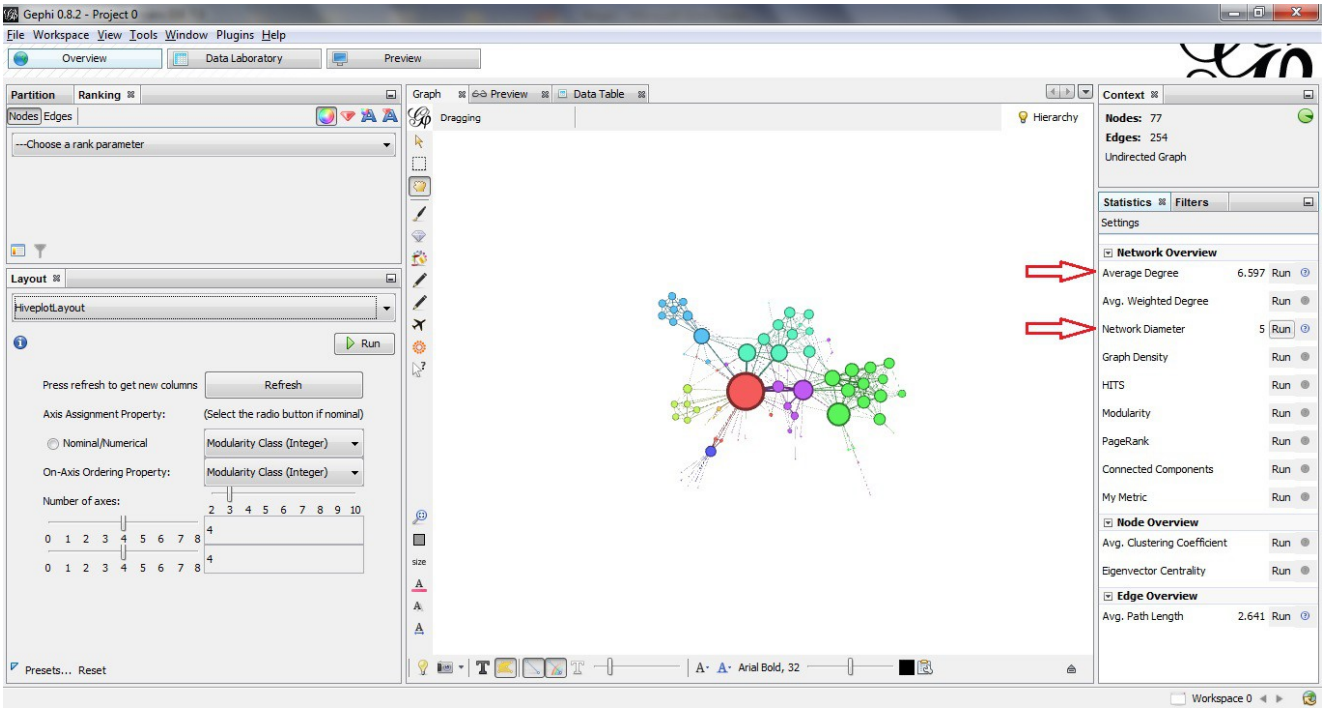
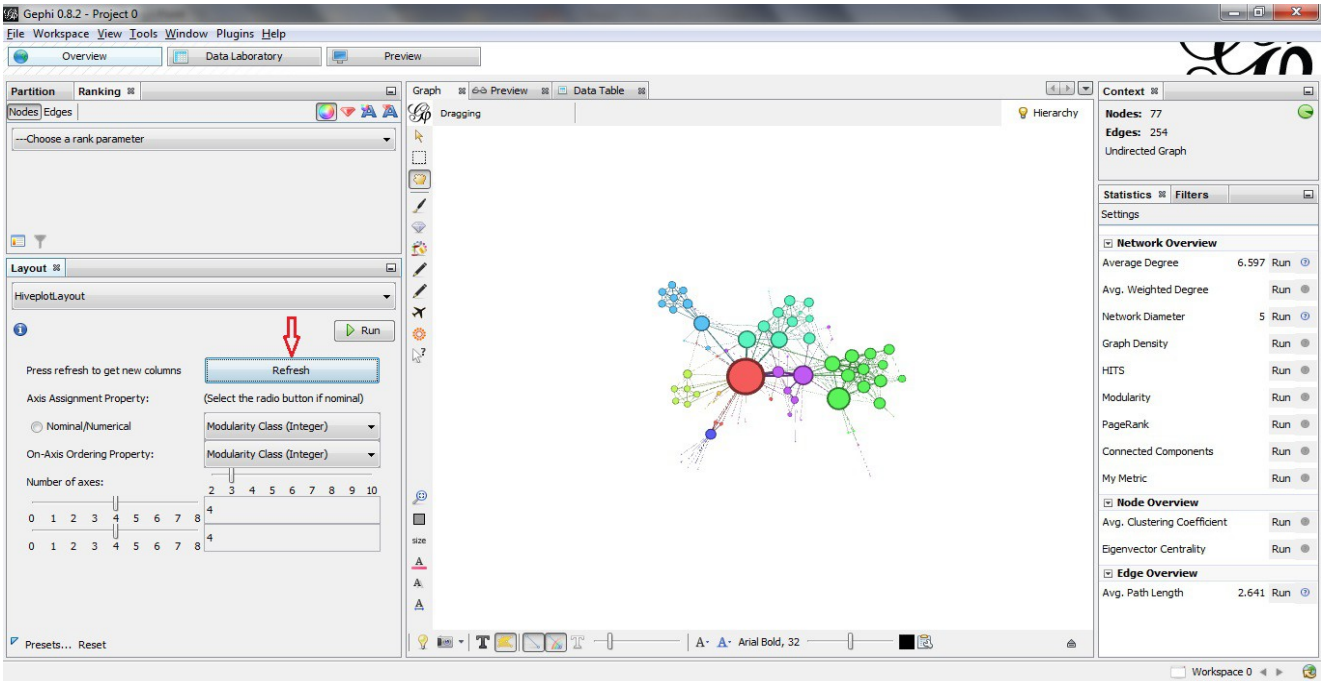
Hiveplot Layout: A Short Manual

