

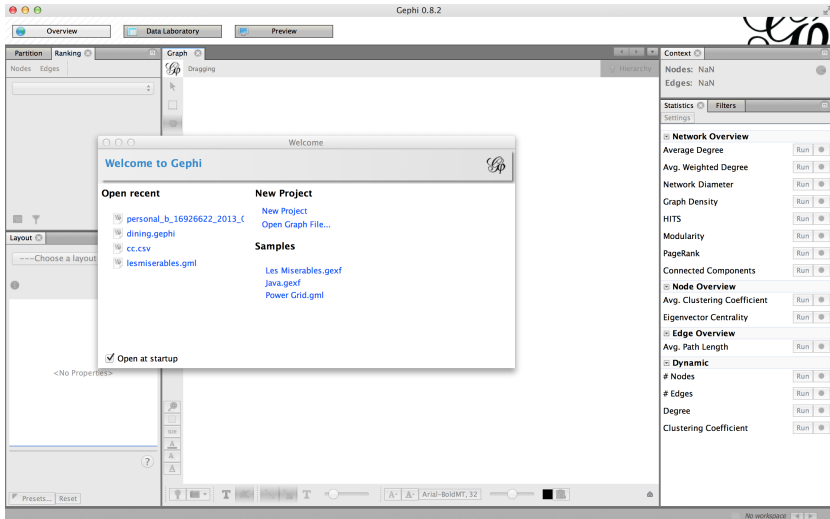
# Introduction to Gephi

Compiled by: Cornelia Caragea, Sujatha Das G.

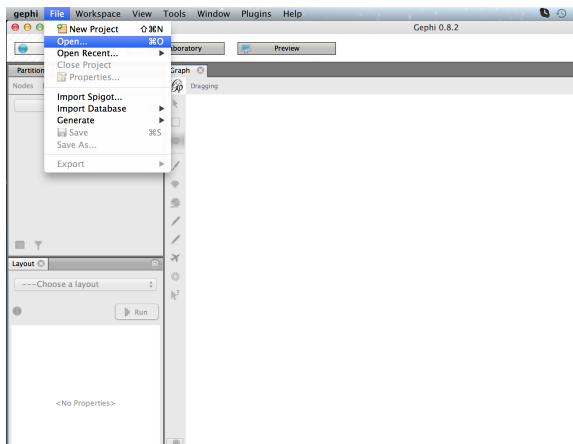
Acknowledgement: Lada Adamic and Jure Leskovec

August 22, 2014

# Gephi



# Gephi



# Gephi

Gephi 0.8.2

File

- New Project
- Open...
- Open Recent...
  - personal\_b\_16926622\_2013\_01\_15\_05\_05\_fa3a72fe267dcd0f7ca6f3a169f7ee2d.gdf
  - dining.gephi
  - cc.csv
  - lesmiserables.gml
- Close Project
- Properties...
- Import Spigot...
- Import Database
- Generate
- Save
- Save As...
- Export

Layout

---Choose a layout

Run

<No Properties>

Context

Nodes: NaN  
Edges: NaN

Statistics

Filters

Settings

Network Overview

- Average Degree Run
- Avg. Weighted Degree Run
- Network Diameter Run
- Graph Density Run
- HITS Run
- Modularity Run
- PageRank Run
- Connected Components Run

Node Overview

- Avg. Clustering Coefficient Run
- Eigenvector Centrality Run

Edge Overview

- Avg. Path Length Run

Dynamic

- # Nodes Run
- # Edges Run
- Degree Run
- Clustering Coefficient Run

Presets... Reset

Arial-BoldMT, 32

No workspace



# Gephi

The screenshot displays the Gephi 0.8.2 interface for a file named "dining.gephi". The main window is titled "Gephi 0.8.2 - dining.gephi". The interface is divided into several panels:

- Top Panel:** Contains "Overview", "Data Laboratory", and "Preview" tabs.
- Left Panel:** Includes "Partition" and "Ranking" tabs. The "Ranking" tab is active, showing a dropdown menu with the text "---Choose a rank parameter". Below this is a "Layout" section with a dropdown menu "---Choose a layout" and a "Run" button. At the bottom of the left panel, there is a text area containing "<No Properties>" and a "Presets... Reset" button.
- Central Panel:** Labeled "Graph", it shows a network graph with 26 nodes and 52 edges. The nodes are represented as grey circles, and the edges are black lines with arrowheads. The graph is currently in a "Dragging" state.
- Right Panel:** Contains the "Context" panel, which displays "Nodes: 26", "Edges: 52", and "Directed Graph". Below this is the "Statistics" panel, which has tabs for "Statistics" and "Filters". The "Statistics" panel is expanded to show three sections:
  - Network Overview:** Includes "Average Degree", "Avg. Weighted Degree", "Network Diameter", "Graph Density", "HITS", "Modularity", "PageRank", and "Connected Components". Each item has a "Run" button.
  - Node Overview:** Includes "Avg. Clustering Coefficient" and "Eigenvector Centrality", each with a "Run" button.
  - Edge Overview:** Includes "Avg. Path Length" with a "Run" button.

The bottom of the interface features a toolbar with various icons for graph manipulation and a status bar at the very bottom showing "Workspace 0".

# Gephi

The screenshot displays the Gephi 0.8.2 interface for a file named "dining.gephi". The main window is titled "Gephi 0.8.2 - dining.gephi" and features a top menu bar with "Overview", "Data Laboratory", and "Preview" tabs. Below the menu bar, the interface is divided into several panels:

- Left Panel:** Contains "Partition" and "Ranking" tabs. The "Ranking" tab is active, showing a dropdown menu with "--Choose a rank parameter". Below this is a "Layout" section with a dropdown menu "--Choose a layout" and a "Run" button. At the bottom of the left panel, there is a "Presets..." button and a "Reset" button.
- Center Panel:** Displays a network graph with 26 nodes and 52 edges. The graph is a directed graph, as indicated by the arrows on the edges. The nodes are represented by grey circles, and the edges are grey lines with arrowheads. The graph is currently in a "Dragging" state, as indicated by the "Dragging" label above the graph.
- Right Panel:** Contains a "Context" tab showing "Nodes: 26", "Edges: 52", and "Directed Graph". Below this is a "Statistics" section with a "Filters" tab. The "Statistics" section is expanded to show "Network Overview", "Node Overview", and "Edge Overview" sections. Each section contains a list of metrics with a "Run" button next to them.

The "Network Overview" section includes:

- Average Degree
- Avg. Weighted Degree
- Network Diameter
- Graph Density
- HITS
- Modularity
- PageRank
- Connected Components

The "Node Overview" section includes:

- Avg. Clustering Coefficient
- Eigenvector Centrality

The "Edge Overview" section includes:

- Avg. Path Length

The bottom status bar shows "Workspace 0" and a font size of "Arial-BoldMT, 32".

# Gephi

The screenshot displays the Gephi 0.8.2 software interface. The main window title is "Gephi 0.8.2 - dining.gephi". The interface is divided into several panels:

- Top Panel:** Contains tabs for "Overview", "Data Laboratory", and "Preview".
- Left Panel:** Includes "Partition", "Ranking", and "Edit" tabs. The "Layout" section is active, showing a dropdown menu with the text "---Choose a layout" and a "Run" button. Below it, there is a "Presets" section with a "Reset" button.
- Central Panel:** Displays a network graph with 26 nodes and 52 edges. The graph is a dense, interconnected network of grey nodes and black edges. A "Mouse selection" toolbar is visible above the graph, and a "Hierarchy" icon is on the right.
- Right Panel:** Contains a "Context" section showing "Nodes: 26", "Edges: 52", and "Directed Graph". Below this is a "Statistics" section with a "Filters" tab and a "Settings" section. The "Settings" section is expanded to show three overview categories:
  - Network Overview:** Includes "Average Degree", "Avg. Weighted Degree", "Network Diameter", "Graph Density", "HITS", "Modularity", "PageRank", and "Connected Components".
  - Node Overview:** Includes "Avg. Clustering Coefficient" and "Eigenvector Centrality".
  - Edge Overview:** Includes "Avg. Path Length".Each item has a "Run" button next to it.

