

Problem Set 9

Social Networks

Prof. Jack Reilly

F2025

Introduction

For this assignment, you will draw your own social network using R and iGraph. (It is OK if it is relatively simple!)

Assignment

Please follow these steps:

1. Identify your chosen network. This can be any network you can think of - from politics, economics, public administration, social life, pop culture, literature, science, etc. It just has to be clear on two things:
 - What are the nodes of the network?
 - What constitutes a tie (edge) between nodes of the network?
2. Encode your network into a form readable by R and iGraph. Likely, this will be an adjacency matrix, but could also be an edge list, an adjacency list/node list, or an affiliation matrix.
3. Read your network into R and into the iGraph package.
4. Plot the network graph.
5. Use visualization features to make your network graph visually compelling. Highlight the features of the network you most want to highlight.
6. Write a short summary (a few sentences is fine) of what you notice about your network.

Submission

You should submit 4 things to Blackboard:

1. Your R script(s).

2. A quarto file.
3. A compiled quarto file, as a PDF, that includes your network graphs.
4. Your data (adjacency matrix or edgelist) in a format readable by R (.csv).

Make sure that your quarto writeup includes a clear definition of your network (nodes and edges) as well as a summary description of what is particularly noteworthy about the features of your network. It should also document the source of the data, and note steps done to manage the data (if any) before your R script(s) took over.