



FORE School of Management

New Delhi

FUNDAMENTALS OF DATABASE MANAGEMENT SYSTEM

END TERM PROJECT

TERM – III

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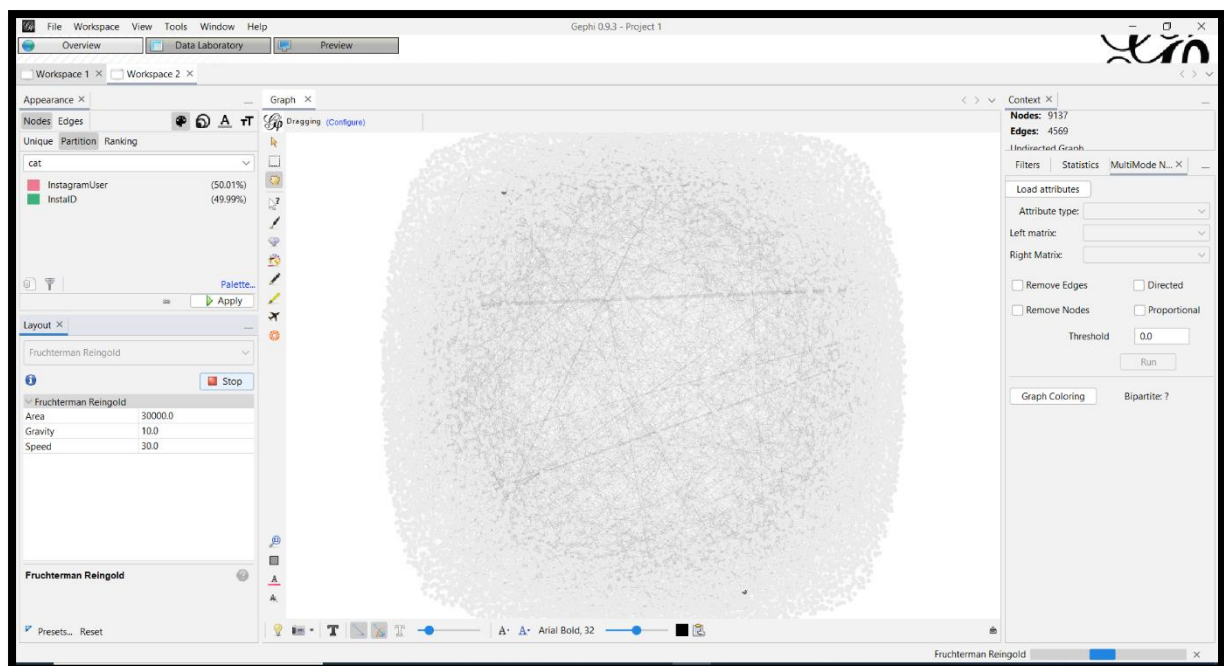
(Faculty, FORE School of Management, New Delhi)

