

Gephi Data Visualisation

Gephi is a powerful tool for network analysis and visualization. It plays a crucial role in understanding patterns and trends in social media data.

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Introduction

1

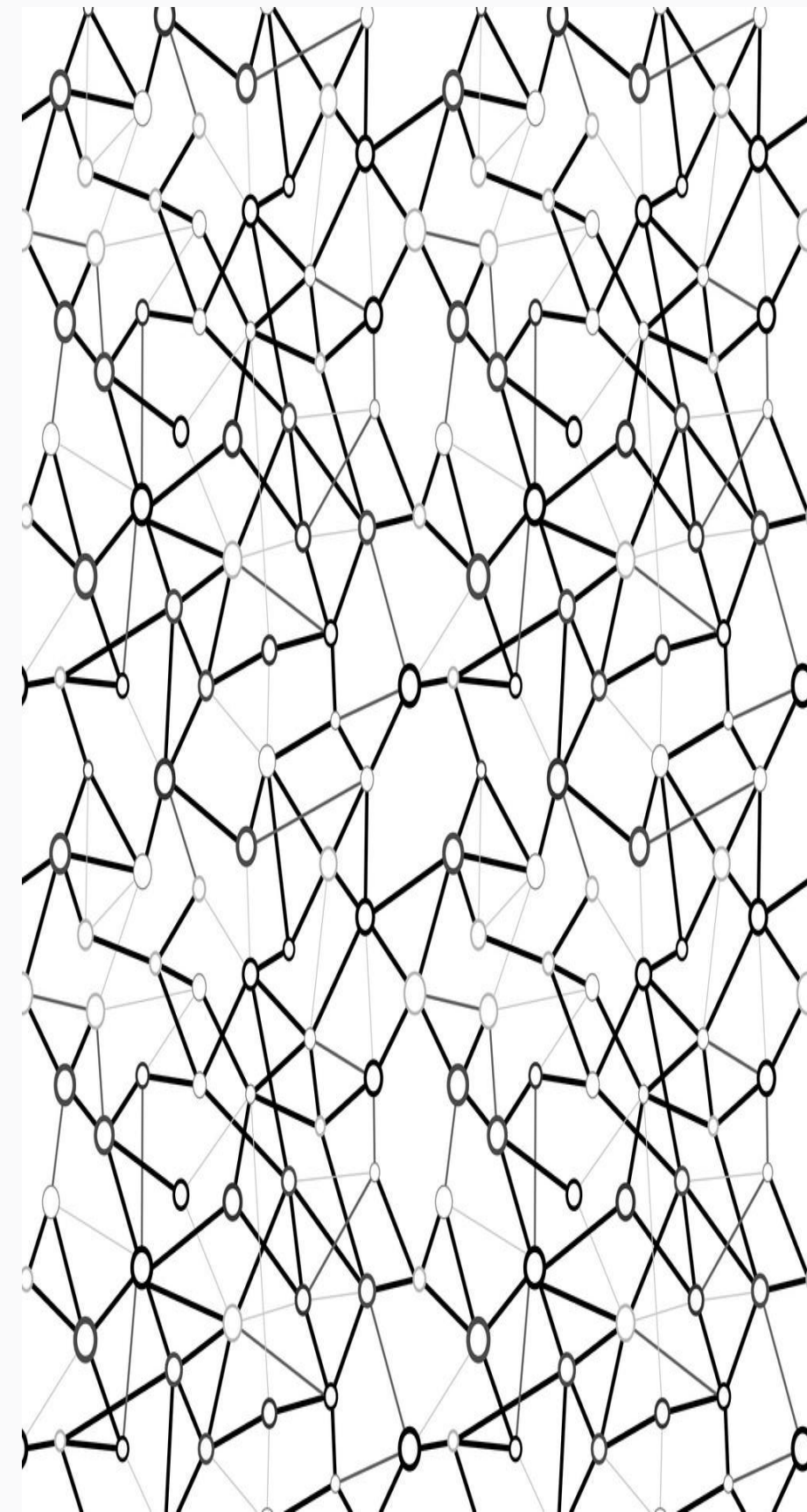
Importance of Understanding Patterns

Social media analysis is vital for understanding patterns and trends.

