# Gephi Instruction 1

**Download Gephi** Gephi is free, available on its official website: gephi.org/users/download.

It works for both Windows and Mac. (If you have problems with it on a Mac, then it might be the Java script - here is a fix; Or, you can find Version 0.8.1-beta via "Download Older Versions" on its official website.)

You can find tutorials 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. (If it gives you a problem, then instead go directly to the data set, right click on it, and when it say "Open with" find Gephi and open with it.)

To import a spreadsheet:

- start with the "File" tab and click "New Workspace"
- next, in the "Data Lab" click on "nodes" and then on "Import Spreadsheet" and make sure that "Nodes Table" is clicked on the popup window (and the file is a csv file). Import the file.
- next, do the same for the "edges" and be sure that the "Edges table" is clicked in the popup window.

# Draw figures:

- go back to the overview window to draw the figure.
- click the arrow at the bottom right to see the various sizing options.

- You can rule various "Layout" algorithms and hit "Stop" by playing with the "Optimal Distance" and "Repulsion" etc. settings, you can get the picture to fit better.
- You can "size" nodes by left clicking size and then resetting the number and then double-clicking the button again.

### Color nodes:

- click on the "Nodes" tab in the left, and click on the "Partition" button above it.
- "Refresh" it with the green and then pick a category.
- You can reset the colors by clicking on the color boxes. Then hit "Apply".

# Using Gephi calculate Average degree of the network

- find the window "Statistics" in your screen (if you cannot find it, you can open it by clicking "Window" tab at the top, then select "Statistics")
- under "Network Overview", find "Average Degree" and click "Run"
- it will generate a new window from which you can find the average degree and degree distribution

# Using Gephi calculate Diameter of the network:

- under "Network Overview", find "Network Diameter" and click "Run"
- you can leave it as "directed"
- it will generate a new window from which you can find the Diameter, as well as other information about average path length (under "Results")
- record the diameter and average path length

Using Gephi calculate calculate Clustering coefficients for each node:

- find the window "Statistics" in your screen
- under "Node Overview", find "Avg. Clustering Coefficient" and click "Run"
- choose "directed"
- it will generate a new window from which you can find the distribution of clustering coefficients, and the average clustering coefficient
- the average clustering is actually listed by the "Run" button you just pushed
- record the average clustering
- if you want to find clustering coefficients for each node, click "Data Laboratory" at the top of the program
- choose "Nodes"
- you will find node-level data, including "Clustering coefficients"
- you can order the table based on clustering coefficients by clicking that tab