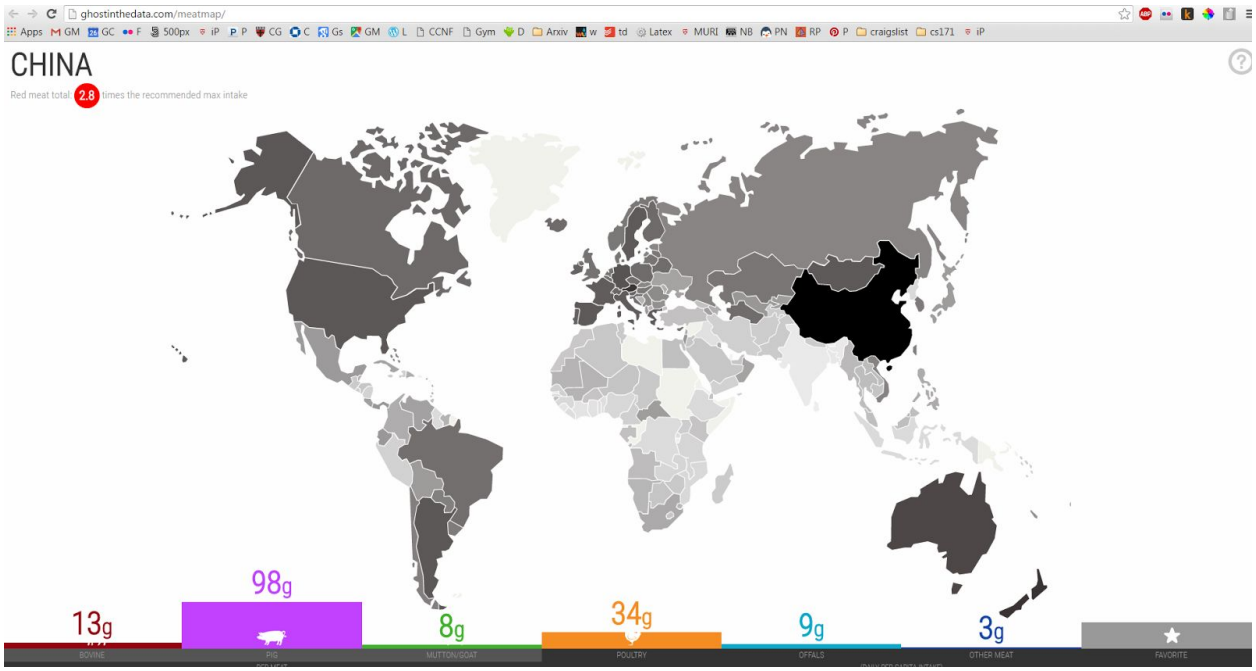
PROCESS BOOK

Mar 28, 2016 - Entry by Lulu Liu

We decided on a topic for our final project. The topic is a visualization of recipes around the world. We decided to also use data sets on food consumed around the world. Hopefully we will be able to link the two data sets and make some statements about the relation between food items consumed and the presence of these items in recipes of local origin.

We were particularly inspired by this visualization: From Ghost in the Data (http://ghostinthedata.com/meatmap/) called “Do we eat too much red meat?”

