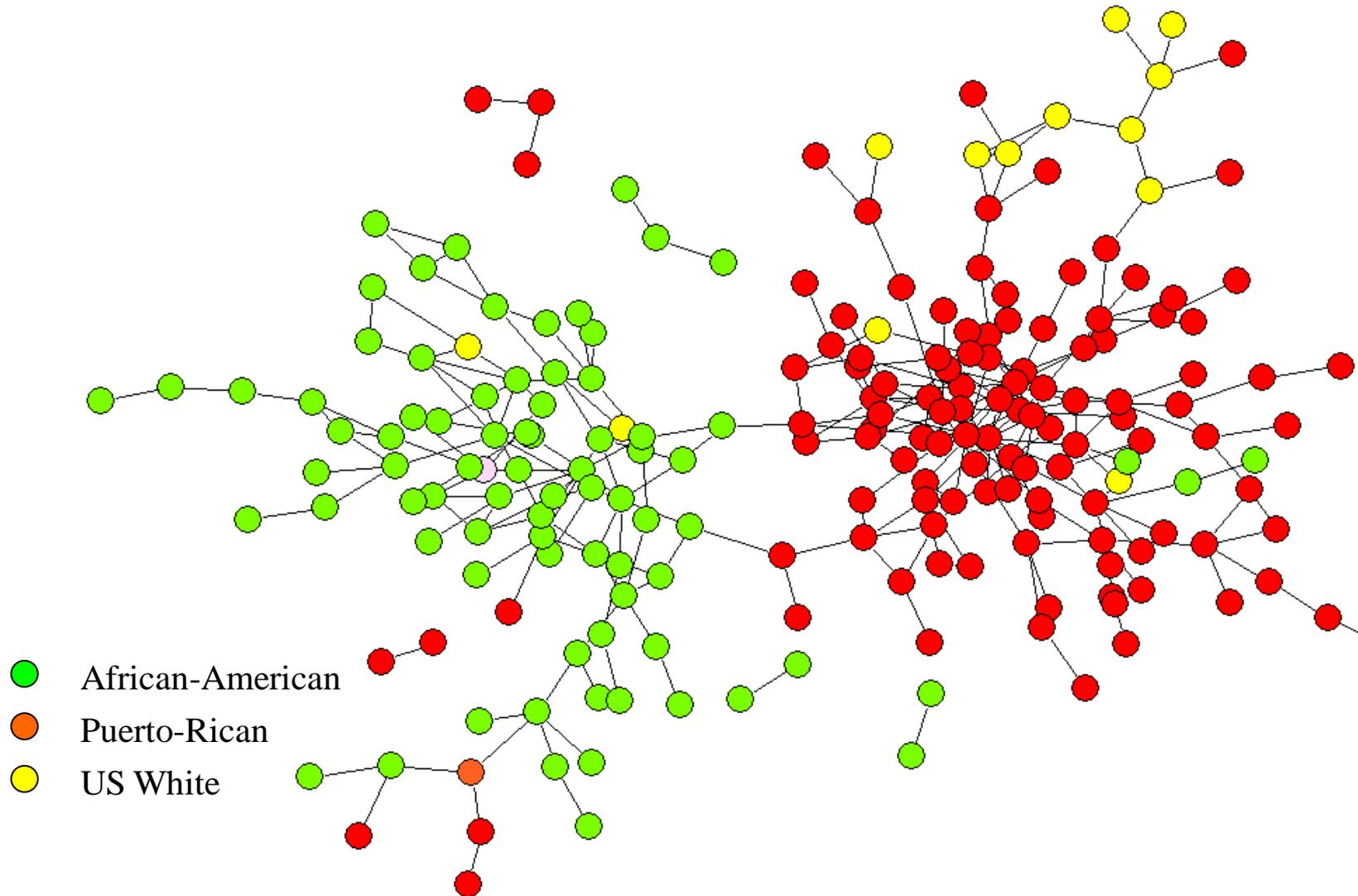


What is Social Network Analysis

Martin Everett

Acquaintances among Drug Users



What is SNA

- Focus on dyads
- Relational approach
- Not a method, not data but a perspective
- Uses both quantitative and qualitative methods
- Ego centred and whole network
- Concrete networks we could draw

Brief History

- Manchester University 1950's
- Professional association (since '78)
 - INSNA (Int'l Network for Social Network Analysis)
- Sunbelt Annual Conference (since '79)
- Specialized journals
 - Social Networks, (since '79)
 - CONNECTIONS, official bulletin of INSNA
 - Journal of Social Structure

Node Types

- Persons
- Organizations
- Animals
- Words
- Web pages
- Families
- Etc etc

Relations (People)

- Kinship
 - mother of, wife of
- Other role-based
 - boss of, teacher of
 - friend of
- Cognitive/perceptual
 - knows
 - aware of what they know
- Affective
 - likes, trusts
- Interactions
 - give advice, talks to, fights with, lends money to
 - sex / drugs with
- Affiliations
 - belong to same clubs
 - is physically near