# Gephi

The screenshot displays the Gephi 0.8.2 interface for a file named "dining.gephi". The main window is divided into several panels:

- Overview:** Shows the graph's statistics: Nodes: 26, Edges: 52, and Directed Graph.
- Context:** Provides a summary of the graph's properties.
- Statistics:** Offers various network metrics, categorized into three sections:
  - Network Overview:** Average Degree, Avg. Weighted Degree, Network Diameter, Graph Density, HITS, Modularity, PageRank, and Connected Components.
  - Node Overview:** Avg. Clustering Coefficient and Eigenvector Centrality.
  - Edge Overview:** Avg. Path Length.
- Marion - Properties:** Lists attributes such as Size (2.0), Position (x, y, z), and Color.
- Marion - Attributes:** Shows specific values for Id (9) and Label (Marion).
- Layout:** Includes a dropdown menu to "Choose a layout" and a "Run" button.
- Graph:** The central workspace where the network graph is visualized. It features a toolbar with icons for selection, zooming, and editing.

The interface also includes a top menu bar with "Overview", "Data Laboratory", and "Preview" tabs, and a bottom status bar showing "Workspace 0".

# Gephi

Gephi 0.8.2 - dining.gephi

Overview | Data Laboratory | Preview

Partition | Ranking | Edit

Marion - Properties

- Size: 2.0
- Position (x): 16.361074
- Position (y): 0.30075532
- Position (z): 0.0
- Color: [153,153,153]

Marion - Attributes

- Id: 9
- Label: Marion

Layout

---Choose a layout

- Force Atlas
- ForceAtlas 2**
- Fruchterman Reingold
- Label Adjust
- Random Layout
- Yifan Hu
- Yifan Hu Proportional
- YifanHu's Multilevel

Graph

Mouse selection | Hierarchy

Context

Nodes: 26  
Edges: 52  
Directed Graph

Statistics | Filters

Settings

**Network Overview**

- Average Degree: Run
- Avg. Weighted Degree: Run
- Network Diameter: Run
- Graph Density: Run
- HITS: Run
- Modularity: Run
- PageRank: Run
- Connected Components: Run

**Node Overview**

- Avg. Clustering Coefficient: Run
- Eigenvector Centrality: Run

**Edge Overview**

- Avg. Path Length: Run

Workspace 0

# Gephi

The screenshot displays the Gephi 0.8.2 interface for a file named "dining.gephi". The main window is divided into several panels:

- Left Panel:** Contains the "Marion - Properties" section with fields for Size (2.0), Position (x) (16.361074), Position (y) (0.30075532), Position (z) (0.0), and Color ([153,153,153]). Below this is the "Marion - Attributes" section with fields for Id (9) and Label (Marion). The "Layout" section shows "ForceAtlas 2" selected, with a "Run" button. The "Threads" section shows "Threads number 2". The "Behavior Alternatives" section includes checkboxes for "Dissuade Hubs", "LinLog mode", and "Prevent Overlap".
- Center Panel:** Displays a network graph visualization with nodes and directed edges. The "Graph" toolbar includes options for "Mouse selection" and "Hierarchy".
- Right Panel:** Shows the "Context" section with "Nodes: 26", "Edges: 52", and "Directed Graph". Below this are "Statistics" and "Filters" tabs. The "Network Overview" section lists various metrics with "Run" buttons: Average Degree, Avg. Weighted Degree, Network Diameter, Graph Density, HITS, Modularity, PageRank, Connected Components, Node Overview (Avg. Clustering Coefficient, Eigenvector Centrality), Edge Overview (Avg. Path Length).

The bottom status bar shows the font settings as "Arial-BoldMT, 32" and the workspace name as "Workspace 0".

# Gephi

The screenshot displays the Gephi 0.8.2 software interface. The main window is titled "Gephi 0.8.2 - dining.gephi". The interface is divided into several panels:

- Overview Panel (Left):** Contains the "Marion - Properties" section with fields for Size (2.0), Position (x, y, z), and Color. Below it is the "Marion - Attributes" section with fields for Id (9) and Label (Marion). The "Layout" section shows "ForceAtlas 2" selected with a "Run" button. The "Threads" section shows "Threads number 2" and "Behavior Alternatives" with checkboxes for "Dissuade Hubs", "LinLog mode", and "Prevent Overlap". The "ForceAtlas 2" section has a "Presets... Reset" button.
- Graph Panel (Center):** Displays a network graph with nodes and edges. The "Mouse selection" tool is active. A "Hierarchy" icon is visible in the top right of the graph area.
- Context Panel (Right):** Shows graph statistics: "Nodes: 26", "Edges: 52", and "Directed Graph". Below this are "Statistics" and "Filters" tabs, and a "Settings" section with various network overview and node/edge overview metrics, each with a "Run" button.

**Network Overview Metrics:**

- Average Degree
- Avg. Weighted Degree
- Network Diameter
- Graph Density
- HITS
- Modularity
- PageRank
- Connected Components

**Node Overview Metrics:**

- Avg. Clustering Coefficient
- Eigenvector Centrality

**Edge Overview Metrics:**

- Avg. Path Length

The bottom status bar shows "Workspace 0" and a font setting of "Arial-BoldMT, 32".

# Gephi

The screenshot displays the Gephi 0.8.2 software interface with a network graph titled "dining.gephi". The interface is divided into several panels:

- Overview Panel (Left):** Contains tabs for "Partition" and "Ranking". A dropdown menu shows "--Choose a rank parameter". Below this is the "Layout" section, currently set to "ForceAtlas 2", with a "Run" button. Underneath, there are "Threads" settings (Threads number: 2) and "Behavior Alternatives" (Dissuade Hubs, LinLog mode, Prevent Overlap, all unchecked).
- Graph Panel (Center):** Shows a network graph with 26 nodes and 52 edges. The graph is a directed graph. A toolbar on the left of the graph area includes icons for dragging, zooming, and other graph manipulation tools.
- Context Panel (Right):** Displays graph statistics: "Nodes: 26", "Edges: 52", and "Directed Graph". It also has tabs for "Statistics" and "Filters".
- Statistics Panel (Bottom Right):** Lists various network metrics with "Run" buttons next to them:
  - Network Overview:** Average Degree, Avg. Weighted Degree, Network Diameter, Graph Density, HITS, Modularity, PageRank, Connected Components.
  - Node Overview:** Avg. Clustering Coefficient, Eigenvector Centrality.
  - Edge Overview:** Avg. Path Length.

The bottom status bar shows "Workspace 0" and a font setting of "Arial-BoldMT, 32".



# Gephi

The screenshot displays the Gephi 0.8.2 software interface. The main window is titled "Gephi 0.8.2 - dining.gephi". The interface is divided into several panels:

- Overview:** Shows a small thumbnail of the network graph.
- Data Laboratory:** Contains tabs for "Nodes", "Edges", and "Hierarchy".
- Graph:** The central workspace showing a network graph with 26 nodes and 52 edges. A "Dragging" tooltip is visible over the graph.
- Context:** Displays graph statistics: "Nodes: 26", "Edges: 52", and "Directed Graph".
- Statistics:** A list of network metrics with "Run" buttons for each:
  - Network Overview:** Average Degree, Avg. Weighted Degree, Network Diameter, Graph Density, HITS, Modularity, PageRank, Connected Components.
  - Node Overview:** Avg. Clustering Coefficient, Eigenvector Centrality.
  - Edge Overview:** Avg. Path Length.
- Layout:** Shows the "ForceAtlas 2" layout algorithm selected.
- Threads:** A list of background processes.
- Input:** A "Set size" dialog box is open, showing a text input field with the value "5.0" and "OK" and "Cancel" buttons.

The bottom status bar indicates "Workspace 0".