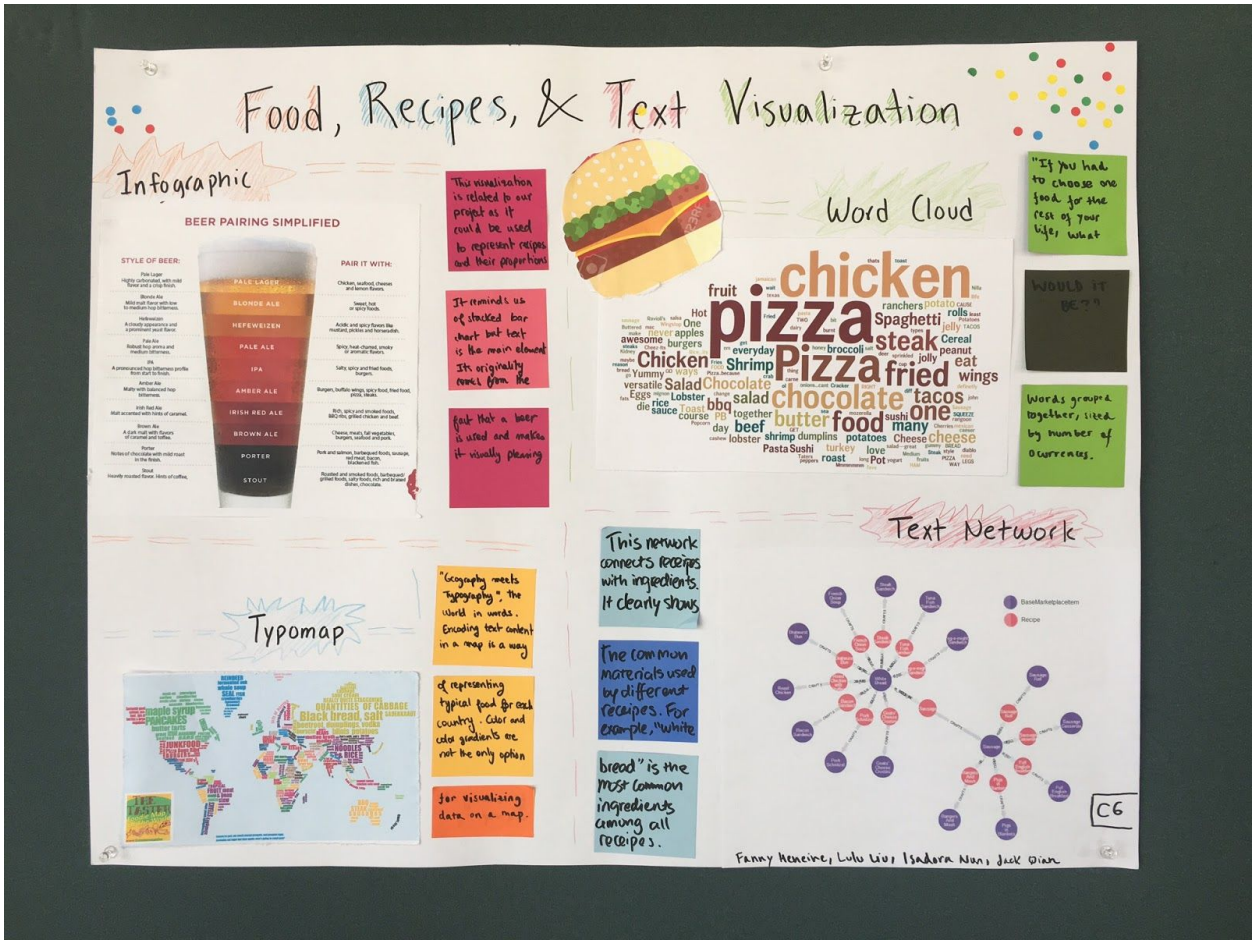


The two data sets are here:

1. Recipes scraped from epicurious.com: http://masrab.com/blog/analyzing-public-recipe-data-in-R/
2. FAO stat food balance data: http://faostat3.fao.org/download/FB/FBS/E

Mar 31, 2016 - Entry by Lulu Liu

We were inspired by many of the text visualizations available online. Below is our poster for the poster presentation:



April 5, 2016 - Lulu Liu

Met to discuss Project Plan. Came up with the following roles:

- Fanny - coordinator/designer
- Lulu - secretary/record keeper
- Isadora - data miner
- Jack - artist
- All - implementer

Discussed and planned visualizations and interactions. Discussed and planned timeline:

Timeline

The total duration of the project is a month (4th of April to the 5th of May)
Week 1 (4th to 11th of April)
-Clean and analyze the recipes data. Mine it and extract the useful variables for our visualization

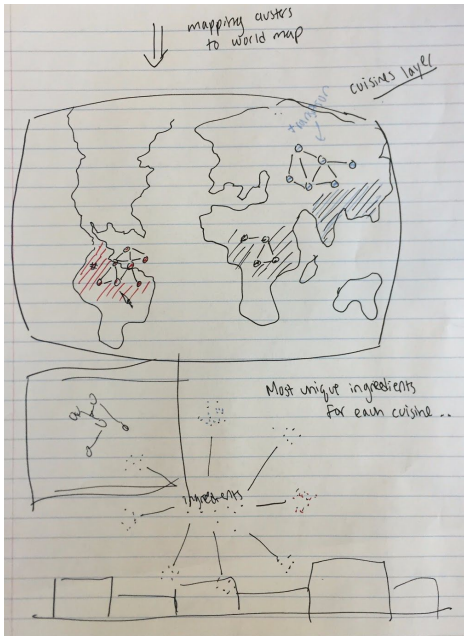
-Make the data usable for maps: Map the cuisines to specific countries/region
-Clean the UN data and make it alignable with the other dataset
-Find the geo data for the map

