Alexandria National University
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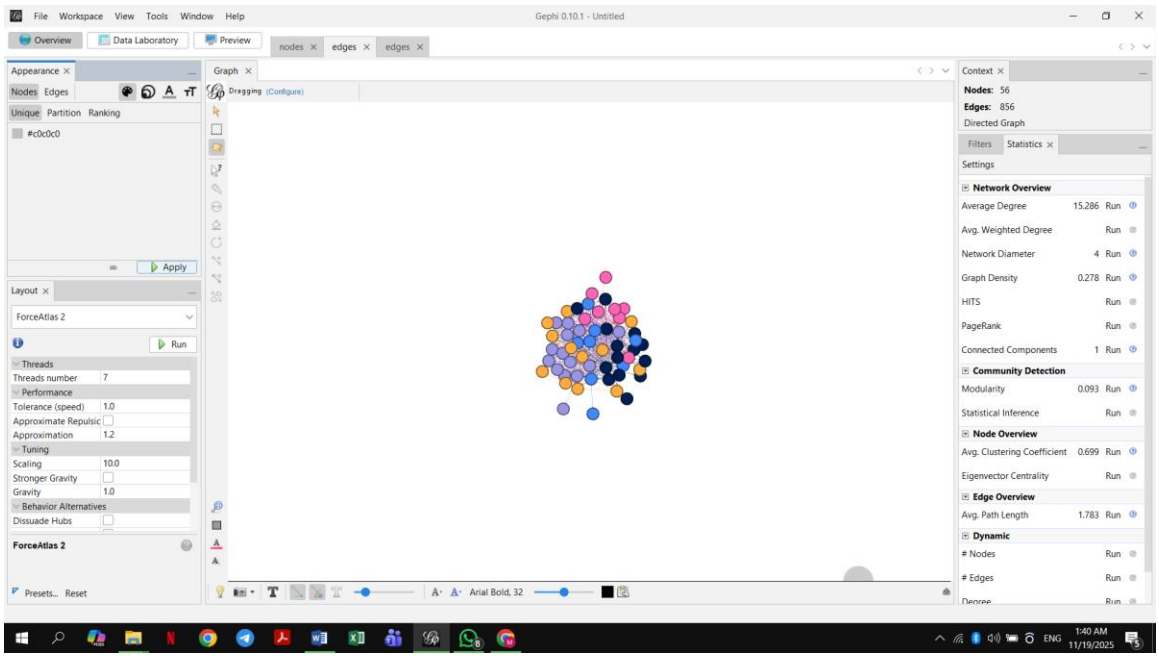
Graph A – 5G Conspiracy Network (Misinformation Cluster)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Preview
nodes
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Edge Overview
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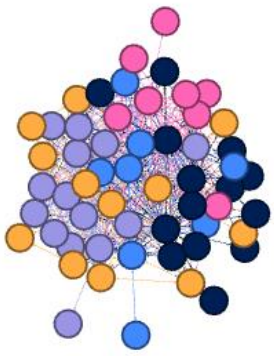


Number of Nodes: 56

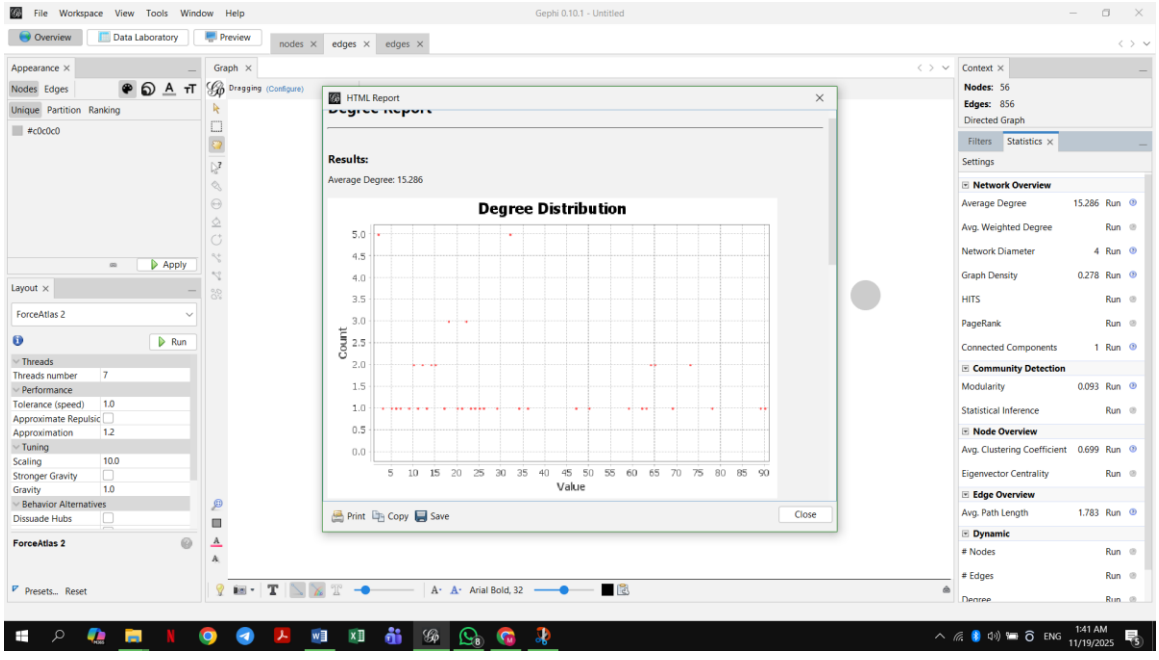
This means the network contains 56 Twitter users participating in the conspiracy discussion. A network of this size suggests a relatively large and active misinformation community.