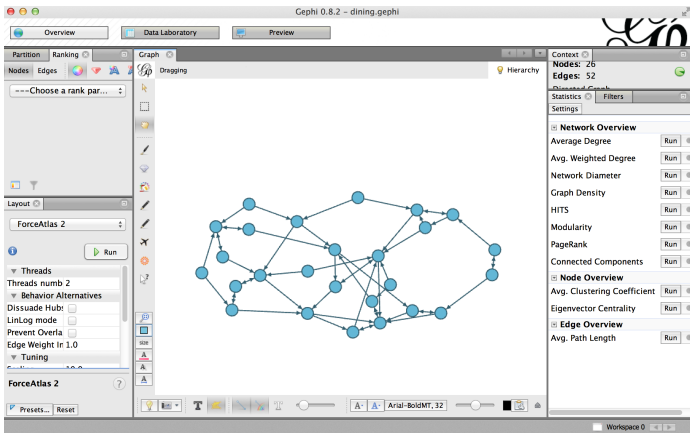
# Gephi

The screenshot displays the Gephi 0.8.2 software interface. The main window is titled "Gephi 0.8.2 - dining.gephi". The interface is divided into several panels:

- Overview Panel (Left):** Contains tabs for "Partition", "Ranking", and "Graph". Below these are "Nodes" and "Edges" tabs. A dropdown menu shows "--Choose a rank parameter". The "Layout" section is set to "ForceAtlas 2" with a "Run" button. Below that, "Threads" are set to "Threads number 2" and "Behavior Alternatives" are expanded. There are checkboxes for "Dissuade Hubs", "LinLog mode", and "Prevent Overlap". The "ForceAtlas 2" section has a help icon and "Presets..." and "Reset" buttons.
- Graph Panel (Center):** Shows a network graph with 26 nodes and 52 edges. The nodes are represented by grey circles, and the edges are black lines. The graph is a complex, interconnected network.
- Context Panel (Right):** Displays "Nodes: 26", "Edges: 52", and "Directed Graph". It has tabs for "Statistics" and "Filters". The "Settings" section is expanded, showing three overview categories:
  - Network Overview:** Includes "Average Degree", "Avg. Weighted Degree", "Network Diameter", "Graph Density", "HITS", "Modularity", "PageRank", and "Connected Components".
  - Node Overview:** Includes "Avg. Clustering Coefficient" and "Eigenvector Centrality".
  - Edge Overview:** Includes "Avg. Path Length".Each item has a "Run" button.

The bottom status bar shows "Workspace 0" and various icons for zooming and navigation.

# Gephi

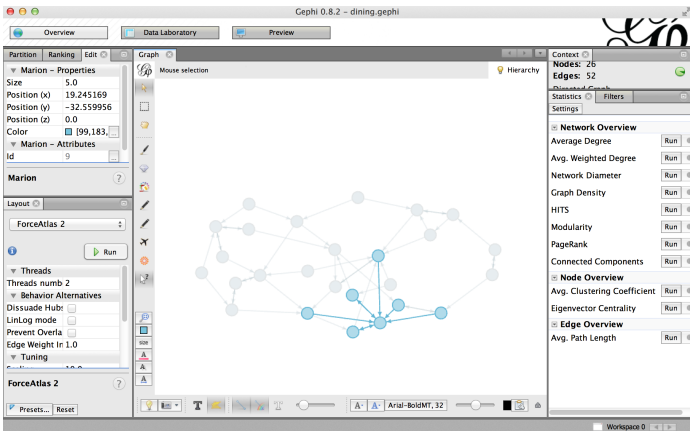


# Gephi

The screenshot displays the Gephi 0.8.2 software interface. The main window title is "Gephi 0.8.2 - dining.gephi". The interface is divided into several panels:

- Top Panel:** Includes tabs for "Overview", "Data Laboratory", and "Preview".
- Left Panel:** Contains "Partition" and "Ranking" tabs. The "Ranking" tab is active, showing a dropdown menu with the text "---Choose a rank par...". Below this is the "Layout" section, currently set to "ForceAtlas 2", with a "Run" button. A "Threads" section is also visible, showing "Threads numb 2" and "Behavior Alternatives".
- Center Panel:** Displays a network graph with 26 nodes and 52 edges. The graph is visualized using the ForceAtlas 2 layout. A central cluster of nodes is highlighted in blue, with several edges connecting them.
- Right Panel:** Shows the "Context" tab with "Nodes: 26" and "Edges: 52". It includes "Statistics" and "Filters" sub-tabs. The "Statistics" section is expanded, showing various network metrics with "Run" buttons: Network Overview (Average Degree, Avg. Weighted Degree, Network Diameter, Graph Density, HITS, Modularity, PageRank, Connected Components), Node Overview (Avg. Clustering Coefficient, Eigenvector Centrality), and Edge Overview (Avg. Path Length).
- Bottom Panel:** Features a toolbar with icons for zooming, panning, and other graph manipulation tools. The font is set to "Arial-BoldMT, 32".

# Gephi



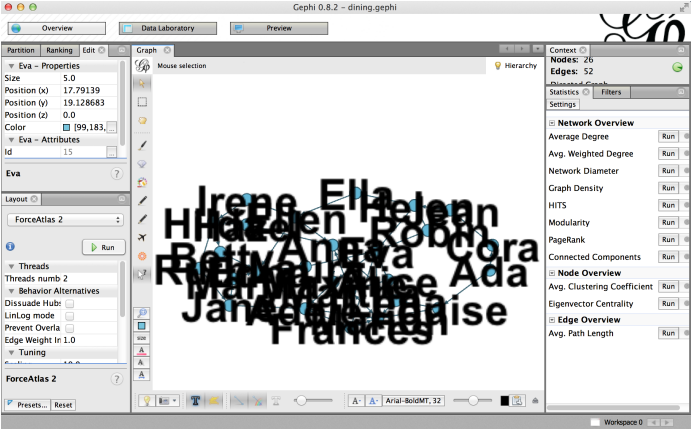
# Gephi

The screenshot displays the Gephi 0.8.2 software interface. The main window is titled "Gephi 0.8.2 - dining.gephi". The interface is divided into several panels:

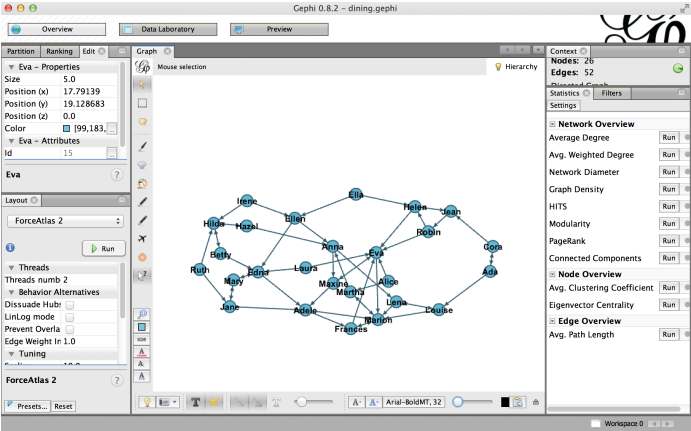
- Left Panel:** Contains the "Eva - Properties" section with fields for Size (5.0), Position (x) (17.79139), Position (y) (19.128683), Position (z) (0.0), Color ([99, 183, ...]), and Id (15). Below this is the "Eva" section and the "Layout" section, which is currently set to "ForceAtlas 2" with a "Run" button.
- Center Panel:** Displays a network graph visualization. The graph consists of nodes (represented by circles) and edges (represented by lines). The nodes are arranged in a roughly circular pattern, with a central cluster of nodes connected to each other and to the outer nodes. The edges are light blue, and the nodes are light blue with darker blue outlines.
- Right Panel:** Contains the "Context" section, which shows "Nodes: 26" and "Edges: 52". Below this are sections for "Network Overview", "Node Overview", and "Edge Overview", each with a "Run" button. The "Network Overview" section includes metrics such as Average Degree, Avg. Weighted Degree, Network Diameter, Graph Density, HITS, Modularity, PageRank, and Connected Components. The "Node Overview" section includes Avg. Clustering Coefficient, Eigenvector Centrality, and the "Edge Overview" section includes Avg. Path Length.

The bottom of the interface features a toolbar with various icons for navigation and editing, and a status bar at the very bottom showing "Workspace 0".