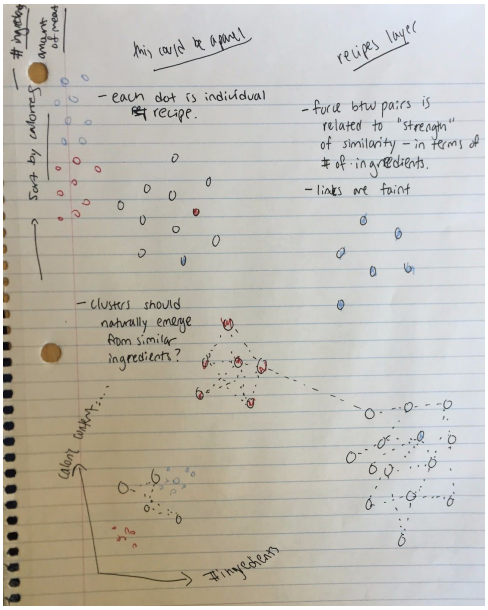
Week 2: (11th to 18th of April)
-Implement the force diagram visualization
-Implement the map visualization
-Start all other visualizations
-Add features to both of them: hovering, clicking, selecting
-Finish the first prototype of our project

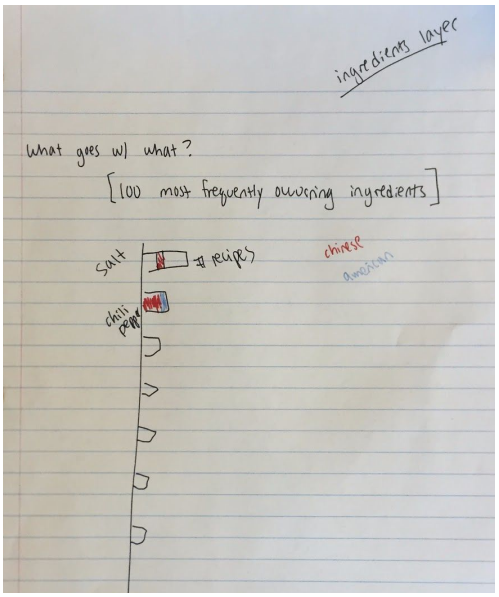
Week 3: (18th to 25th of April)
-Improve the visualizations
-add more interactivity features
-Modify according to peer feedback

Week 4 and last three days before deadline (25th of April to 5th of May):
-Add interactivity between visualization
-CSS styling of the webpage
-Modify according to peer usability evaluations

Visualizations for Project Plan - **Main Visualization - 3 layers (world, recipe, ingredients)**

