



Social Network Analysis: why it is so popular?

Song Yang, Ph.D.

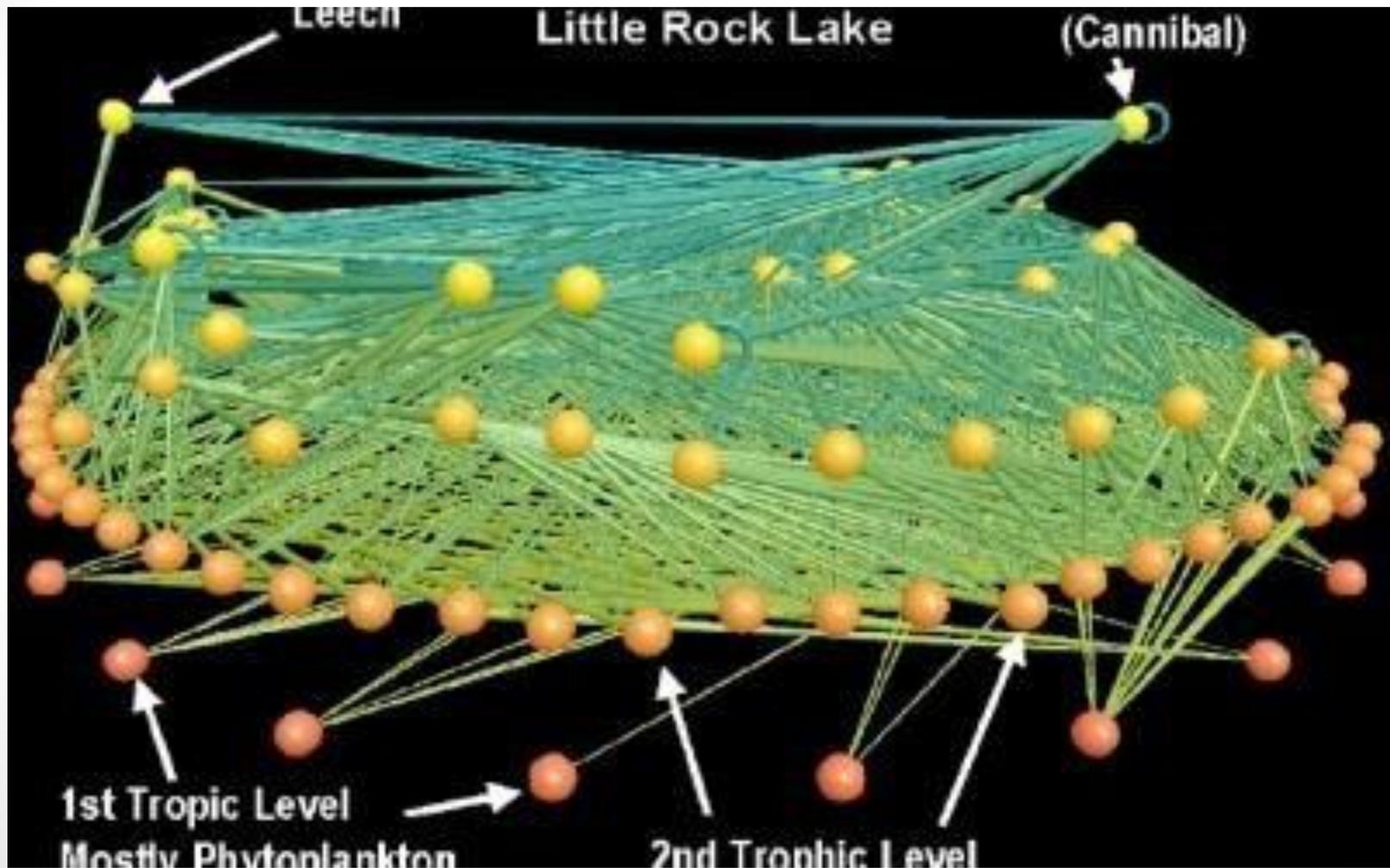
University of Arkansas

So why SNA is so popular?

