LAB 1 – Intro to Ucinet & Netdraw

Virginie Kidwell

Travis Grosser

Doctoral Candidates in Management

Links Center for Social Network Research in Business

Gatton College of Business & Economics

University of Kentucky

MGT 780 – Social Network Analysis

Steve Borgatti

SOCIAL NETWORK DATA

- There are three main reasons for using "formal" methods in representing social network data:

    1. Efficiency- Matrices and graphs are compact and systematic. They summarize and present a lot of information quickly and easily; They allow to describe patterns of social relations.
    2. Technology- Matrices and graphs allow us to apply computers to analyzing data.
    3. Identifying Patterns- Matrices and graphs have rules and conventions.

Source: Hanneman & Riddle

GENERAL TIPS

- Always download the newest version, before to start!
- Change your default folder: File/Change Default Folder or Use task bar at bottom
- In case you have some long path names for your files, save all your files you need on your C drive so the path is C:\folder name before to start analysis.
- Each Ucinet file comes with a .##h and .##d files, if you change the name to one file you must change it to the other extension. As well if you email your file you need both extension to open a file.
- Use the help function, or just try to Google your question!
- Do not be afraid to try and ‘click’ around! As with any software the main way to learn is through hands on experience!

UCINET OVERVIEW

- File Menu – Basic functions to manage Ucinet files
- Data Menu – Main functions to set up your Ucinet files
- Transform Menu – Main functions to transform Matrices
- Tools Menu – Main functions to conduct statistical analysis
- Network Menu – Main functions to run Network analysis
- Visualize Menu – Access to Netdraw
- Options Menu – Miscellaneous function
- Help Menu
- Shortcut Bar

NETDRAW OVERVIEW

- File Menu – Print and Save network map
- Edit Menu – Copy function (very convenient to copy a network picture into ppt)
- Layout Menu – Main function to change network map layout
- Analysis Menu – Allow to run some analysis directly in Netdraw!
- Transform Menu – Access attribute data file, transform network data
- Properties Menu – Main functions to change color, size, looks of network maps
- Task Bar
- Options Menu
- Help Menu

Exercise with Provided Data (MBA)

1. Describe friendship Aug 07, friendship Feb 08 and friendship May 08 data file. Rename each matrix as stated here. What size are each matrix? [Data/ Describe]
2. Match each matrix such that they all will be of the same size, with only the same columns and rows present in all matrices, thus the intersection of those 3 matrices = all respondents for the 3 surveys. Name matched matrices file as –match-Aug-Feb-May [Data/ Match Multiple Dataset]
3. Join the matched datasets friendship Aug. Feb May from step 2, then display join matrices, name join matrices file as join Friendship Aug-Feb-May. [Data/ Join]
4. Now we are going to use an attribute vector to extract a sub-matrix, such as extract matrices of friendship (using joined filed) for male only [Extract/ via Subgraph attribute vector]

Exercise with Provided Data (Cont.)

5. Run univariate on the joined file. [Tool/ Univariate]
6. Open univariate output in Ucinet spreadsheet. Export output in Excel.
7. Now open Netdraw. Import Joined file. Import Attribute file (in that order!).
8. Display Friendship Aug only then Friendship Feb only then Friendship May only. Each time optimize layout using [thunder] symbol.
9. Now Display all 3 relationships at once. Under [Rel] Tab select each relationships.
10. Back to display only Friendship Aug, now color the nodes by male attribute, and size the node by age, saved the map as a jpeg file, last reset all nodes to default.
11. Run centrality, and size node by degree centrality. [Analysis/ Centrality Measures]

Q&A on Exercises (To do before lab!)

- Getting acquainted with Ucinet

- Elementary network visualization

Thank You!

????

??

?


INTERNATIONAL CENTER FOR RESEARCH ON SOCIAL NETWORKS IN BUSINESS
Links
Gatton College of Business & Economics
University of Kentucky