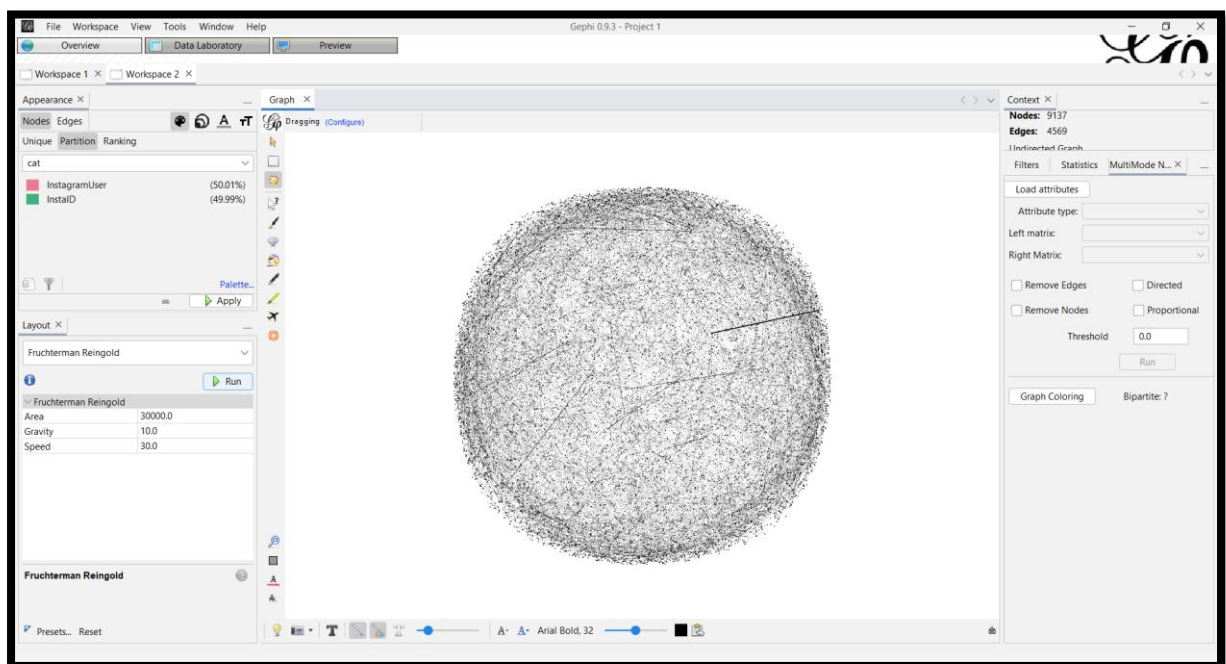
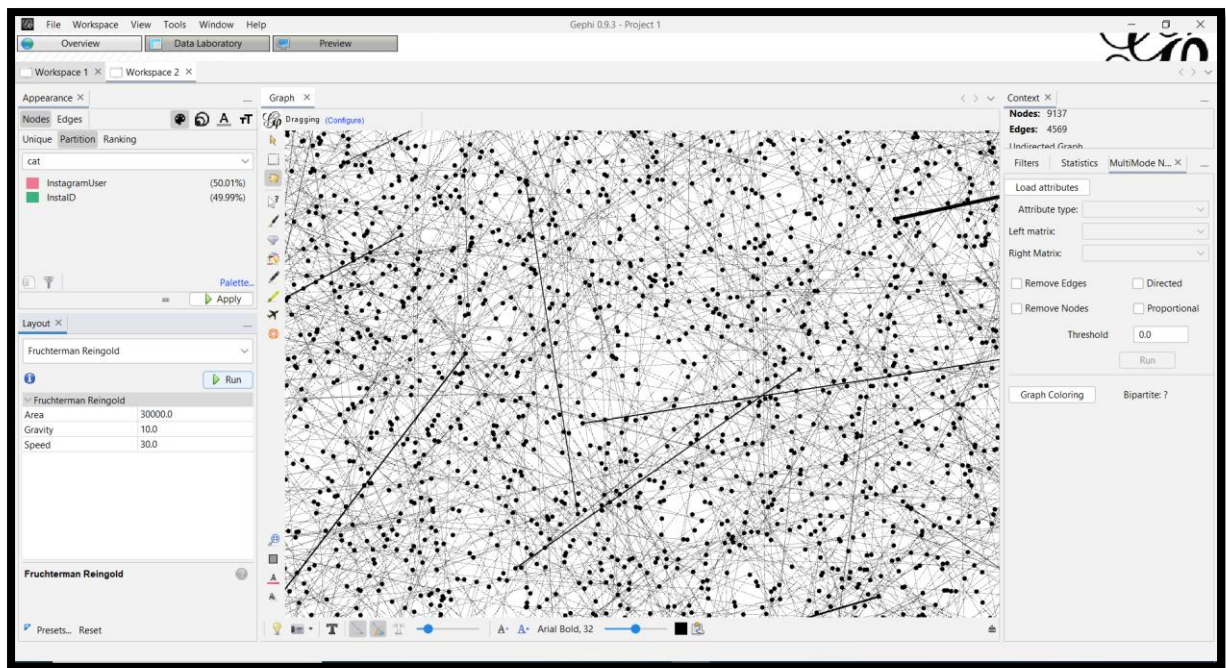
Amber Heard Instagram Comments – Network Analysis

The Social Network Analysis was conducted on Amber Heard’s Instagram Comments Dataset. Two different layouts were generated to analyse the dataset in detail. The same has been depicted in the figures attached.