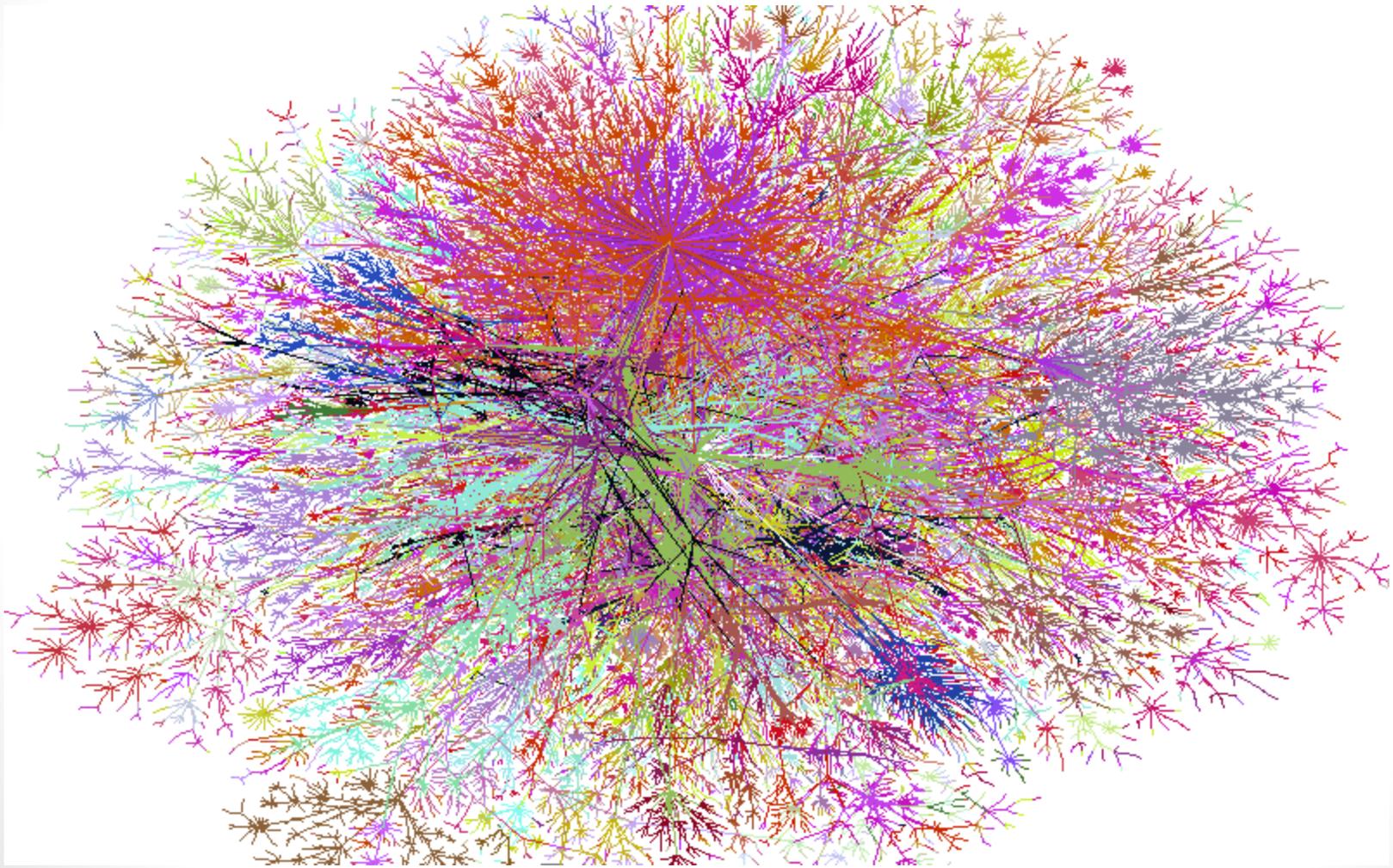
- Multidisciplinary attention
 - Internet analysis
 - Telephone network
 - Power grids
 - Transportation
 - Delivery and supply chain
 - Social network
 - First start with sociology, then propagate to economics and management sciences
 - Information network
 - Biological network