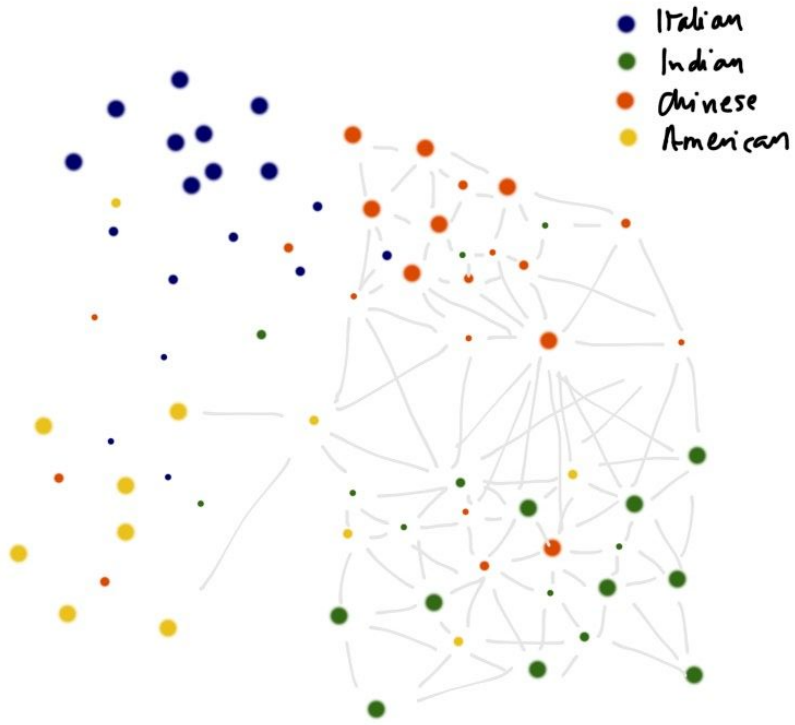


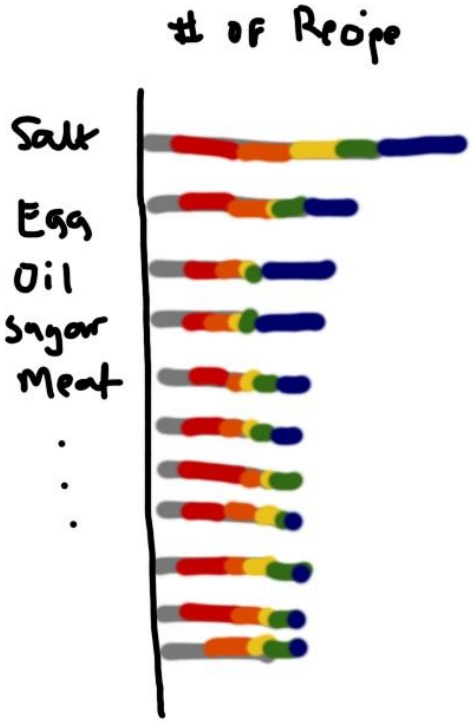


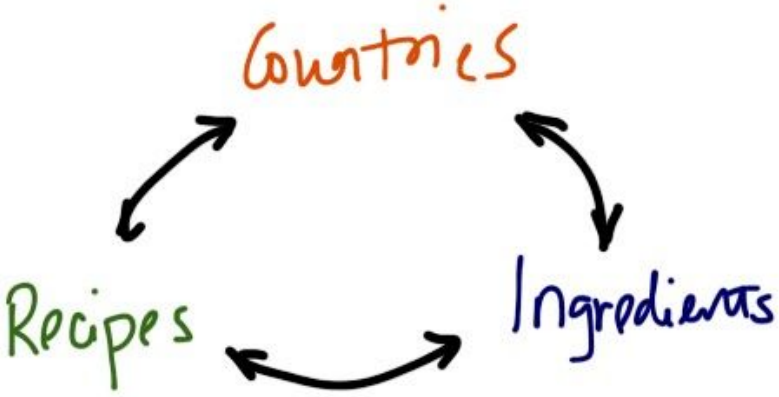


Lecture gave us some inspiration. Perhaps we will have instead of 3 layers, 3 panels, that are linked visualizations connected by brushes/filters.

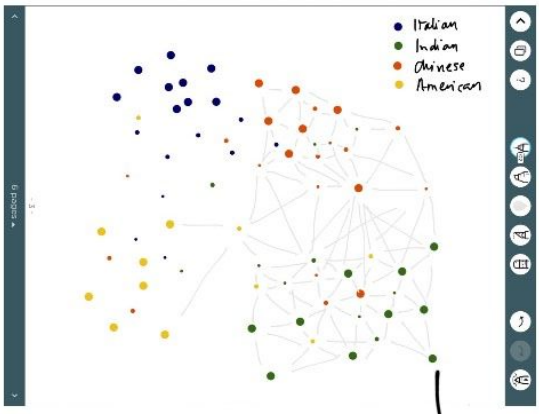
Jack refined and drew up our designs on his ipad:





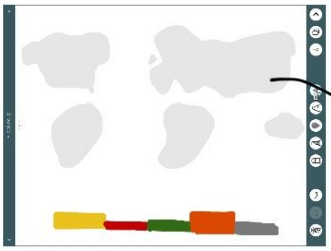


The following are our planned interactions:

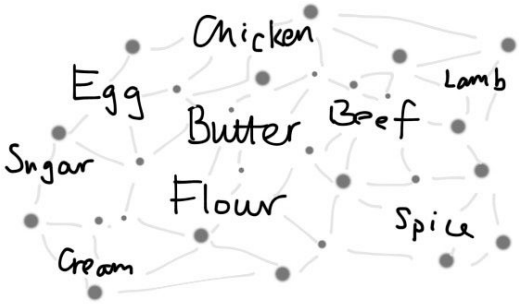


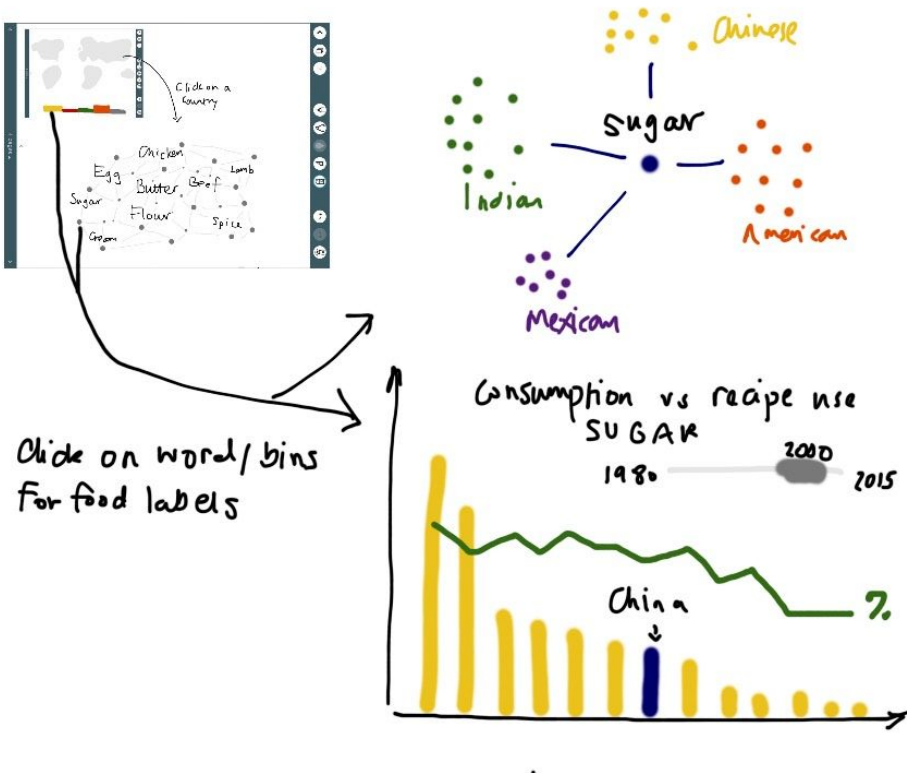
hover over a node
or click on a node

Cusine
Indian
Ingrediants
Milk. Egg. Spice ...



Click on a
country





April 12, 2016

Met today to discuss how we will sort our data into regions. We've identified 23 different food "regions", some of which are countries and others are groups of countries. We will merge the three data sets of recipes and their keys as such:

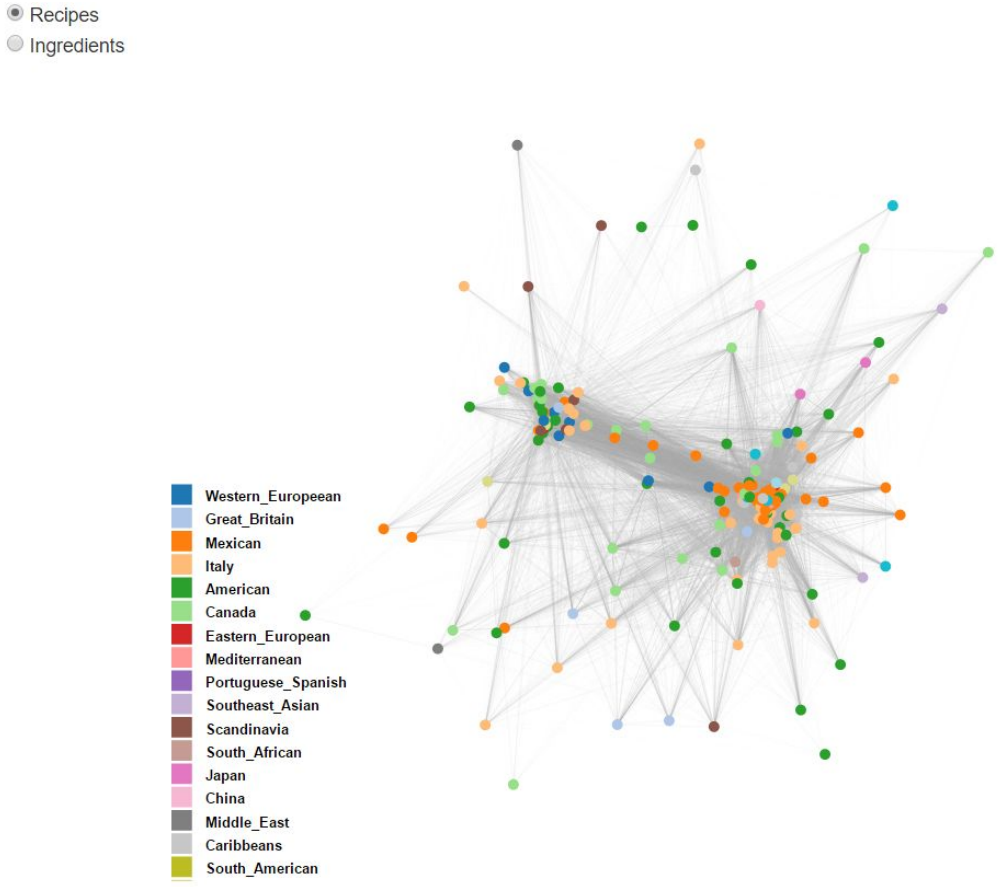
Mediterranean: 'greek','Turkey','Lebanon','Greek','Mediterranean'
Italian: 'italian','Italy','Italian'
French:'french','France','French'
Western European:'Belgium','Germany','Netherlands','Switzerland','Austria','German'
Scandinavian:'Scandinavia','Scandinavian'
Portuguese-Spanish:'spanish','Spain','Portugal','Spanish_Portuguese'
Eastern European:'russian','Eastern-Europe','EasternEuropean_Russian'
Canadian:'Canada'
American:'southern_us','American','American','Southern_SoulFood','Southwestern'
Mexican:'mexican','Mexico','Mexican'
Southeast-Asian:'filipino','thai','vietnamese','Philippines','Indonesia','Vietnam','Thailand','Malaysia','Vietnamese','Thai'
South-Asian:'indian','Bangladesh','India','Pakistan','Indian'
Middle-Eastern:'Israel','Iran','Jewish','MiddleEastern'
Caribbean:'jamaican','cajun_creole','Caribbean','Cajun_Creole'