The *hive plot* is a rational visualization method for drawing networks. Nodes are mapped to and positioned on radially distributed linear axes — this mapping is based on network structural properties. Edges are drawn as curved links. Simple and interpretable.
The purpose of the hive plot is to establish a new baseline for visualization of large networks — a method that is both general and tunable and useful as a starting point in visually exploring network structure.

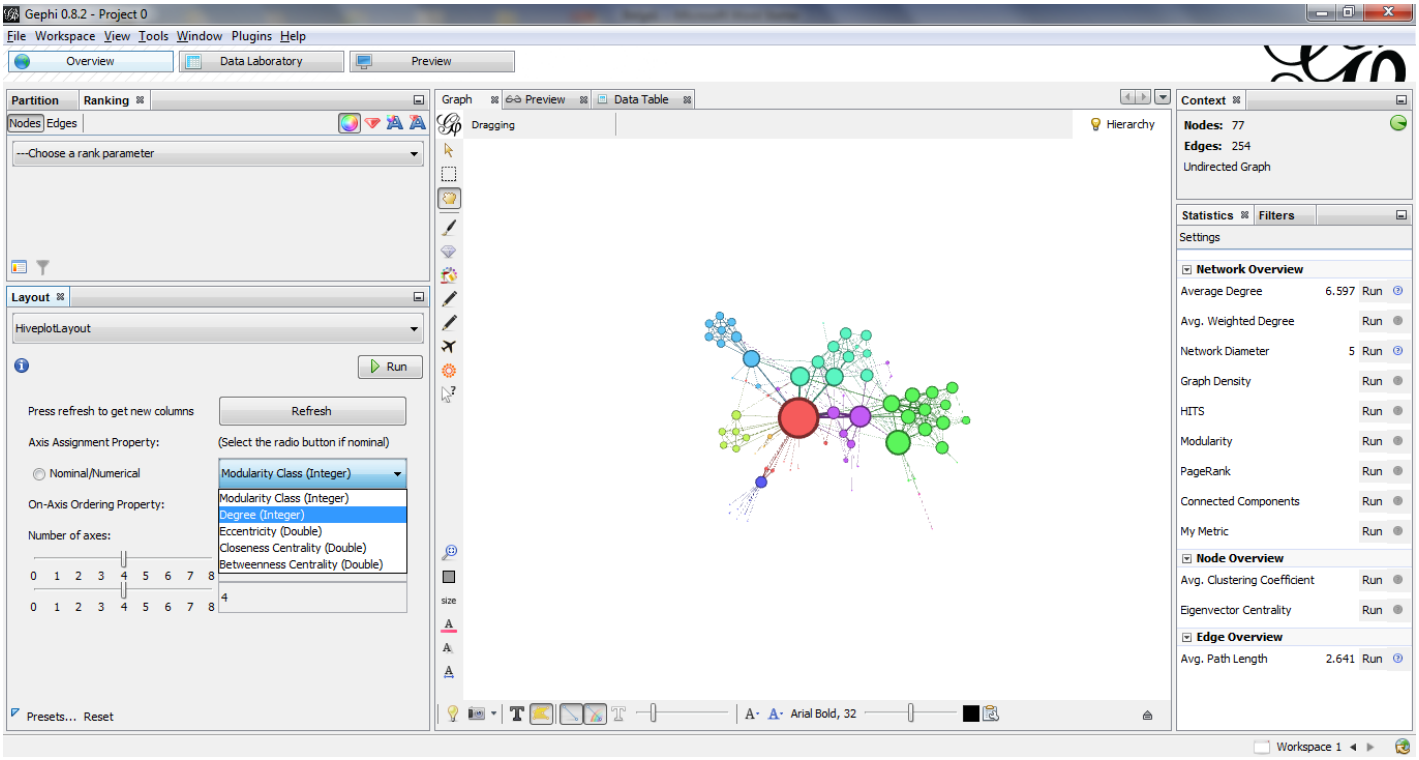
Excerpt from hiveplot.com

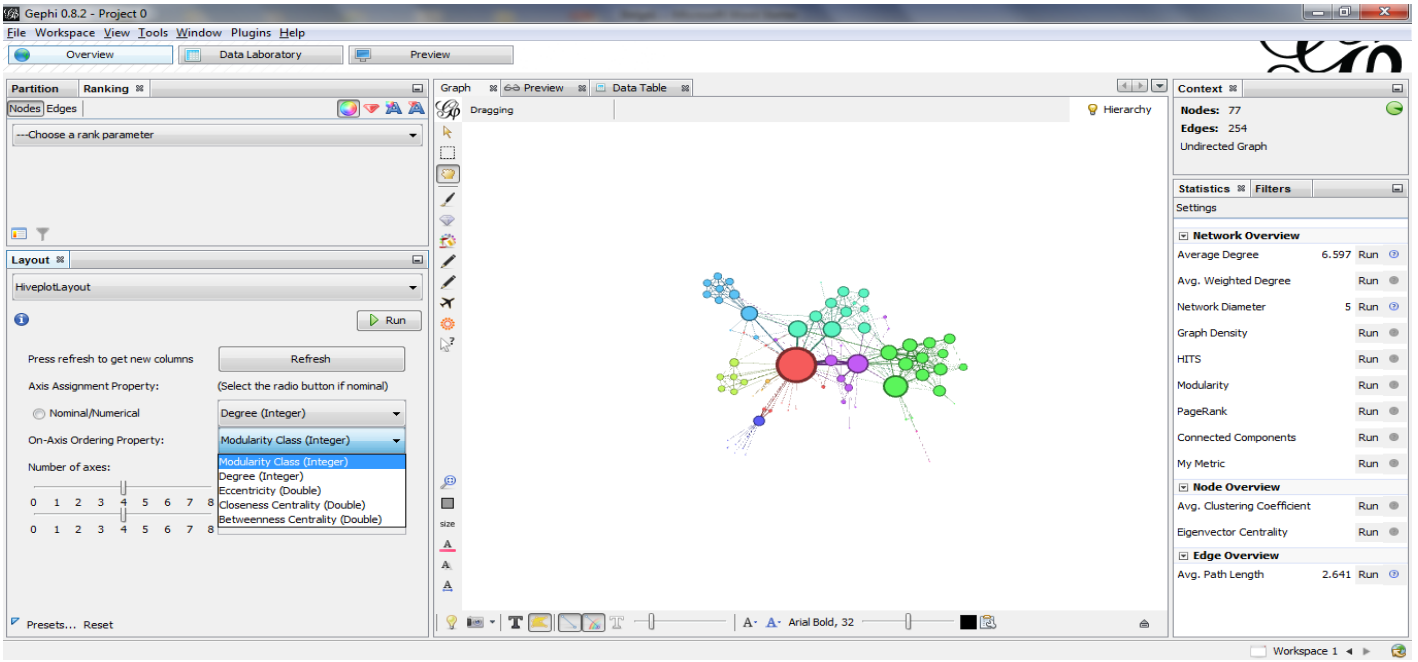
In this very first implementation of Hiveplot Layout for Gephi I tried to create an input panel that lets users select one of the meaningful properties for the axis assignment and on-axis ordering properties. However, firstly the user has to run some statistics and press the Refresh button to have the newly generated columns on the combo boxes.