Number of Edges: 856

There are 856 interactions (mentions, replies, retweets). This is extremely high compared to the number of users and shows intense activity.

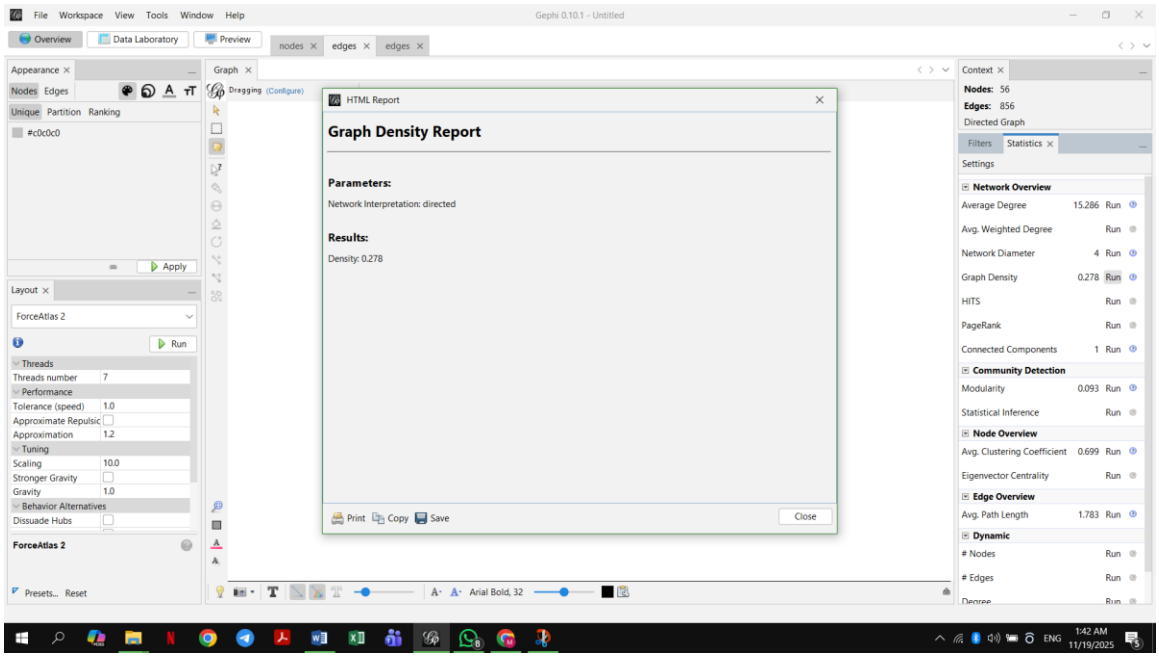
Average Degree: 15.286

Each user is connected to more than 15 others on average. This indicates strong connectivity and fast spread of misinformation.



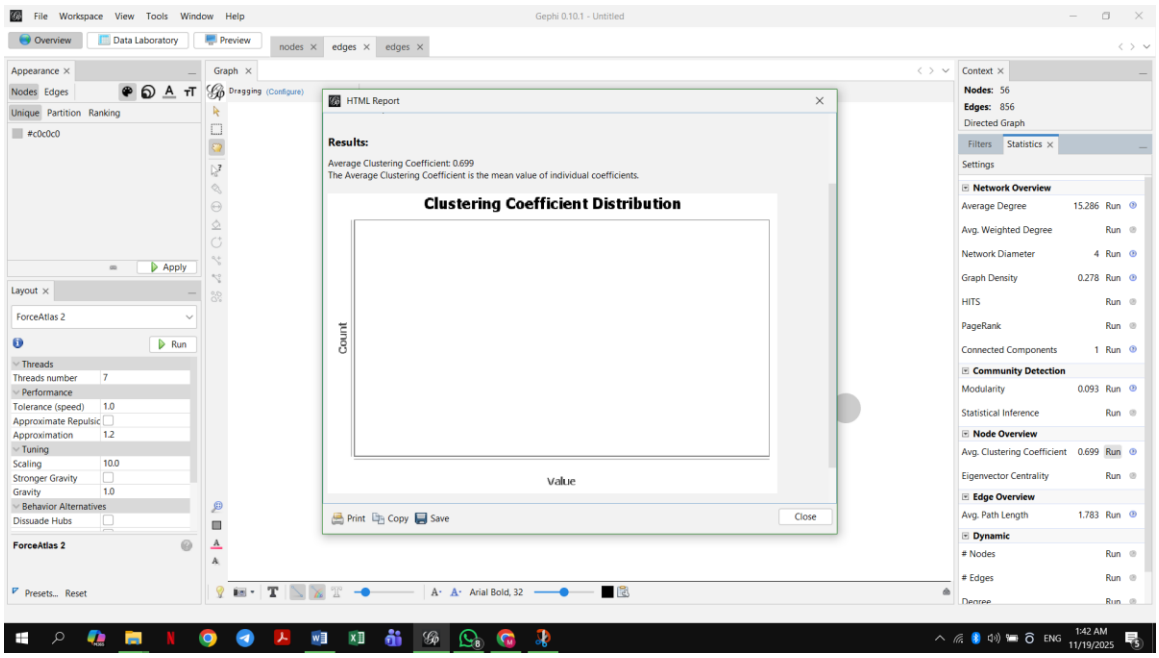
Graph Density: 0.278

A very high density, meaning users are tightly connected—typical in coordinated misinformation clusters.



