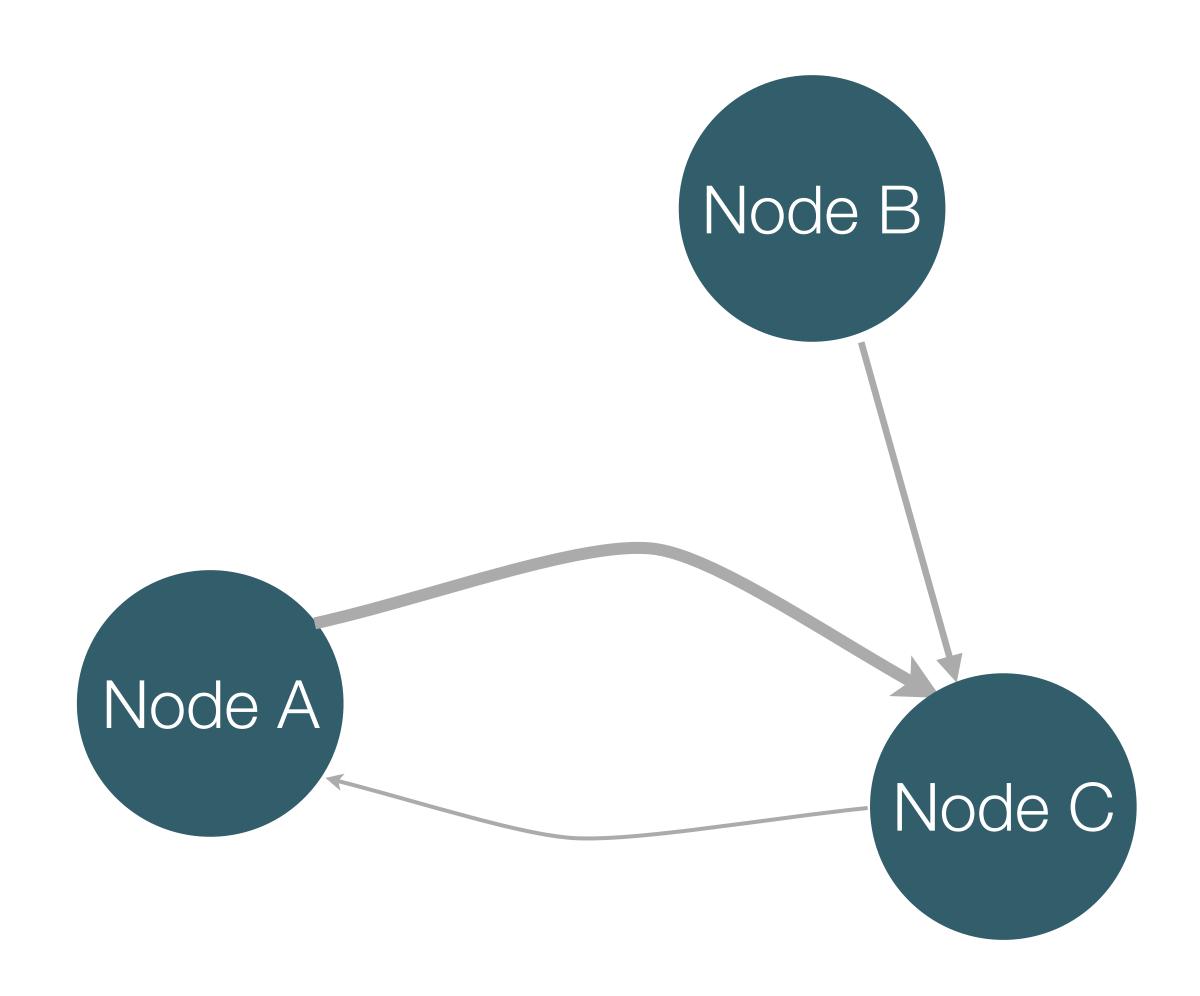
## Using Social Network Analysis in the Classroom

Ruben R. Puentedura, Ph.D.