# Gephi

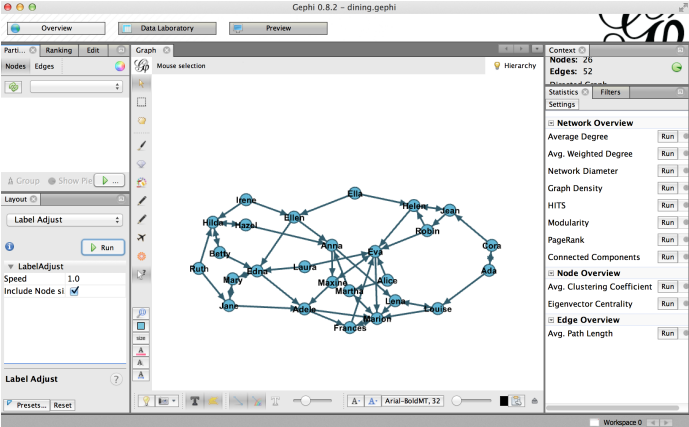


# Gephi

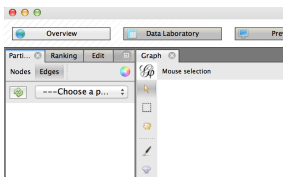




# Gephi



# Gephi

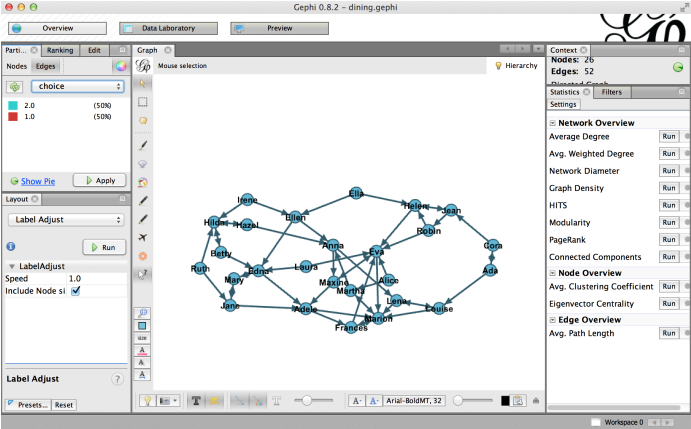


# Gephi

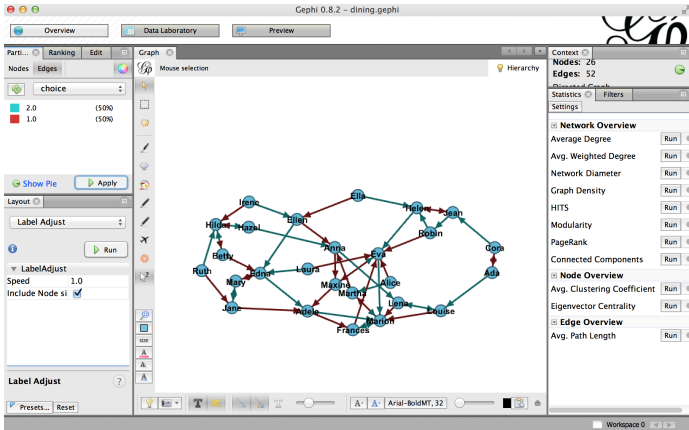
The screenshot displays the Gephi 0.8.2 software interface. The main window title is "Gephi 0.8.2 - dining.gephi". The interface is divided into several panels:

- Top Panel:** Contains "Overview", "Data Laboratory", and "Preview" tabs.
- Left Panel:** Includes "Parti...", "Ranking", and "Edit" tabs. Below these are "Nodes" and "Edges" tabs. A "Label Adjust" panel is active, showing a "Speed" of 1.0 and an "Include Node si" checkbox checked. A "Run" button is visible.
- Central Panel:** Displays a network graph with 26 nodes and 52 edges. Nodes are labeled with names such as Irene, Ellen, Anna, Eya, Robin, Gora, Ada, Louise, Francis, Marion, Lena, Alice, Martha, Maxine, Laura, Ednet, Betty, Ruth, Mary, Jan, Adele, and Jean. Edges represent connections between these nodes.
- Right Panel:** Shows a "Context" menu with "Nodes: 26" and "Edges: 52". Below this are "Statistics" and "Filters" tabs. A "Network Overview" section lists various metrics with "Run" buttons: Average Degree, Avg. Weighted Degree, Network Diameter, Graph Density, HITS, Modularity, PageRank, and Connected Components. A "Node Overview" section lists: Avg. Clustering Coefficient, Eigenvector Centrality, and Avg. Path Length. An "Edge Overview" section lists: Avg. Path Length.

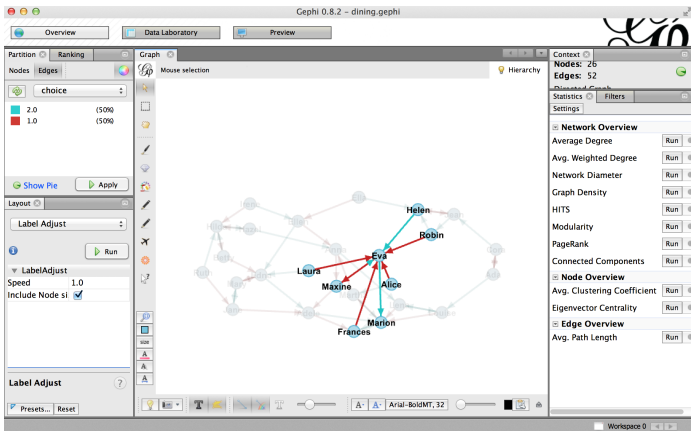
# Gephi



# Gephi



# Gephi



# Gephi

The screenshot shows the Gephi 0.8.2 interface with the 'Data Table' window open. The window title is 'Gephi 0.8.2 - dining.gephi'. The 'Data Table' tab is active, showing a table with three columns: 'Nodes', 'Id', and 'Label'. The table contains 20 rows of data, each representing a person's name in the 'Nodes' column, their corresponding 'Id' (numbered 1 to 20), and the same name in the 'Label' column. Below the table is a toolbar with several action buttons: 'Add column', 'Merge columns', 'Delete column', 'Clear column', 'Copy data to other column', 'Fill column with a value', and 'Duplicate column'. The bottom of the window shows 'Workspace 0'.

Nodes	Id	Label
Ada	1	Ada
Cora	2	Cora
Louise	3	Louise
Jean	4	Jean
Helen	5	Helen
Martha	6	Martha
Alice	7	Alice
Robin	8	Robin
Marion	9	Marion
Maxine	10	Maxine
Lena	11	Lena
Hazel	12	Hazel
Hilda	13	Hilda
Frances	14	Frances
Eva	15	Eva
Ruth	16	Ruth
Edna	17	Edna
Adele	18	Adele
Jane	19	Jane
...	20	...

# Gephi

Gephi 0.8.2 - dining.gephi

Overview Data Laboratory Preview

Data Table

Nodes Edges Configuration Add node Add edge Search/Replace Import Spreadsheet Export table More actions Filter: Source

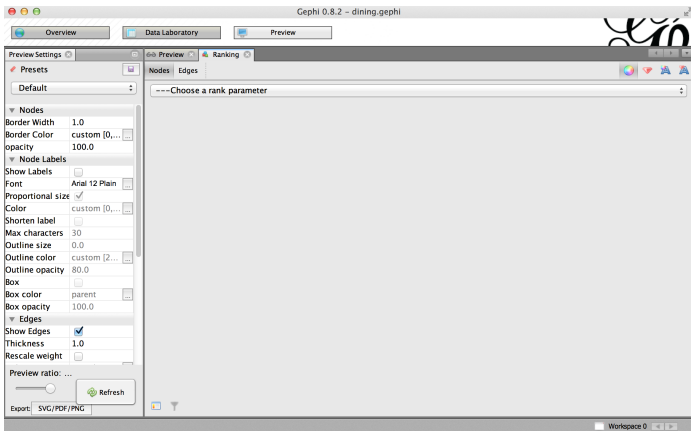
Source	Target	Type	Id	Label	Weight	choice
1	2	Directed	2			1.1.0
1	3	Directed	1			1.2.0
2	1	Directed	3			1.1.0
2	4	Directed	4			1.2.0
3	9	Directed	5			1.1.0
3	11	Directed	6			1.2.0
4	5	Directed	7			1.1.0
4	8	Directed	8			1.2.0
5	4	Directed	9			1.1.0
5	15	Directed	10			1.2.0
6	9	Directed	11			1.2.0
6	20	Directed	12			1.1.0
7	6	Directed	14			1.2.0
7	15	Directed	13			1.1.0
8	5	Directed	16			1.2.0
8	15	Directed	15			1.1.0
9	6	Directed	17			1.1.0
9	14	Directed	18			1.2.0
10	15	Directed	20			1.2.0
10	18	Directed	19			1.1.0
11	3	Directed	22			1.2.0
11	9	Directed	21			1.1.0
12	13	Directed	23			1.1.0
12	20	Directed	24			1.2.0

Add column Merge columns Delete column Clear Copy data to other column Fill column with a value Duplicate column

