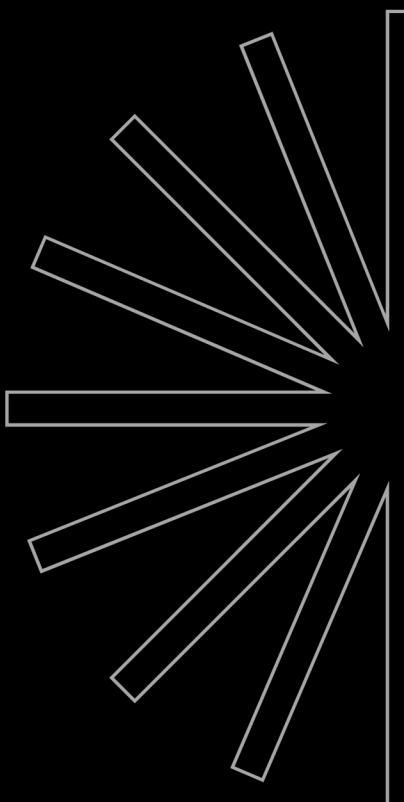
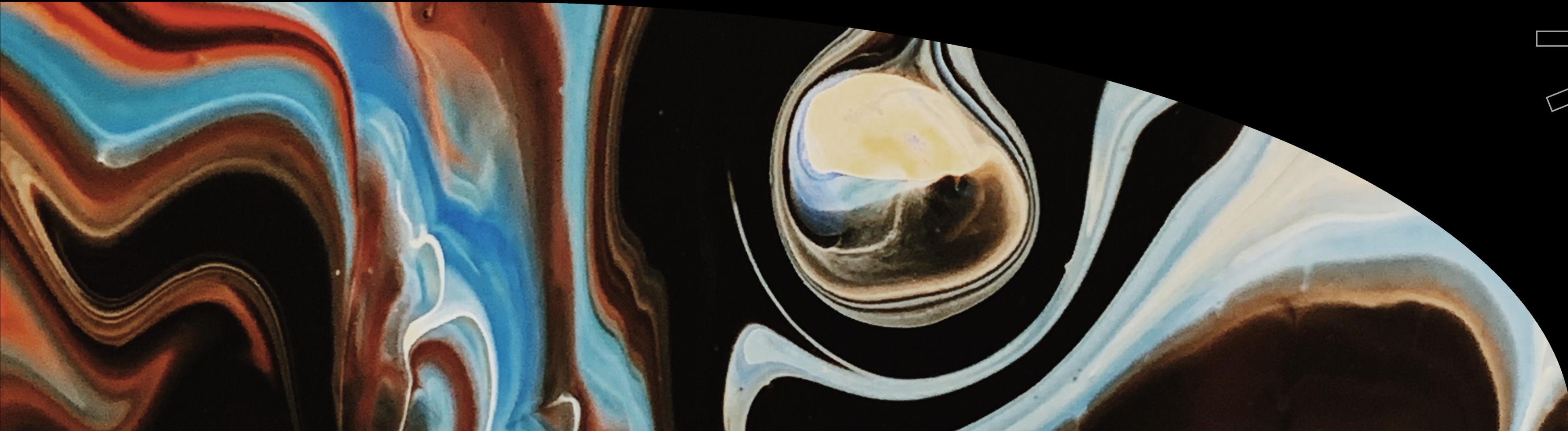

