

Project Proposal

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Team

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Background

Various team members have an interest in psychology and/or social networking, prompting us to examine the Reality Commons data from the MIT Human Dynamics lab. One exciting aspect of the data is that people's movements and habits are tracked in an objective way, with a record of their calls, text messages, and proximity to Bluetooth-enabled devices, along with the more usual subjective method of collecting survey responses. These data can be combined to analyze how people's self-reported interests relate to their movements and interactions with other people tracked in the same experiment.

Objectives

Our main objective is to provide an interactive visualization illustrating one of the conclusions discussed in an existing research paper published by the MIT Media Laboratory such as "Sensing the 'Health State' of Our Society". Using the available datasets from the Reality Commons project, we will depict the network relationships among the project's subjects and allow the user to see different characteristics of the subjects (through color, size, etc.) as well as how the network relationships change over time. There is a huge amount of data here, and we can use the power of d3 and other visualization tools to depict the stories within.

Data

We are using the Social Evolution dataset from the [Reality Commons](#) project at MIT. The data is provided in CSV format. We do not intend to do a great deal of data cleansing; with a multitude of data elements to choose from, we will be focusing on subsets that appear to be complete and clean. This data has already been used for various research papers and visualizations.

Visualization

Our plan is to use one of the network-type layouts such as chord, hive, or clustered force layout as a main visualization.

(Here are some possible example links--we can narrow this down a bit)

<http://umbrellaco.github.io/polyglots/>

<http://news.yahoo.com/senate-social-network-diagram-mcconnell-mean-girls-000513361.html>

<http://bl.ocks.org/mbostock/1748247>

<http://bl.ocks.org/saraquigley/raw/2346962/>

It is also possible that we implement a zoom or additional visualization as a separate view or off to the side of the main visualization.

Features

Must-Have

The visualization must depict a network relationship between the Social Evolution project subjects over a span of time. This will be done via a network layout that is either animated to show time passing or has a slider or other control for the user to control time passing. Here's a basic "proof-of-concept" example we created of a force-directed layout that incorporates two of the datasets in the Social Evolution corpus:

<http://people.fas.harvard.edu/~reece/171/andrew/project/social-evolution/>

Optional

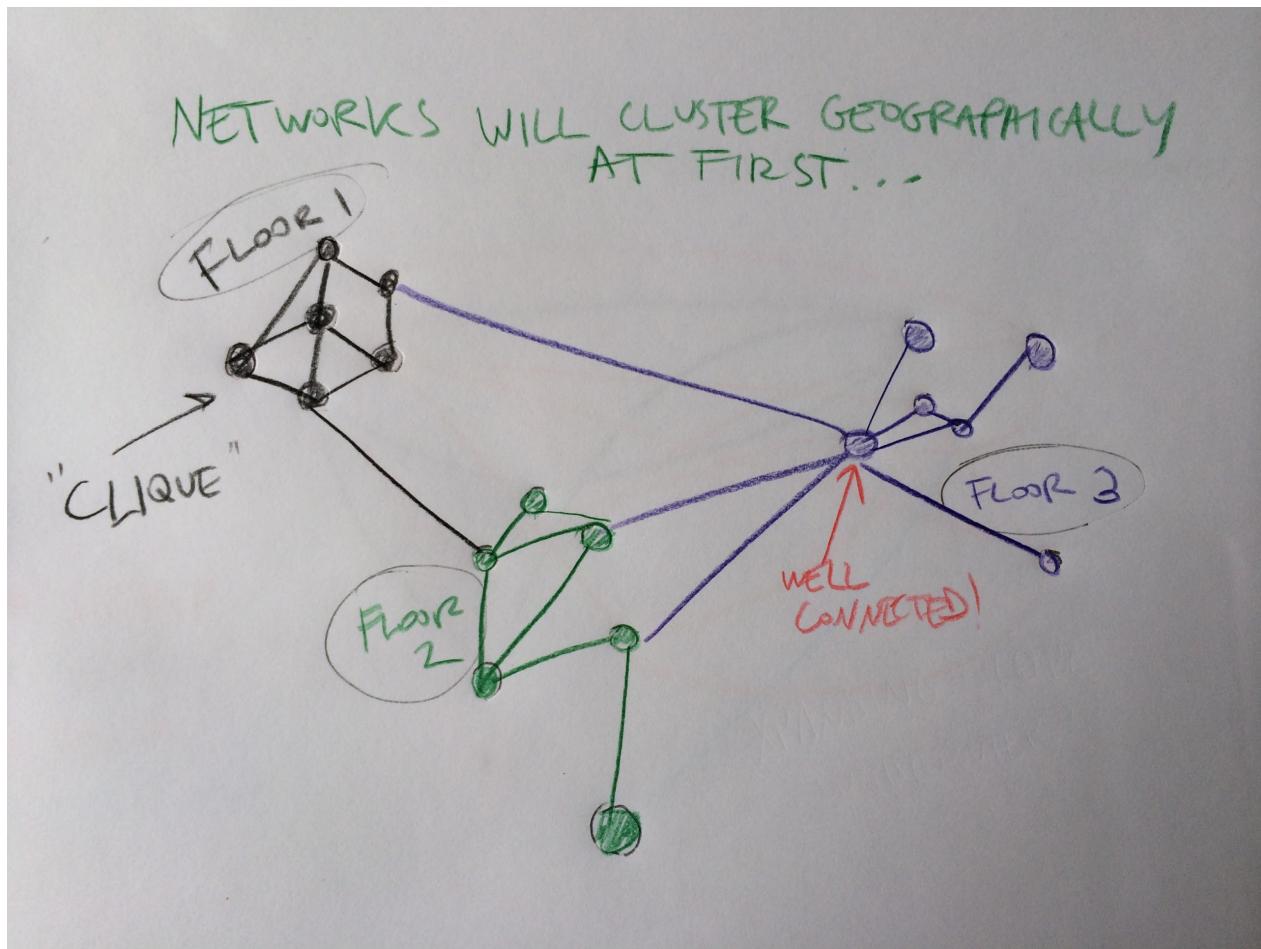
Stretch goals: include an additional attribute (e.g. subjects' political affiliation, musical taste, or some other characteristic provided in the data) and give the user an option to switch to a view of that information as it changes over time.

Schedule

Week Ending (Thursdays)	Goal
3/20	Get our main feature's data elements into a useful form
3/27	Generate working prototype of a network graph
4/3	Generate prototype of time series network change

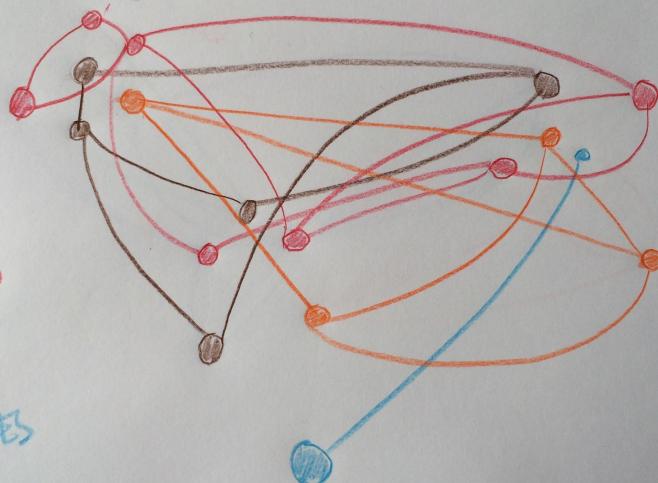
4/10	Project Prototype Due 4/10
4/17	Decide on clustering features to identify communities
4/24	Review aesthetics, finalize design details
5/1	Project Due Date 5/1 Screencast Complete Website Complete

Images



BUT MAY LOOK DIFFERENT WHEN
ORGANIZED BY PREFERENCES (E.G. MUSIC TASTE)

- HIP HOP
- COUNTRY
- SALSA
- SHOWTUNES



BASED ON PROXIMITY DATA, TRUE SOCIAL
NETWORKS CAN BE OBSERVED AS THEY EMERGE