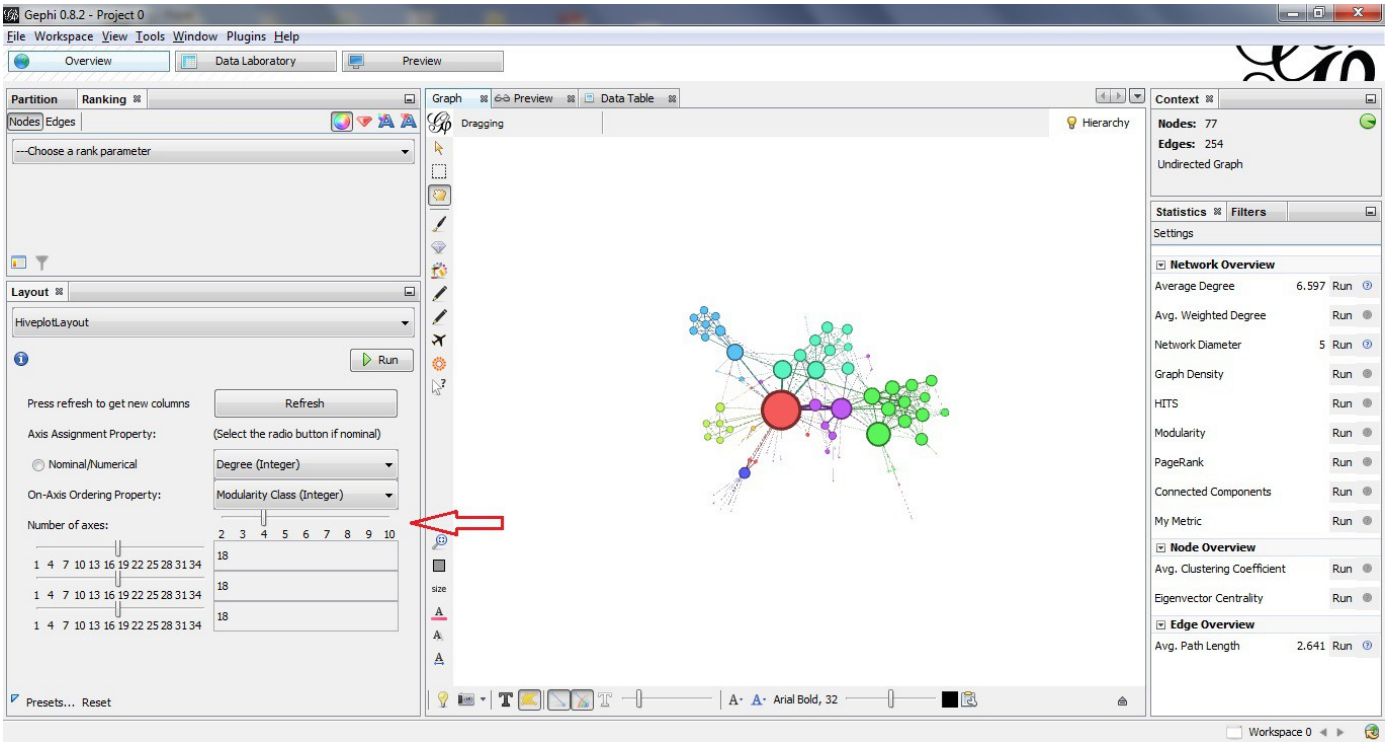


The user then selects the axis assignment property and on-axis ordering property.