Relations (Other)

- Trades with
- Collaborates with
- Hyperlink to
- In the same paragraph
- Eats
- Grooms
- Pecks
- Hits

Relations can be directed and/or valued

- Strength
- Rank
- Frequency
- Probability

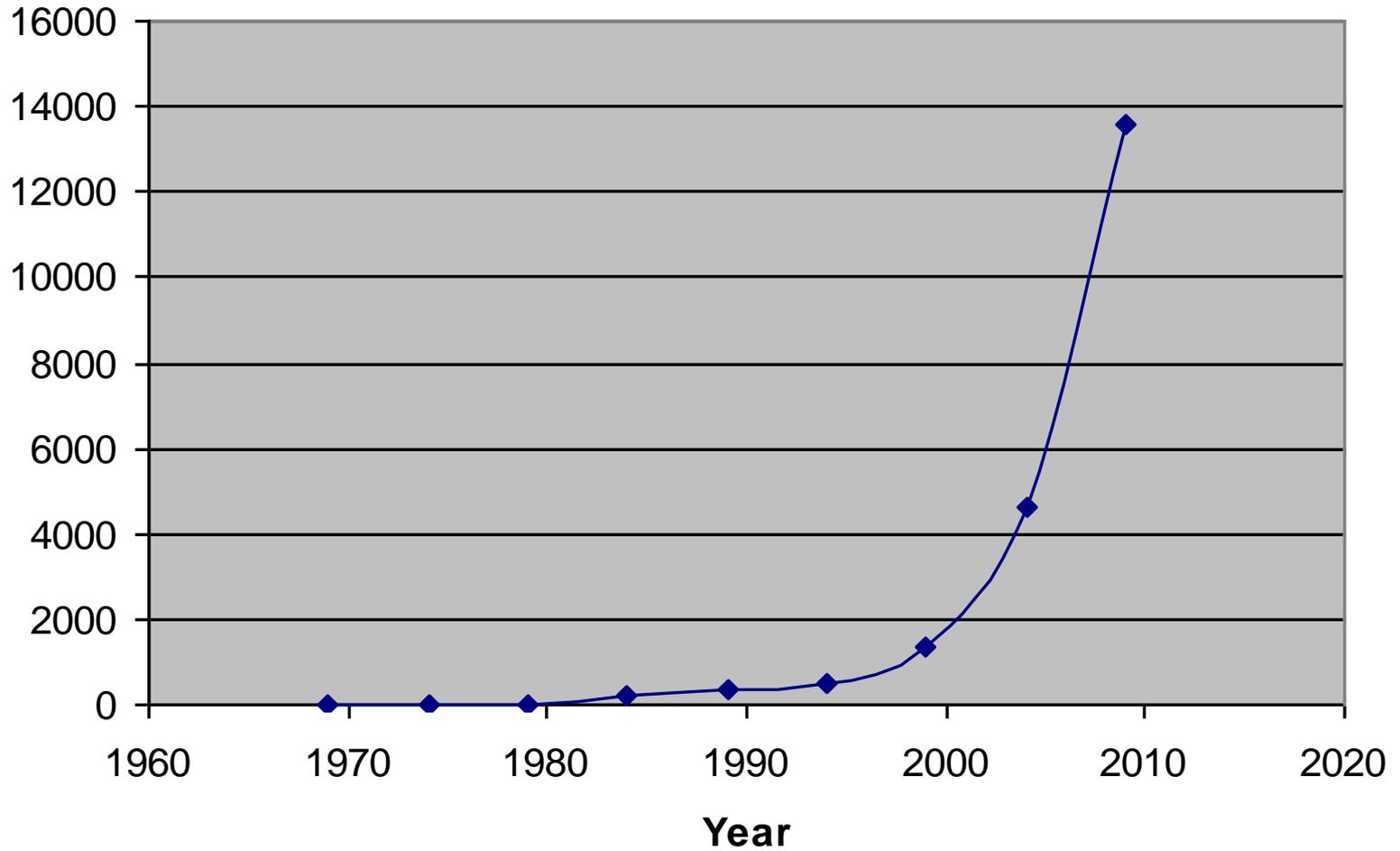
Traditional Applications

- Small bounded groups
- Organizations
- Social support (Ego network studies)
- Social Biology

The rise and rise of SNA

- Exponential increase in papers published
- Expanding fields of application
- In the period 1969-74...20 papers
- In the period 2004-09..13,600
- From 2010-yesterday...16,500

Number of articles containing the phrase "social network analysis"



