Community-scale Online Network Analysis of Social Data Streams
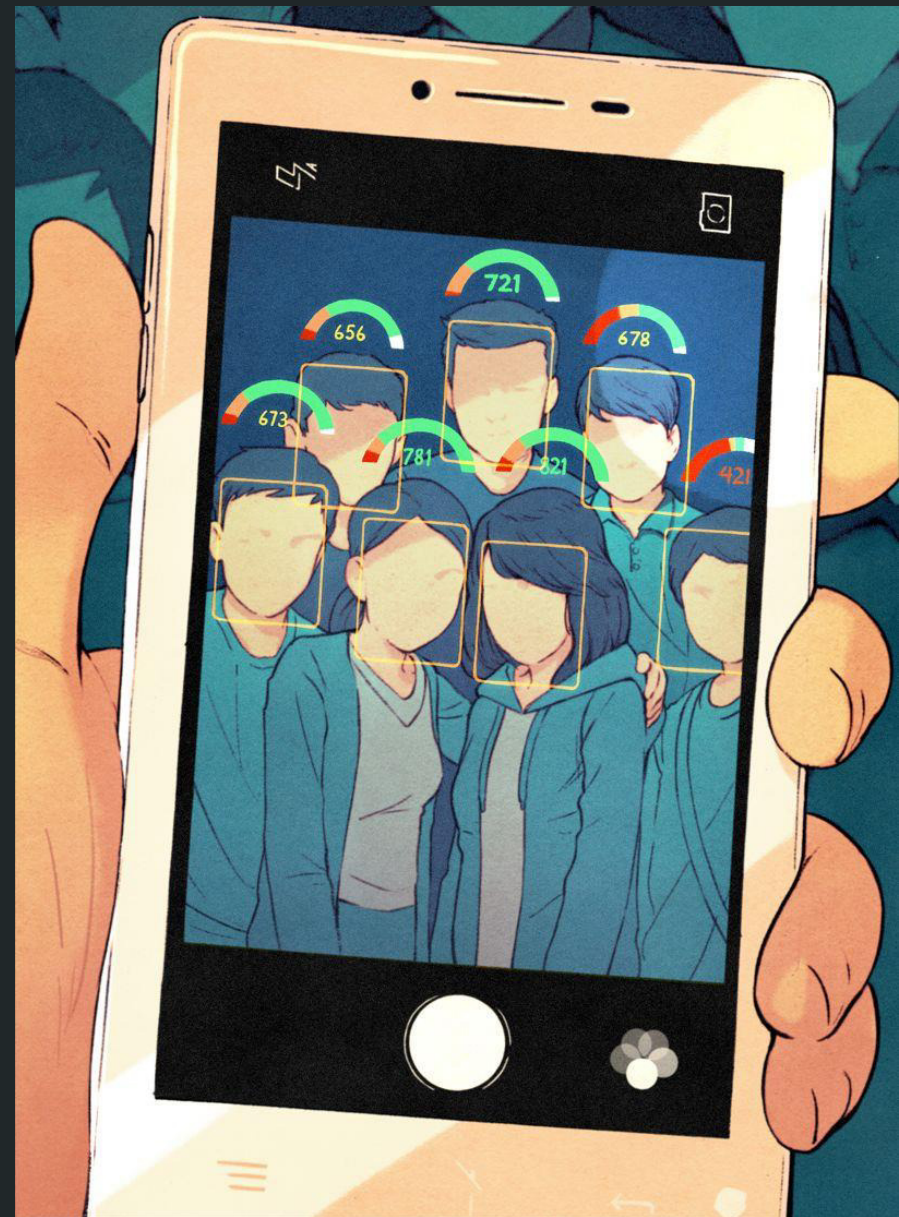
Ammar Raşid

