

# Rating Profiles

---

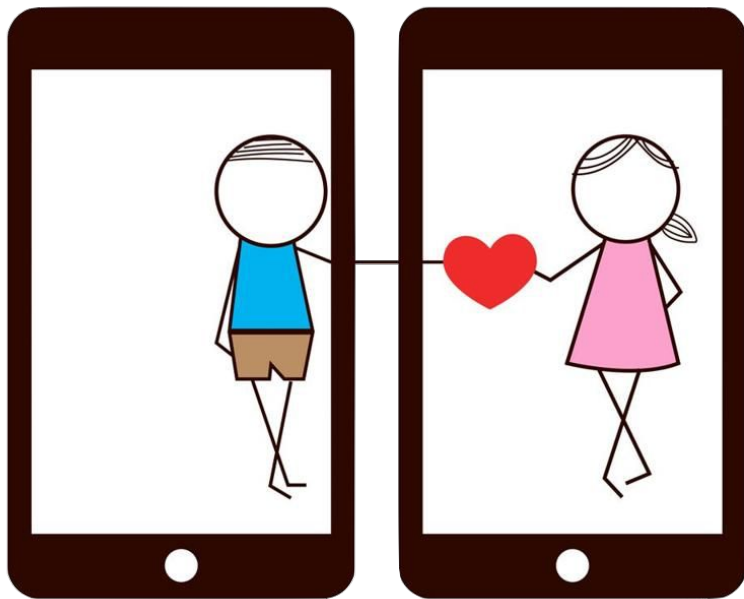
February 27, 2020

# Overview

- Data dumped from LibimSeTi in 2006 (dating website)
- Users' profiles ratings (all anonymised)
- 135 thousand users, 17 million records
- Ratings
  - Source user
  - Target user
  - Rating weight (1--10)
- Users
  - User ID
  - Gender (male, female, unknown)



# Goals



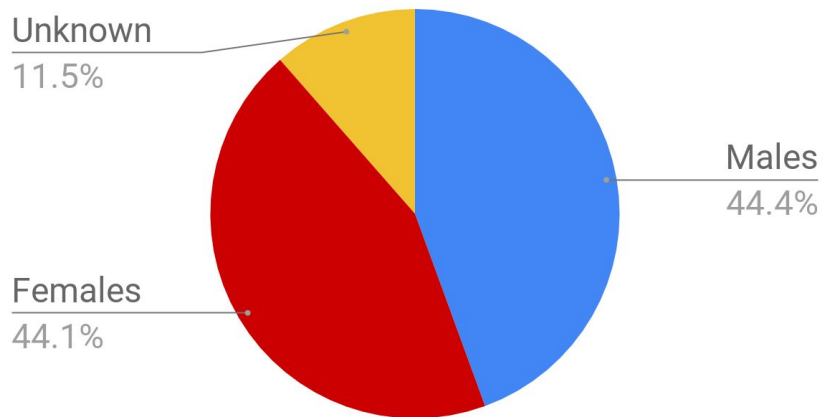
- User proportions
    - Males, females, unknown
    - Gays, lesbians
  - How people rate
    - Most popular profiles
    - Rating weights
    - Incoming/outgoing ratings
  - Ratings in communities
    - Males, females, unknown, Gays, lesbians
  - Visualize users' ratings
-

# Users

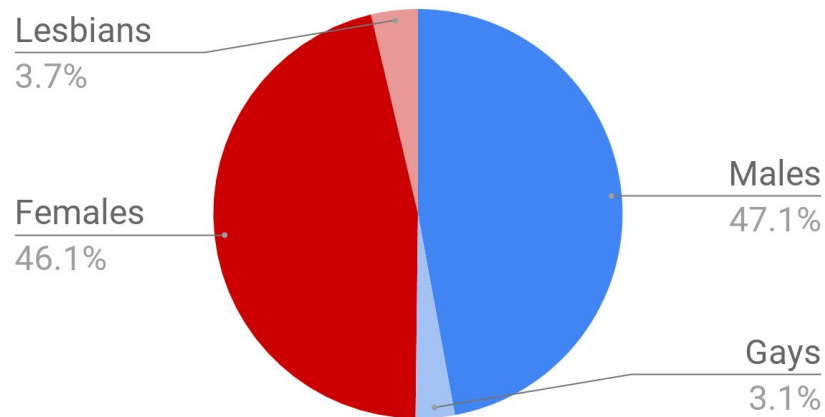
---

# Users Proportions

## Gender Proportions



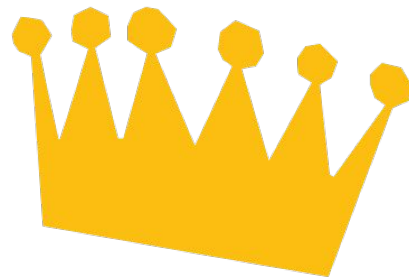
## Sexual Orientation



# Ratings

---

# Top Profiles



## Most Rated

Position	Gender	Incoming	Outgoing	Mean Weight
1	male	28 398	46	7.79
2	male	23 639	62	9.5
3	male	23 113	137	6.27
4	male	21 387	121	9.92
5	female	21 284	464	9.98