## Social Network Analysis - Collecting Data

### The key components:

- The actors
- Their connections
- The directionality (if any) of the connections
- The strength (if any) of the connections

#### Looking at the actors:

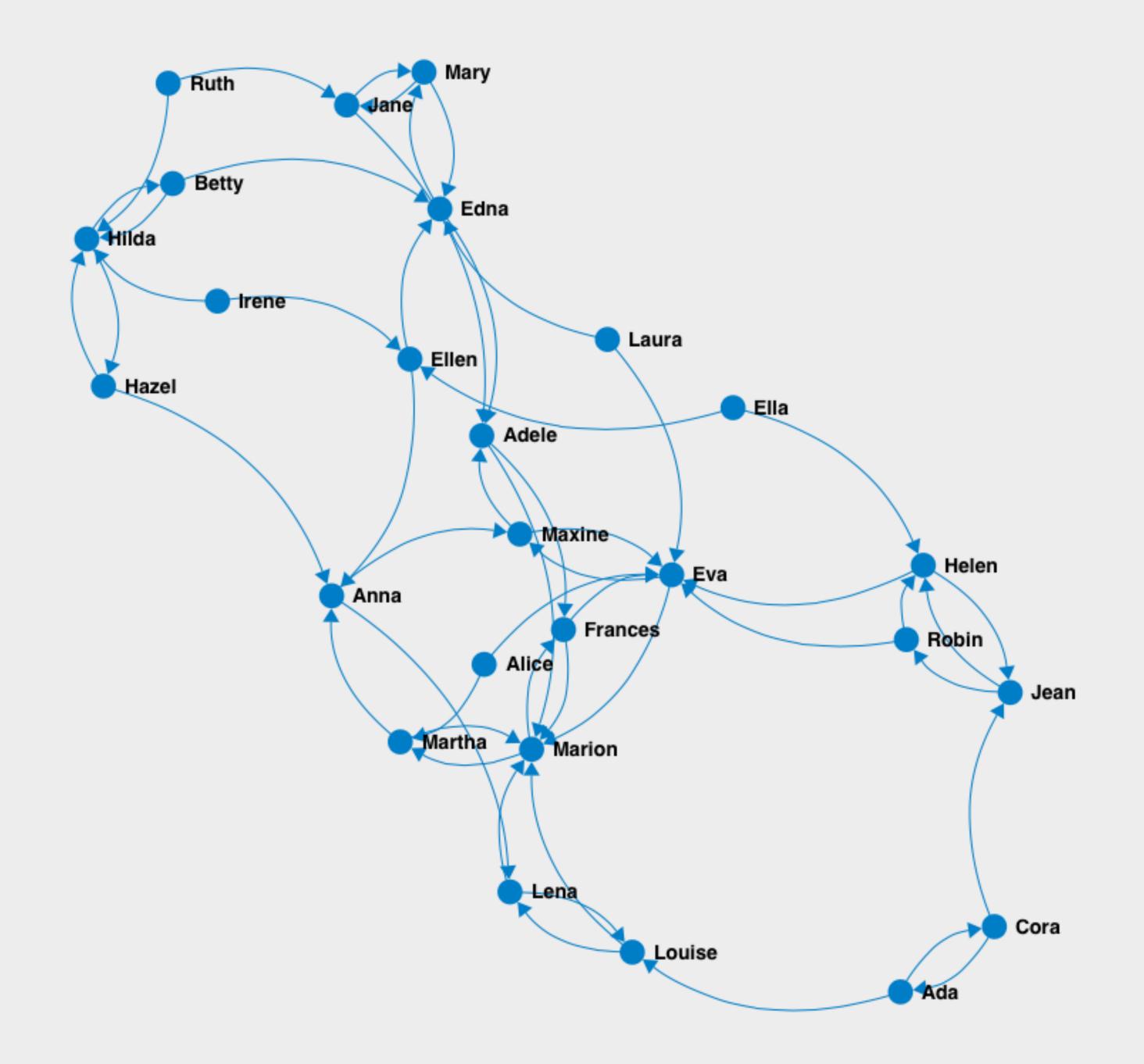
- Whole Network: Do we choose a full set for which we then determine connections?
- · Egocentric Network: Do we choose a subset (egos) for which we then determine connections to other actors (alters)?