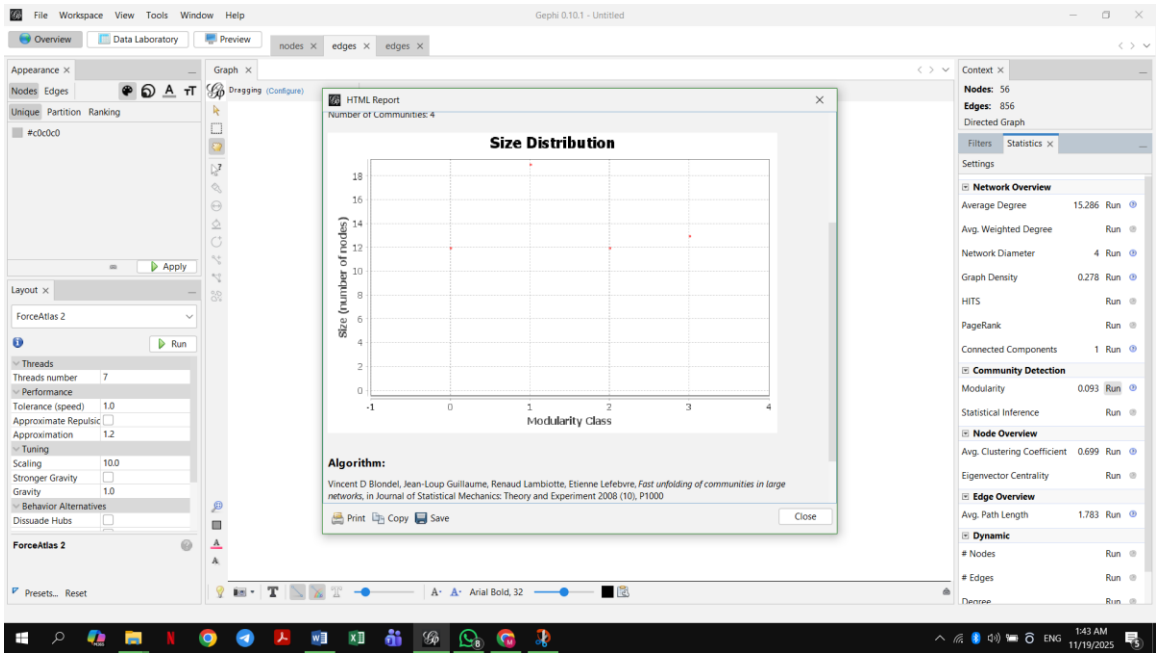
Average Clustering Coefficient: 0.699

This extremely high value shows strong echo chamber behavior, where users reinforce each other's beliefs.



Modularity (Q): 0.092

Low modularity means weak division into communities, indicating a unified misinformation cluster.



Number of Communities: 5

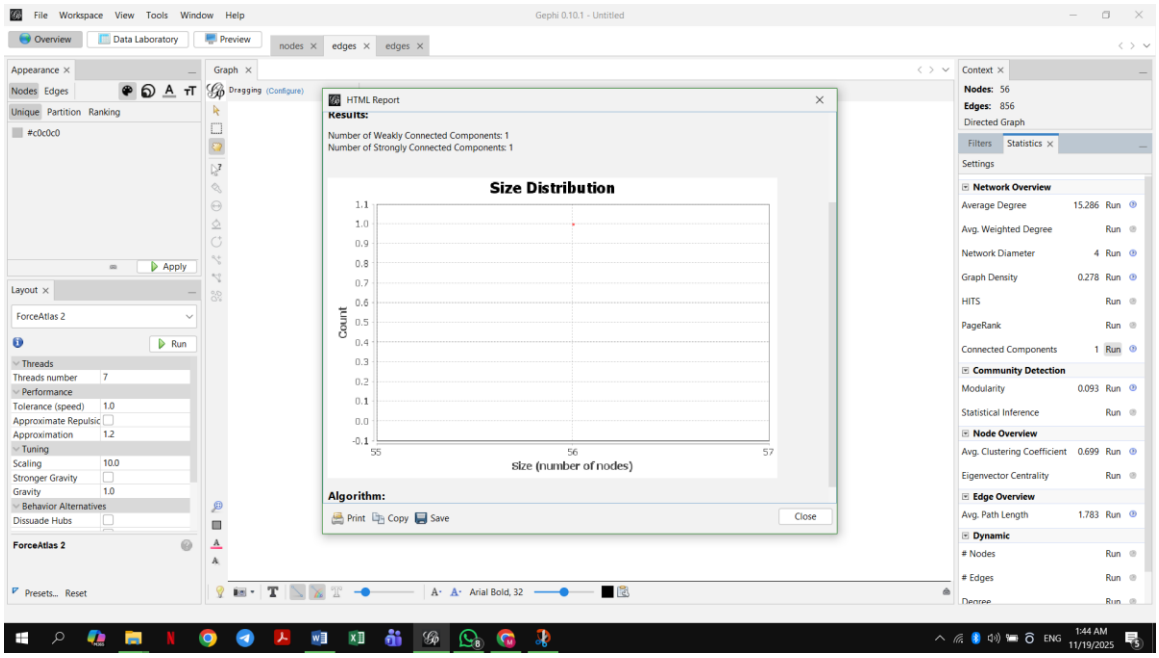
Although five communities exist, their separation is weak due to low modularity.

