

ESS418 Research Methods in Social Science

Assignment 2: Social Network Analysis

**Submit due to: 25. 10. 2015**

Create an R script that runs following operations.

- Create a new script.
- Create a random graph that consists of 5 nodes. (2 points)
- Save the matrix as \*.csv and \*.txt files. (2 points)
- Convert the matrix to a network.
- Calculate standardized degree, closeness, and betweenness centrality. (2 points)
- Calculate non-standardized degree, closeness, and betweenness centralization. (2 points)
- Visualize the network (node labels do not have to be displayed). (2 points)
- Bonus: visualize node size as a function of node's degree. (2 points)
- Save the script and upload it to the "Assignment 2" folder in Homework Vaults.

**Hint:** use `rgraph()` function for generation of a random graph.