2

Existing Tools

Tools like Brandwatch provide narrative visualization, but there is a need for network analysis.

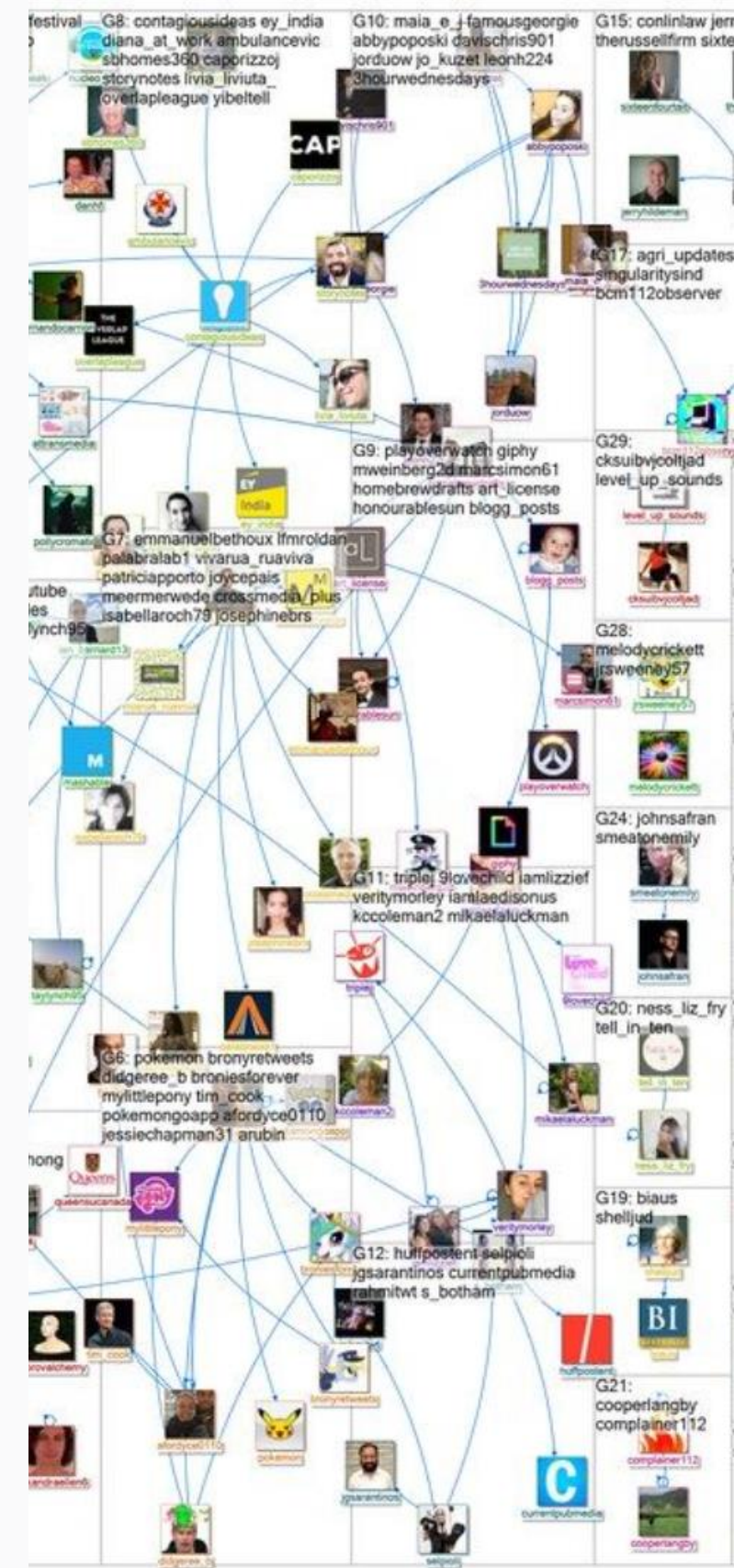


Task Background

Democracy-focused NGO

An NGO seeks to understand networks responsible for spreading political hashtags for the August 9th General Election.