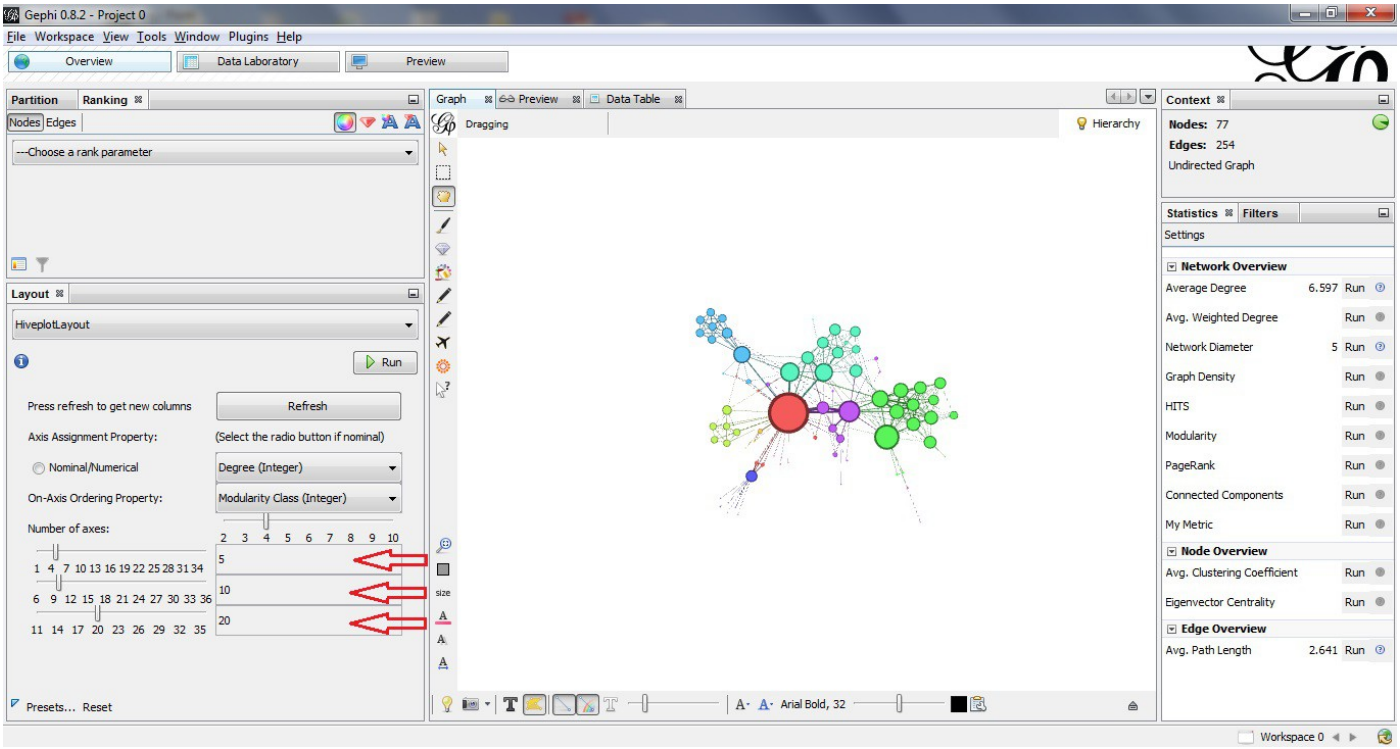


Then s/he selects the number of axes from the slider.