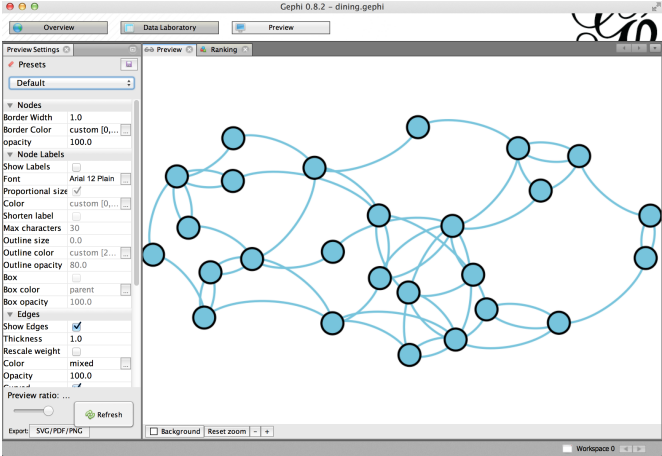
Workspace 0



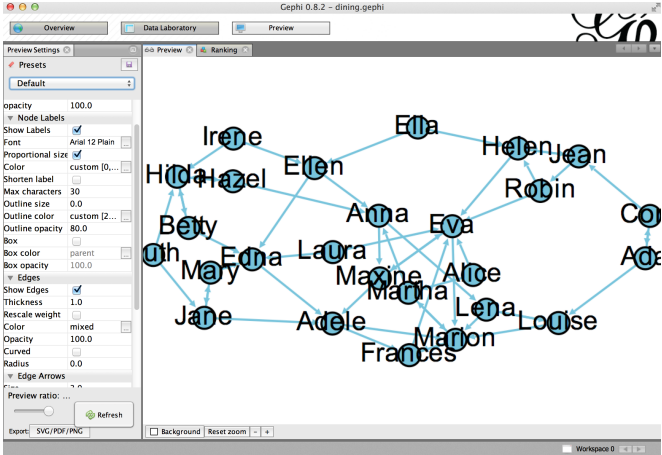
# Gephi



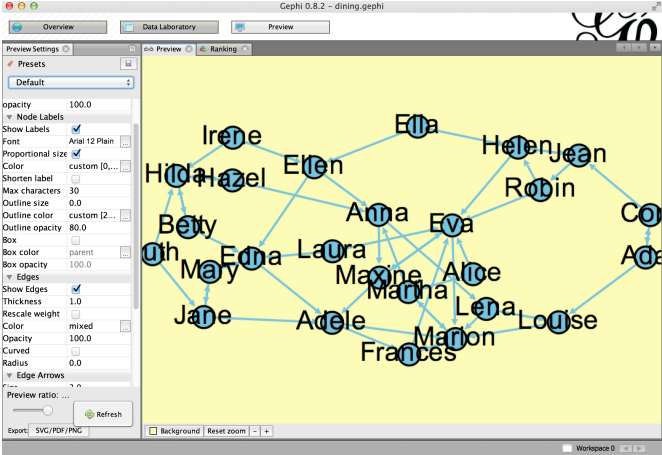
# Gephi



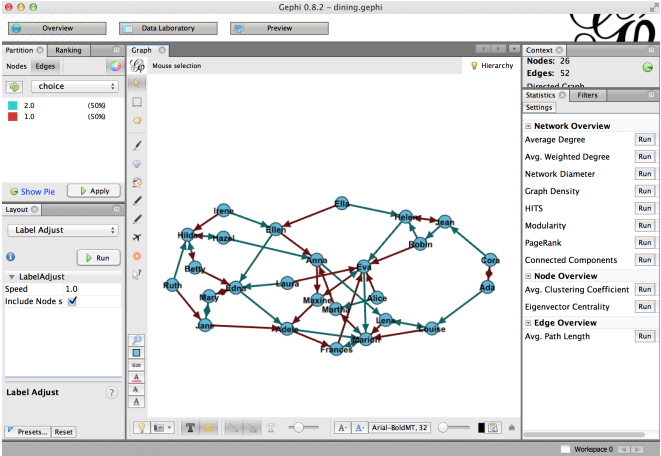
# Gephi



# Gephi



# Gephi

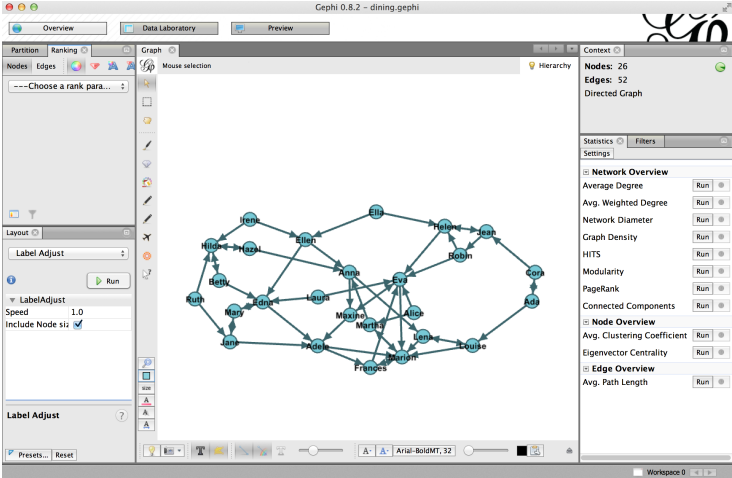


# Gephi

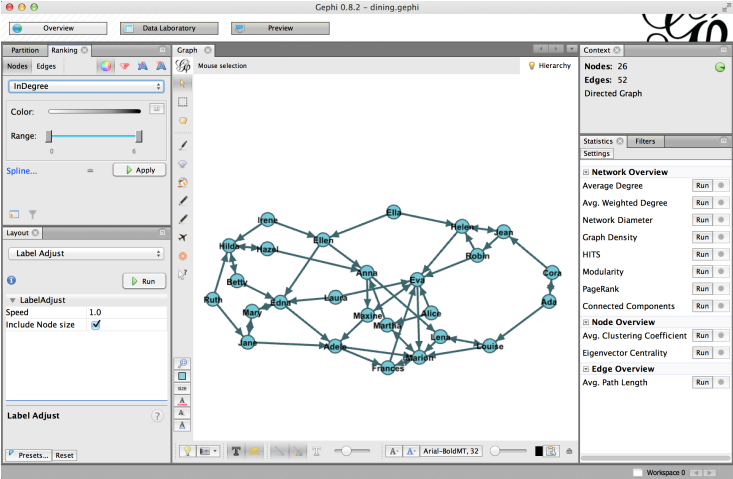
The screenshot displays the Gephi 0.8.2 interface for a network graph titled "dining.gephi". The main window is divided into several panels:

- Overview Panel (Left):** Contains "Nodes" and "Edges" tabs. The "Nodes" tab shows a legend with two categories: "2.0 (SDN)" represented by a blue square and "1.0 (SDN)" represented by a red square. Below the legend are "Show Pie" and "Apply" buttons. The "Layout" section includes a "Label Adjust" dropdown, a "Run" button, and a "LabelAdjust" section with "Speed" set to 1.0 and "Include Node s" checked.
- Graph Panel (Center):** Displays a network graph with nodes labeled with names (e.g., Irene, Ellen, Ella, Helene, Jean, Robin, Gora, Ada, Louise, Françoise, Marjolin, Lena, Alice, Eva, Anna, Laura, Maxime, Martha, Edna, Mary, Ruth, Jan, Hazel, Betty, Hilde) and directed edges. A "Mouse selection" tooltip is visible over the graph.
- Context Panel (Right):** Shows graph statistics: "Nodes: 26" and "Edges: 52". It includes tabs for "Statistics" and "Filters". Under "Network Overview", there are buttons for "Average Degree", "Avg. Weighted Degree", "Network Diameter", "Graph Density", "HITS", "Modularity", "PageRank", and "Connected Components". Under "Node Overview", there are buttons for "Avg. Clustering Coefficient" and "Eigenvector Centrality". Under "Edge Overview", there is a button for "Avg. Path Length".
- Bottom Panel:** Contains a toolbar with various icons for graph manipulation and a font selection area showing "Arial-BoldMT, 32".