Assoc Prof. Ahmet Bulut

Outline

- Introduction & Motivation

- Problem Definition

- System Overview
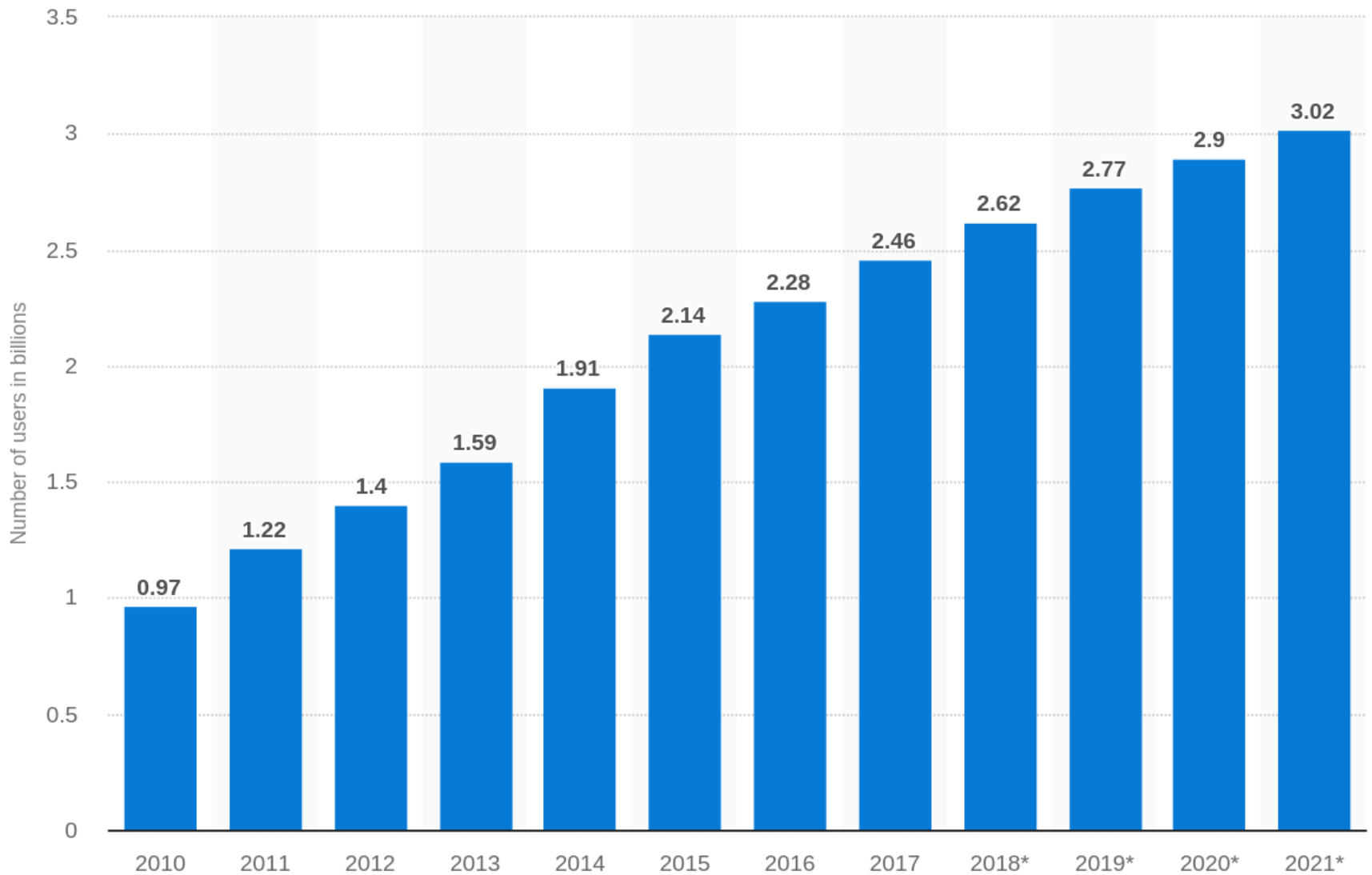
- Current Findings

- Next Goals

- Conclusion

Introduction & Motivation

China's Social Credit system

What is Operational Intelligence?