### Choosing the actors:

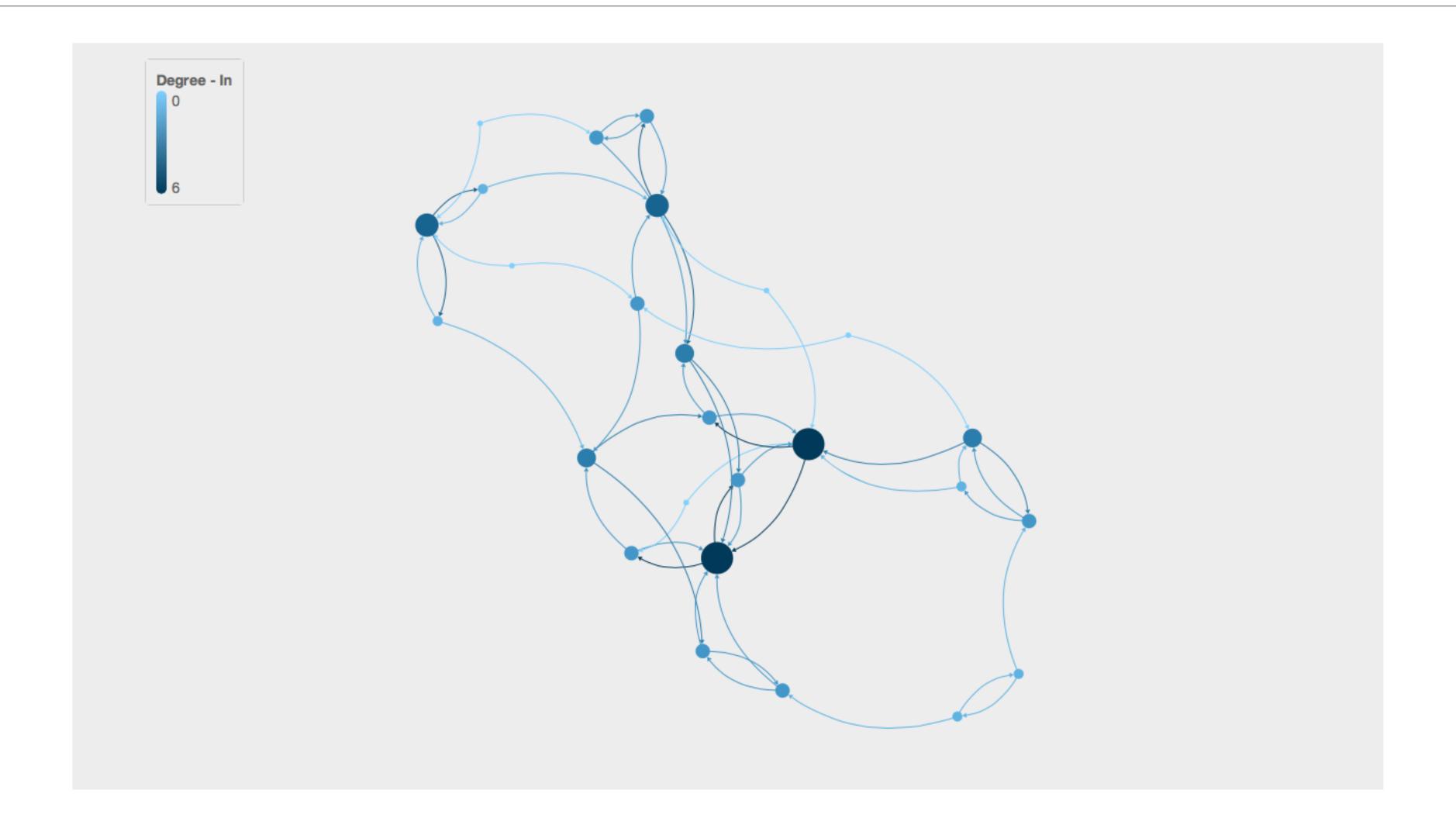
- Positional Approach: based upon set membership or shared attributes
- · Event-Based Approach: based upon participation in a set of activities
- · Relational Approach: based upon social connectedness