## Top Rated

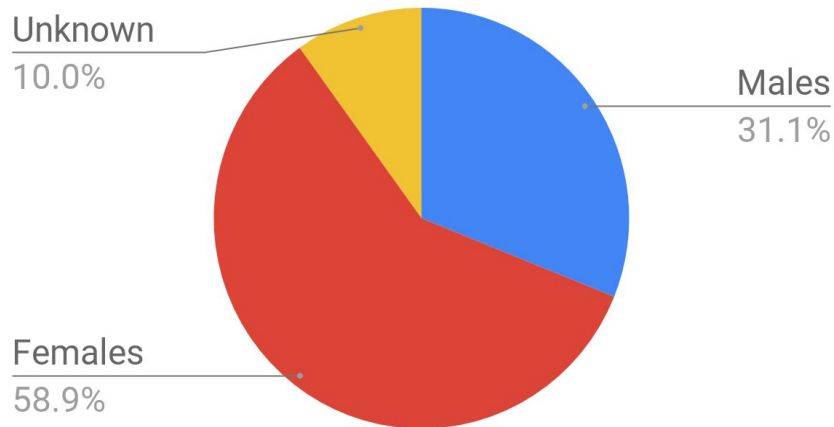
Position	Gender	Incoming	Outgoing	Mean Weight
1	male	7 891	36	10.0
2	female	1 579	105	10.0
3	male	1 505	46	10.0
4	male	1 252	35	10.0
5	male	1 061	21	10.0