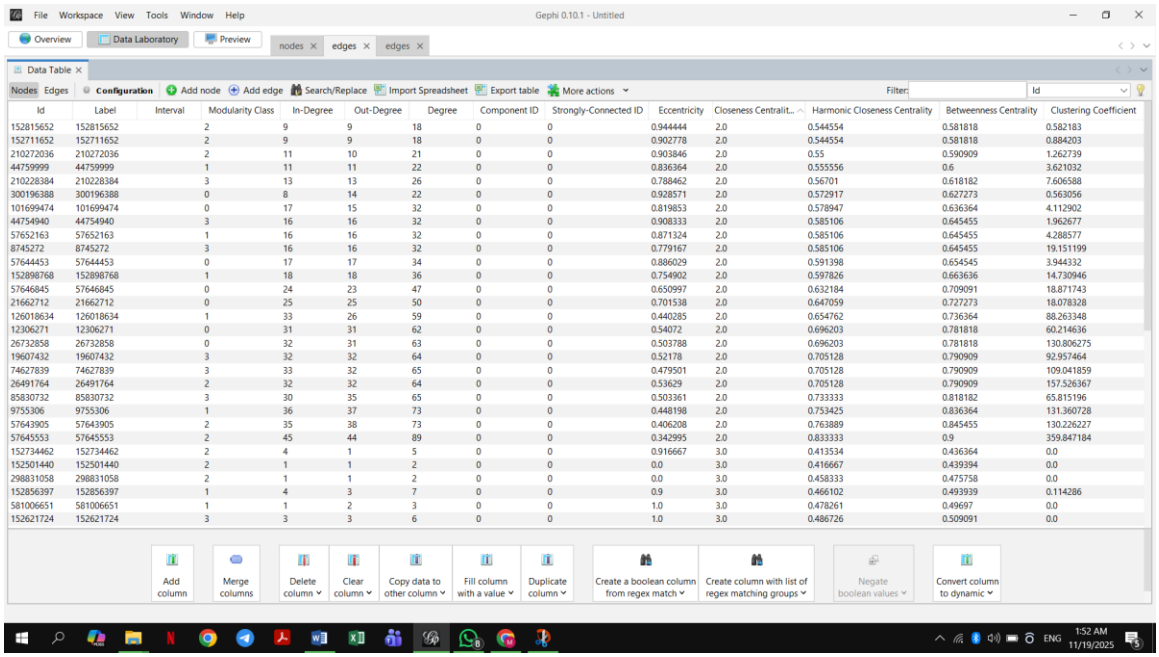
Weakly Connected Components: 1

The entire network is connected; no isolated parts.

Strongly Connected Components: 1

Users are reachable in a fully connected structure.





Id	Label	Interval	Modularity Class	In-Degree	Out-Degree	Degree	Component ID	Strongly-Connected ID	Eccentricity	Closeness Centralit...	Harmonic Closeness Centrality	Betweenness Centrality	Clustering Coefficient
152815652	152815652		2	9	9	18	0	0	0.944444	2.0	0.544554	0.581818	0.582183
152711652	152711652		2	9	9	18	0	0	0.902778	2.0	0.544554	0.581818	0.884203
210272036	210272036		2	11	10	21	0	0	0.903846	2.0	0.55	0.590909	1.262739
44759999	44759999		1	11	11	22	0	0	0.836364	2.0	0.555556	0.6	3.621032
210228384	210228384		3	13	13	26	0	0	0.788462	2.0	0.56701	0.618182	7.606588
300196388	300196388		0	8	14	22	0	0	0.928571	2.0	0.572917	0.627273	0.563056
101699474	101699474		0	17	15	32	0	0	0.819853	2.0	0.578947	0.636364	4.112902
44754940	44754940		3	16	16	32	0	0	0.908333	2.0	0.585106	0.645455	1.962677
57652163	57652163		1	16	16	32	0	0	0.871324	2.0	0.585106	0.645455	4.288577
8745272	8745272		3	16	16	32	0	0	0.779167	2.0	0.585106	0.645455	19.151199
57644453	57644453		0	17	17	34	0	0	0.886029	2.0	0.591398	0.654545	3.944332
152898768	152898768		1	18	18	36	0	0	0.754902	2.0	0.597826	0.663636	14.730946
57646845	57646845		0	24	23	47	0	0	0.650997	2.0	0.632184	0.709091	18.871743
21662712	21662712		0	25	25	50	0	0	0.701538	2.0	0.647059	0.727273	18.078328
126018634	126018634		1	33	26	59	0	0	0.440285	2.0	0.654762	0.736364	88.263348
12306271	12306271		0	31	31	62	0	0	0.54072	2.0	0.696203	0.781818	60.214636
26732858	26732858		0	32	31	63	0	0	0.503788	2.0	0.696203	0.781818	130.806275
19607432	19607432		3	32	32	64	0	0	0.52178	2.0	0.705128	0.790909	92.957464
74627839	74627839		3	33	32	65	0	0	0.479501	2.0	0.705128	0.790909	109.041859
26491764	26491764		2	32	32	64	0	0	0.53629	2.0	0.705128	0.790909	157.526367
85830732	85830732		3	30	35	65	0	0	0.503361	2.0	0.733333	0.818182	65.815196
9755306	9755306		1	36	37	73	0	0	0.448198	2.0	0.753425	0.836364	131.360728
57643905	57643905		2	35	38	73	0	0	0.406208	2.0	0.763889	0.845455	130.226227
57645553	57645553		2	45	44	89	0	0	0.342995	2.0	0.833333	0.9	359.847184
152734462	152734462		2	4	1	5	0	0	0.916667	3.0	0.413534	0.436364	0.0
152501440	152501440		2	1	1	2	0	0	0.0	3.0	0.416667	0.439394	0.0
298831058	298831058		2	1	1	2	0	0	0.0	3.0	0.458333	0.475758	0.0
152856397	152856397		1	4	3	7	0	0	0.9	3.0	0.466102	0.493939	0.114286
581006651	581006651		1	1	2	3	0	0	1.0	3.0	0.478261	0.49697	0.0
152621724	152621724		3	3	3	6	0	0	1.0	3.0	0.486726	0.509091	0.0

Betweenness Centrality Range: 0.43 – 0.61

This is a very high range of betweenness centrality values.
A betweenness score above 0.4 means that most users in the network frequently sit on the shortest paths between other nodes.

This mean

A large portion of users act as **bridges** in the flow of information.

The network depends heavily on users to pass information from one part to another.