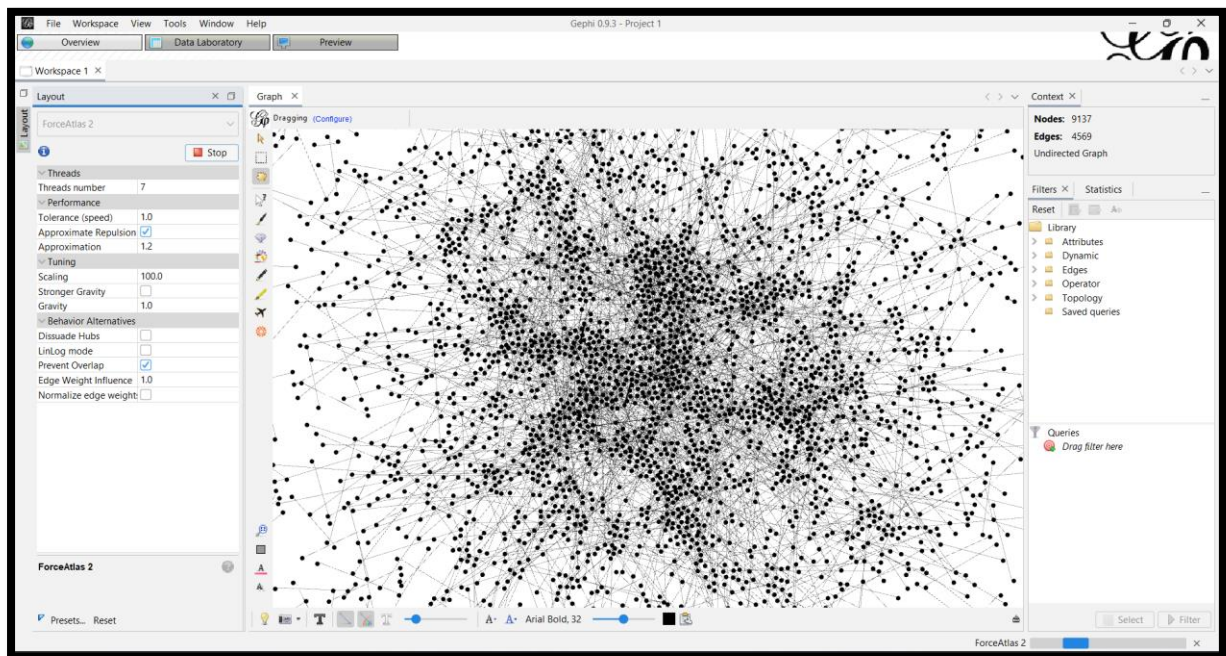
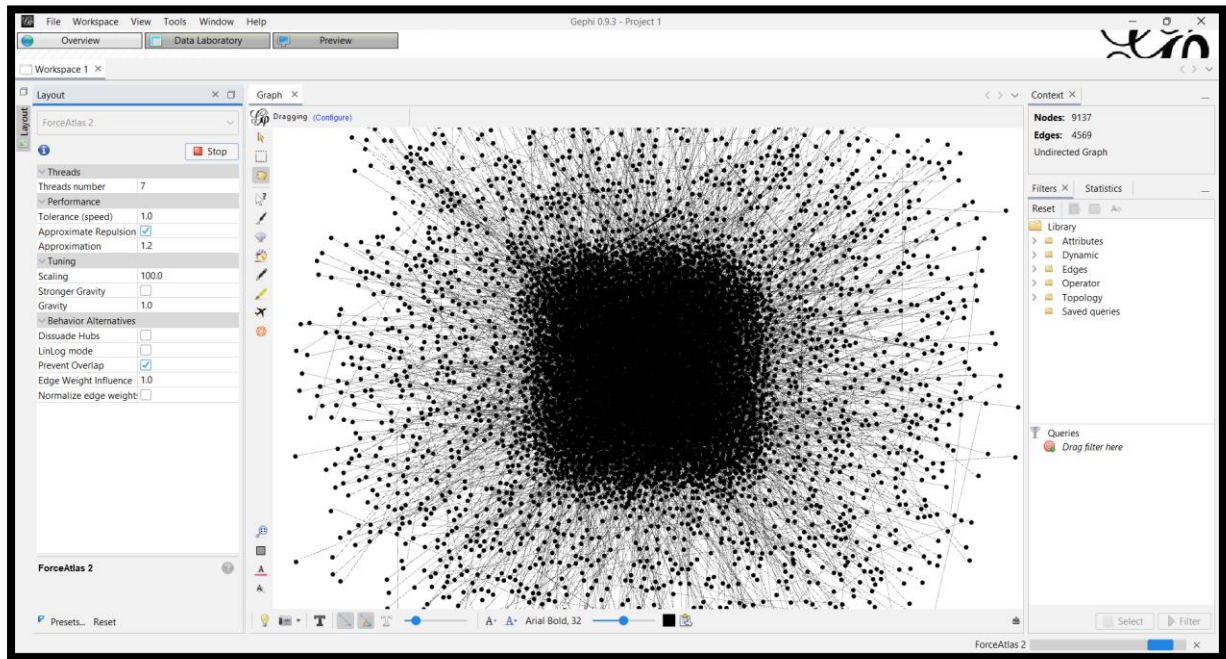
Graph Processing