# Rating Types

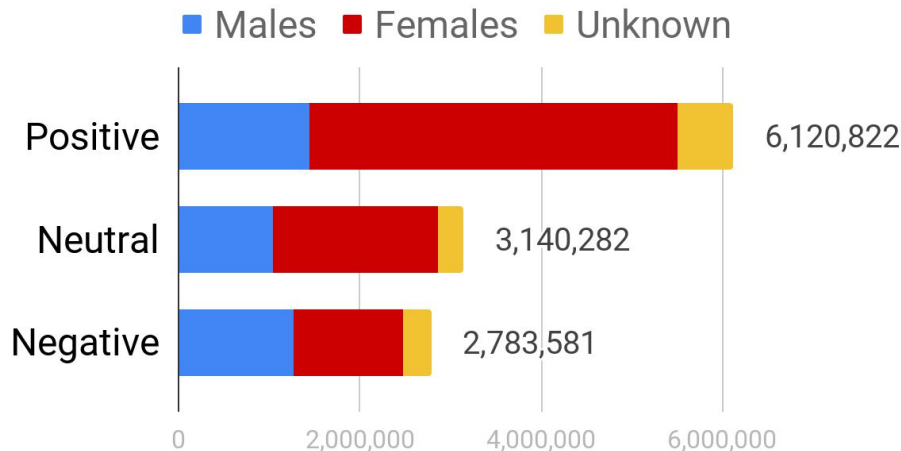
## Females

- **66.3 % of all positive ratings**
- 45.3 % of all negative ratings

## Who Rates



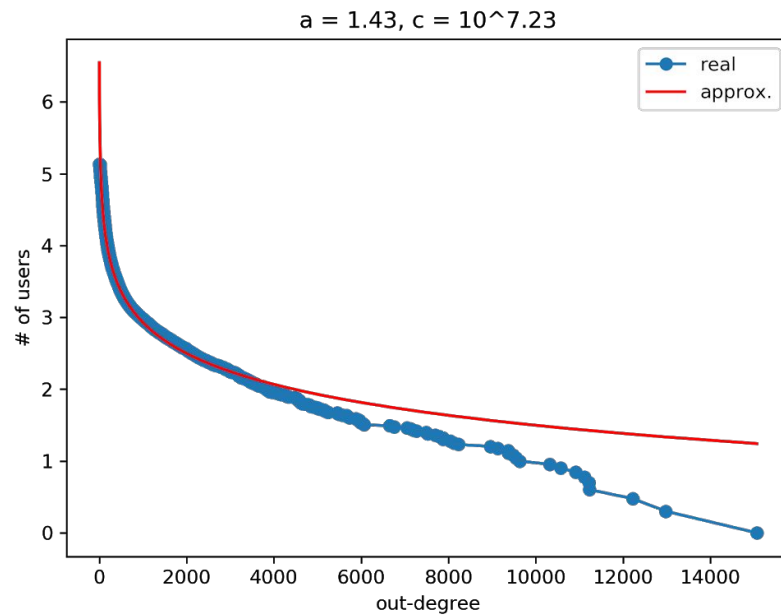
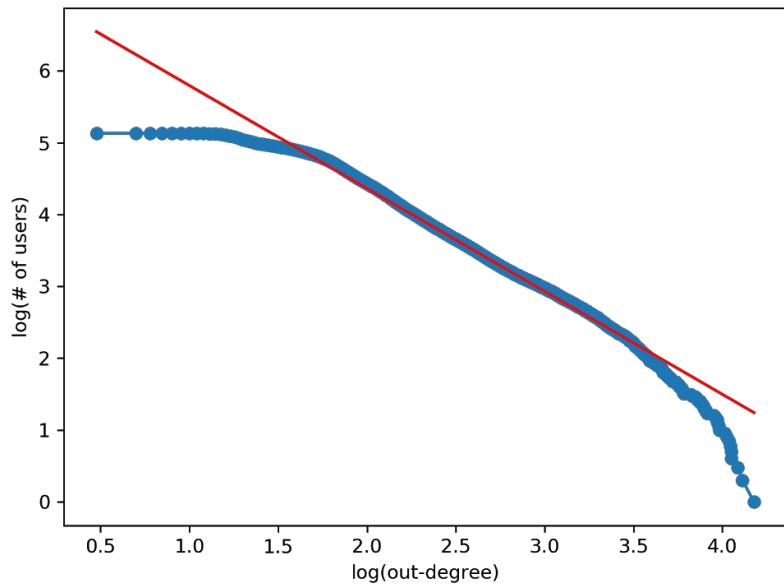
## Outgoing Ratings





# Cumulative Distribution of Incoming Ratings

Cumulative Degree Distribution

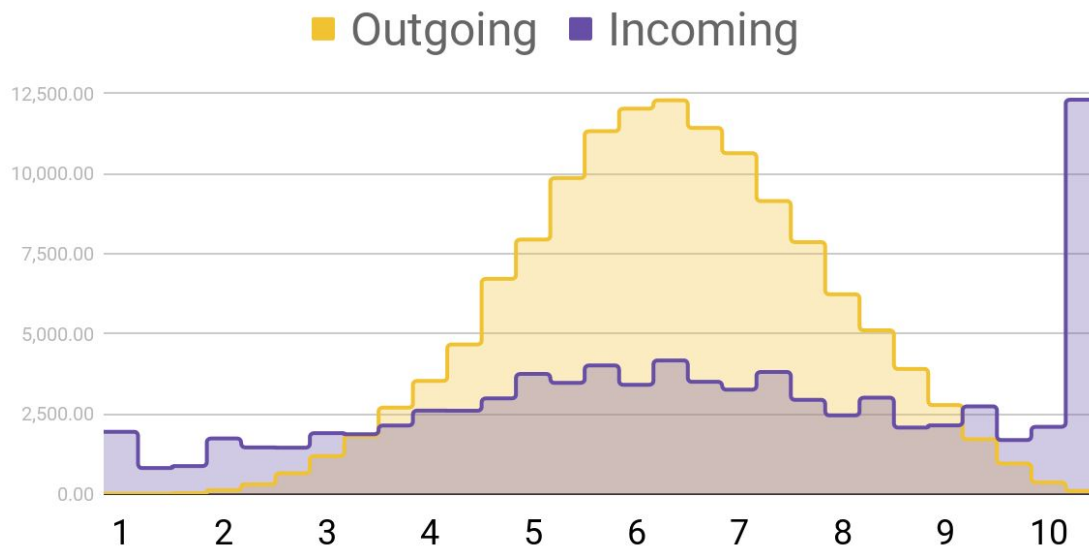


$$P(k) = ck^{-a}$$

# Rating Weights

- Out-ratings weights have Gaussian dist.
- **53 % profiles with less than 5 in-ratings (Exponential dist.)**
- Low rated profiles have high mean weight of in-ratings 7.59