Information flows through many intermediaries—not just a few central hubs.

The structure suggests **coordinated interaction**, where many users contribute to spreading the conspiracy conten

Closeness Centrality Range: 2.0 – 3.0

These values indicate the average shortest-path distance from each user to all other users.
A closeness value of **2 or 3 means** that users are:

Very close to all other nodes in the network

Able to reach any user within **2–3 steps only**

means:

Information travels extremely fast across the network.

The conspiracy network is compact and tightly connected.

Even with many connections, the average distance between users stays low due to dense internal link

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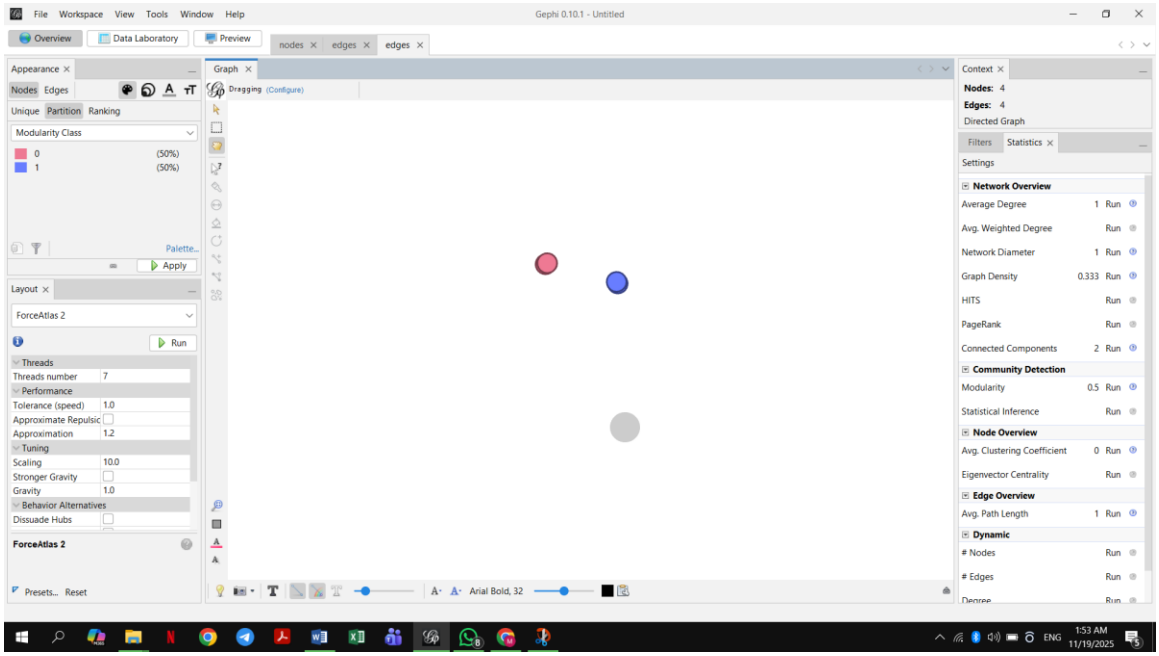
Non-Conspiracy Network (Normal Cluster)



Number of Nodes: 4

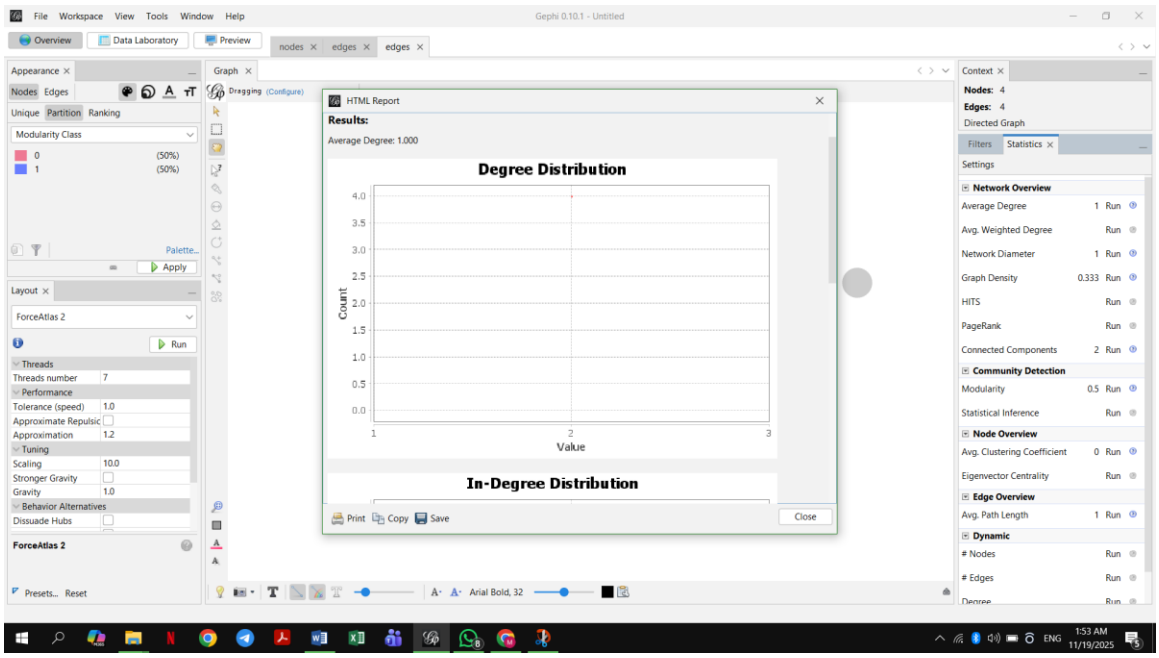
Only four users are part of this network, indicating a small and casual conversation.