#### Collecting the data:

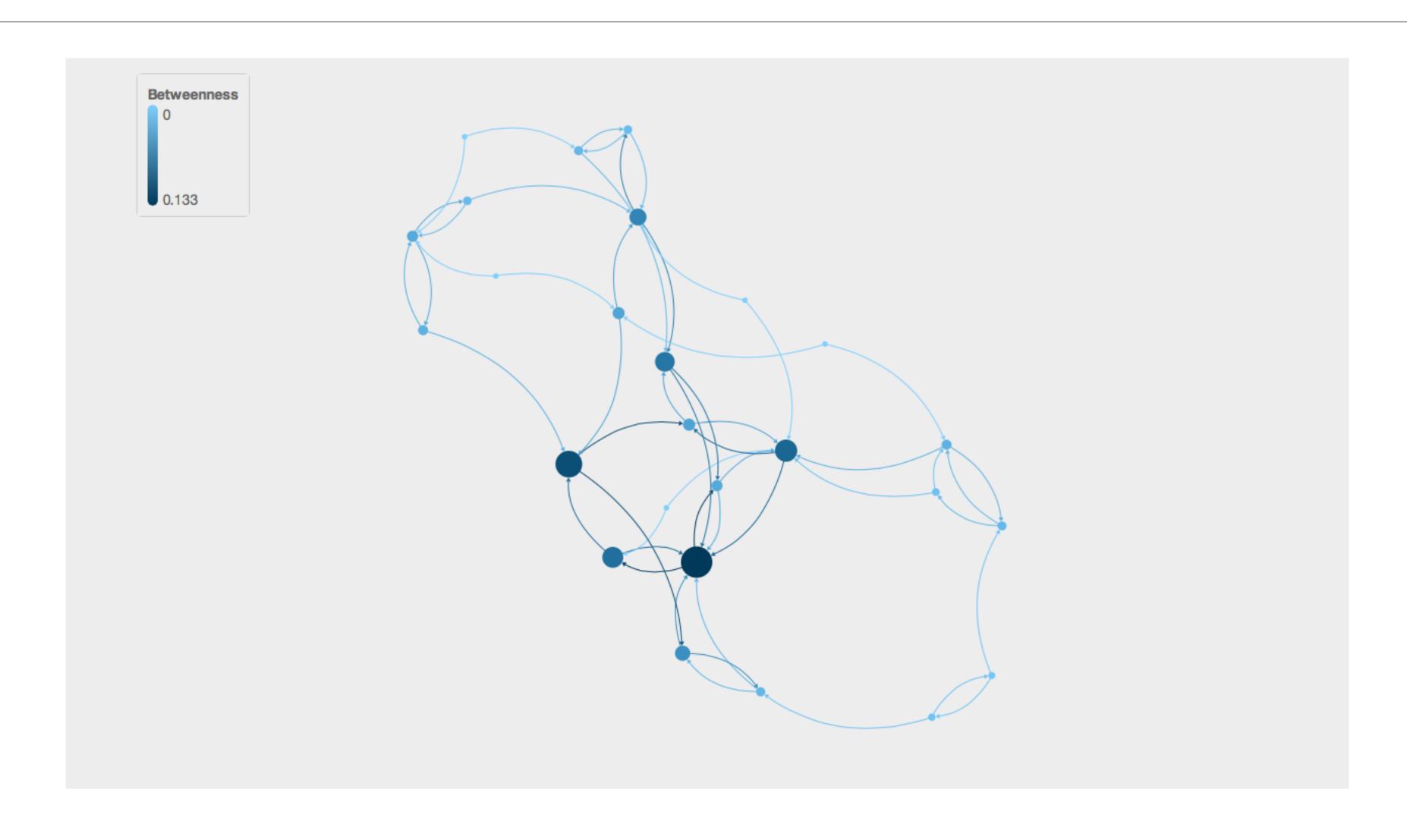
- Surveys
- Observation
- Participation records
- · Electronic network data from e.g. email, discussion forums