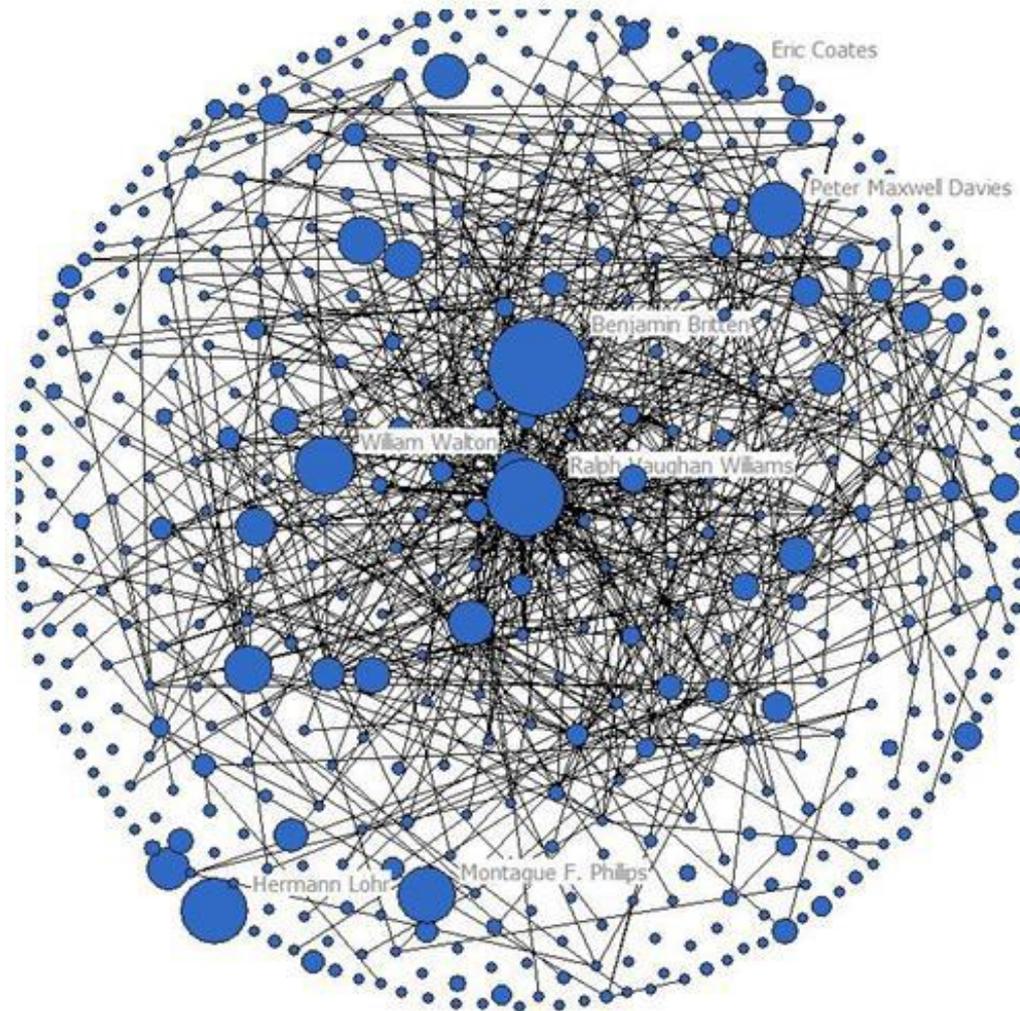
Traditional methods

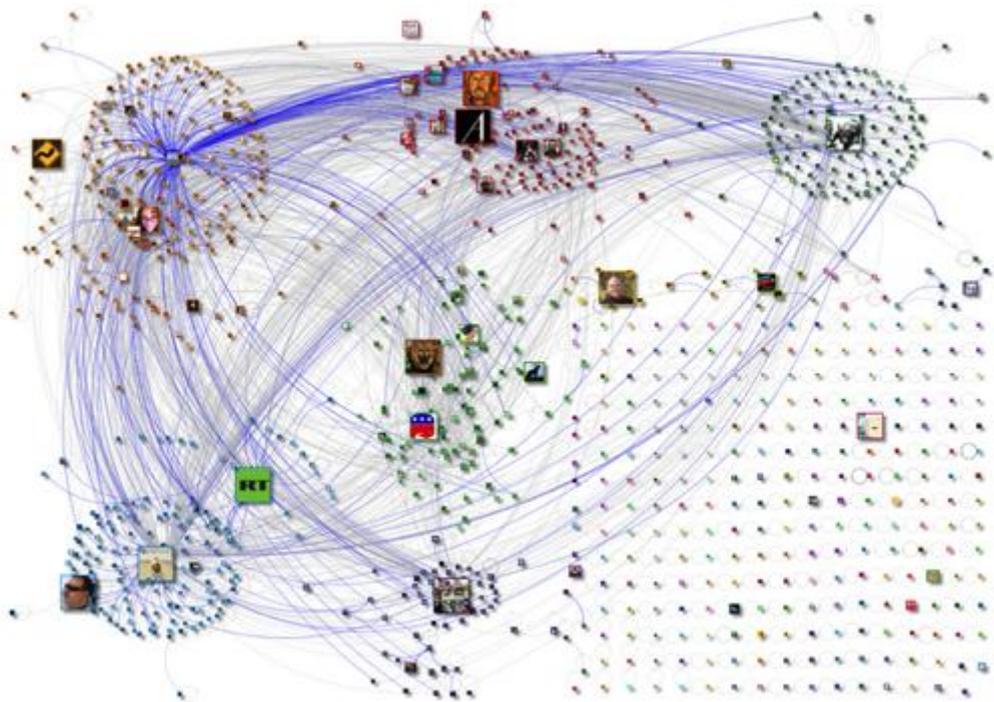
- Centrality
- Cohesive subgroups
- Cohesion
- Positional Analysis
- Triadic methods
- Statistical models (static)
- Visualization