Chinese:'chinese','China','Chinese'
Japanese:'japanese','Japan','Japanese'
Korean:'korean','Korea'
English-Irish:'british','irish','UK-and-Ireland','Irish','English_Scottish'
South American:'brazilian','South-America','Central_SouthAmerican'
South African:'South-African'
East African:'East-African'
West African:'West-African'
North African:'moroccan','North-African','Moroccan'

April 18, 2016

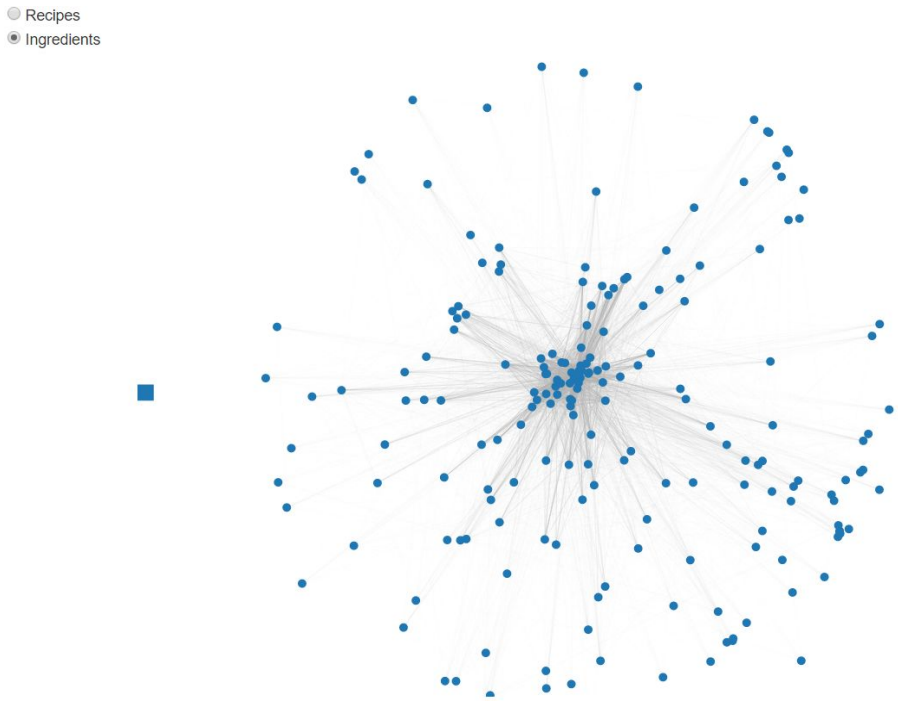
Some views of the recipes force layout:

View 1 - Recipes as nodes, # shared ingredients as links



Can see clustering as expected, 2 main clusters. Linkdistance scaled as 1/linkstrength^2, link stroke width and opacity also varying with strength of link.

View 2 - Ingredients view:



It's unclear how this clusters yet, without tooltips. We still need to discuss how to better visualize this data to show something meaningful.

April 26, 2016

Received feedback that our current website lacks coherent navigation.

