Gephi Instruction 2

Now you should already have Gephi installed in your computer. Otherwise, please refer to our "Gephi Instruction 1" HERE.

Open Gephi and load the data set:

- go to the "File" tab at the top
- select "Open" in the dropdown
- find the directory where you have stored the data, and open it
- note that you should use "imports manufactures.net", since its .paj correspondence World trade.paj is not compatible with Gephi

Using Gephi calculate some basic centrality measures:

- click the "Overview" tab
- find the window "Statistics" in your screen
- under "Network Overview", find "Network Diameter" and click "Run"
- choose "directed", and check "Normalize Centralities in [0,1]"
- click the "Data Laboratory" tab at the top of the program
- choose "Nodes"
- find "Closeness Centrality"
  - you can order the table based on Closeness Centrality by clicking that tab
  - for the node with highest Closeness Centrality, please ignore the four nodes with CC=1 (Barbados, Romania, Trinidad Tobago, and Tunisia)
- find "Betweenness Centrality"

Using Gephi, generate Poisson random networks:

- go to the "File" tab at the top of your screen
- choose "Generate" and "Random Graph..."
- input "400" when asked "How many nodes"
- input the "wiring probability" you want
  - choose a wiring probability around $ave.degree/400$
  - note Gephi only generates directed network (unless you use other plugins), but you can treat it as undirected by ignoring the directions of the links;[1]

Examine whether the network is connected:

- find the window "Statistics" in your screen
- under "Network Overview", find "Average Degree" and click "Run"
- it will generate a new window from which you can find the degree distribution
- please focus on "Degree Distribution" instead of the ones for "In-" or "Out-" Degrees, since we are treating the network as undirected

To redo the above, do not forget to click "New Project" under the "File" tab first.

Have fun!

[1]By doing so, please also note that the average degree calculated by Gephi is approximately half of the average degree of interests, since Gephi define "average degree" as the average of average in- and out- degrees.