Fruchterman Reingold

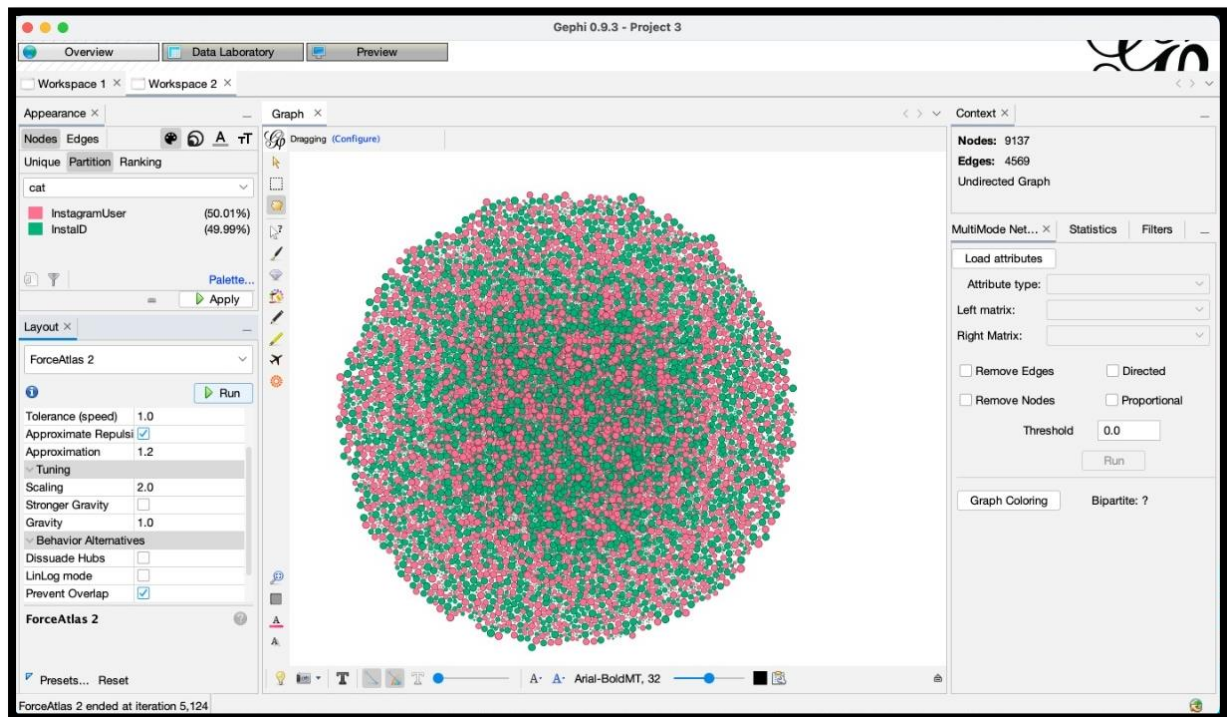




Force Atlas2

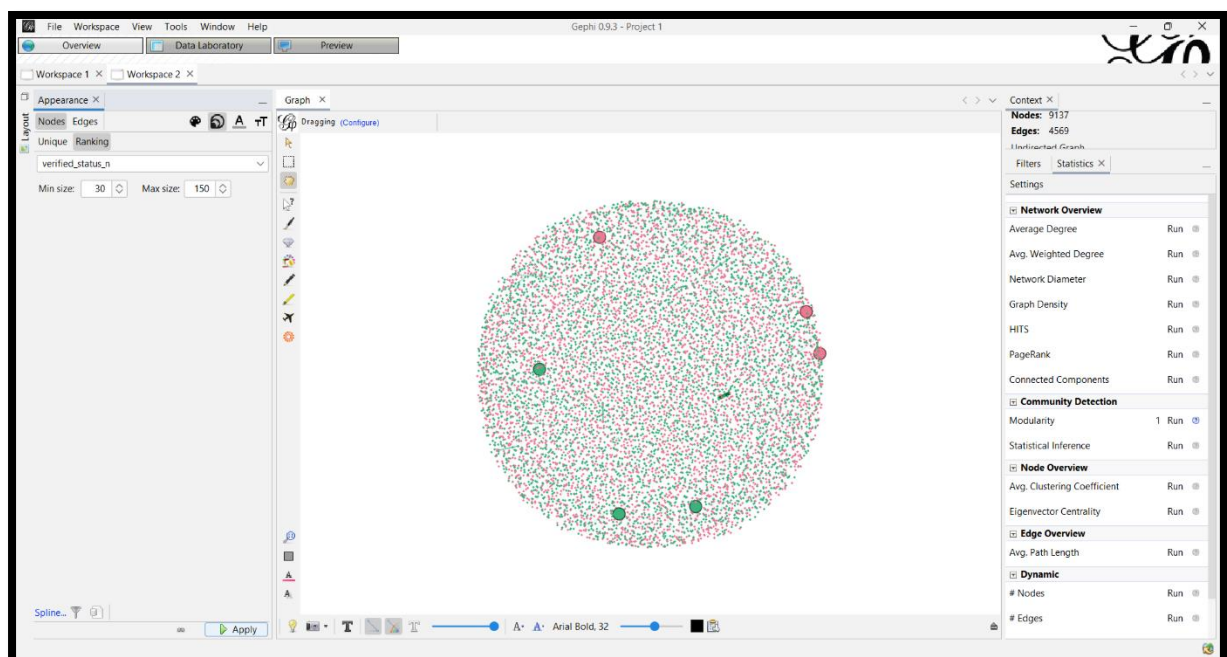


Differentiating Instagram users and INSTAID



Differentiating verified vs non-verified users

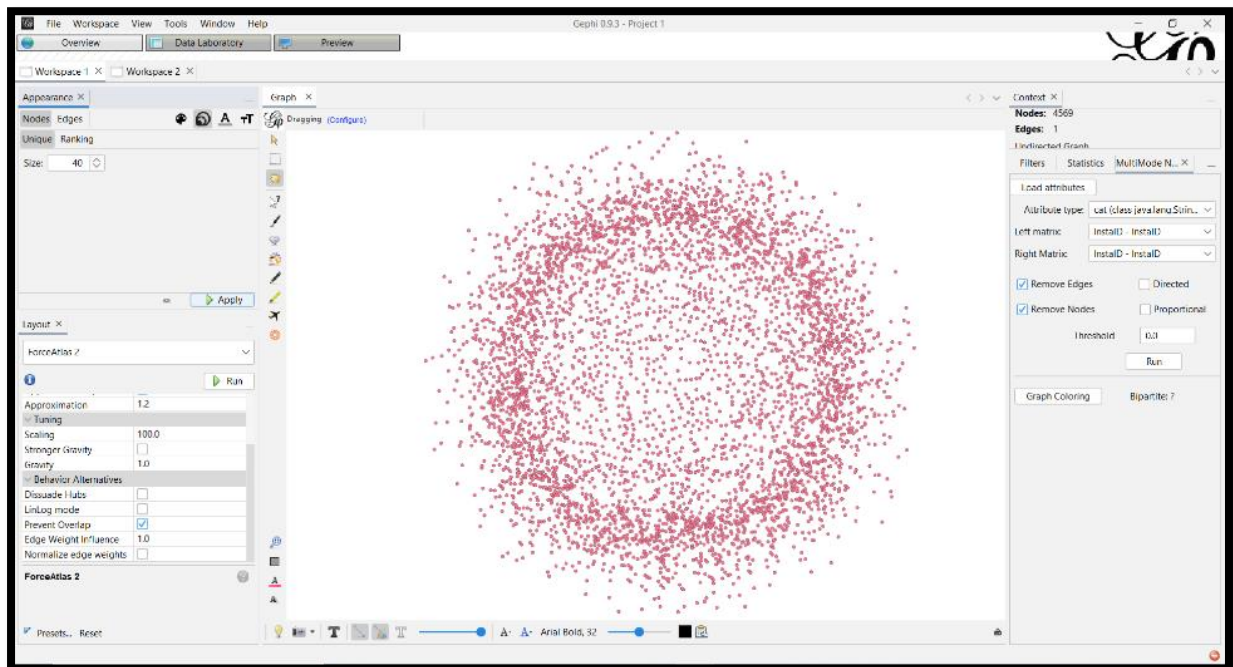
- Ranking according to the status of verification of the user



