

Homework 2

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INFSCI 2415 / LIS 2690: Information Visualization

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Homework 2 I

Task: Generate network visualizations using D3.

- Download “Books about US politics” network in CSV format:
 - Nodes: http://www.yurulin.com/class/fall2016_infovis/data/polbooks_nodes.csv
 - Edges: http://www.yurulin.com/class/fall2016_infovis/data/polbooks_edges.csv
 - network description
- Work in groups (3-4 members per group) to create **two** visualization designs using D3
- Submit your report in PDF, and your code in *.zip, via courseweb. One submission per group.
- **Due:** 2016-10-19 8am
- **Demo** time: to be scheduled

Homework 2 II

- (1) Visualize the network with Force Directed Graph Layout with proper visual encodings.
- a) Node color: Color the nodes based on the nodes' "Class" field (i.e., all nodes from the same class have the same color). Make the class visually distinguishable from each other. (Hint: Ordinal Scales)
 - b) Node size: Adjust the size of the nodes based on the nodes' "Degree" field. You may try different scaling methods (linear, square root, logarithm, etc.)
 - c) Node label: Show the label of each node based on the node's "Label" field.
 - d) Filtering: Only show node labels with larger Degree (e.g., > 10). How does this new graph compare with the one showing all labels?

Homework 2 III

- (2) Instead of using node-link diagram, explore different options and generate a visualization to show the structure of the same network. The visualization can include multiple charts or mix different types of charts.
- All visualizations need to be properly annotated and labeled to help clearly explain what the visualizations show.
 - Explain in your report:
 - what you intend to show in the visualization
 - the rationale for your design (why is it an effective representation for the things you intend to show?)
 - **in the beginning of the report**, describe your team with names and PITT IDs of all members, and one paragraph to briefly describe the contribution of each member