## Rating Weights

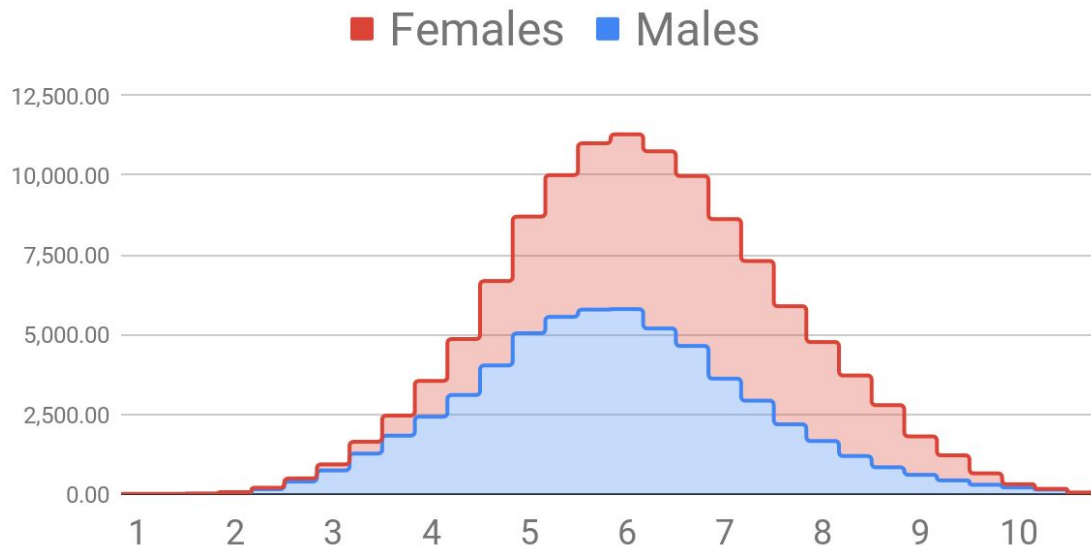


# Rating Weights

- Females
  - **Mean: 6.84**
  - Std: 1.06
- Males
  - **Mean: 5.77**
  - Std: 1.22



## Weights of Outgoing Ratings



# Small Community Properties

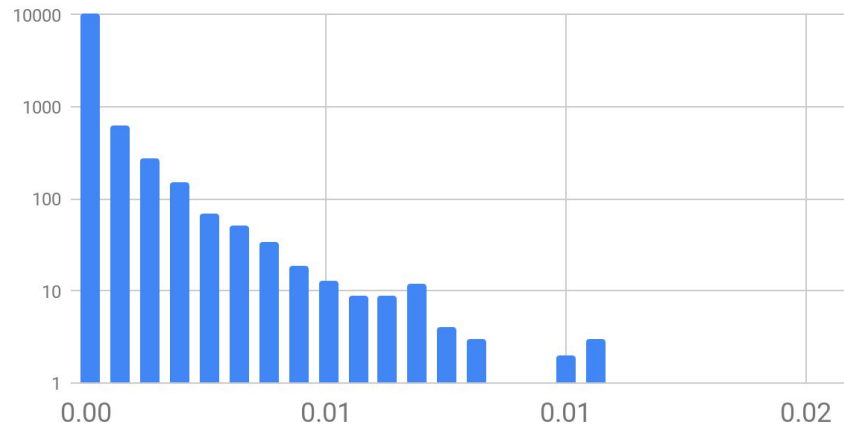
---

## **Small Community:**

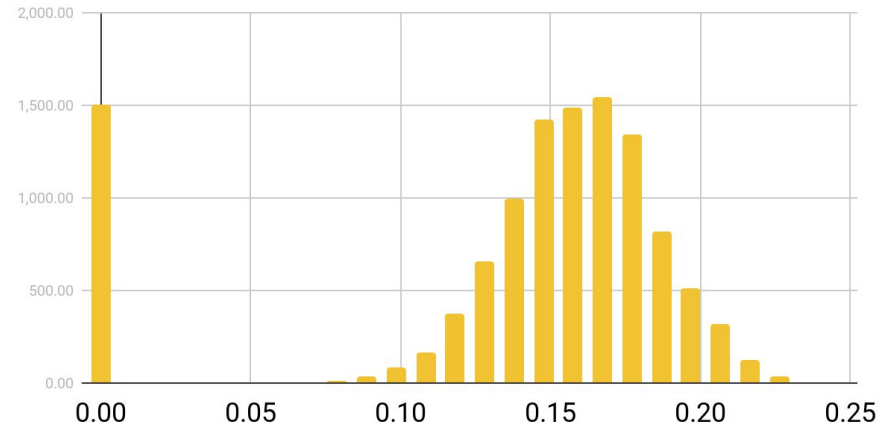
- Undirected graph,
- Only reciprocal edges,
- Only males
- 11,447 N, 24,751 E