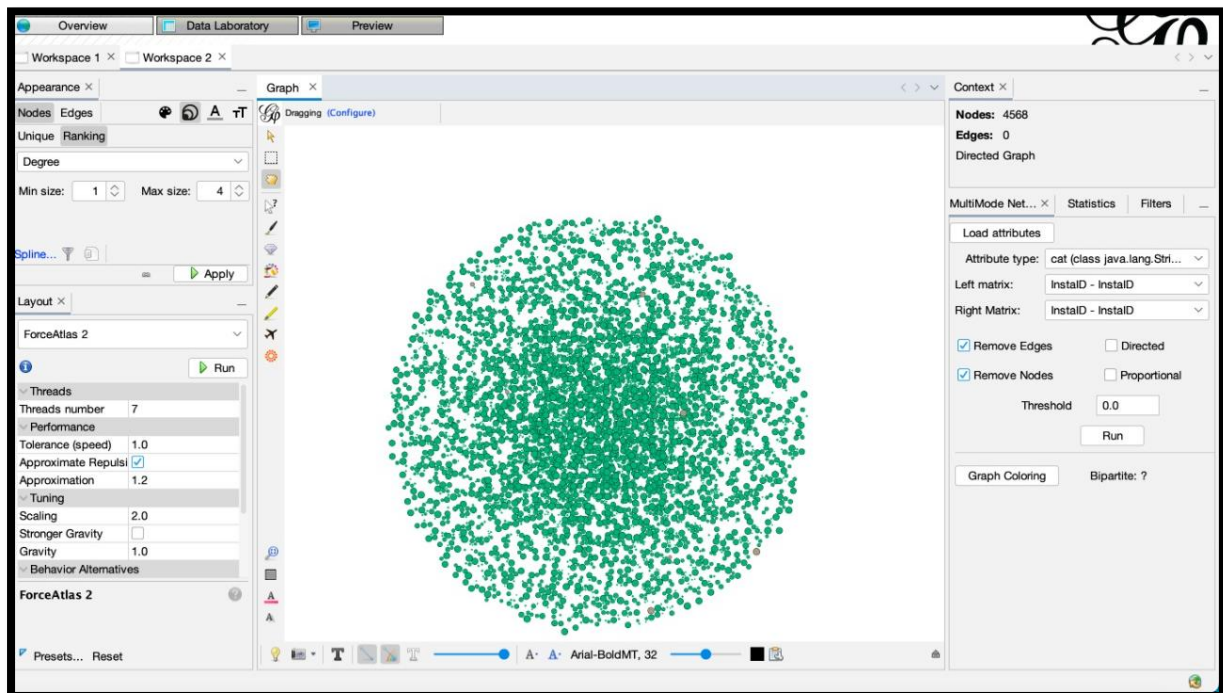
Projecting two mode graph to one mode graph

- Multi-mode Network for Projections

Left matrix has InstagramUser – InstaID and Right Matrix has InstaID - InstagramUser



Left matrix has InstaID - InstagramUser and Right Matrix has InstagramUser – InstaID



Analysing network with filters and communities

- Modularity Report

Modularity Report

Parameters:

Randomize: On

Use edge weights: On

Resolution: 1.0

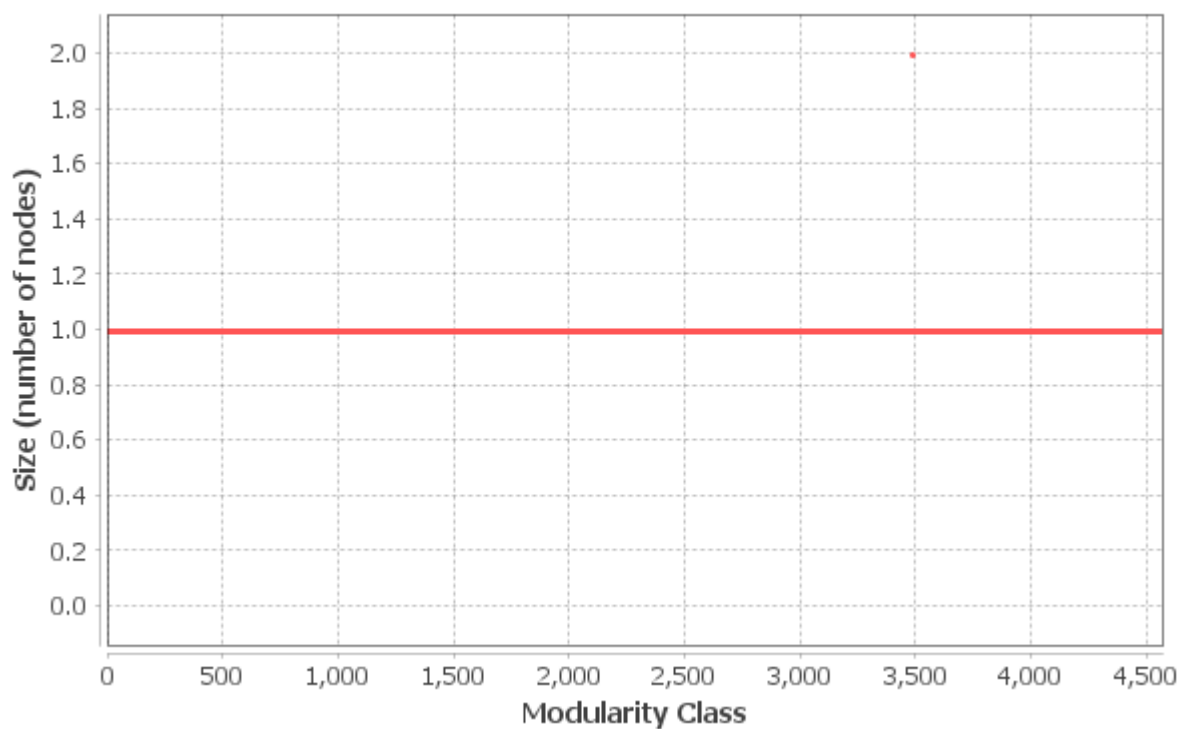
Results:

Modularity: 0.000

Modularity with resolution: 0.000

Number of Communities: 4568

Size Distribution



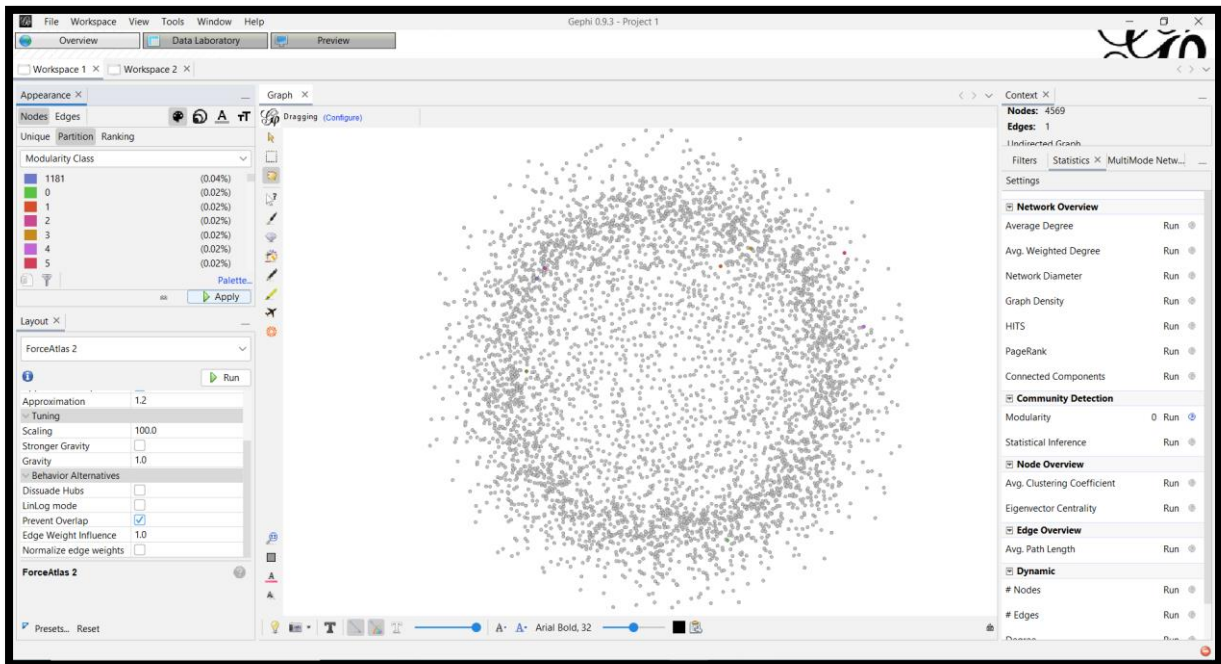
Algorithm:

Vincent D Blondel, Jean-Loup Guillaume, Renaud Lambiotte, Etienne Lefebvre, *Fast unfolding of communities in large networks*, in Journal of Statistical Mechanics: Theory and Experiment 2008 (10), P1000

Resolution:

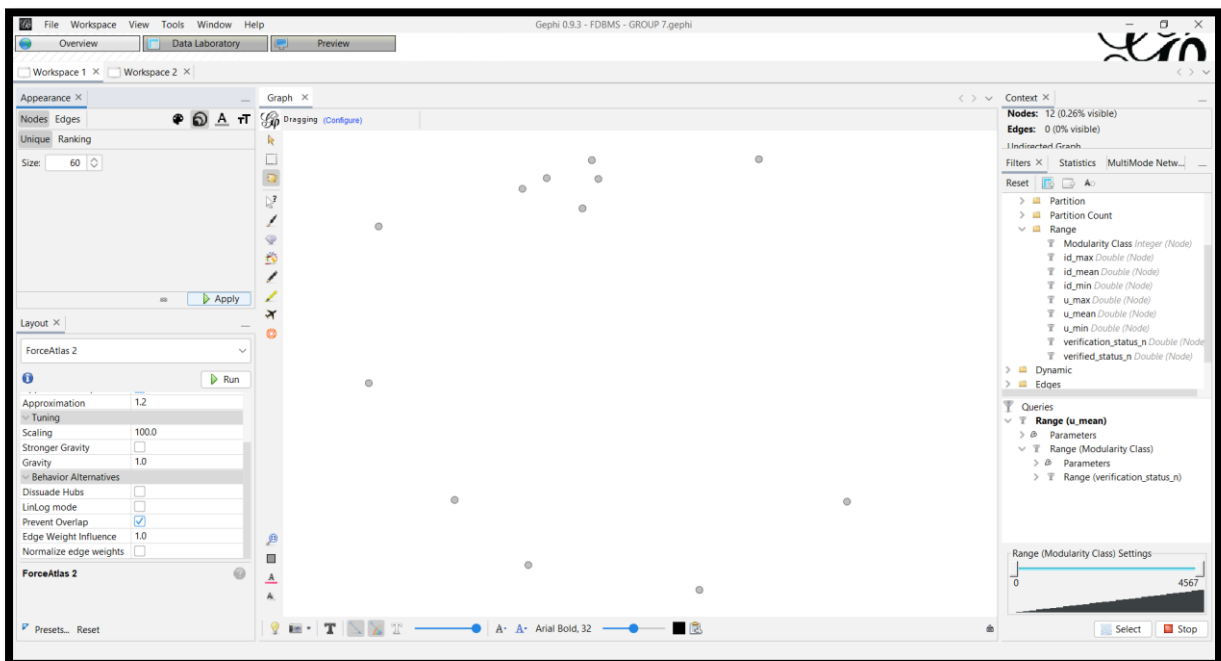
R. Lambiotte, J.-C. Delvenne, M. Barahona *Laplacian Dynamics and Multiscale Modular Structure in Networks* 2009

- Colouring nodes as per community class
The number of communities generated during the modularity test were very high.



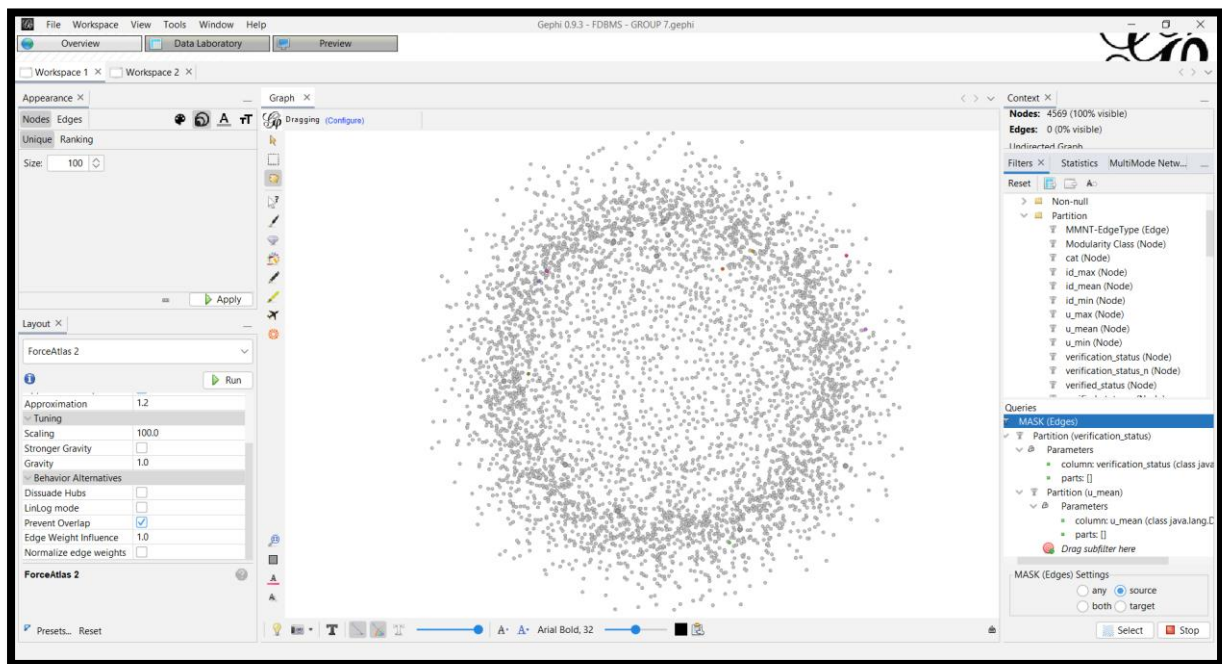
Filtration

- Creating nested filters
As seen in the below image, no network can be built on the basis of the filter applied.