splunk.com

Increasing Social Media Presence
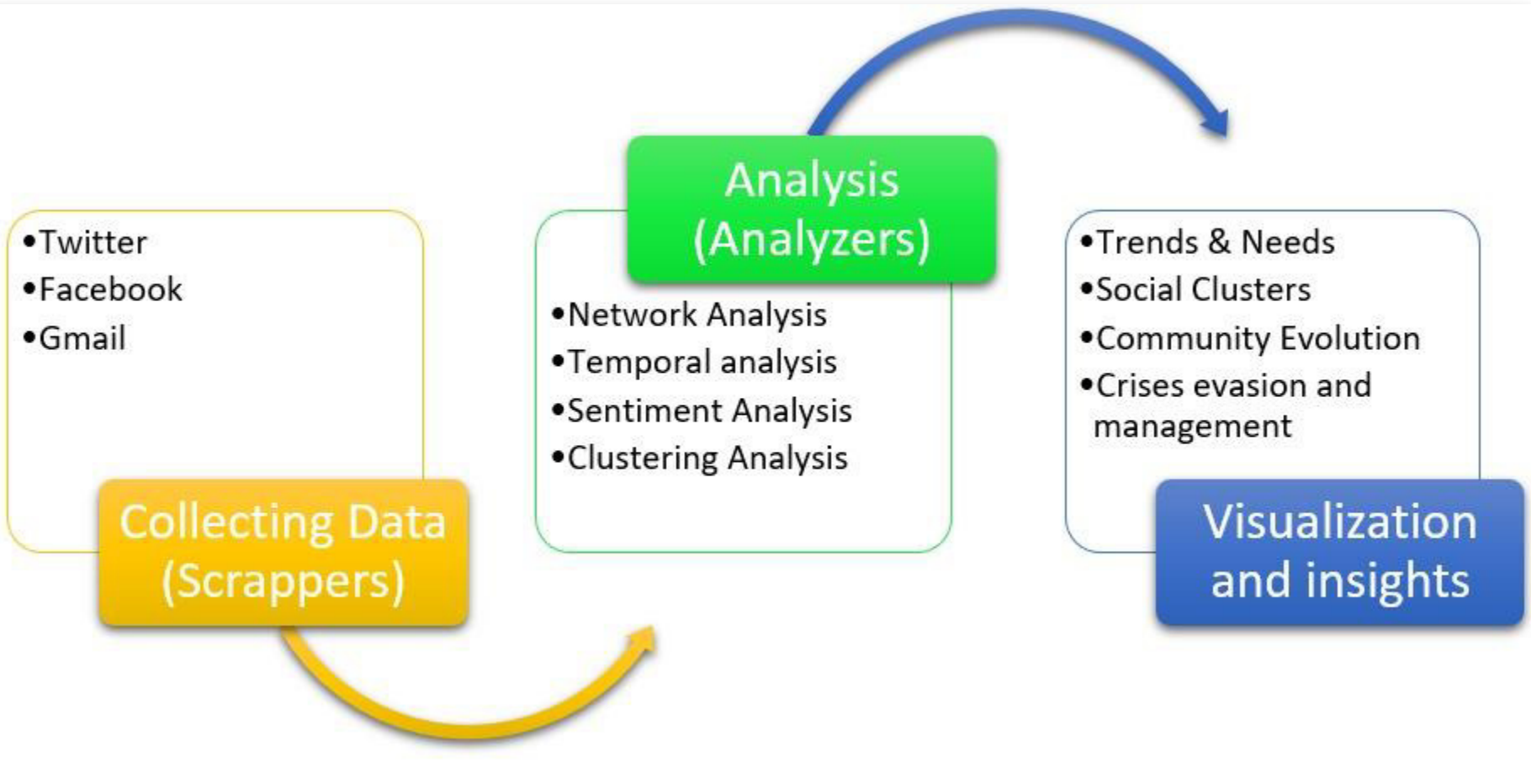