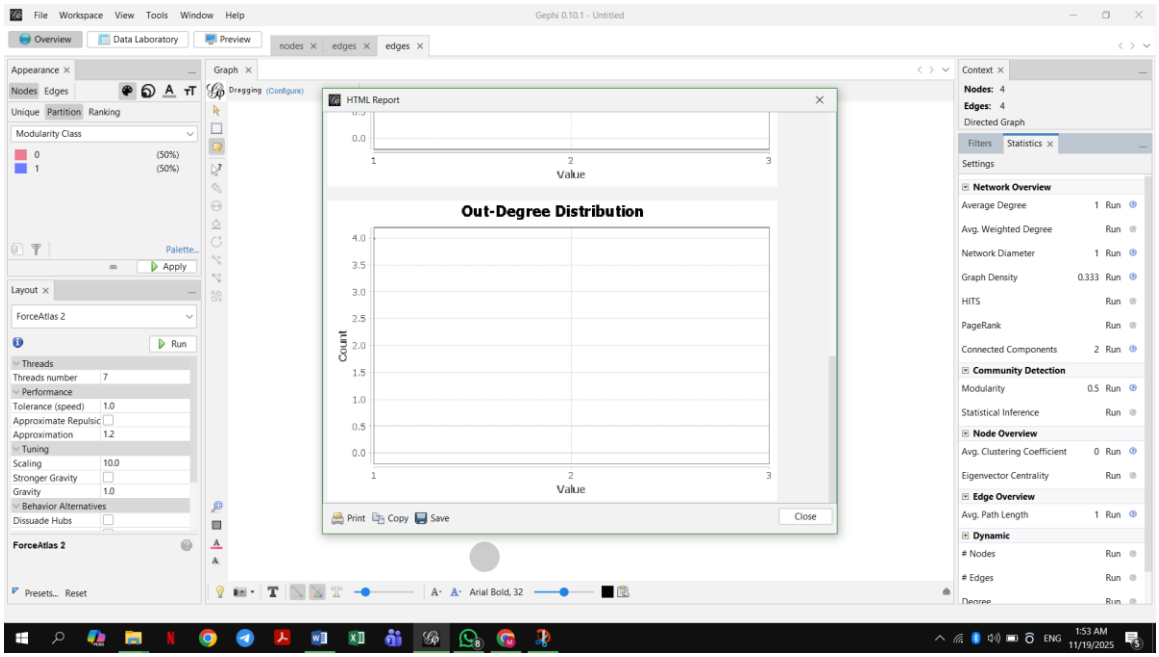
Number of Edges: 4

Minimal interaction, very low activity.

Average Degree: 1.000

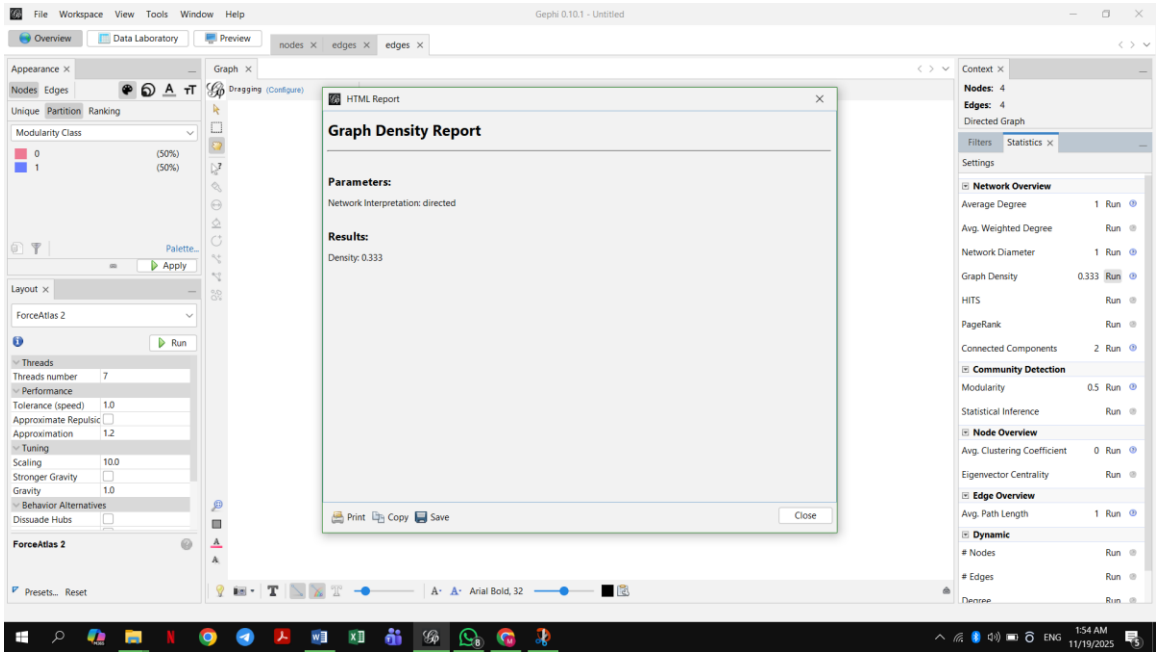
Users barely interact; information flow is very slow.