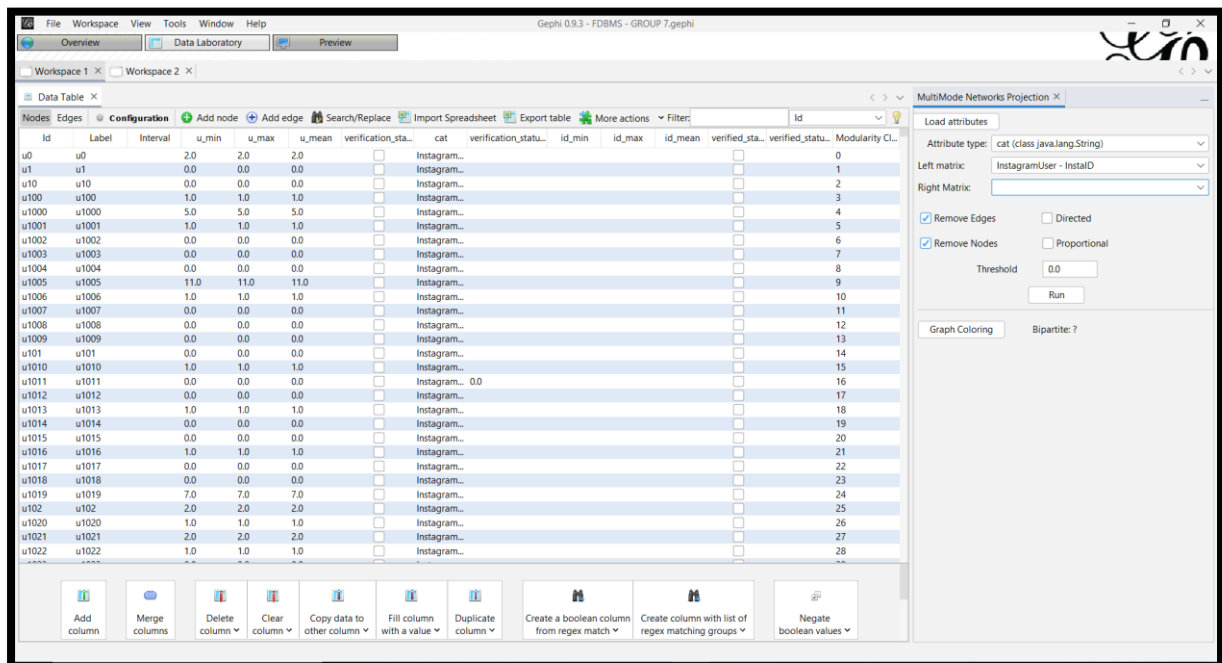


Masking Operator

- Masking the edges of relevant attributes

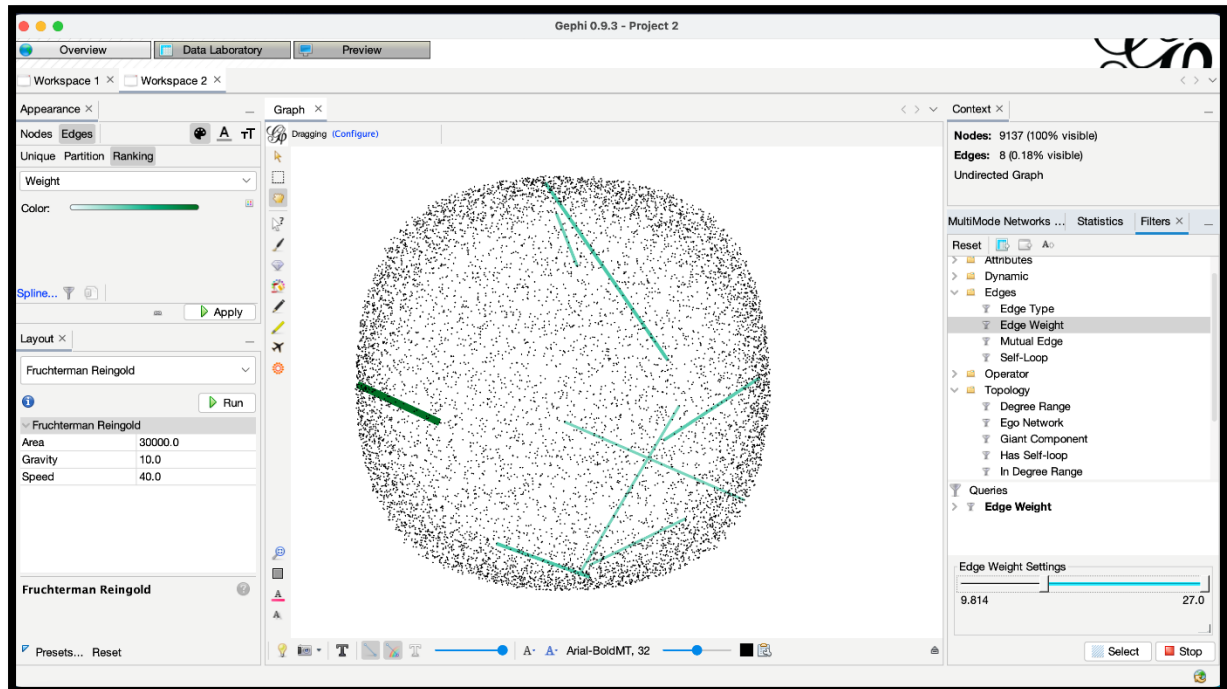


- Data Laboratory View



Edge Weight Filters

A few strong connections were found in edge weight filters



As seen, the strongest weight is of 27.0 between the source u2363 and Target i3896.

The screenshot shows the Gephi 0.9.3 interface with the 'Data Table' view. The table displays edge data with columns for Source, Target, Type, Id, Label, Interval, and Weight. The right sidebar shows the 'MultiMode Networks Projection' tab with 'Load attributes' and 'Attribute type' set to 'Weight'.

Source	Target	Type	Id	Label	Interval	Weight
u1368	i2713	Undirected	4980			10.0
u1830	i4494	Undirected	5494			13.0
u2363	i3896	Undirected	6086			27.0
u3475	i1804	Undirected	7321			13.0
u4047	i2177	Undirected	7957			10.0
u428	i4360	Undirected	8215			11.0
u4424	i3822	Undirected	8376			10.0
u865	i4364	Undirected	8989			12.0