# Gephi

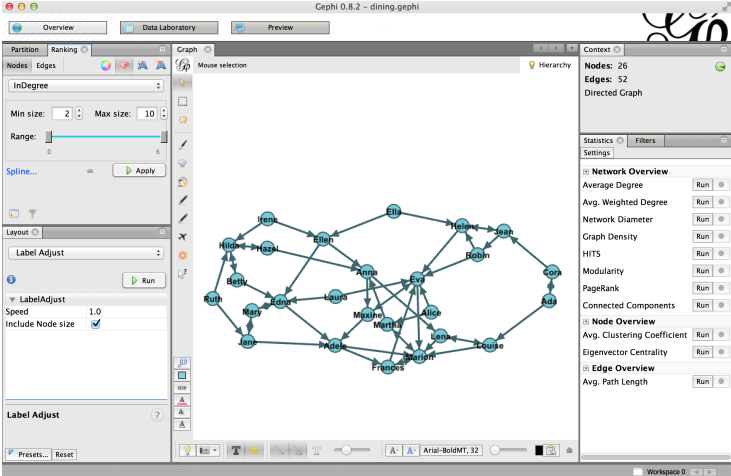


# Gephi

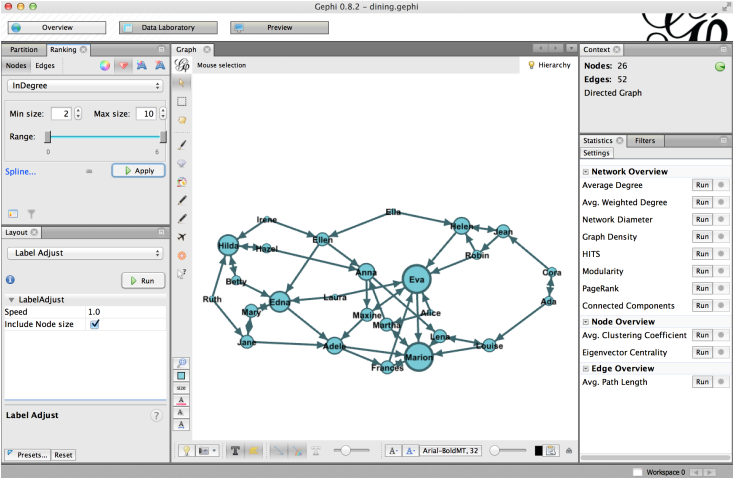




# Gephi



# Gephi



# Gephi

Gephi 0.8.2 - dining.gephi

Overview | Data Laboratory | Preview

Data Table

Configuration | Add node | Add edge | Search/Replace | Import Spreadsheet | Export table | More actions | Filter: | Source

Source	Target	Type	Id	Label	Weight	choice
1	2	Directed	2			1.1.0
1	3	Directed	1			1.2.0
2	1	Directed	3			1.1.0
2	4	Directed	4			1.2.0
3	9	Directed	5			1.1.0
3	11	Directed	6			1.2.0
4	5	Directed	7			1.1.0
4	8	Directed	8			1.2.0
5	4	Directed	9			1.1.0
5	15	Directed	10			1.2.0
6	9	Directed	11			1.2.0
6	20	Directed	12			1.1.0
7	6	Directed	14			1.2.0
7	15	Directed	13			1.1.0
8	5	Directed	16			1.2.0
8	15	Directed	15			1.1.0
9	6	Directed	17			1.1.0
9	14	Directed	18			1.2.0
10	15	Directed	20			1.2.0
10	18	Directed	19			1.1.0
11	3	Directed	22			1.2.0
11	9	Directed	21			1.1.0
12	13	Directed	23			1.1.0
12	20	Directed	24			1.2.0
13	12	Directed	26			1.2.0
13	22	Directed	25			1.1.0
14	9	Directed	28			1.2.0
14	15	Directed	27			1.1.0
15	6	Directed	29			1.2.0

Add column | Merge columns | Delete column | Clear column | Copy data to other column | Fill column with a value | Duplicate column | Create a boolean column from regex match | Create column with list of regex matching groups

Workspace 0

# Gephi

Gephi 0.8.2 - dining.gephi

Overview Data Laboratory Preview

Data Table

Configuration Add node Add edge Search/Replace Import Spreadsheet Export table More actions Filter: Nodes

Nodes	Id	Label	In-Degree	Out-Degree	Degree
Cora	2	Cora	1	2	3
Louise	3	Louise	2	2	4
Jean	4	Jean	2	2	4
Helen	5	Helen	3	2	5
Martha	6	Martha	2	2	4
Alice	7	Alice	0	2	2
Robin	8	Robin	1	2	3
Marion	9	Marion	6	2	8
Maxine	10	Maxine	2	2	4
Lena	11	Lena	2	2	4
Hazel	12	Hazel	1	2	3
Hilda	13	Hilda	4	2	6
Frances	14	Frances	2	2	4
Eva	15	Eva	6	2	8
Ruth	16	Ruth	0	2	2
Edna	17	Edna	4	2	6
Adele	18	Adele	3	2	5
Jane	19	Jane	2	2	4
Anna	20	Anna	3	2	5
Mary	21	Mary	2	2	4
Betty	22	Betty	1	2	3
Ella	23	Ella	0	2	2
Ellen	24	Ellen	2	2	4

Add column Merge columns Delete column Clear column Copy data to other column Fill column with a value Duplicate column Create a boolean column from regex match Create column with list of regex matching groups

Workspace 0

# Gephi

Gephi 0.8.2 – dining.gephi

Overview | Data Laboratory | Preview

Data Table

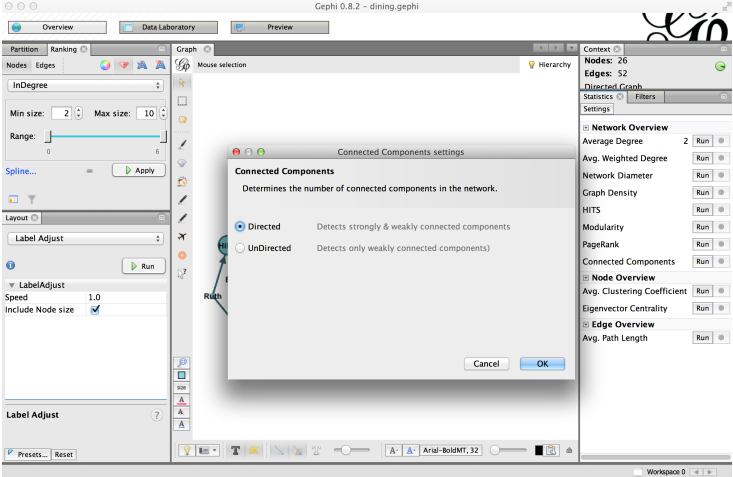
Nodes Edges Configuration Add node Add edge Search/Replace Import Spreadsheet Export table More actions Filter: Nodes

Nodes	Id	Label	In-Degree	Out-Degree	Degree
Marion	9	Marion	6	2	8
Eva	15	Eva	6	2	8
Hilda	13	Hilda	4	2	6
Edna	17	Edna	4	2	6
Helen	5	Helen	3	2	5
Adele	18	Adele	3	2	5
Anna	20	Anna	3	2	5
Louise	3	Louise	2	2	4
Jean	4	Jean	2	2	4
Martha	6	Martha	2	2	4
Maxine	10	Maxine	2	2	4
Lena	11	Lena	2	2	4
Frances	14	Frances	2	2	4
Jane	19	Jane	2	2	4
Mary	21	Mary	2	2	4
Ellen	24	Ellen	2	2	4
Ada	1	Ada	1	2	3
Cora	2	Cora	1	2	3
Robin	8	Robin	1	2	3
Hazel	12	Hazel	1	2	3
Betty	22	Betty	1	2	3
Alice	7	Alice	0	2	2
Ruth	16	Ruth	0	2	2

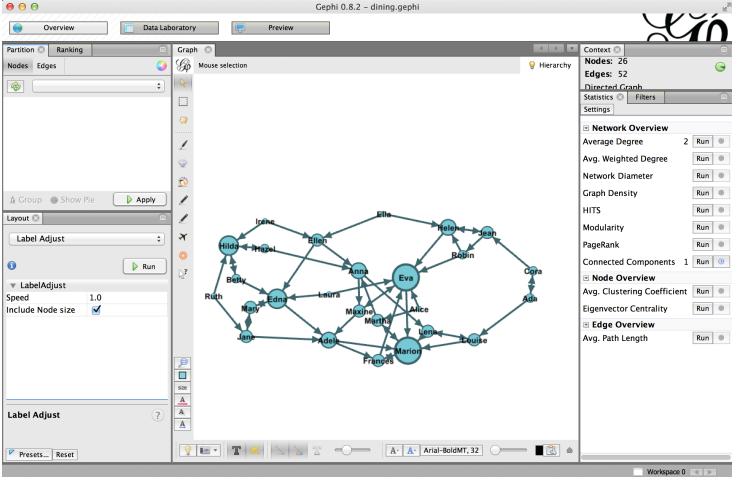
Add column Merge columns Delete column Clear column Copy data to other column Fill column with a value Duplicate column Create a boolean column from regex match Create column with list of regex matching groups

