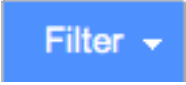



## Making Network Graphs Activity Guide

**1. Fusion Tables** - We will be using Google Fusion tables for making a network graph, using a couple of demo data sets provided by Google.

### A. Senators' Voting Habits

1. Create a new Fusion Table. Sign in here:  
<https://www.google.com/fusiontables/data?dsrclid=implicit>
2. Select the Senators\_Raw file from your computer to open in Fusion Tables
3. Choose **comma** as the Separator character. Click Next
4. Preview the data to make sure it looks good. Click Next
5. Click Finish
6. Choose **[+] > Add chart**, and click the **Network Graph** button.
7. Confirm the default to show links between these two columns:
  - Vertex 1
  - Vertex 2
8. For **Weight by**, choose "Percent\_Agreement."
9. Add a filter:
  - Click  and select "Percent\_Agreement" from the menu.
  - Type 0.67 in the first box, and click **Find**.
10. Click  to hide the settings. Access them again under **Tools > Change chart**.

Here's a [link to the final state](#).

Source: <https://support.google.com/fusiontables/answer/2566732>

### B. Caterpillar data set

Click File... New Table

At the bottom of the window, choose "Play with a data set"

This will open up the **Astraptes fulgerator: demo data set**.

Here, add a new chart by clicking the **+** button.

You can select various options to examine different network graphs within this data set.

## 2. Gephi

1. Open a new Finder window by clicking on the bottom left icon (blue/white face) on your dock.



2. In Applications, select Gephi



3. When Gephi opens, a window will pop up listing some sample sets.

4. Choose the **Les Miserables.gexf** data set

5. Click on the Overview tab to see the network graph. This can be modified using the options on the left side of the screen. Labels can be added and modified here.

6. Use the Data Laboratory to see tables containing the data. There is one table for Nodes, and one table for Edges. Here you can add, edit or remove data.

7. Use the Preview tab to prepare the graph's final look for presentation.

8. Gephi allows for importing spreadsheets as either a nodes or edges table. Gephi accepts the following file formats for import:

- \* GEXF
- \* GDF
- \* GML
- \* GraphML
- \* Pajek NET
- \* GraphViz DOT
- \* CSV
- \* UCINET DL
- \* Tulip TPL
- \* Netdraw VNA
- \* Spreadsheet

To decide what format to save your data in, use this website: <https://gephi.org/users/supported-graph-formats/>

8. To prepare .CSV files for import into Gephi:

you will need to make two files:

nodes.csv

edges.csv

**nodes** needs to have at least one column named Id

**edges** needs to have at least two columns, source and target. You can also have columns named type and weight. The values for type are Directed or Undirected. The Weight values are numeric and denote a node's importance.

Example .CSV files are located in the data workshop folder, within the folder called **csv-files-to-import-into-gephi**

**Import steps:**

Go to File.... Import Spreadsheet

Select your CSV file and make sure to select whether it's a nodes or edges file

Repeat this process to import your other file