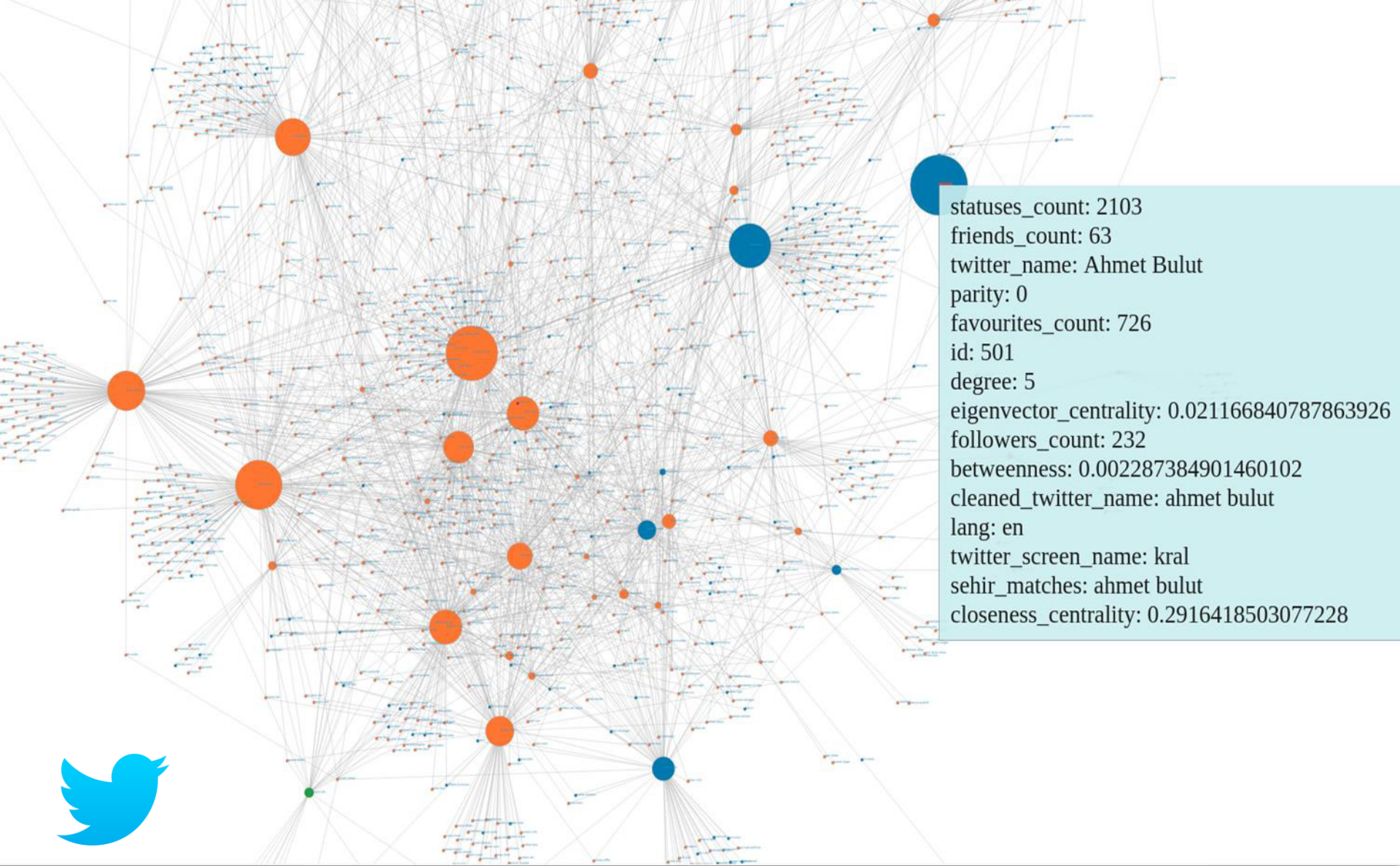
Problem Definition

