Course Syllabus

This is a class that combines critical engagement with information visualization and its hands on production . In this class, students will be introduced to key concepts in design of information visualization(and interactivity). We will put theory to practice in discussions that critically engage with the visualizations we find in the world. We will also produce visualizations by hand and by code - students should be prepared to learn and experiment with both.

The practice of visualizing data is platform/technology agnostic. However, particular practices in programming currently dominate the field of its professional practice. In this class, we will be creating visualizations that are interactive, public facing, and live on the web. Specifically, we will be learning and using the javascript library D3.

D3(data driven documents) can have creative and artful uses, but it is not primarily for creative coding. Compared to P5(Processing javascript), D3 will not have the immediacy of visual experimentation and feedback that has introduced many artists and creatives to concepts of programming. D3 has a learning curve, however it is a powerful tool and both expandable and flexible. We will be covering technical material in each class session and students are asked to complete tutorials in D3 on their own. I ask you to bear with me through the technically challenging bits so that the skills we learn can be developed further and be useful beyond the scope of the course.

It is important to keep in mind that effective visualizations are built by judicious and appropriate use for techniques and technologies, not their evident abundance within a project. Your visualization projects are never evaluated on how much D3 code you are able to incorporate.

The practice of visualizing data has a long history, but it is also constantly evolving. Students will be introduced to this history and the state of the current field through lectures and readings. Finally the practice of visualizing data sits at the intersection multiple disciplines, it is also useful in many fields. Students are encouraged to bring both datasets and expertise from their backgrounds to class discussions and projects.

CLASS OUTCOMES

- Given a dataset, students will be able to understand the dimensions, qualities, and limitations of the dataset, and to decide on best approaches and visual representations.
- Students will understand basic programming concepts, able to build basic visualizations, but most importantly know how and where to look to learn more.
- Students will be aware of best design practices, and able to think critically about when and where to use or not use them.
- Students will come away with a set of visualizations published on the web.

Fall 2019 Site:

https://centerforspatialresearch.github.io/visualization_architecture_urbanism_humanities/ (Links to an external site.)
Please visit https://jjjiia.github.io/spring2019/schedule/ (Links to an external site.) to view previous course schedule for reference as well as final student projects: https://jjjiia.github.io/spring2019/final_projects/