# Centrality Measures

## Degree (log-scaled)

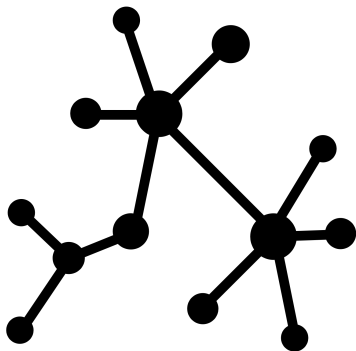


## Closeness

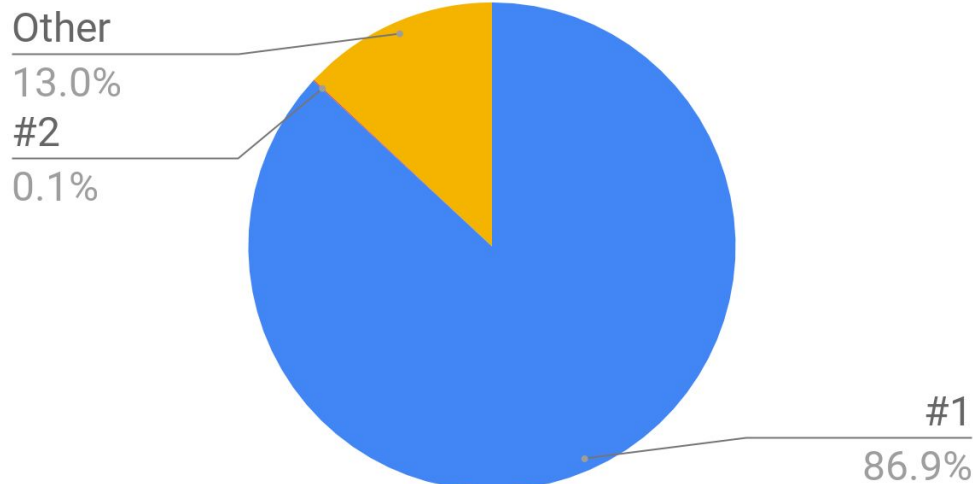


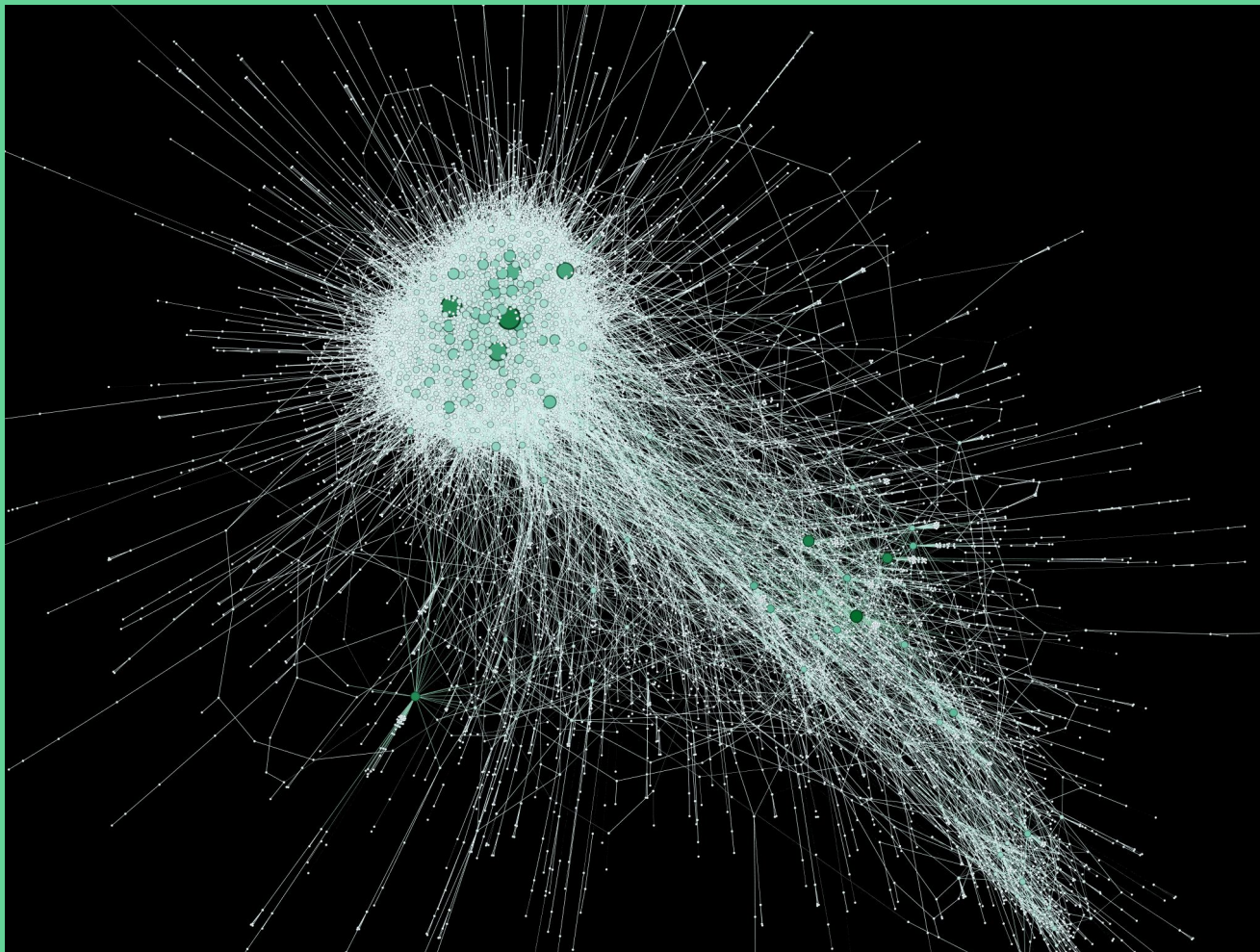
# Connected Components

- 11 447 nodes
- 675 connected components
- **#1 component: 9 946 nodes**
- #2 component: 8 nodes