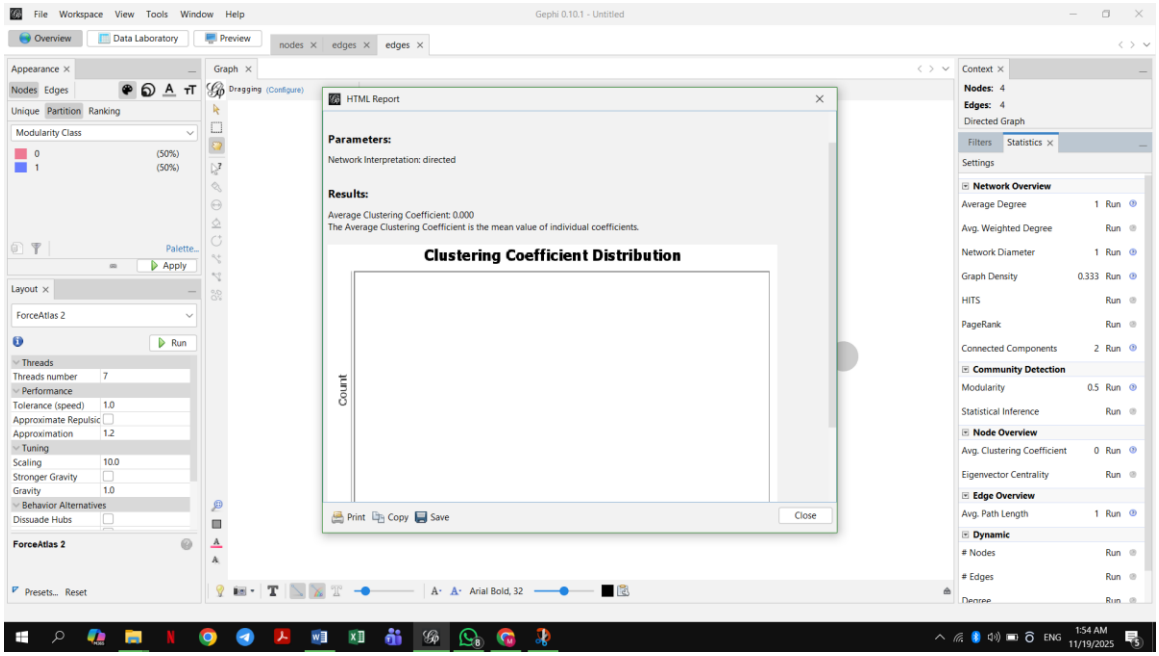
Graph Density: 0.333

Moderate due to the extremely small size, not indicating coordination.



Average Clustering Coefficient: 0.000

No echo chambers; no group reinforcement.

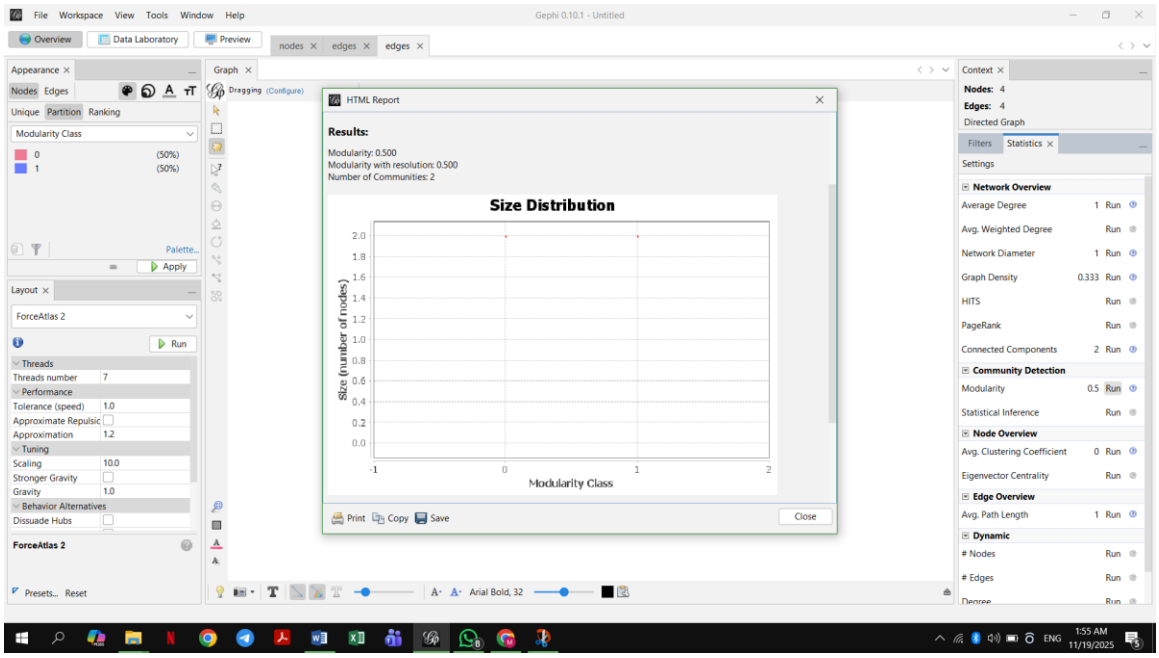


Modularity (Q): 0.500

High modularity shows clear separation into isolated groups.

Number of Communities: 2

The network is split into two disconnected subgroups.