New areas

- Terrorist networks
- Criminal networks
- Economic networks
- WWW and internet
- Social networking data
- Small world
- Dynamic networks
- Large and complex networks
- Network formation

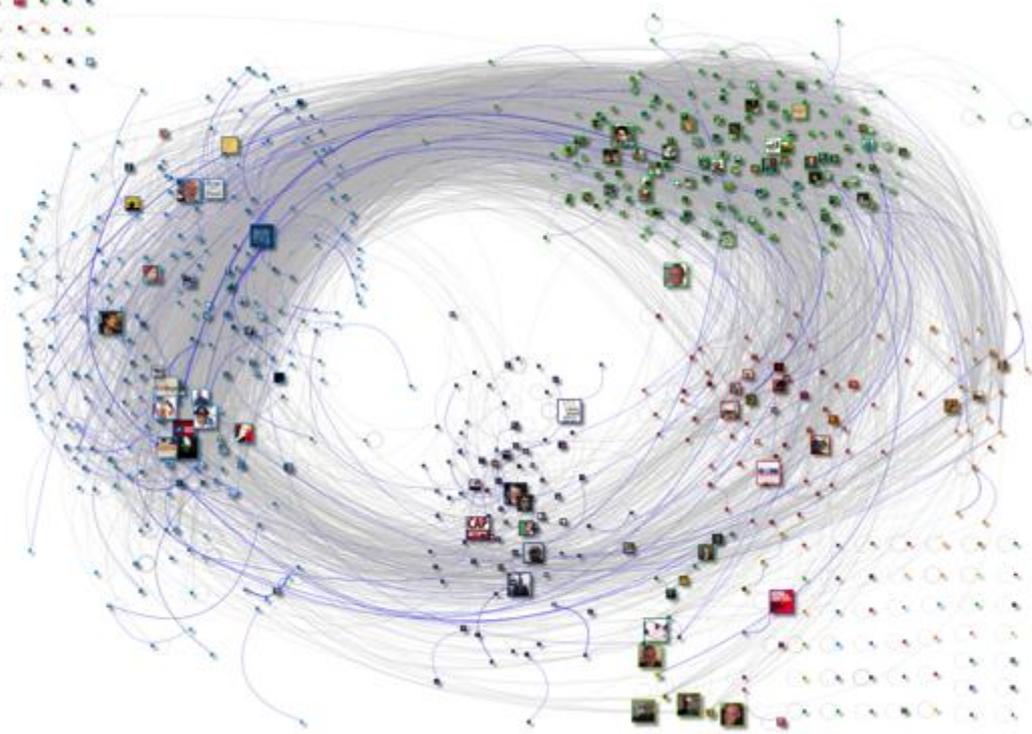
Composers

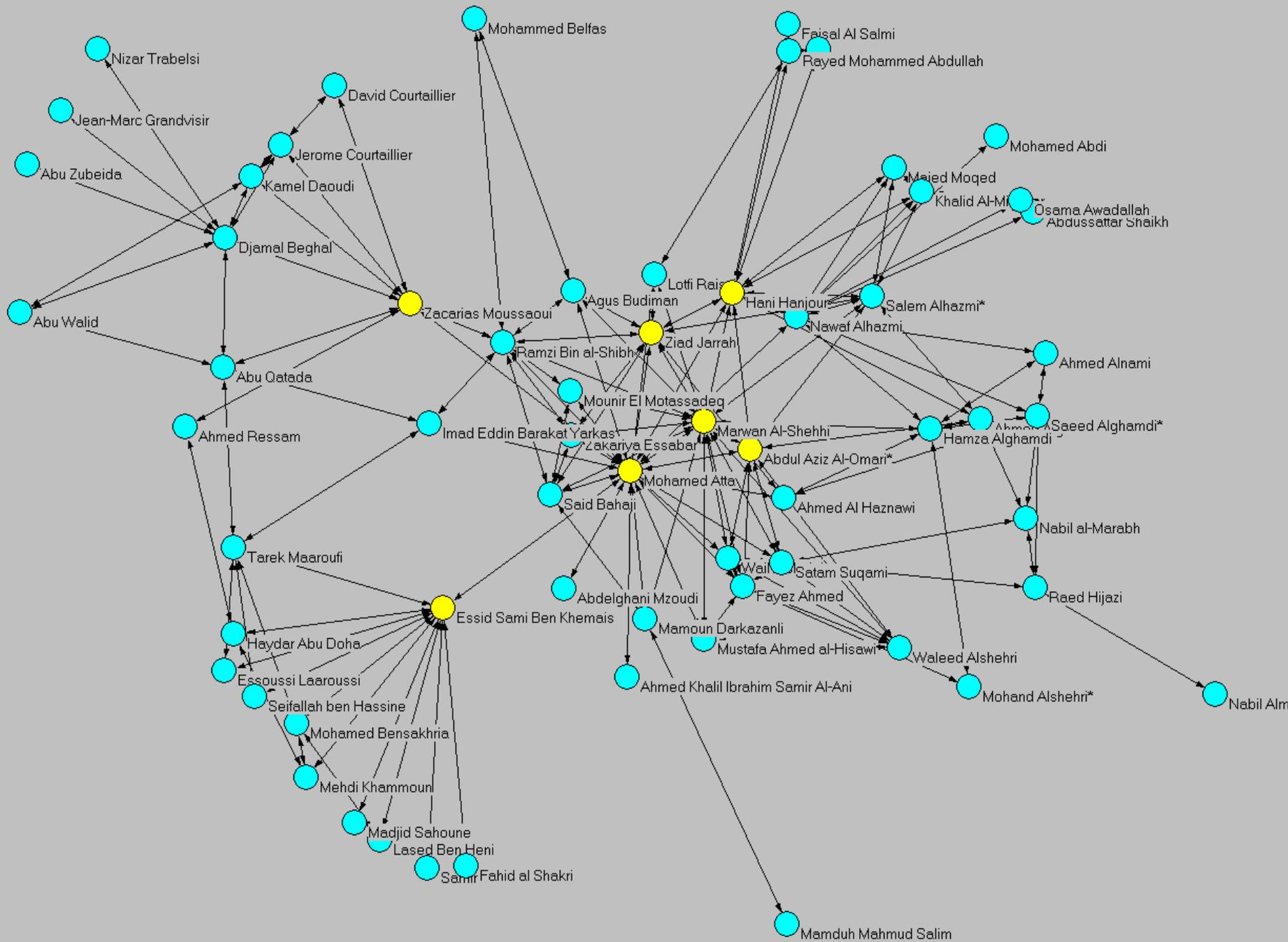


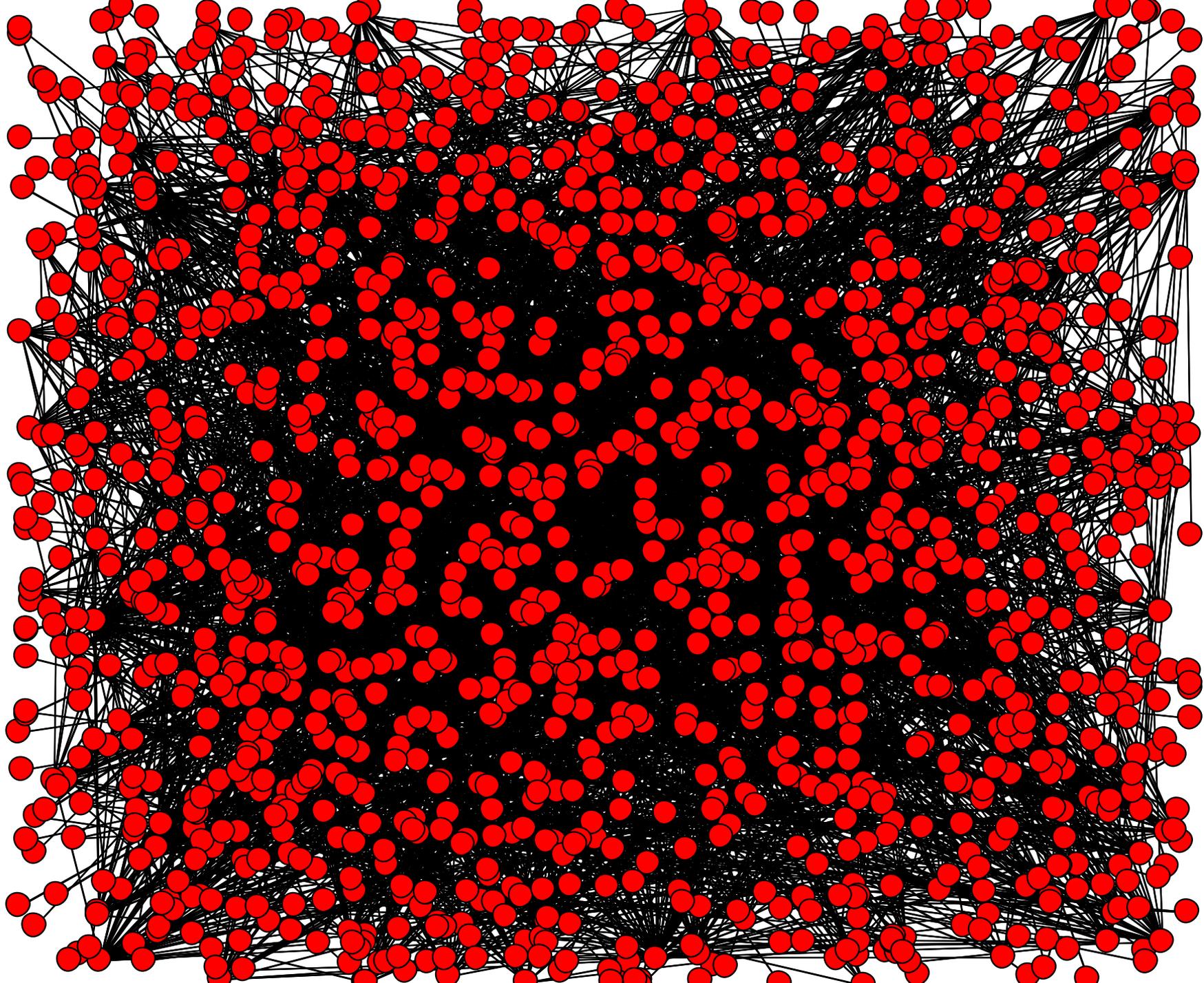