Workspace 0

# Gephi



# Gephi



# Gephi

The screenshot shows the Gephi 0.8.2 interface with a network graph titled "dining.gephi". The graph contains 26 nodes and 52 edges. The nodes are labeled with names: Hilde, Irene, Eileen, Ella, Helene, Leah, Robin, Cora, Ada, Marion, Louise, Alice, Lenka, Maxine, Merthe, Laura, Edna, Ruth, Mary, Jen, and Frances. The interface is divided into several panels:

- Top Panel:** Overview, Data Laboratory, and Preview tabs.
- Left Panel:** Partition and Ranking sections. A dropdown menu is open under "Choose a partition parameter" with options: Component ID, Degree, In-Degree, Out-Degree, and Strongly-Connected ID. Below this are "Group" and "Show Pie" options, and a "Label Adjust" section with "Speed" set to 1.0 and "Include Node size" checked.
- Center Panel:** The main graph view with a "Mouse selection" tooltip.
- Right Panel:** Context menu showing "Nodes: 26" and "Edges: 52". It includes sections for "Network Overview" (Average Degree: 2, Avg. Weighted Degree, Network Diameter, Graph Density, HITS, Modularity, PageRank, Connected Components: 1) and "Node Overview" (Avg. Clustering Coefficient, Eigenvector Centrality). The "Edge Overview" section (Avg. Path Length) is currently disabled.



# Gephi

The screenshot displays the Gephi 0.8.2 interface with a network graph titled "dining.gephi". The graph shows a complex network of nodes and edges, with nodes labeled with names such as Hilse, Irene, Ellen, Hela, Leah, Ruth, Bob, Anna, Eva, Cora, Lisa, Max, Emma, Laura, Marie, Marion, Alice, Lynn, Aden, Frances, and Louise. The nodes are colored based on their "Strongly-Connected ID" (SCID), with a legend on the left showing colors for IDs 1 through 10. The interface includes several panels and toolbars:

- Overview Panel:** Shows the graph's statistics: Nodes: 26, Edges: 52. It also includes a "Context" menu and a "Hierarchy" button.
- Nodes Panel:** Displays the "Strongly-Connected ID" legend with a color key and a table of node counts for each ID. Below the legend are "Group" and "Show Pie" buttons, and an "Apply" button.
- Layout Panel:** Contains the "Label Adjust" tool, which is currently active. It shows a "Speed" of 1.0 and an "Include Node size" checkbox checked. A "Run" button is present.
- Right Panel:** Provides a "Network Overview" with various metrics and "Run" buttons: Average Degree (2), Avg. Weighted Degree, Network Diameter, Graph Density, HITS, Modularity, PageRank, Connected Components (1), Node Overview (Avg. Clustering Coefficient, Eigenvector Centrality), and Edge Overview (Avg. Path Length).
- Toolbars:** A top toolbar includes "Overview", "Data Laboratory", and "Preview". A left toolbar contains various graph manipulation tools like pan, zoom, and delete. A bottom toolbar includes a search tool and a font selection tool (Arial-BoldMT, 32).

# Gephi

The screenshot displays the Gephi 0.8.2 interface with a 'Clustering Coefficient settings' dialog box open. The dialog box contains the following text:

**Clustering Coefficient**  
The clustering coefficient, along with the mean shortest path, can indicate a "small-world" effect. It indicates how nodes are embedded in their neighborhood. The average give an overall indication of the clustering in the network.

Directed  
 UnDirected

Buttons: Cancel, OK

The background interface shows the 'Context' panel on the right with the following statistics:

- Nodes: 26
- Edges: 52
- Directed Graph
- Statistics: Filters
- Settings
- Network Overview
  - Average Degree: 2 [Run]
  - Avg. Weighted Degree [Run]
  - Network Diameter [Run]
  - Graph Density [Run]
  - Centrality [Run]
  - Rank [Run]
  - Connected Components: 1 [Run]
- Node Overview
  - Clustering Coefficient [Run]
  - Vector Centrality [Run]
- Edge Overview
  - Path Length [Run]

The 'Label Adjust' panel on the left shows 'Speed' set to 1.0 and 'Include Node size' checked.

Gephi 0.8.2 - dining.gephi

Overview | Data Laboratory | Preview

Partition | Ranking | Graph | HTML Report

Nodes | Edges

Context | Nodes: 26 | Edges: 52 | Directed Graph | Statistics | Filters | Settings

### Clustering Coefficient Metric Report

**Parameters:**  
Network Interpretation: directed

**Results:**  
Average Clustering Coefficient: 0.069  
The Average Clustering Coefficient is the mean value of individual coefficients.

### Clustering Coefficient Distribution

Count

Print | Copy | Save | Close

Workspace 0

**Network Overview**

Average Degree	2	Run
Avg. Weighted Degree		Run
Network Diameter		Run
Graph Density		Run
HITS		Run
Modularity		Run
PageRank		Run
Connected Components	1	Run

**Node Overview**

Avg. Clustering Coefficient	0.069	Run
Eigenvector Centrality		Run

**Edge Overview**

Avg. Path Length		Run
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Label Adjust

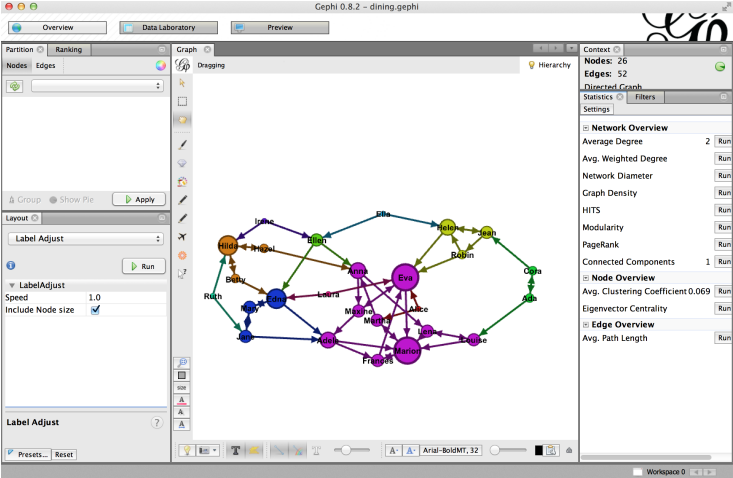
LabelAdjust

Speed 1.0

Include Node size

Presets... | Reset

# Gephi



# Gephi

The screenshot displays the Gephi 0.8.2 interface for a file named 'dining.gephi'. The main window is divided into several panels:

- Overview:** Shows the graph visualization area.
- Data Laboratory:** Contains the 'Nodes' and 'Edges' lists.
- Preview:** Provides a detailed view of the selected nodes and edges.
- Context:** Displays graph statistics: Nodes: 26, Edges: 52. It includes tabs for 'Directed Graph', 'Statistics', 'Filters', and 'Settings'. A 'Network Overview' section lists metrics like Average Degree (2) and Avg. Weighted Degree.
- Layout:** Contains the 'Label Adjust' tool, which is currently active. It has a 'Speed' of 1.0 and 'Include Node size' checked.

A 'Graph Distance settings' dialog box is open in the foreground, providing definitions for various graph metrics:

- Distance:** The average graph-distance between all pairs of nodes. Connected nodes have graph distance 1. The diameter is the longest graph distance between any two nodes in the network. (i.e. How far apart are the two most distant nodes).
- Centrality Options:** Radio buttons for 'Directed' (selected) and 'UnDirected'. A checkbox for 'Normalize Centralities in [0,1]' is present.
- Betweenness Centrality:** Measures how often a node appears on shortest paths between nodes in the network.
- Closeness Centrality:** The average distance from a given starting node to all other nodes in the network.
- Eccentricity:** The distance from a given starting node to the farthest node from it in the network.

The dialog box has 'Cancel' and 'OK' buttons at the bottom right.

Gephi 0.8.2 - dining.gephi

Overview Data Laboratory Preview

Partition Ranking Graph HTML Report Context

Nodes Edges

## Graph Distance Report

**Parameters:**  
Network Interpretation: directed

**Results:**  
Diameter: 7  
Radius: 3  
Average Path length: 2.839160839160839  
Number of shortest paths: 286

### Betweenness Centrality Distribution

Centrality Value	Count
~0.0001	~2.84

Print Copy Save Close

Layout

Label Adjust

Group Show Pie Apply

LabelAdjust

Speed 1.0

Include Node size

Run

Label Adjust ?