Given:

Social data streams

Construct a Network:

- Chronological

- Contextual

- Smart

System Overview

- Twitter
- Facebook
- Gmail

Collecting Data (Scrappers)

Analysis (Analyzers)

- Network Analysis
- Temporal analysis
- Sentiment Analysis
- Clustering Analysis

- Trends & Needs
- Social Clusters
- Community Evolution
- Crises evasion and management

Visualization and insights

statuses_count: 2103
friends_count: 63
twitter_name: Ahmet Bulut
parity: 0
favourites_count: 726
id: 501
degree: 5
eigenvector_centrality: 0.021166840787863926
followers_count: 232
betweenness: 0.002287384901460102
cleaned_twitter_name: ahmet bulut
lang: en
twitter_screen_name: kral
sehir_matches: ahmet bulut
closeness_centrality: 0.2916418503077228

Network Analysis

Network Analysis

Next Goals

Online Clustering

Kafka
Flume
HDFS/S3
Kinesis
Twitter

Spark Streaming

HDFS
Databases
Dashboards
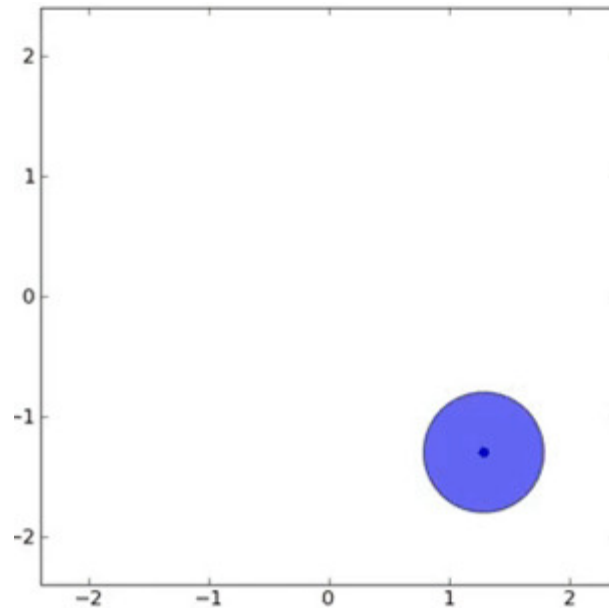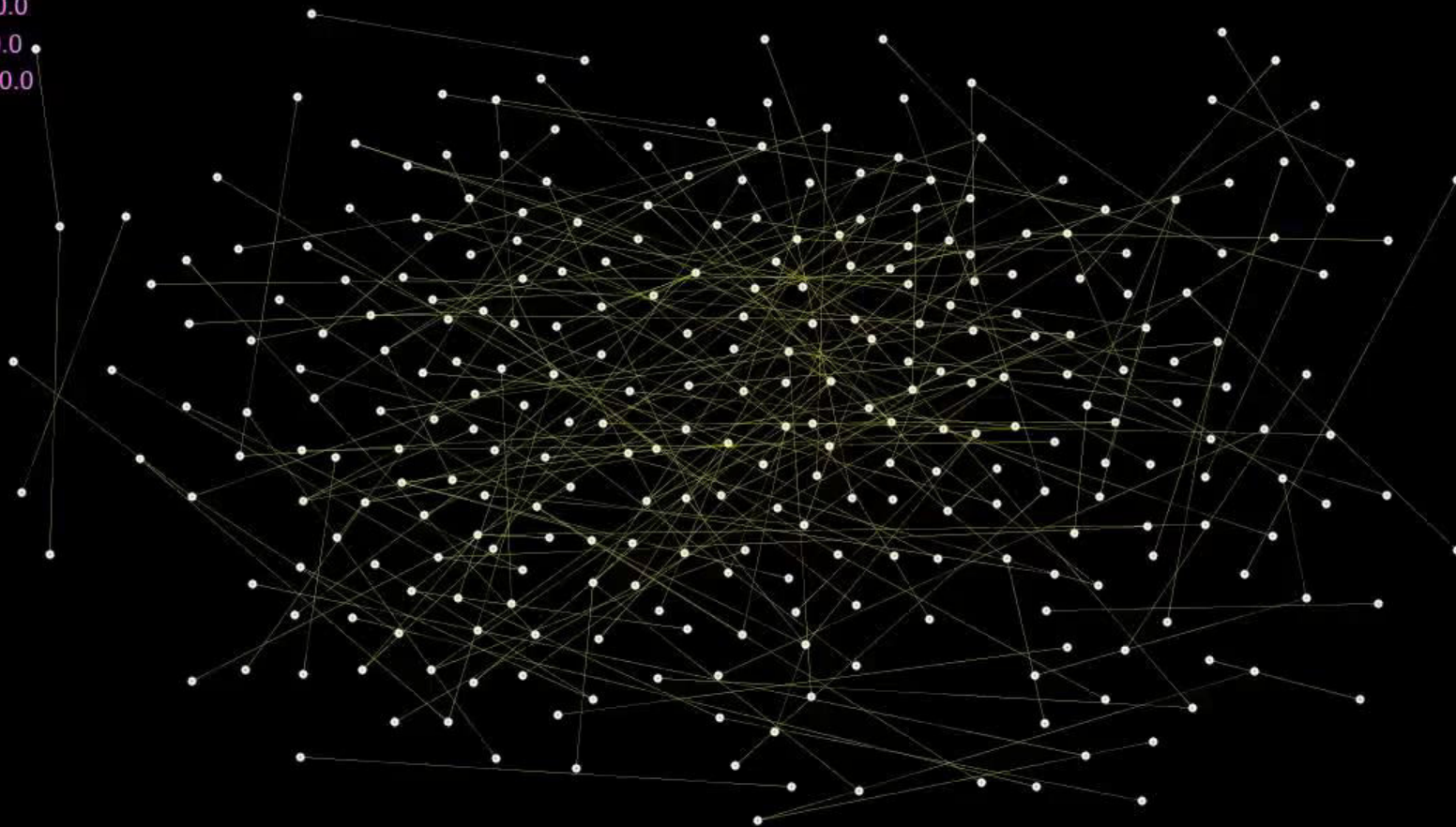
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Dynamic Network Analysis