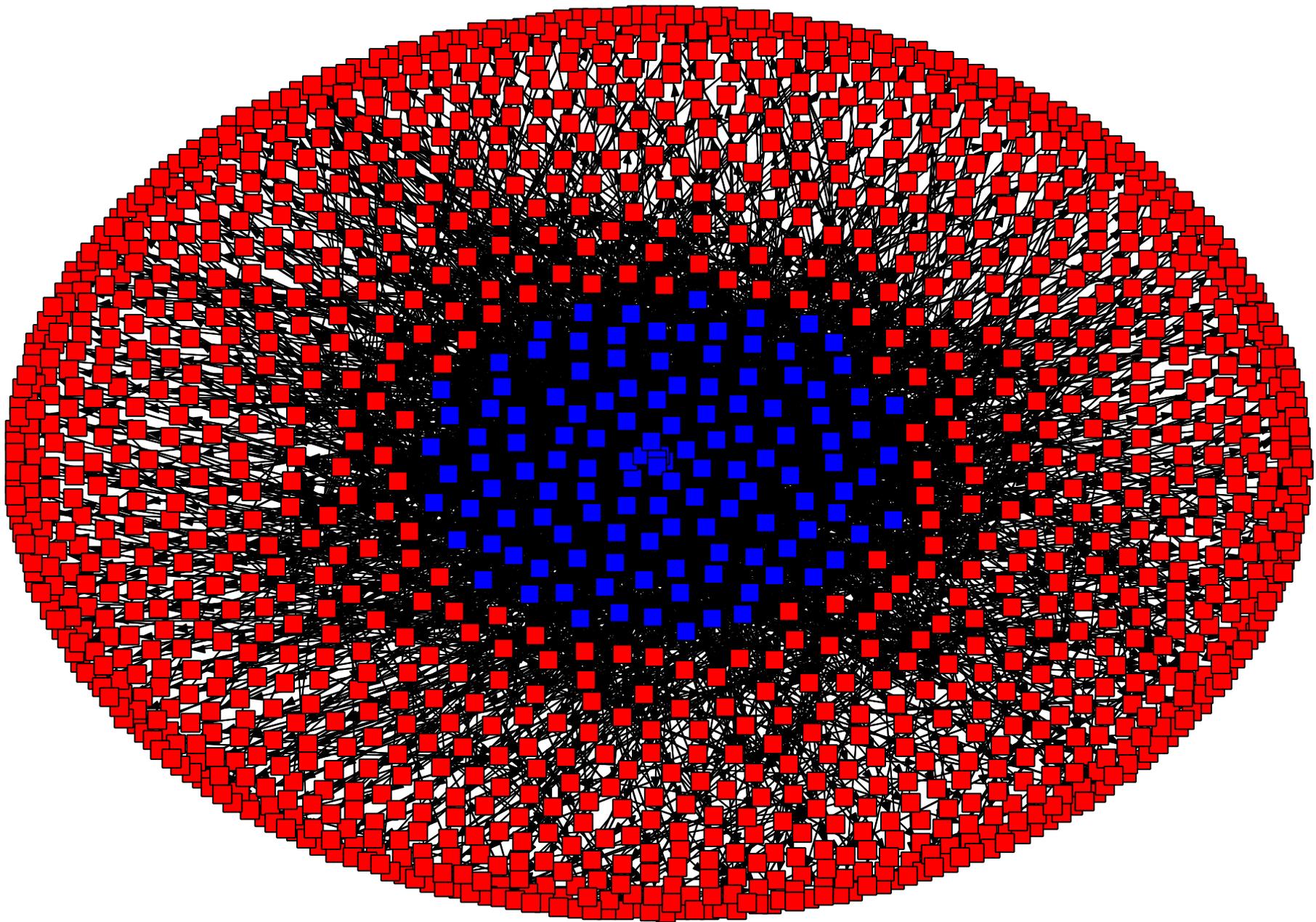
#occupywallstreet
15 November 2011

#teaparty
15 November
2011









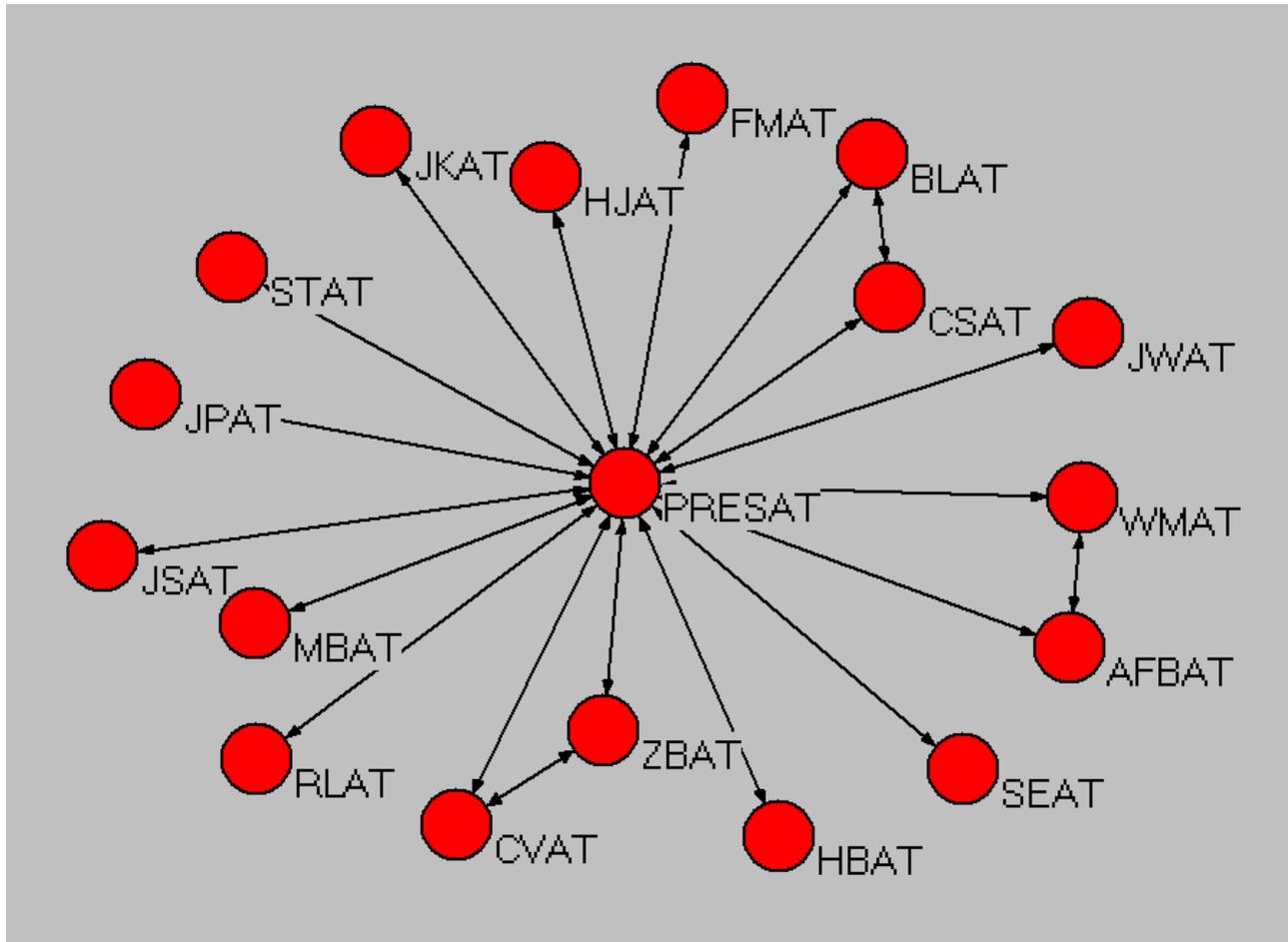
Ego Networks

- Egos selected at random or using some criteria
 - Ego very often provides all the data
 - Consequently ego perceived networks
- Ego gives alter attributes and preferably alter alter connections