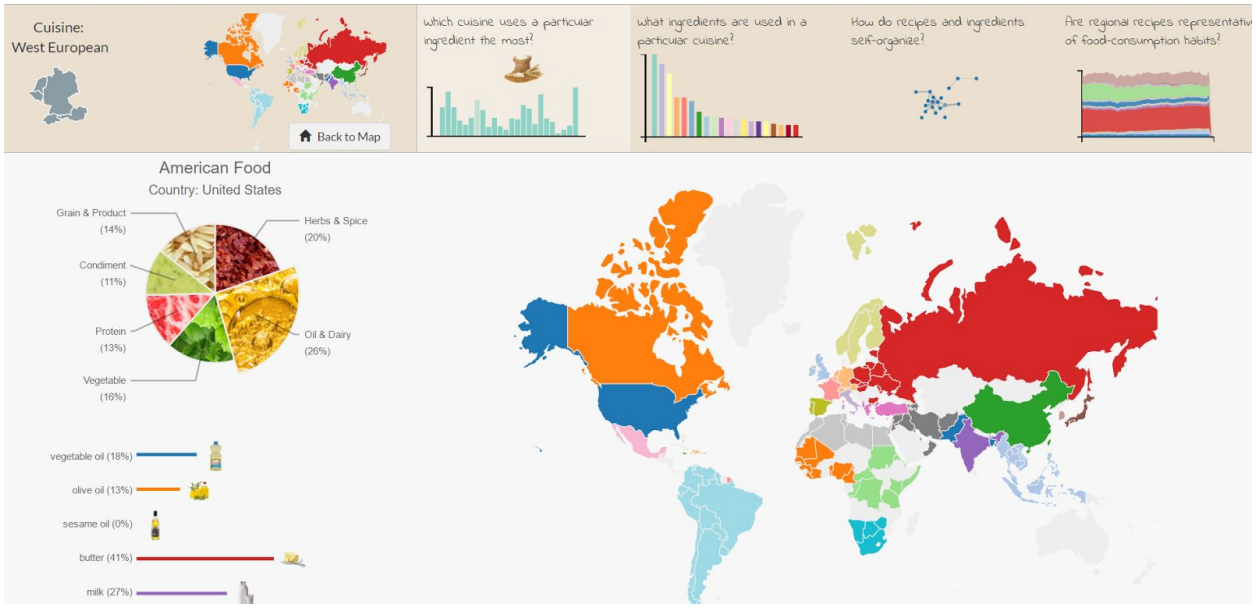
We discussed and decided to add a navigation panel at the top of our website. This navigation panel will not only show the currently selected state of our data, but will also have mini icons of each visualization so that we can see it dynamically update. The result is that the user will be informed of the updates in the off screen visualizations through motion.

Decided to also implement a splash screen intro that can help orient users when they first enter our site.

Since each visualization takes up a full screen, there is a lot of scrolling involved. Our navigation panel helps the user scroll directly to the relevant visualization.

May 2, 2016

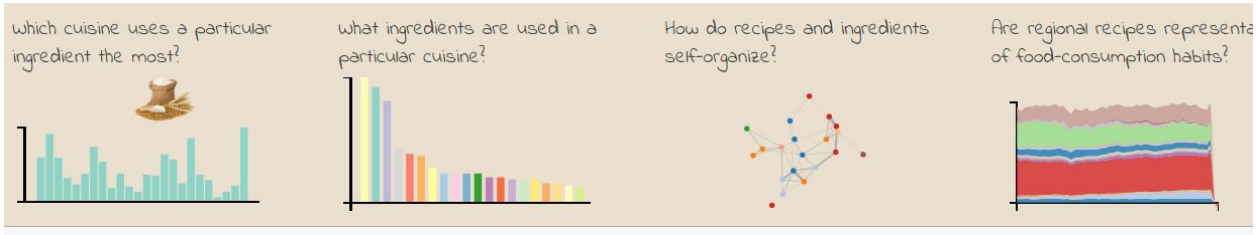
The final website starts at the splash screen, which has a button that scrolls the user to the first visualization. During the screen, the navigation bar scrolls up and eventually sticks to the top of the screen. The map is our first visualization which is also the core of our navigation:



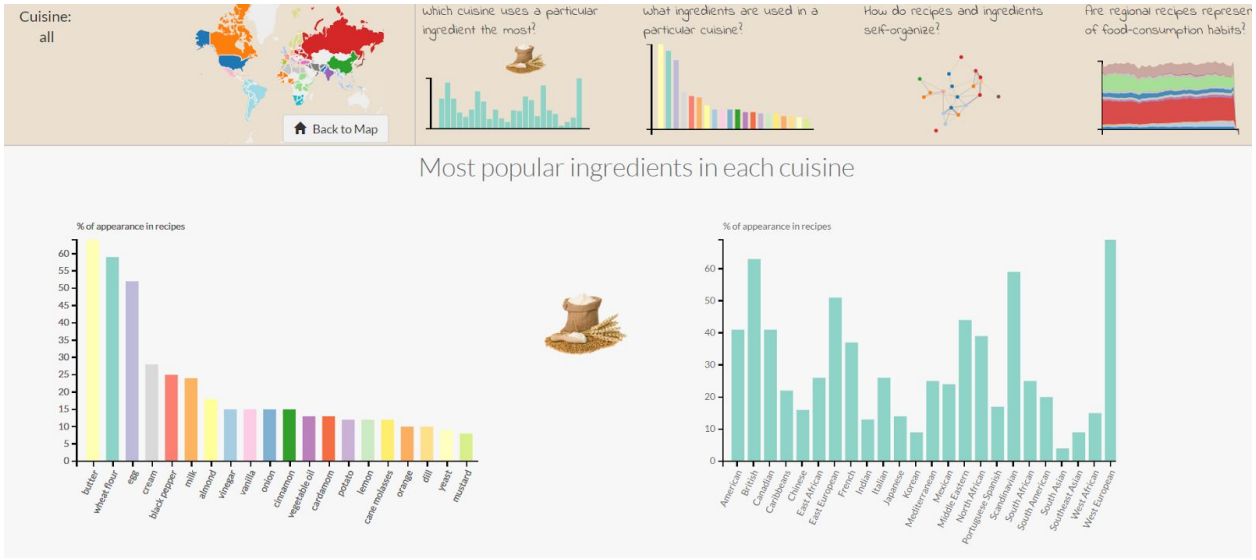
Navigation panel shows current selection:

And shows a mini map which allows us to change the cuisine/country selection, and allows us to return to the map pane.

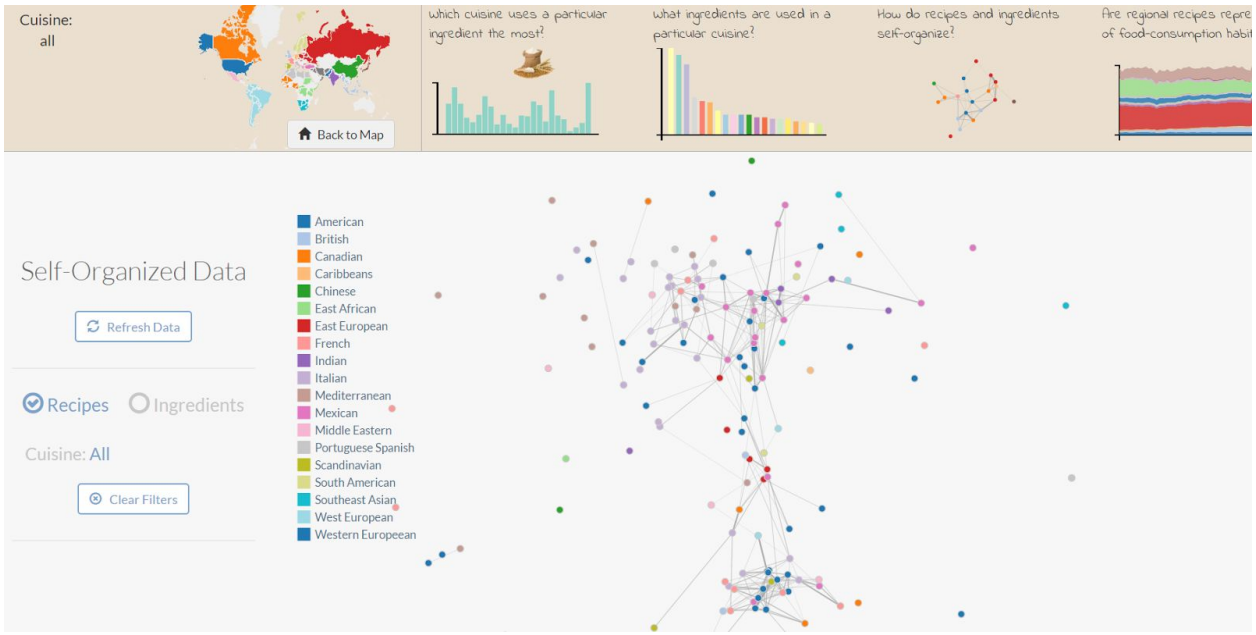
Also one of each of our visualizations in miniature:



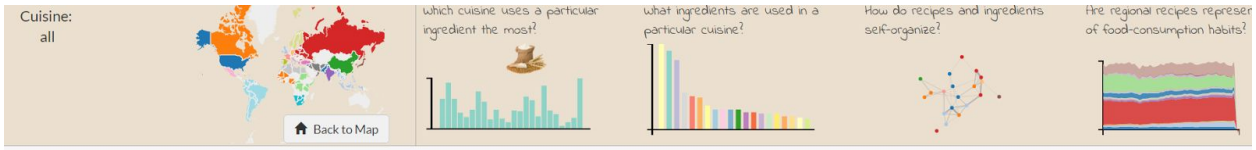
Visualization 2 is a bar chart of most popular ingredients per cuisine, and also cuisines most likely to use an ingredient it's fully interactive, selecting on bars will filter all the data on the website:



Visualization 3 is a force layout that shows the nodes-link relationship between recipes and between ingredients. It's also fully interactive, toggling between recipes as nodes and ingredients as nodes, and filtering cuisines by clicking on the legend



The final visualization is connected to the UN data, can be filtered for country.



Food Supply Quantity as per UN data

Detailed annual statistics in grams per capita per day

United States