Presets... Reset

Network Overview

Nodes: 26  
Edges: 52

Network Overview

Average Degree	2	Run
Weighted Degree		Run
Network Diameter	7	Run
Graph Density		Run
FS		Run
Dularity		Run
PageRank		Run
Connected Components	1	Run

Node Overview

Clustering Coefficient	0.069	Run
Vector Centrality		Run

Edge Overview

Path Length	2.839	Run
-------------	-------	-----

Workspace 0

Gephi 0.8.2 - dining.gephi

Overview Data Laboratory Preview

Partition Ranking Graph HTML Report Context

Nodes Edges

**Results:**  
Diameter: 7  
Radius: 3  
Average Path length: 2.839160839160839  
Number of shortest paths: 286

**Betweenness Centrality Distribution**

The plot shows a highly skewed distribution of betweenness centrality values. The x-axis represents the 'Value' (ranging from 0 to 80) and the y-axis represents the 'Count' (ranging from 0.0 to 5.0). The data points are as follows:

Value	Count
1	5.0
2	2.0
3	1.0
4	1.0
5	1.0
6	1.0
7	1.0
8	1.0
9	1.0
10	1.0
11	1.0
12	1.0
13	1.0
14	1.0
15	1.0
16	1.0
17	1.0
18	1.0
19	1.0
20	1.0
21	1.0
22	1.0
23	1.0
24	1.0
25	1.0
26	1.0
27	1.0
28	1.0
29	1.0
30	1.0
31	1.0
32	1.0
33	1.0
34	1.0
35	1.0
36	1.0
37	1.0
38	1.0
39	1.0
40	1.0
41	1.0
42	1.0
43	1.0
44	1.0
45	1.0
46	1.0
47	1.0
48	1.0
49	1.0
50	1.0
51	1.0
52	1.0
53	1.0
54	1.0
55	1.0
56	1.0
57	1.0
58	1.0
59	1.0
60	1.0
61	1.0
62	1.0
63	1.0
64	1.0
65	1.0
66	1.0
67	1.0
68	1.0
69	1.0
70	1.0
71	1.0
72	1.0
73	1.0
74	1.0
75	1.0
76	1.0
77	1.0
78	1.0
79	1.0
80	1.0

Layout

Label Adjust

LabelAdjust

Speed 1.0

Include Node size

Print Copy Save Close

Network Overview

Average Degree	2	Run
Weighted Degree		Run
Network Diameter	7	Run
Graph Density		Run
IS		Run
Dularity		Run
PageRank		Run
Connected Components	1	Run

Node Overview

Clustering Coefficient	0.069	Run
Vector Centrality		Run

Edge Overview

Path Length	2.839	Run
-------------	-------	-----

Workspace 0

Gephi 0.8.2 - dining.gephi

Overview Data Laboratory Preview

Partition Ranking Graph HTML Report Context

Nodes Edges

## Weighted Degree Report

Results:  
Average Weighted Degree: 2.000

### Degree Distribution

Value	Count
2	5
3	5
4	9
5	3
6	2
8	2

Group Show Pie Apply

Layout

Label Adjust

LabelAdjust Run

LabelAdjust

Speed 1.0

Include Node size

Label Adjust ?

Print Copy Save Close

Workspace 0

Context

Nodes: 26  
Edges: 52

Selected Graph

Statistics Filters

Network Overview

Average Degree	2	Run
Weighted Degree	2	Run
Network Diameter	7	Run
Graph Density		Run
FS		Run
Modularity		Run
PageRank		Run
Connected Components	1	Run

Node Overview

Clustering Coefficient	0.069	Run
Betweenness Centrality		Run

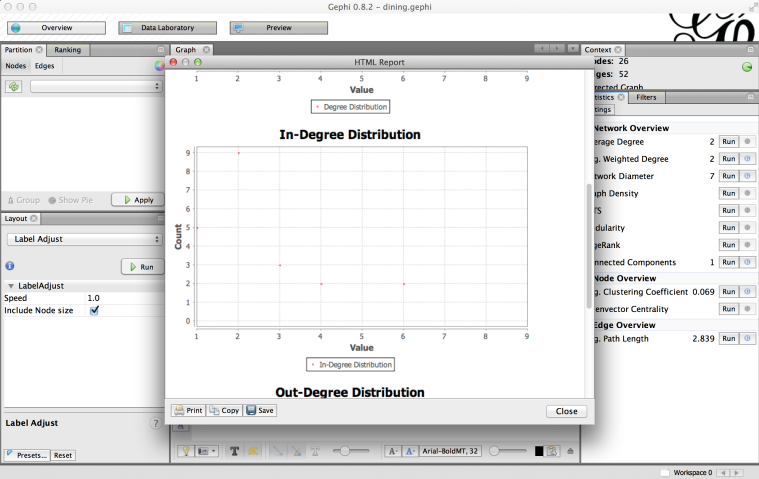
Edge Overview

Path Length	2.839	Run
-------------	-------	-----

Arial-BoldMT, 32



# Gephi



The screenshot shows the Gephi 0.8.2 interface with a 'Graph Density Report' window open. The report displays the following information:

- Parameters:** Network Interpretation: directed
- Results:** Density: 0.080

The background interface includes a top navigation bar with 'Overview', 'Data Laboratory', and 'Preview' tabs. On the left, there are panels for 'Partition', 'Ranking', 'Graph', and 'Nodes Edges'. A 'Label Adjust' panel is also visible, showing settings for 'Speed' (1.0) and 'Include Node size' (checked). On the right, a 'Context' panel shows 'Nodes: 26' and 'Edges: 52'. Below it, a 'Network Overview' table lists various metrics:

Metric	Value	Action
Average Degree	2	Run
Weighted Degree	2	Run
Network Diameter	7	Run
Graph Density	0.08	Run
IS		Run
Dularity		Run
PageRank		Run
Connected Components	1	Run

Below the 'Network Overview' table, there are sections for 'Node Overview' and 'Edge Overview', each with a table of metrics and their corresponding 'Run' buttons.

At the bottom of the report window, there are 'Print', 'Copy', and 'Save' buttons, and a 'Close' button. The bottom of the main window shows a toolbar with various icons and a status bar indicating 'Workspace 0'.

# Gephi

The screenshot shows the Gephi 0.8.2 interface with a 'HITS settings' dialog box open. The dialog box contains the following information:

- HITS**  
Computes two separate values for each node. The first value (called Authority) measures how valuable information stored at that node is. The second value (called Hub) measures the quality of the nodes links.
- Directed  
 UnDirected
- Epsilon:   
Stopping criterion, the smaller this value, the longer convergence will take.
- Buttons: Cancel, OK

The background interface shows the 'Overview' tab with a 'Label Adjust' panel on the left and a 'Context' panel on the right. The 'Context' panel displays statistics for a directed graph with 26 nodes and 52 edges.

Statistic	Value	Run
Average Degree	2	Run
Avg. Weighted Degree	2	Run
Network Diameter	7	Run
Graph Density	0.08	Run
Clustering Coefficient	0.069	Run
Vector Centrality		Run
Path Length	2.839	Run

# Gephi

The screenshot shows the Gephi 0.8.2 interface with a network graph. The central graph view displays a network of nodes and edges. Nodes are represented by colored circles, and edges are represented by arrows. The nodes are labeled with names: Eva, Marion, Ann, Maximo, Marita, Alice, Len, Louise, Francis, Adol, Laura, Ella, Nelo, Robin, Leah, and Gopi. The nodes are arranged in a circular pattern, with Eva and Marion at the top and bottom respectively. The edges connect the nodes, forming a complex network structure.

The interface includes several panels:

- Overview:** Shows the graph's statistics: Nodes: 26, Edges: 52.
- Label Adjust:** A panel on the left with a 'Run' button and settings for 'Speed' (1.0) and 'Include Node size' (checked).
- Statistics:** A panel on the right showing various statistics for the graph, such as 'In-Degree Integer (Node)', 'Label String (Edge)', 'Out-Degree Integer (Node)', 'PageRank Double (Node)', 'Strongly-Connected ID Integer (Node)', 'Weight Float (Edge)', 'Weighted Degree Double (Node)', 'Weighted In-Degree Double (Node)', 'Weighted Out-Degree Double (Node)', and 'choice String (Edge)'. It also includes 'Inter Edges' and 'Intra Edges' sections.
- Queries:** A panel on the right showing a query named 'Equal (In-Degree)'. The query parameters are: column: In-Degree (Integer), match: 6, range: 0 - 6. The 'Equal (In-Degree) Settings' panel shows a 'Value' of 6, with 'Minimum' and 'Maximum' set to 0.