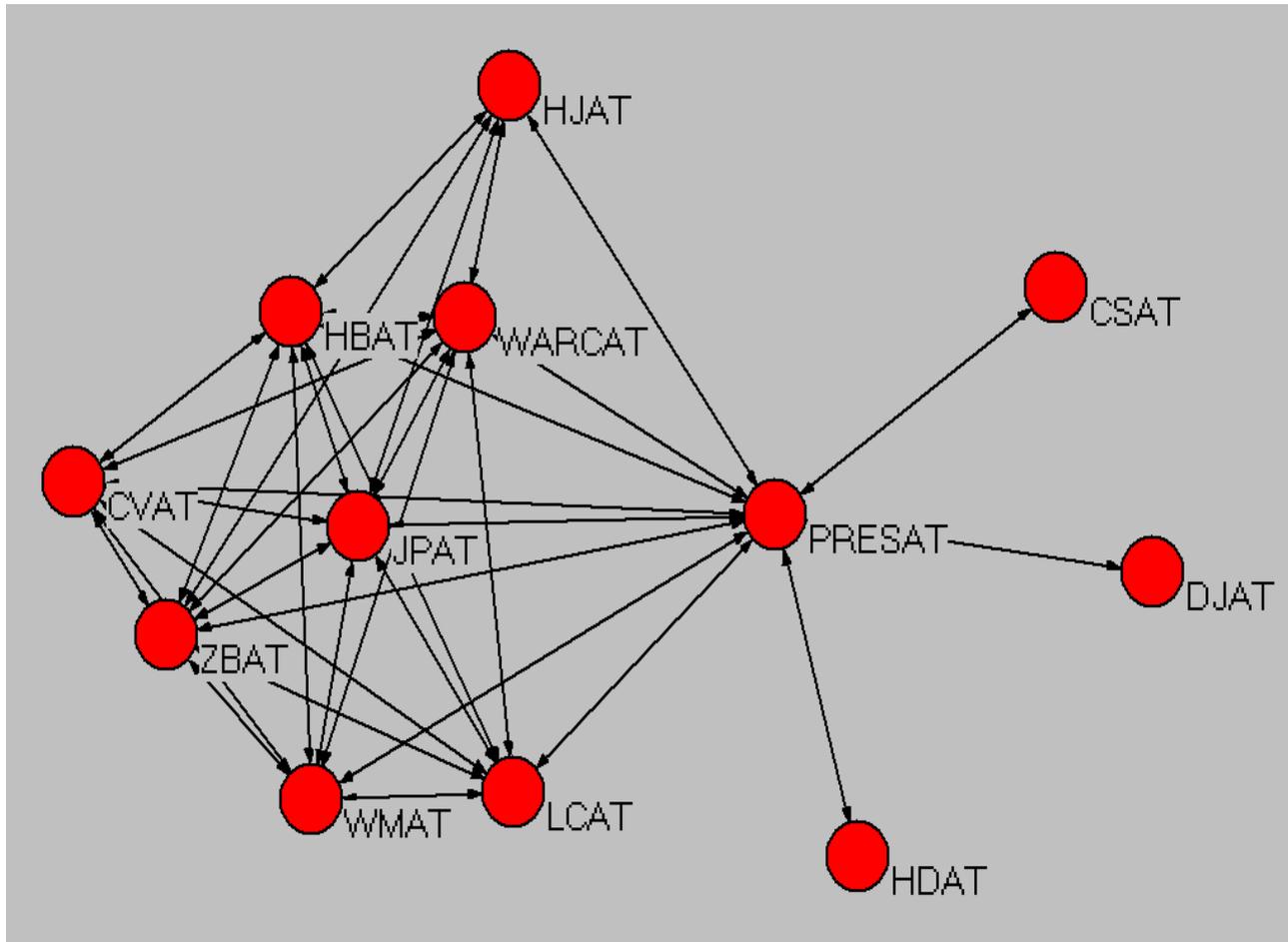
Analysis

- Descriptive measurements
 - Number of alters
 - Density
 - Homophily
- Measures used in standard statistics

Carter Year 1



Year 4



Software

- UCINET
- Pajek
- SIENA
- PNET
- Statnet
- NodeXL
- Visone
- Gephi

Further Information

- Mitchell Centre

<http://www.ccsr.ac.uk/mitchell/>

- INSNA

<http://www.insna.org/>

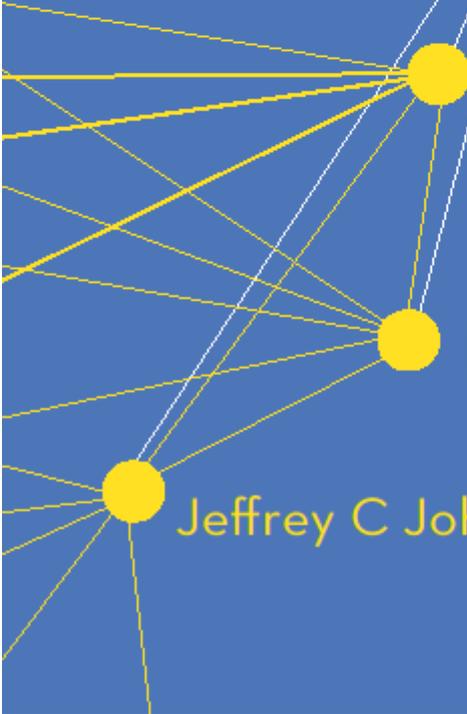
- methods@manchester

<http://www.methods.manchester.ac.uk/methods/sna/>

- UKSNA

- <http://uksna.com/>

Analyzing Social Networks



Stephen P Borgatti

Martin G Everett

Jeffrey C Johnson



Questions