## Sizes of Components



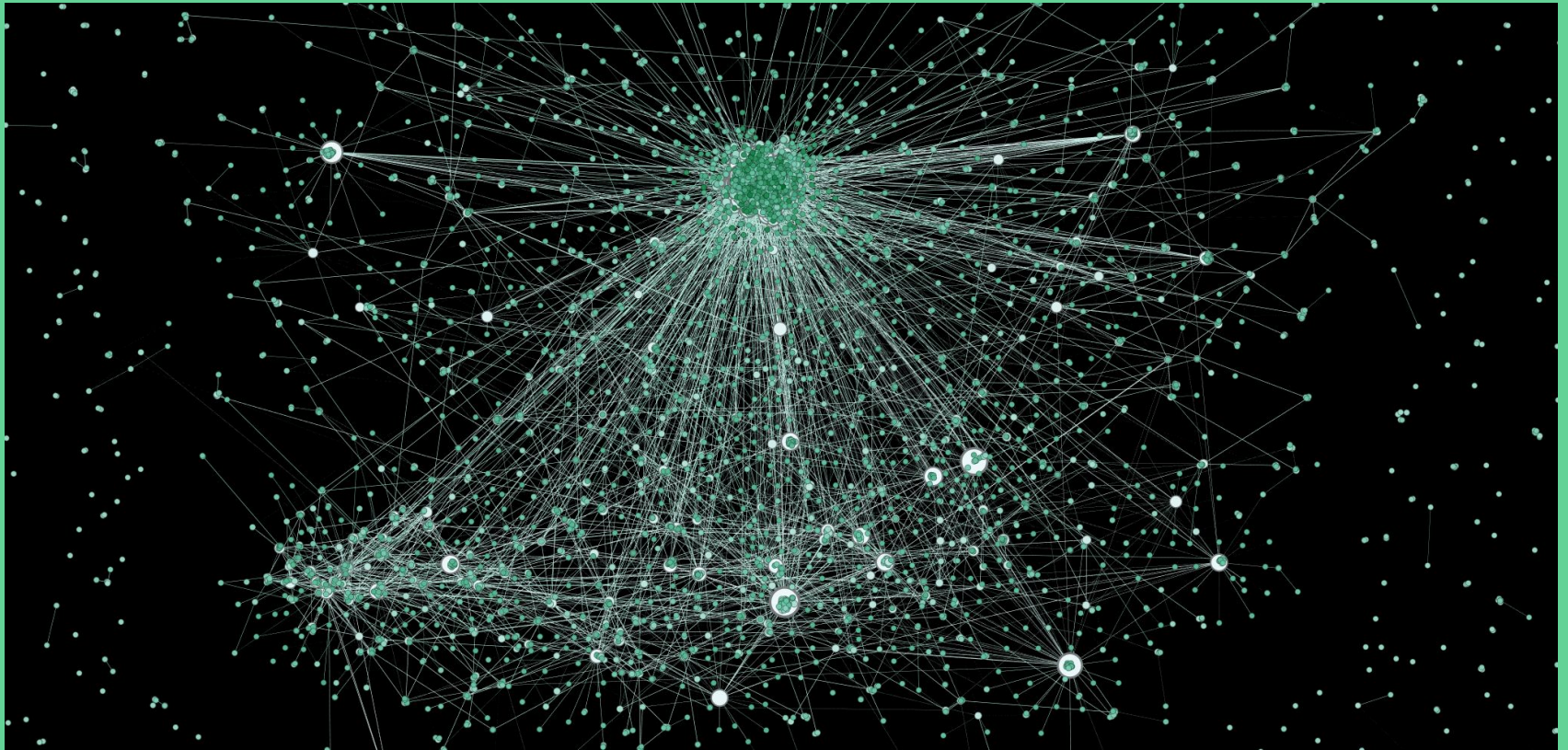


## Atlas Layout

- Only positive ratings
- Degree (size)
- Color (pageRank)