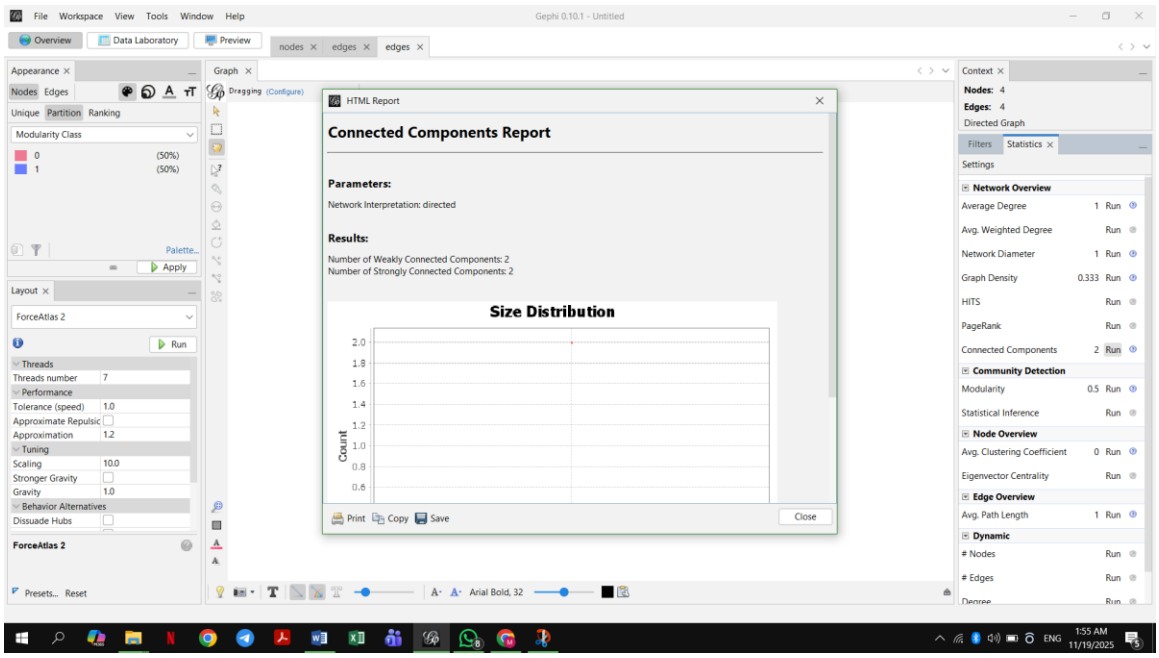


Weakly Connected Components: 2

No communication between the two components.

Strongly Connected Components: 2

Each subgroup is fully isolated.

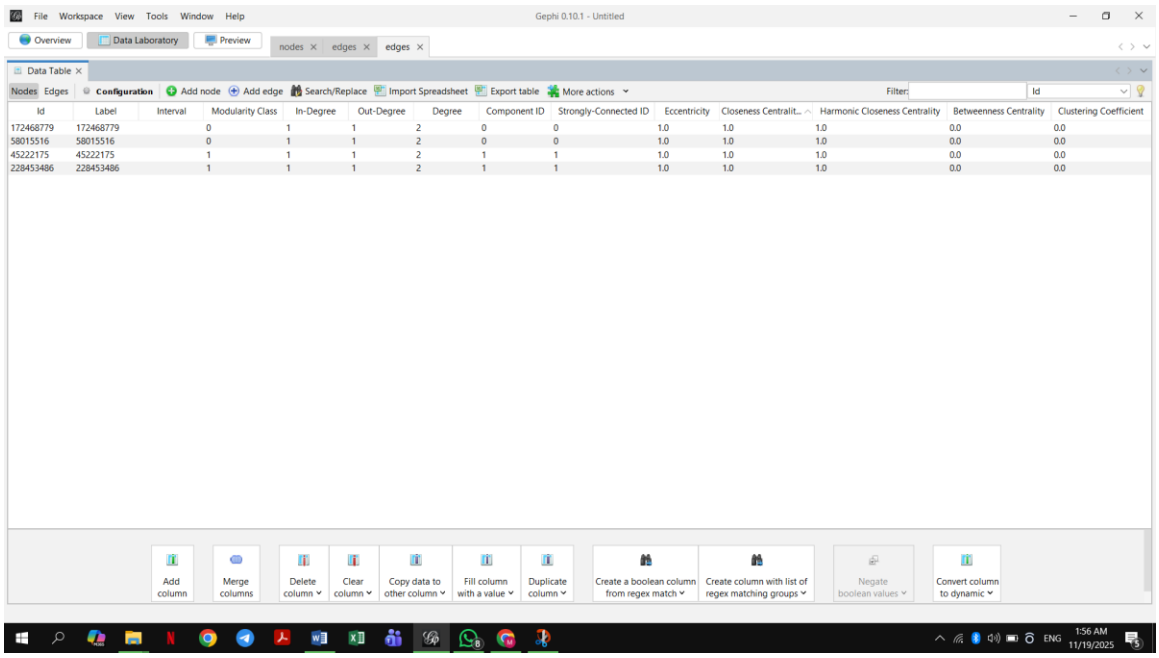


Betweenness Centrality: All = 0

No user acts as a bridge.

Closeness Centrality: All = 1.0

Not meaningful due to very small disconnected components.



The conspiracy network is significantly larger and more interactive, with many participating users and high activity levels.
The non-conspiracy network is extremely small, showing minimal interaction.

Connectivity

The conspiracy network has strong internal connectivity, allowing rapid and widespread information flow.
The non-conspiracy network has very weak connectivity, with users barely interacting.

Clustering Behavior

The conspiracy network exhibits high clustering, forming tight echo chambers.
The non-conspiracy network has zero clustering, indicating no reinforcement structures.

Community Structure

The conspiracy network is unified with weakly separated communities; messages can travel easily across the entire group.
The non-conspiracy network is fragmented into separate disconnected components.

Centrality and Influence

In the conspiracy network, many users have high betweenness, meaning the responsibility of spreading information is shared widely.
The non-conspiracy group has no influential nodes and no bridges.

Information Flow

The conspiracy network allows information to reach all users in only 2–3 steps, making spread extremely efficient.
The non-conspiracy network is slow and limited, unable to support wide-scale communication

5G Conspiracy network has the ideal structural characteristics for efficient and continuous misinformation spreading. Its high connectivity, strong clustering, and unified structure allow messages to circulate rapidly and repeatedly.

In contrast, the Non-Conspiracy network behaves like a typical, uncoordinated conversation—small, fragmented, and lacking the structural properties needed for large-scale communication