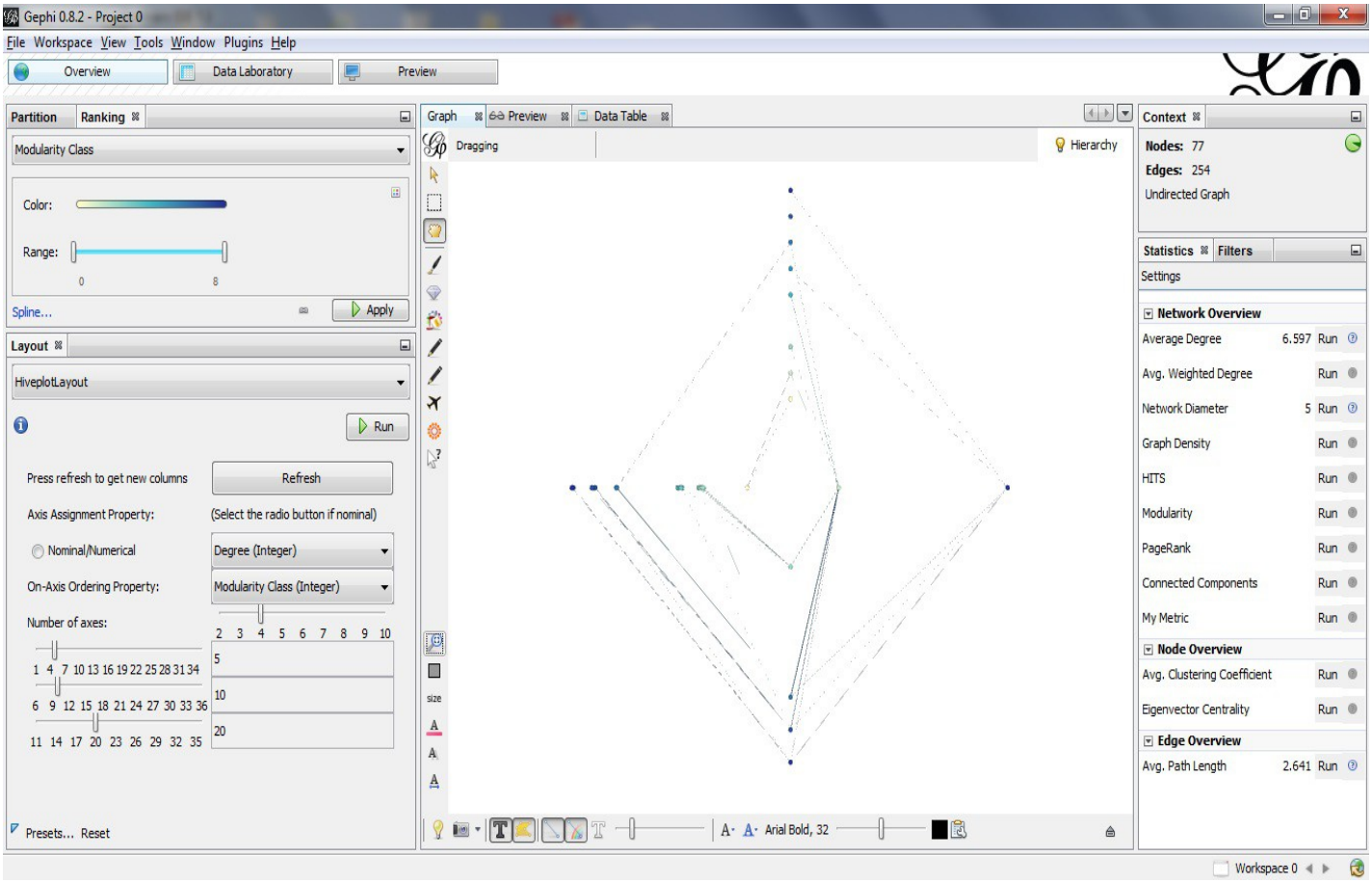


Then the user selects the parameters for the assignment accordingly.

For example if the user wants degree for axis assignment and modularity for on-axis ordering property s/he selects 'Degree' in the first combo box and if s/he wants 4 axes for the graph and that first axis containing nodes having degree less than 5, second axis between 5 and 10 and third axis between 10 and 20 and the fourth one greater than 20, s/he selects 4 in the number of axes slider, 5 in the first parameter input slider, 10 in the second parameter slider and 20 in the third input slider.



Finally, the user clicks the run button to get the graph with hiveplot layout.


Gephi 0.8.2 - Project 0
File Workspace View Tools Window Plugins Help
Overview
Data Laboratory
Preview
Partition
Ranking
Modularity Class
Color:
Range:
0
8
Spline...
Apply
Layout
HiveplotLayout
Run
Press refresh to get new columns
Refresh
Axis Assignment Property:
(Select the radio button if nominal)
Nominal/Numerical
Degree (Integer)
On-Axis Ordering Property:
Modularity Class (Integer)
Number of axes:
2 3 4 5 6 7 8 9 10
1 4 7 10 13 16 19 22 25 28 31 34
6 9 12 15 18 21 24 27 30 33 36
11 14 17 20 23 26 29 32 35
5
10
20
Presets... Reset
Graph
Preview
Data Table
Dragging
Hierarchy
size
Arial Bold, 32
Context
Nodes: 77
Edges: 254
Undirected Graph
Statistics
Filters
Settings
Network Overview
Average Degree 6.597 Run
Avg. Weighted Degree Run
Network Diameter 5 Run
Graph Density Run
HITS Run
Modularity Run
PageRank Run
Connected Components Run
My Metric Run
Node Overview
Avg. Clustering Coefficient Run
Eigenvector Centrality Run
Edge Overview
Avg. Path Length 2.641 Run
Workspace 0