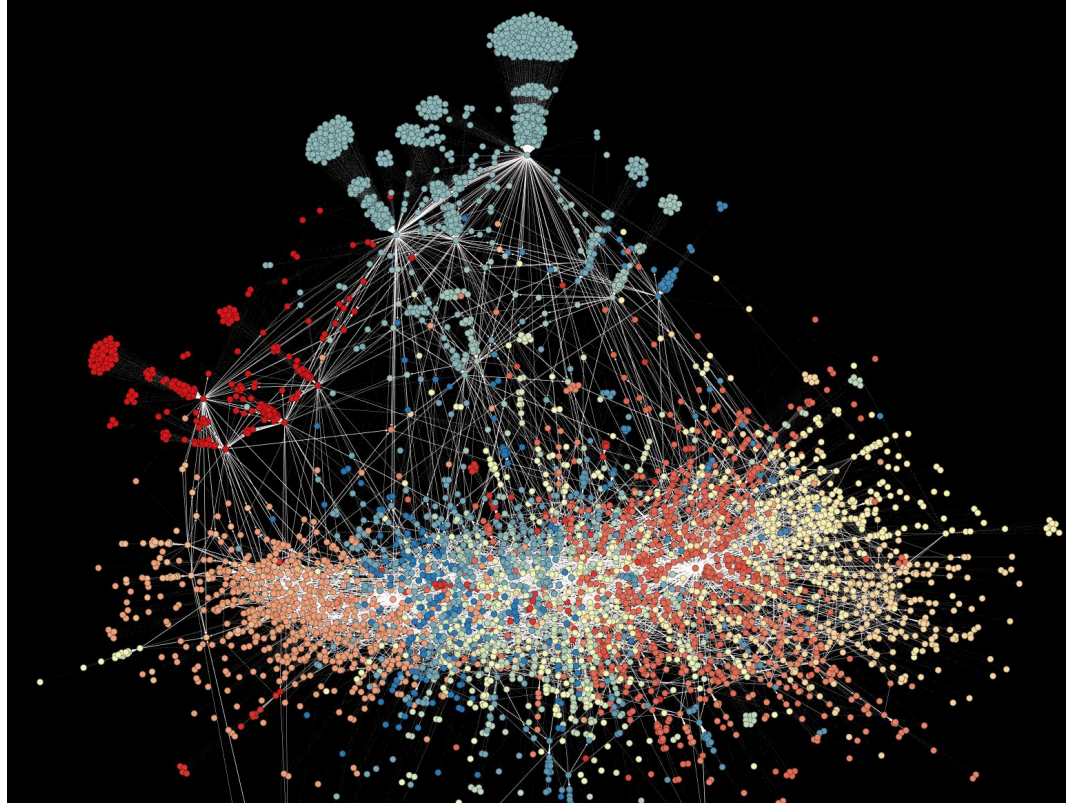
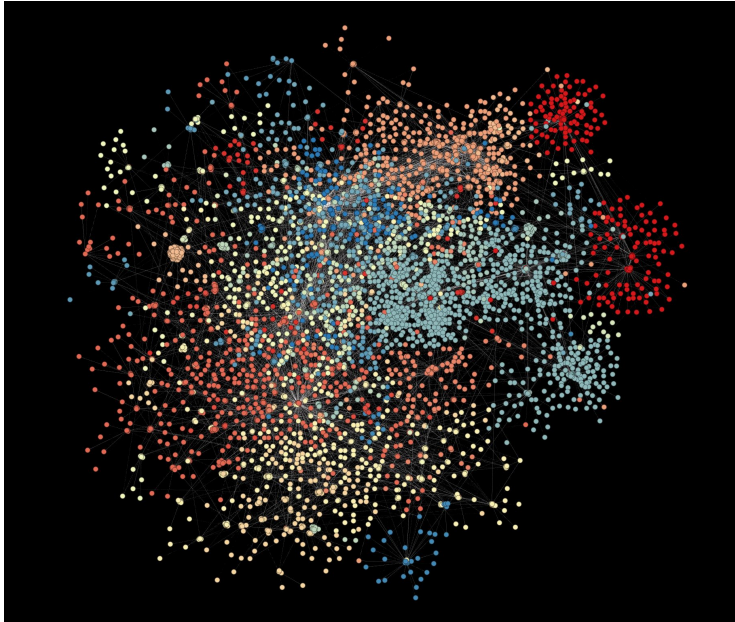
# Openord Layout