Data extraction from multiple hashtags is required for in-depth analysis.



Task Objectives

Primary Task

To Visualize significant nodes and understand their roles in spreading propaganda.

Emphasis on Analysis

To distinguish key accounts, analyze influence, and identify verified accounts.

Importance of Relevance

To analyze relevance and detect

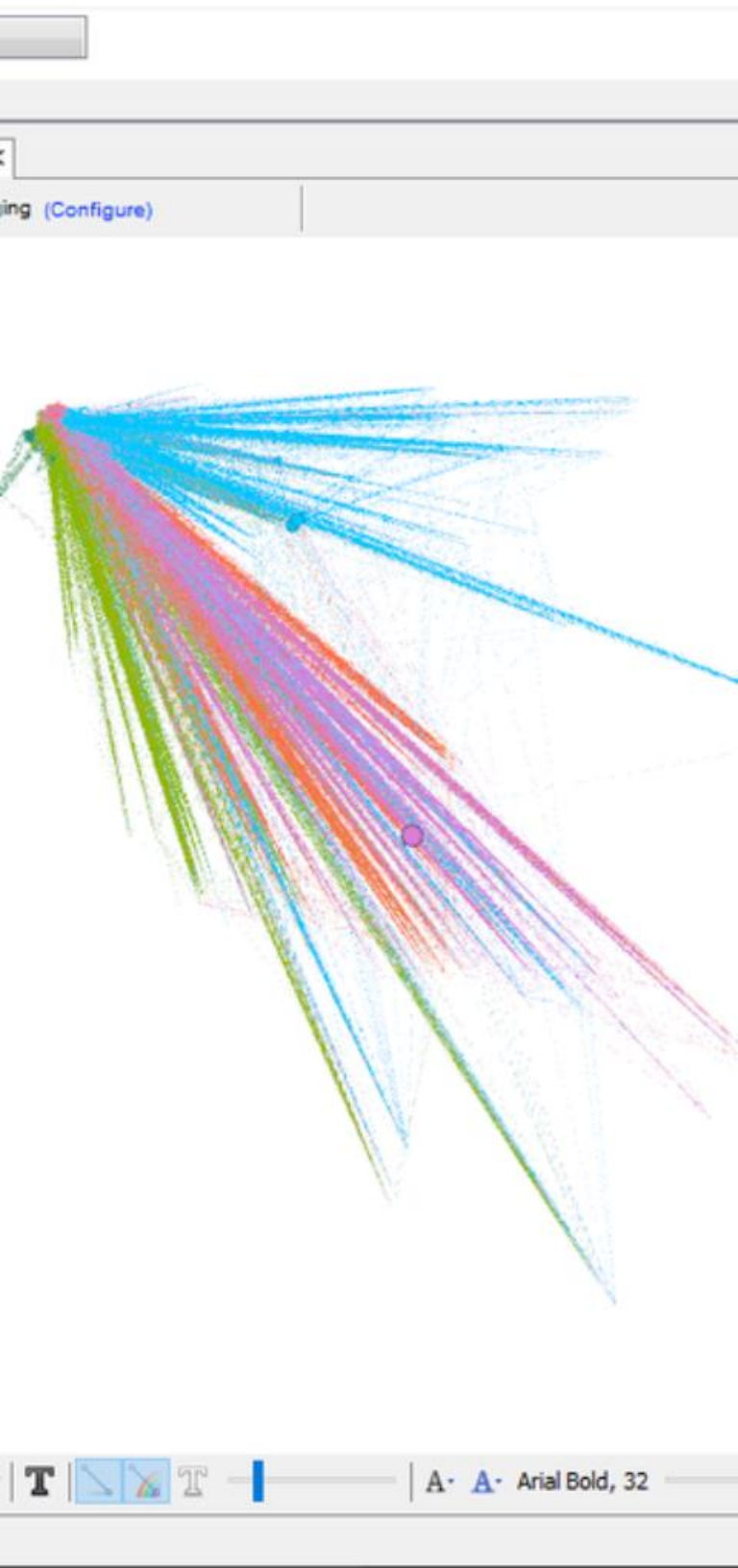
Dataset Overview

1 Cleaned Dataset

A cleaned dataset focusing on mentions related to the hashtag #MamaMbogaMoment is provided.

