CS 424 F2016
VISUALIZATION & VISUAL ANALYTICS 1

Emulation Exercise – Group Project
Part 1 is due 10/10 at 11:59pm; Part 2 is due 10/13 at 3:30pm

PART 1 – Choose a visualization technique & sketch a prototype

A) By Sunday evening, send Shiwangi and I a short note telling us which technique you are thinking of using and how you think it will represent your data.

- It should be based on a recent academic **visualization** paper that was published within the last 10 years.

A good place to find these techniques is using the links to the Visualization Surveys (on the online syllabus), searching Google Scholar (making sure the paper is recent), or search IEEE Xplore for articles from Transactions on Visualization and Computer Graphics, or read through some of the EuroVis STAR reports to find interesting examples, or look at the articles published by a researcher you're interested in. Professors often keep a list of their publications on their websites with PDFs. For example, Chris Collins's *ViaLab* has lots of interesting visualization papers (http://vialab.science.uoit.ca/), as does Sheelagh Carpendale's *InnoVis lab* (http://innovis.cpsc.ucalgary.ca/).

We will make sure you have picked a good paper that makes sense for your data, and if not, we will give you feedback and some options to choose from.

B) By Monday at 11:59pm, you will turn in a write-up describing more details about the visualization technique you have chosen and how you will use it to represent some aspect of your data. Send this write-up to both Shiwangi and I with the subject "Project 2 – Emulation". Only one person from each group needs to send the email, but make sure you include the name and email of every person in the group.

- Provide a citation for the paper and a link to where we can find it on the web (e.g., where on IEEE Xplore it's located).

- In a paragraph or two, describe the visualization technique and explain what types of data it is good at representing.

- Also explain why the technique you've chosen is a good way to emphasize important aspects of your data.

- You should also include a sketch showing how the technique will look when applied to your dataset.

PART 2 – Emulate the visualization technique in D3.js

By Thursday's class, you will have created a prototype that emulates this visualization technique using Javascript and D3.js, applied to some aspect of your dataset(s). You will demonstrate your visualization in class and explain how it supports visualization tasks related to your data.

- For now, don't worry about representing all of your data. We are more interested now in the visual encodings than we are in the systems details.

- For now, you aren't required to include complex interaction idioms.

- You don't necessarily have to keep this visualization for your final Project 2. (But it's probably a good idea to think ahead and to think how this might fit in with the "visual analytics dashboard" you will be creating.)