# Directed Visualizations

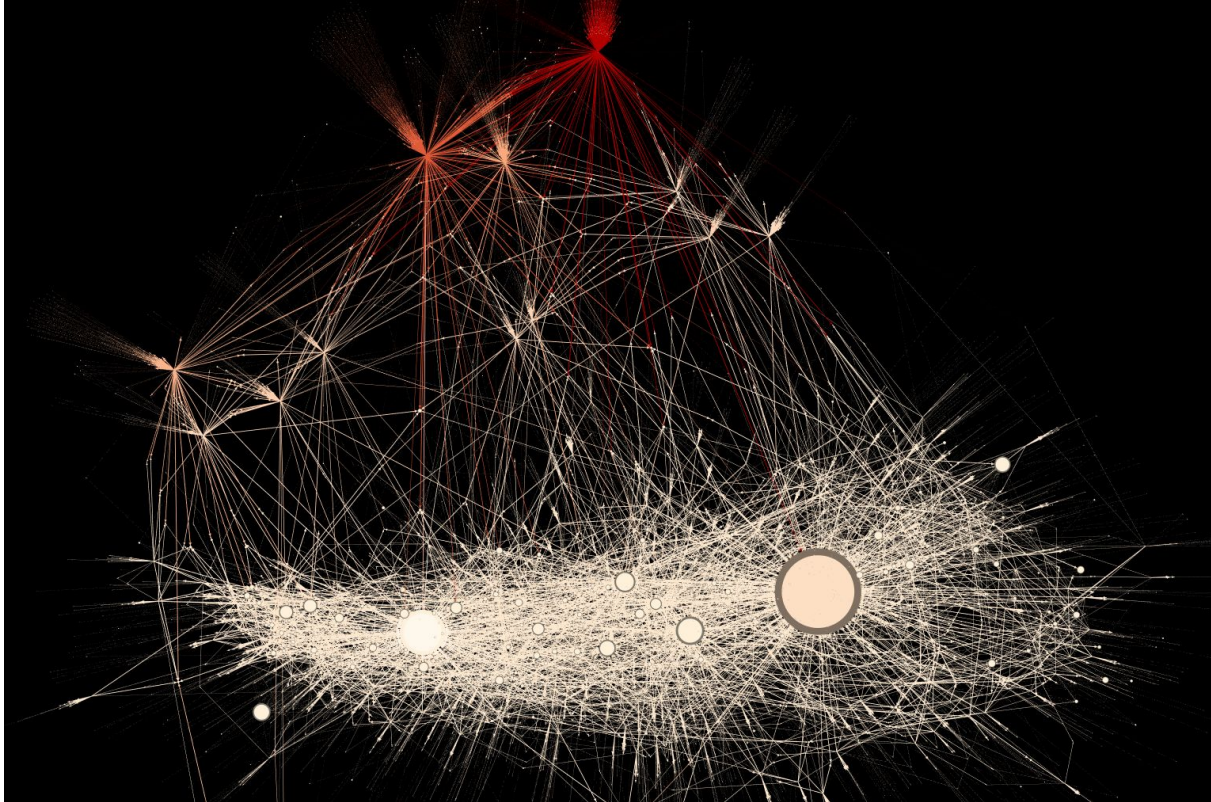
---

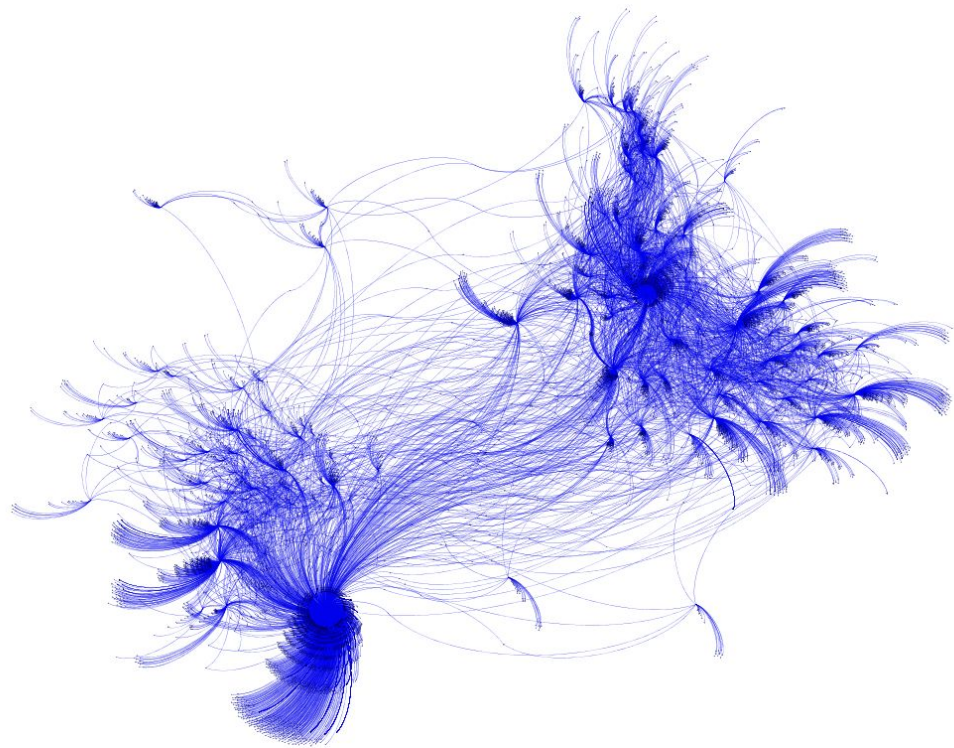
# Community Detection (only males)





# Degrees (only males)





Thank  
You