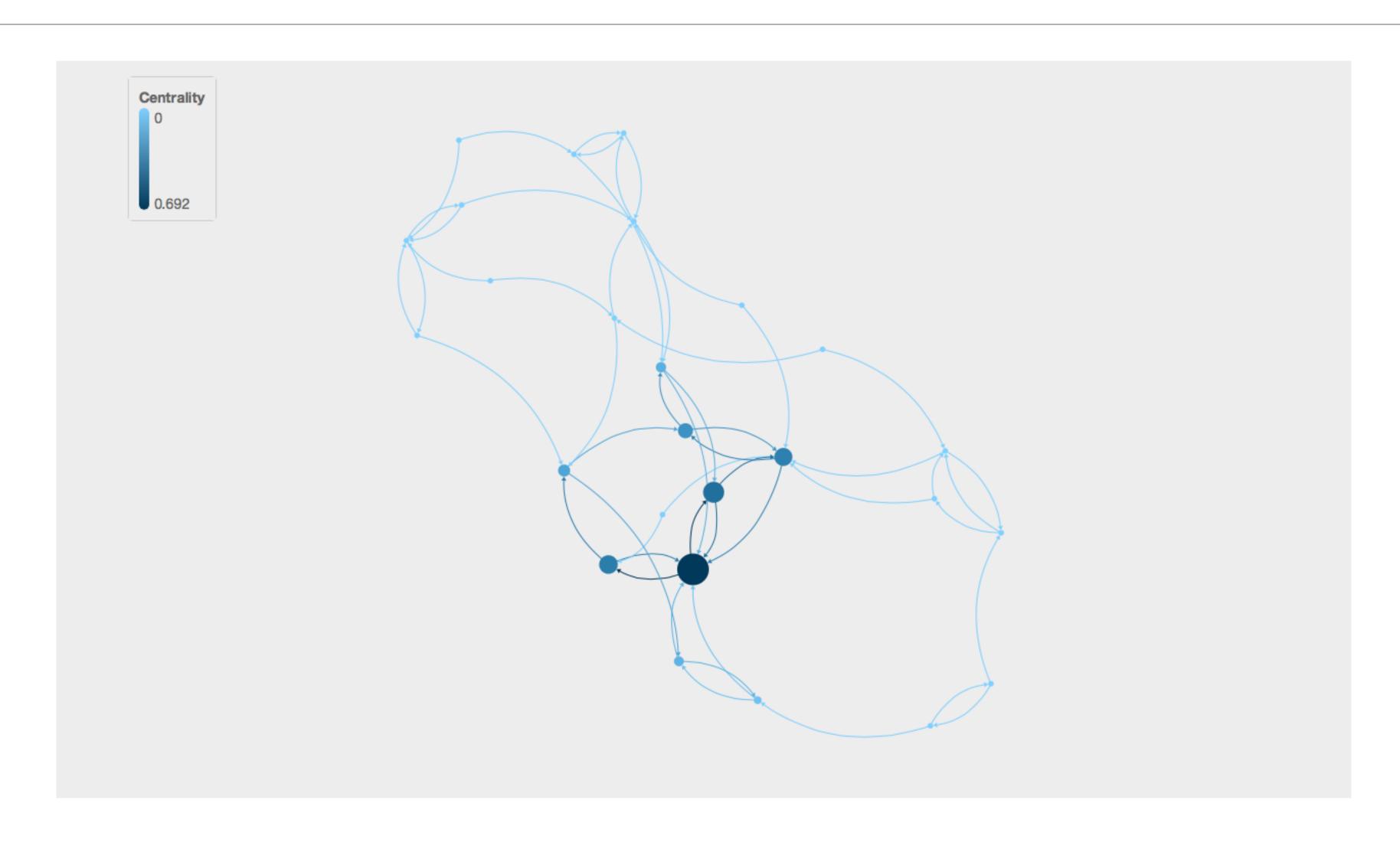
## Degree



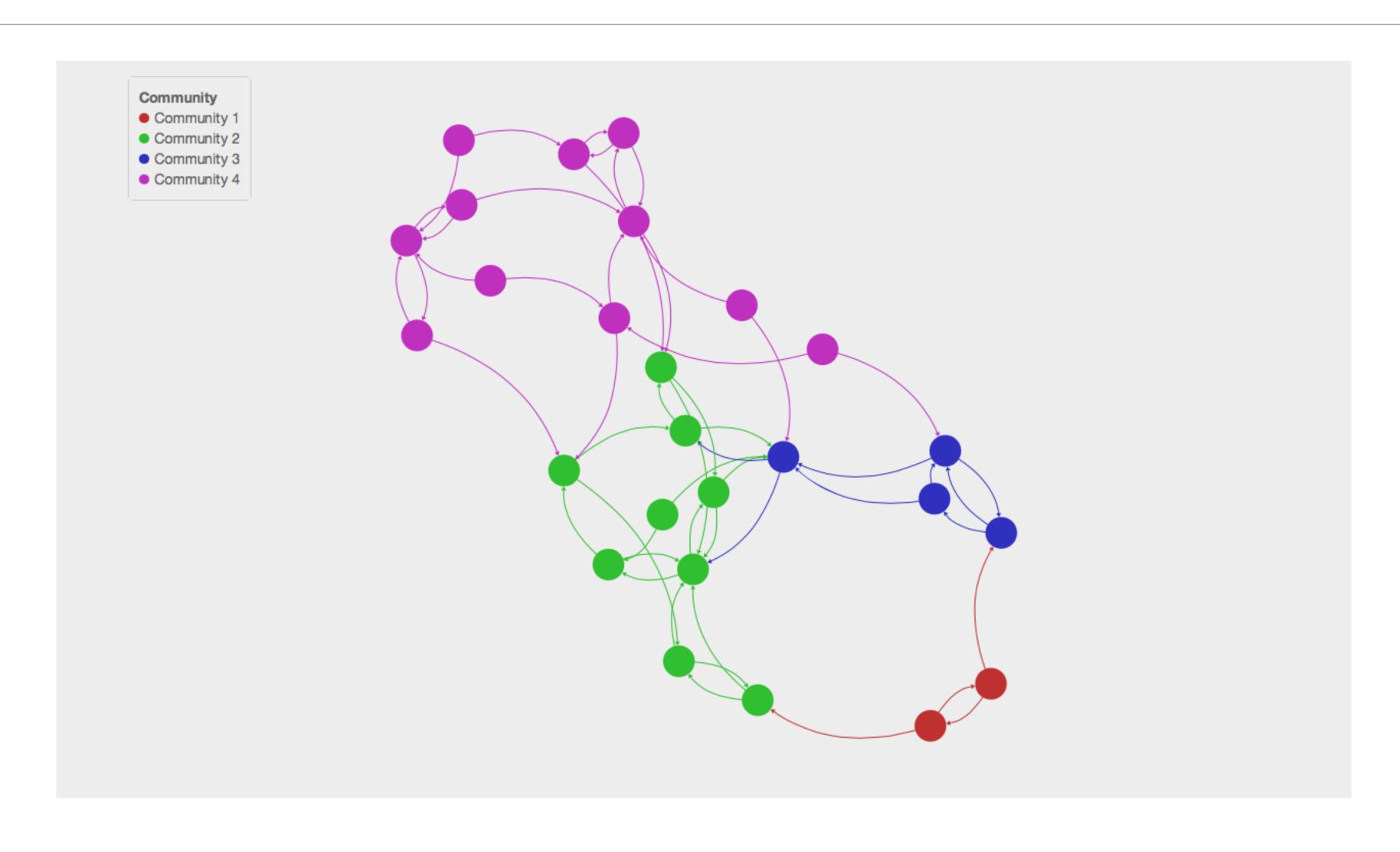
### Betweenness



# Centrality



# Community



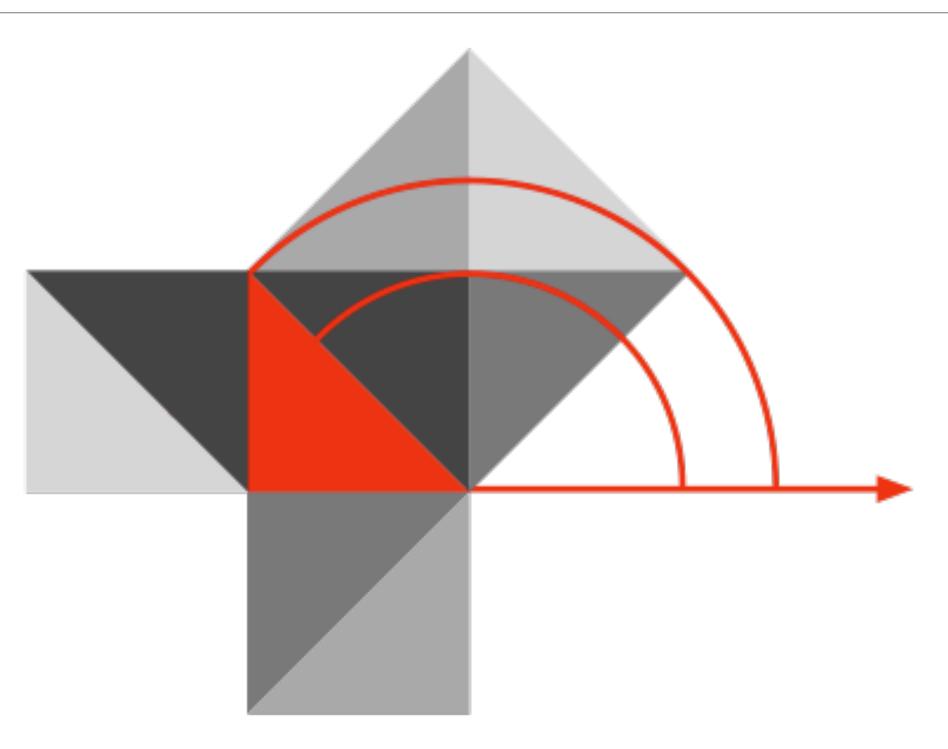
## 3 Networks for Today

- Dining-table partners in a dormitory at a New York State Training School (http://tinyurl.com/ll2015sna)
  - Research by H.H. Jennings and J.L. Moreno, published in J.L. Moreno, *The Sociometry Reader*. Glencoe (III.), The Free Press, 1960, p. 35. Network file coded by W. de Nooy.
- Student government discussion network (http://tinyurl.com/ll2015sna2)
  - V. Hlebec, "Recall versus recognition: comparison of two alternative procedures for collecting social network data." (in A. Ferligoj & A. Kramberger (Eds.), *Developments in Statistics and Methodology*. Ljubljana: FDV, 1993).
    Network file coded by V. Batagelj.
- Modern math method diffusion (http://tinyurl.com/ll2015sna3)
  - R.O. Carlson, *Adoption of Educational Innovations* (Eugene: University of Oregon, Center for the Advanced Study of Educational Administration, 1965, p. 19). <u>Network file</u> coded by W. de Nooy.

Polinode: http://www.polinode.com

Network: http://tinyurl.com/ll2015sna

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