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2396 entries, 0 to 2395
Data columns (total 25 columns):
#   Column                                Non-Null Count  Dtype
---  -
0   Date                                  2396 non-null   object
1   Title                                2396 non-null   object
2   Full Text                            2396 non-null   object
3   Sentiment                            2396 non-null   object
4   Emotion                              1084 non-null   object
5   Region                               2128 non-null   object
6   Account Type                         2395 non-null   object
7   Author                              2396 non-null   object
8   City                                 2087 non-null   object
9   Full Name                            2396 non-null   object
10  Gender                               2334 non-null   object
11  Hashtags                             2395 non-null   object
12  Impact                               2396 non-null   float64
13  Impressions                          2396 non-null   int64
14  Interest                             1211 non-null   object
15  Mentioned Authors                    1433 non-null   object
16  Priority                              0 non-null      float64
17  Professions                          523 non-null    object
18  Tags                                 2396 non-null   object
19  Total Monthly Visitors                2396 non-null   int64
20  Twitter Author ID                    2395 non-null   float64
21  Twitter Followers                    2396 non-null   int64
22  Twitter Following                    2396 non-null   int64
23  Twitter Tweets                       2396 non-null   int64
24  Reach (new)                          2396 non-null   int64
dtypes: float64(3), int64(6), object(16)
memory usage: 468.1+ KB
```

Out[9]: (2396, 25)



Approach

1

Gephi for Network Analysis

Explanation of the selected approach using Gephi for network analysis.

2

Visualizing Data

Highlight the importance of finding the best way to visualize data and interpreting emerging patterns.

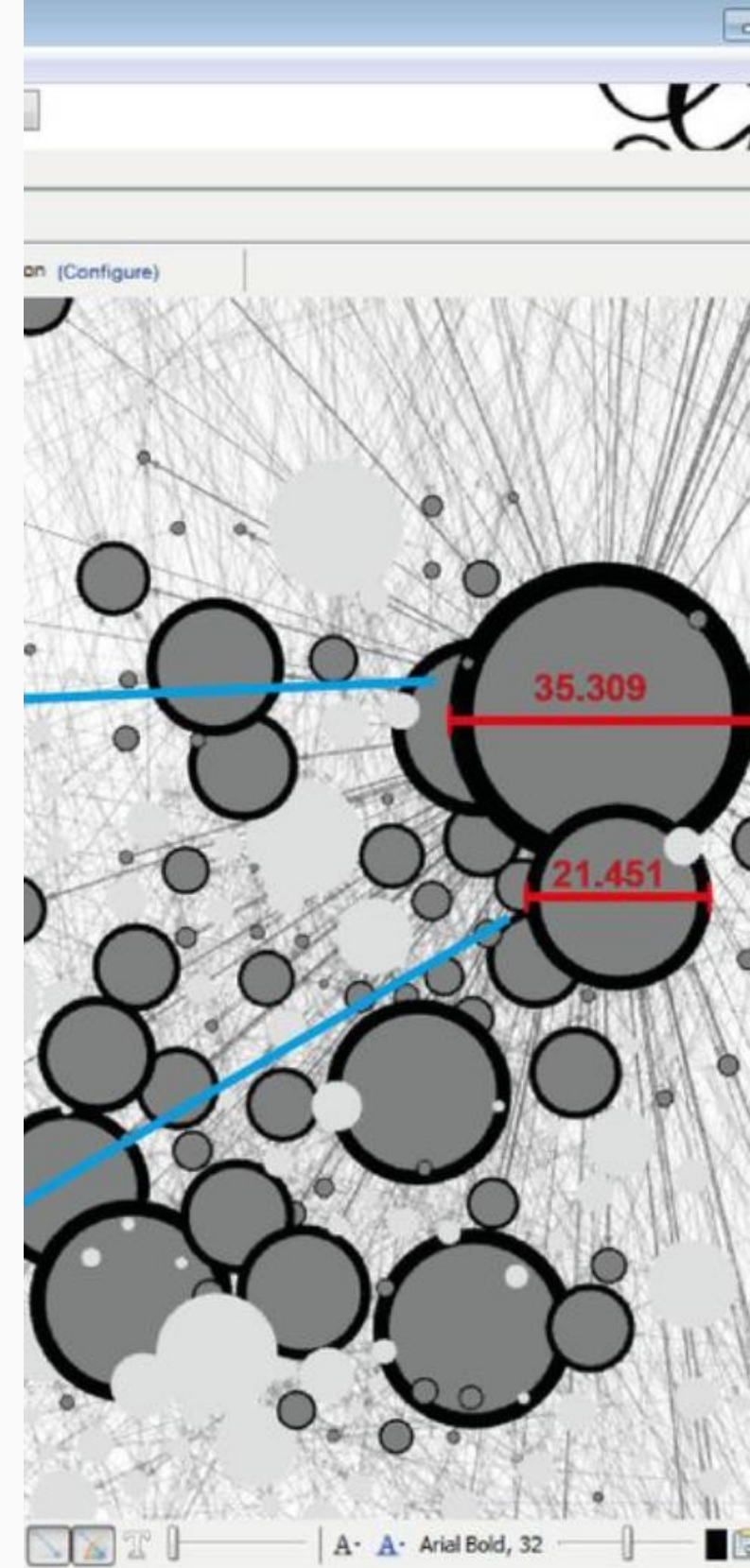
Nodes and Edges Selection

1 Nodes Table

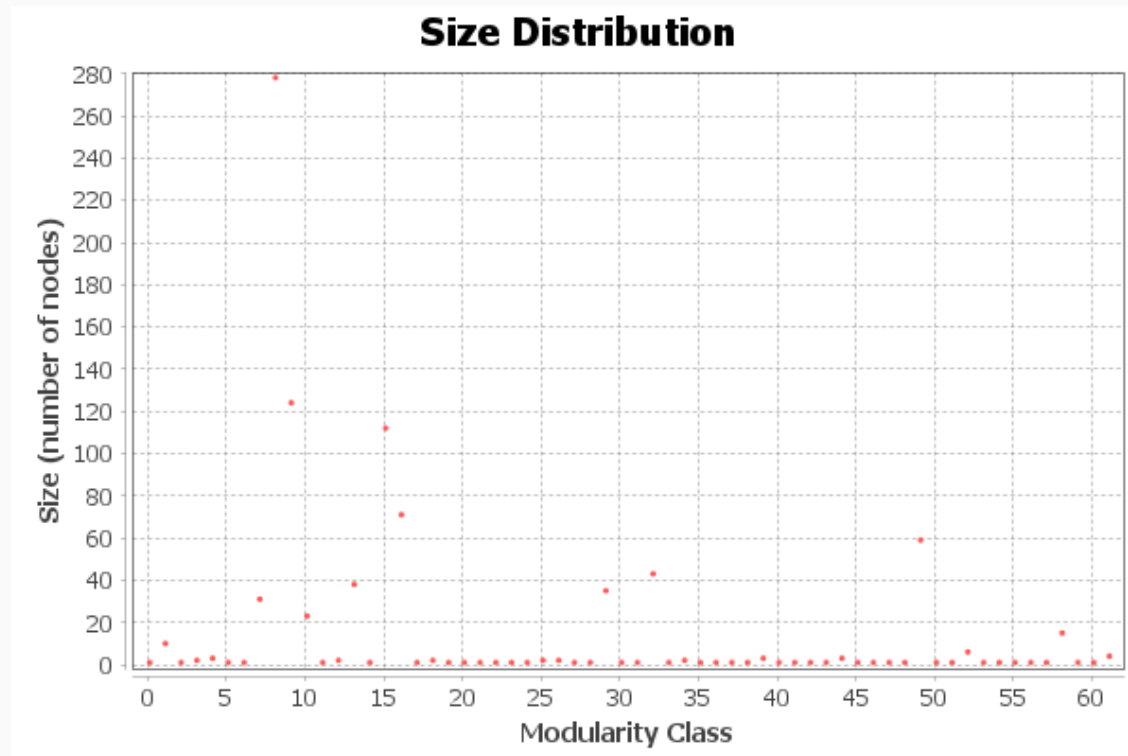
The chosen columns for the nodes table include: (Author, Verified, Additional User Attributes).

2 Edges Table

The chosen columns for the edges table include: (Author, Mentioned Authors, Retweet Relationships, Hashtags/Keywords).

