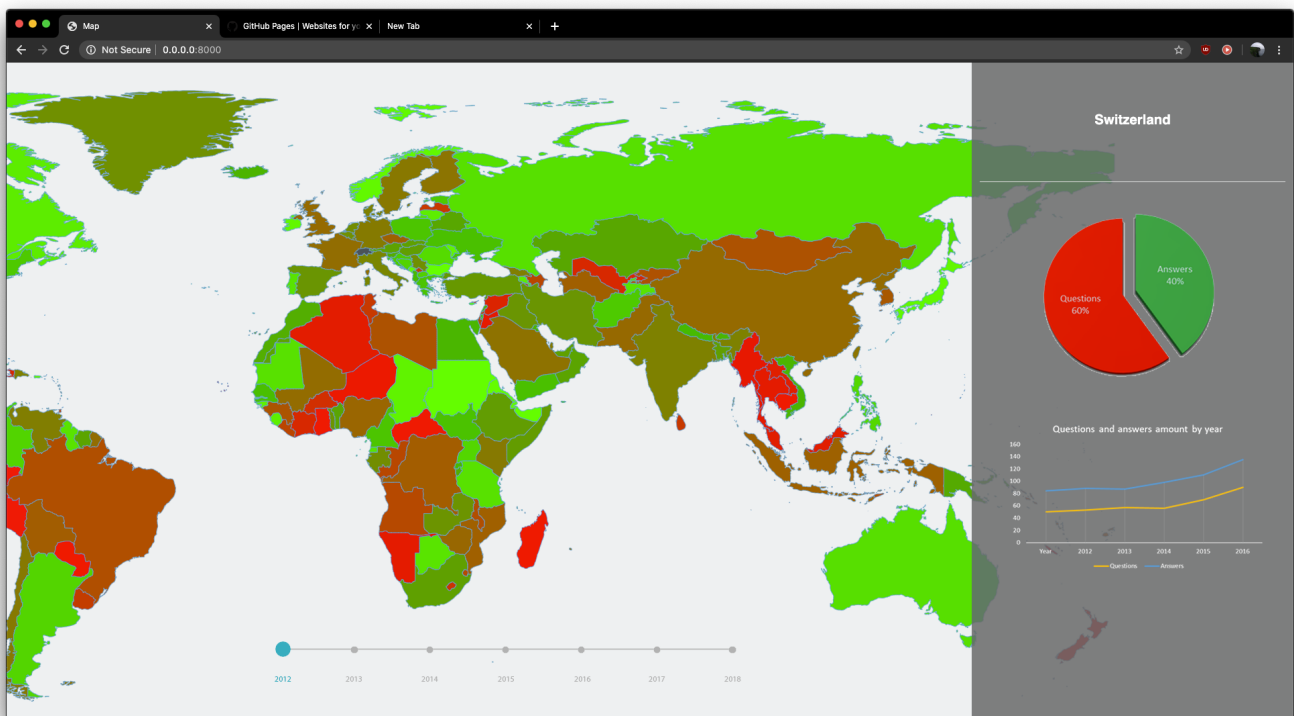
1. **Search (extra)** We also plan to add a search widget on the webpage which ensures the user can find their desired country immediately in order to improve users' experience.
2. **Loading page to when loading data (extra)** As the geometric data and stackoverflow data are so large that it will cost time to load the map out. Therefore, we plan to add a placeholder map at the beginning while the interactive map loads.

Tools & lectures we will use for each viz

Visualization&Effect	tools	lecture
map visulizing Stackoverflow user communiy size across world	choropleth	Maps,Perception colors
time evolution of user number on map	transition	

Visualization&Effect	tools	lecture
knowledge flow between countries	transition	
sidebar on right displaying information	eventlistener	Interactions
zoom	transition	Interactions
barchart to show most connected countries's user numbers	barchart	Graphs
Text	Interactions	

Sketch



Question for TAs:

- We want our sidebar to be right-hand side and transparent and users can drag the map to reach their desired country. However, if we use D3.js to draw the map, the width of the map seems to be fixed after finishing the world map. Users can no longer drag the map since the most right side of the map reach the right boundary of the browser. In this case, some countries would be overlapped by the sidebar and cannot be clicked. Therefore, We want our map to have a blank part on the right-hand side whose width is equal to the width of sidebar. In this case, the map can still drag and the sidebar would not overlap some countries. However, the width of map cannot be adjusted by tilling width of `<svg>`. And we have tried to add a rectangle on the right-hand side but still failed to make the countries on the right not be overlapped by the sidebar after dragging. Could you please tell us how to implement this case?

References

- 3-D visualization of data on map <http://manpopex.us>