AHMED MAHMOUD HASSAN

2205155



NORMAL GRAPH

Nodes: 58

Type: Directed

Edges: 127

Network Diameter: 7

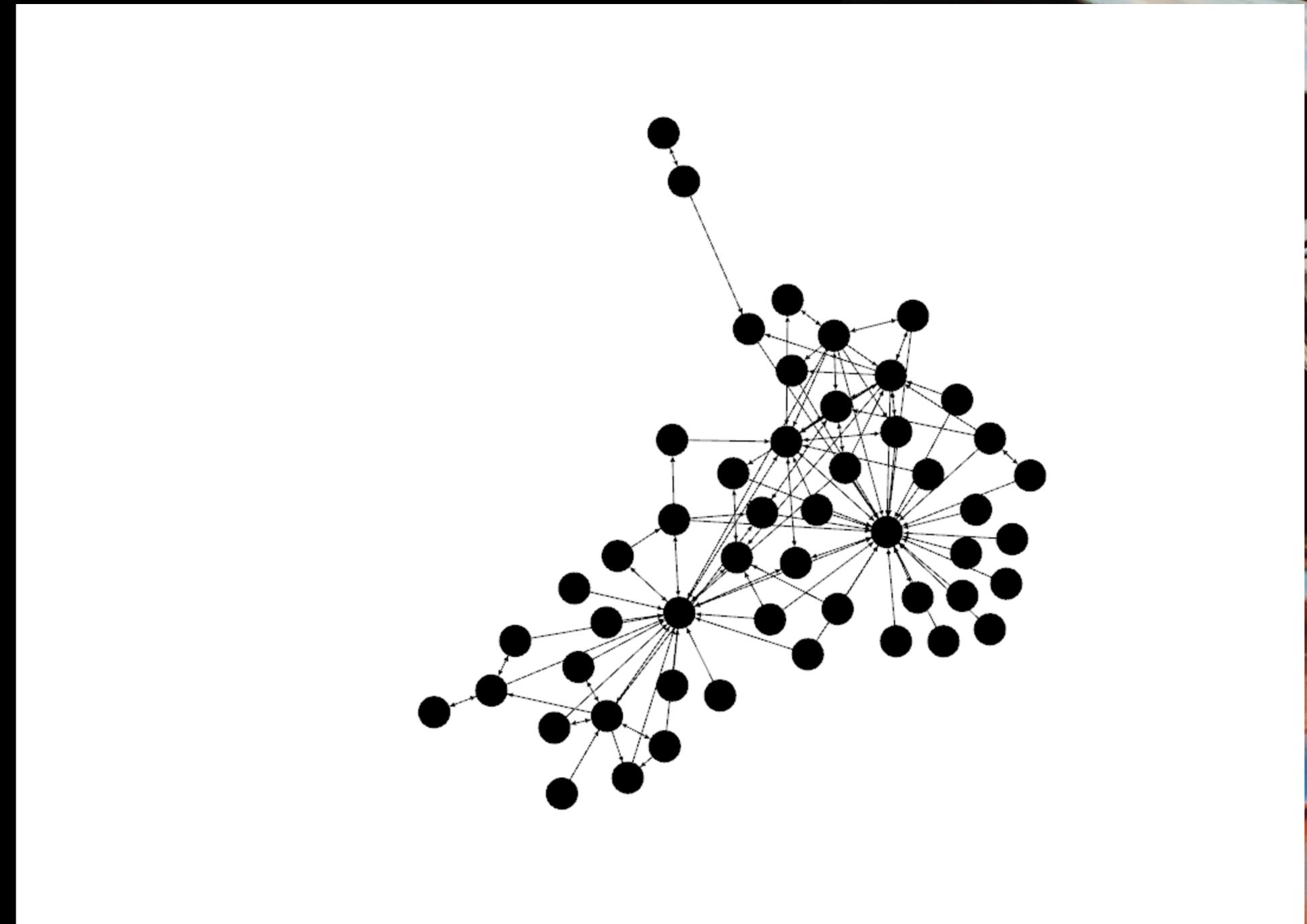
Graph Density: 0.038

Connected Components: 8

Modularity: 0.362

Avg. Clustering Coefficient: 0.271

Avg. Path Length: 2.981



NORMAL GRAPH

Nodes: 89

Type: Directed

Edges: 47

Network Diameter: 4

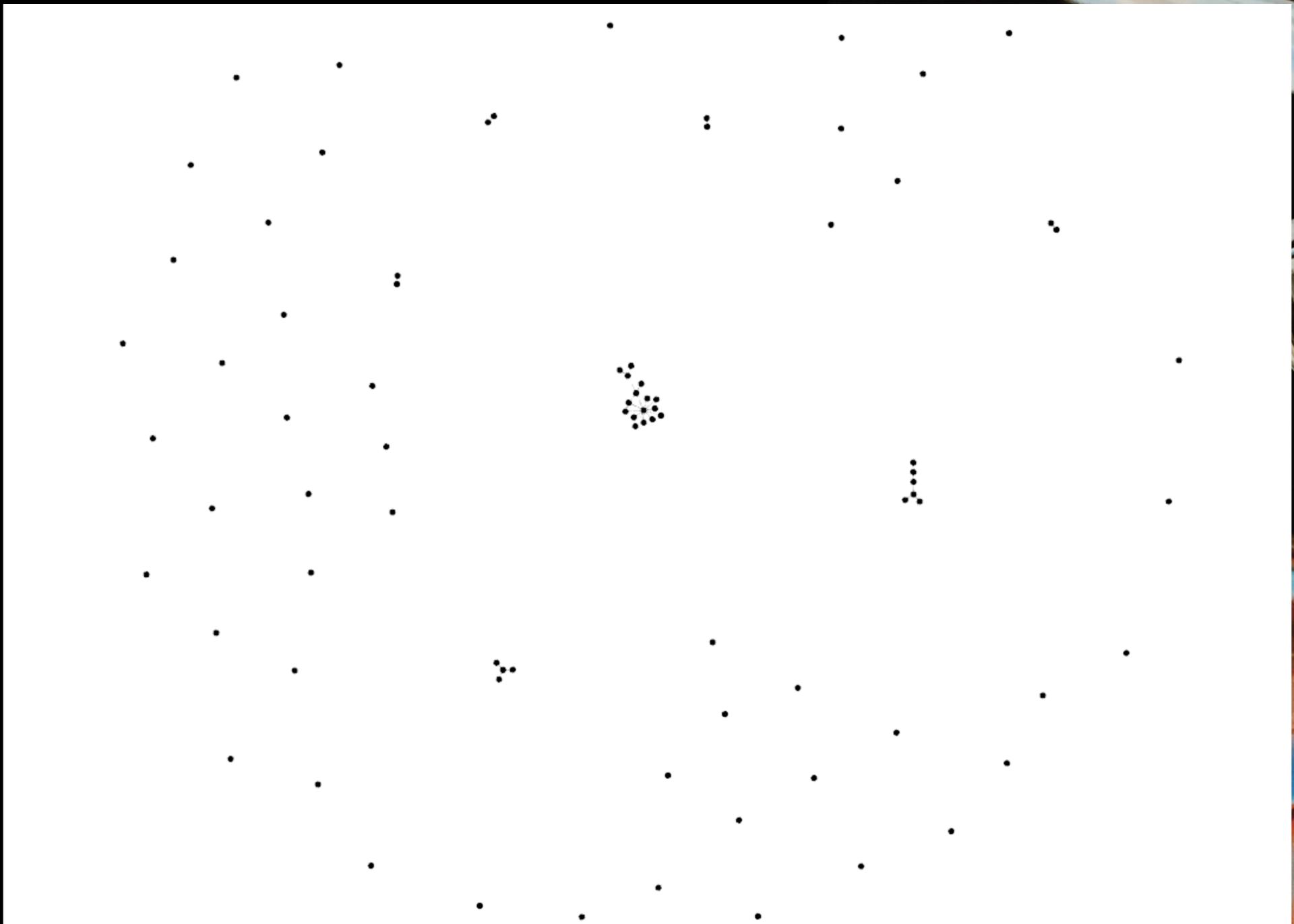
Graph Density: 0.005

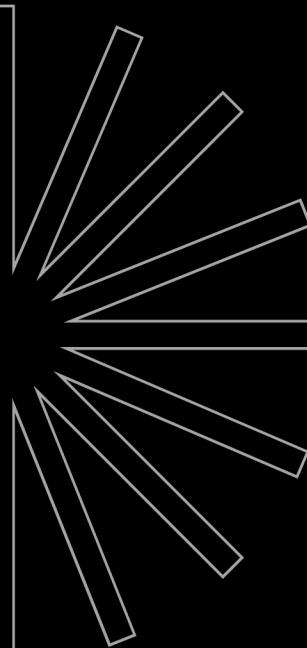
Connected Components: 62

Modularity: 0.685

Avg. Clustering Coefficient: 0.012

Avg. Path Length: 1.764

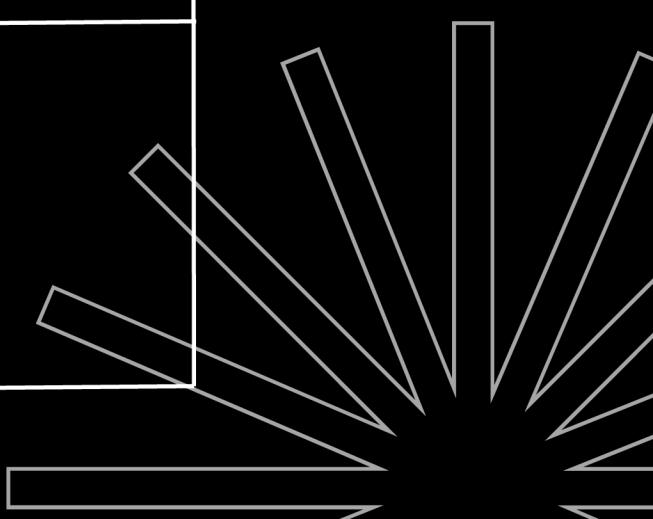


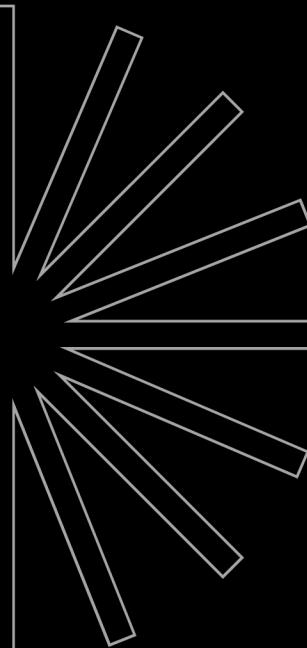


DATA NORMAL

5G

Number of nodes	58	5g side has more users than the normal side but almost no interaction	89
Number of edges	127	5g side has more users but almost no interactions	42
Graph Density	0.038	5g is almost sparse like almost nobody is talking with anyone	0.005
Connected Components	8	5g has alot of disconnected groups that can't reach each other	62
Network Diameter	7	The shortest longest path in the 5g is small due to the sparse groups and that they are not all connected	4





DATA NORMAL 5G

Modularity	0.362	How clearly the network splits into division shows that the 5g have a higher split divisions than normal	0.685
Avg. Clustering Cofficient	0.271	There is almost any friends or neighbour nodes in the 5g	0.012
Avg. Path Length	2.981	On average how many steps goes from one node to another and how close does they feel, bigger is better	1.764

SUMMARY

- Density, edges, clustering, and low number of components → signs of a real, lively community
 - High number of components, almost zero clustering, very low density → a dead or failed conversation that never created any social bonds.
- 