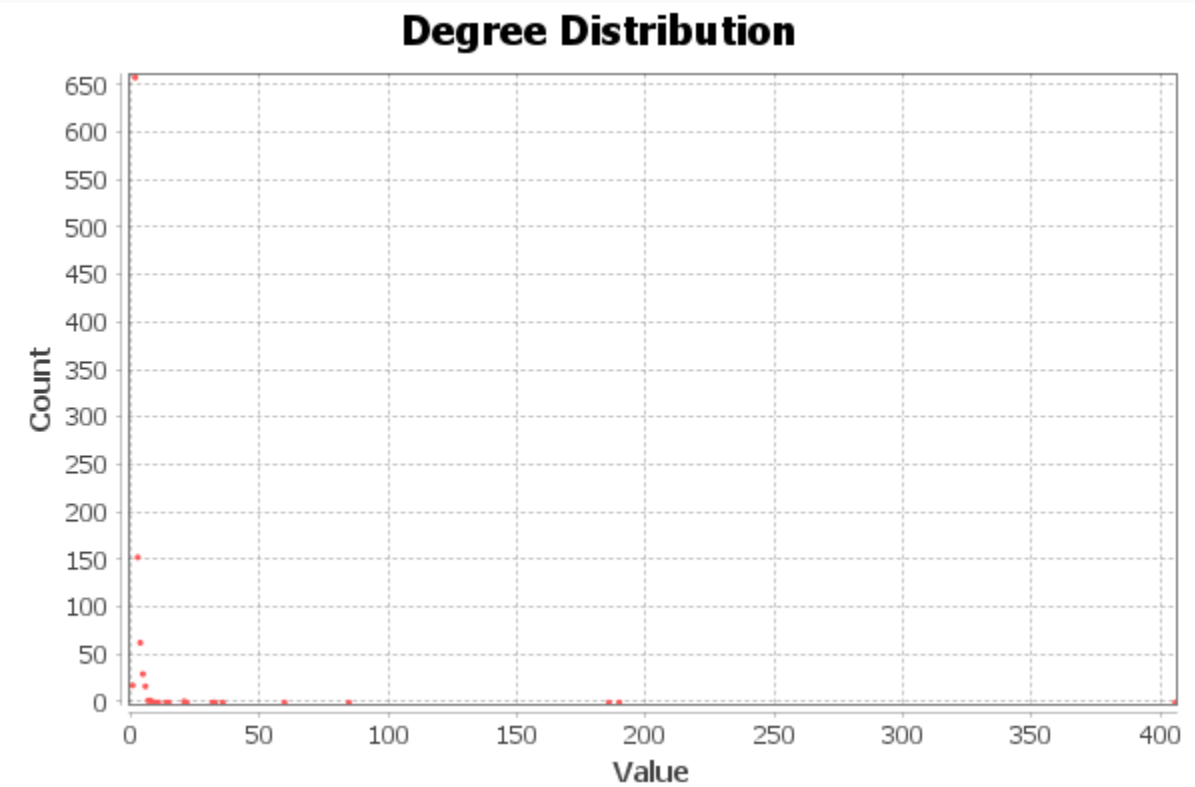


Gephi Material



Community Detection

Generated a modularity value of 0.568, with 80 identified communities



Average Degree

The degree report reveals an average degree of 2.632 in the network analysis

Findings and Analysis

Significant Nodes

Detailed analysis of significant nodes and their roles in spreading propaganda.

Trendjackers

Detecting and explaining of trendjackers and their impact on the hashtag #MamaMbogaMoment.

Patterns and Trends

1

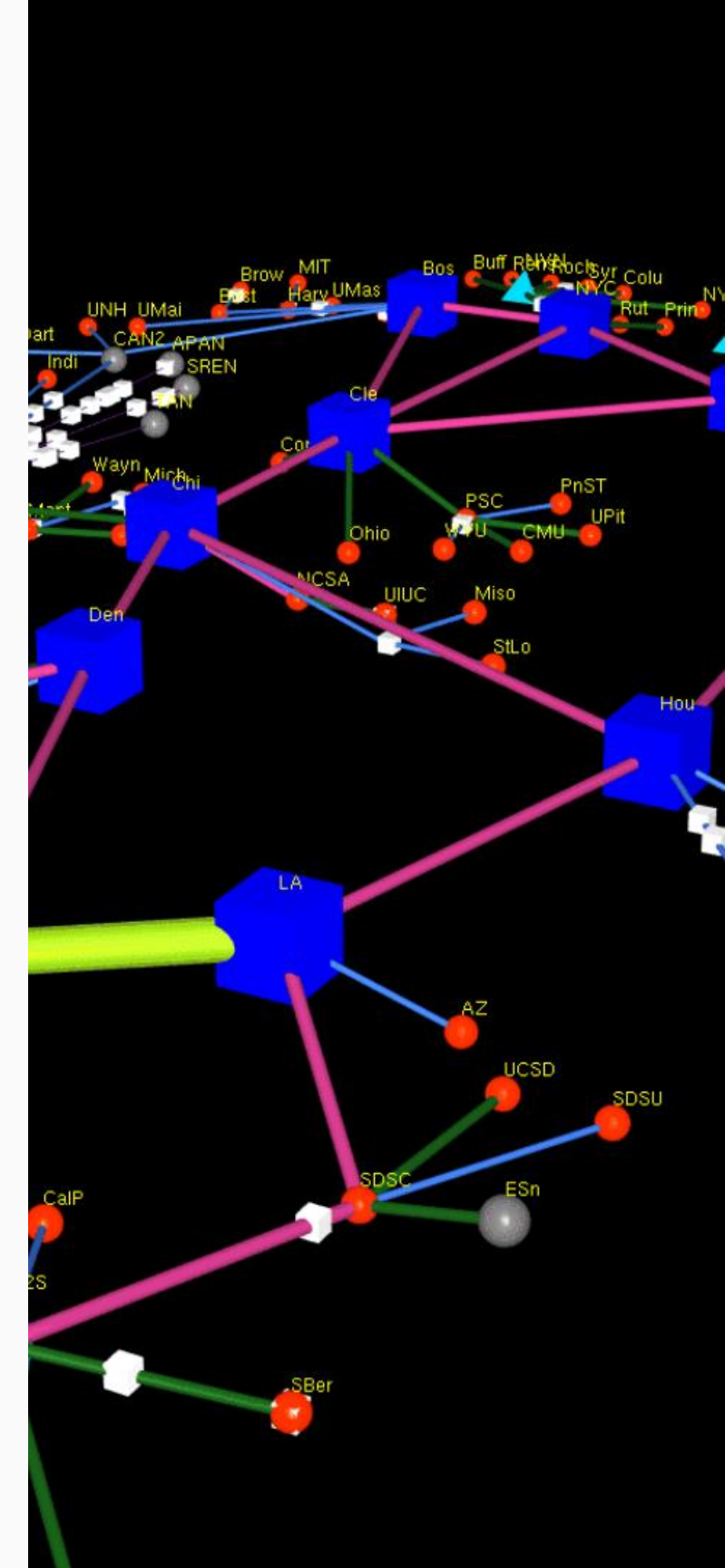
Identified Patterns

Displaying patterns and trends within the twitter network.

2

Influential Clusters

Visual representation of influential authors capable of spreading propaganda.



Any

Question