Network graph of food chain

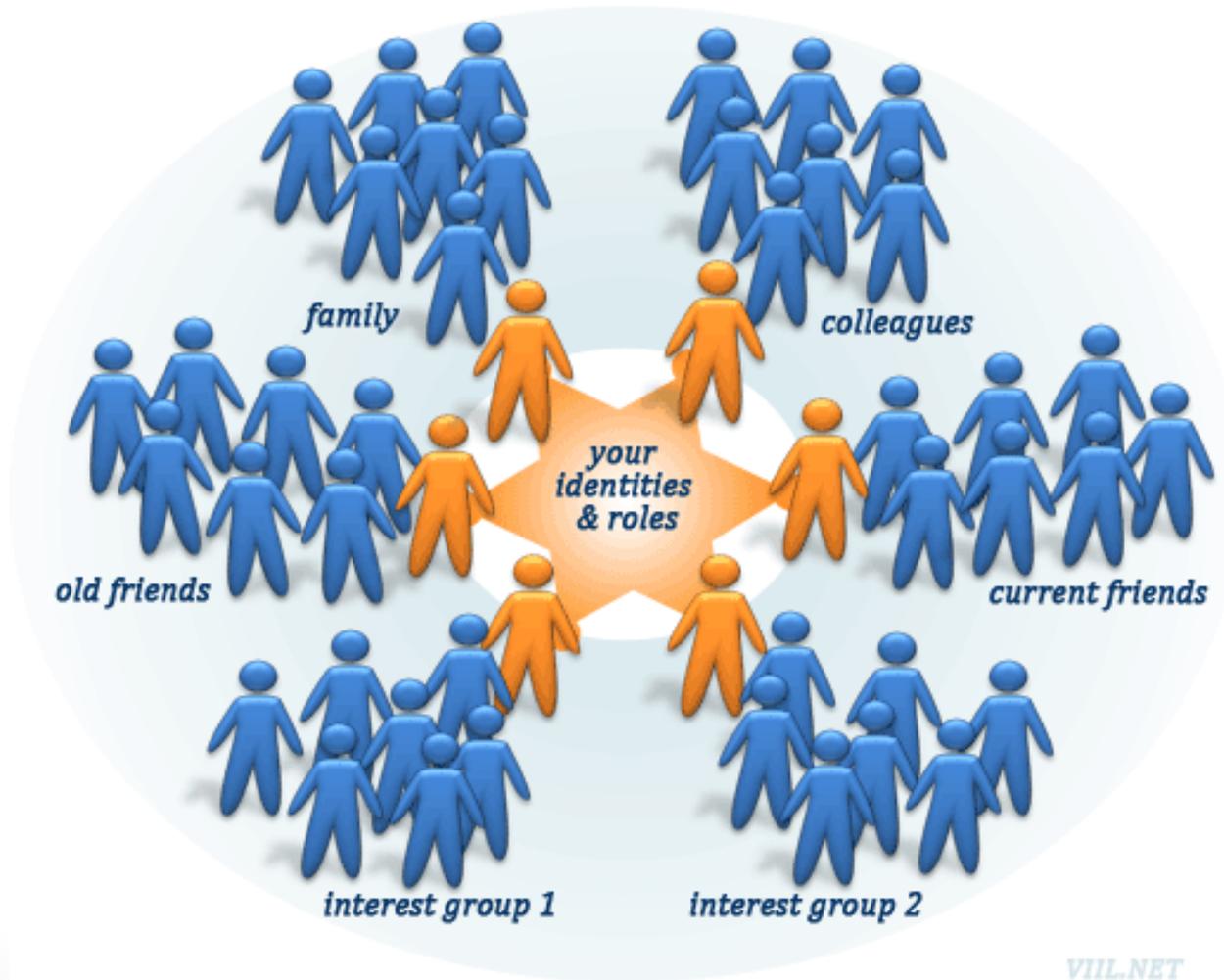
Source: Newman 2011



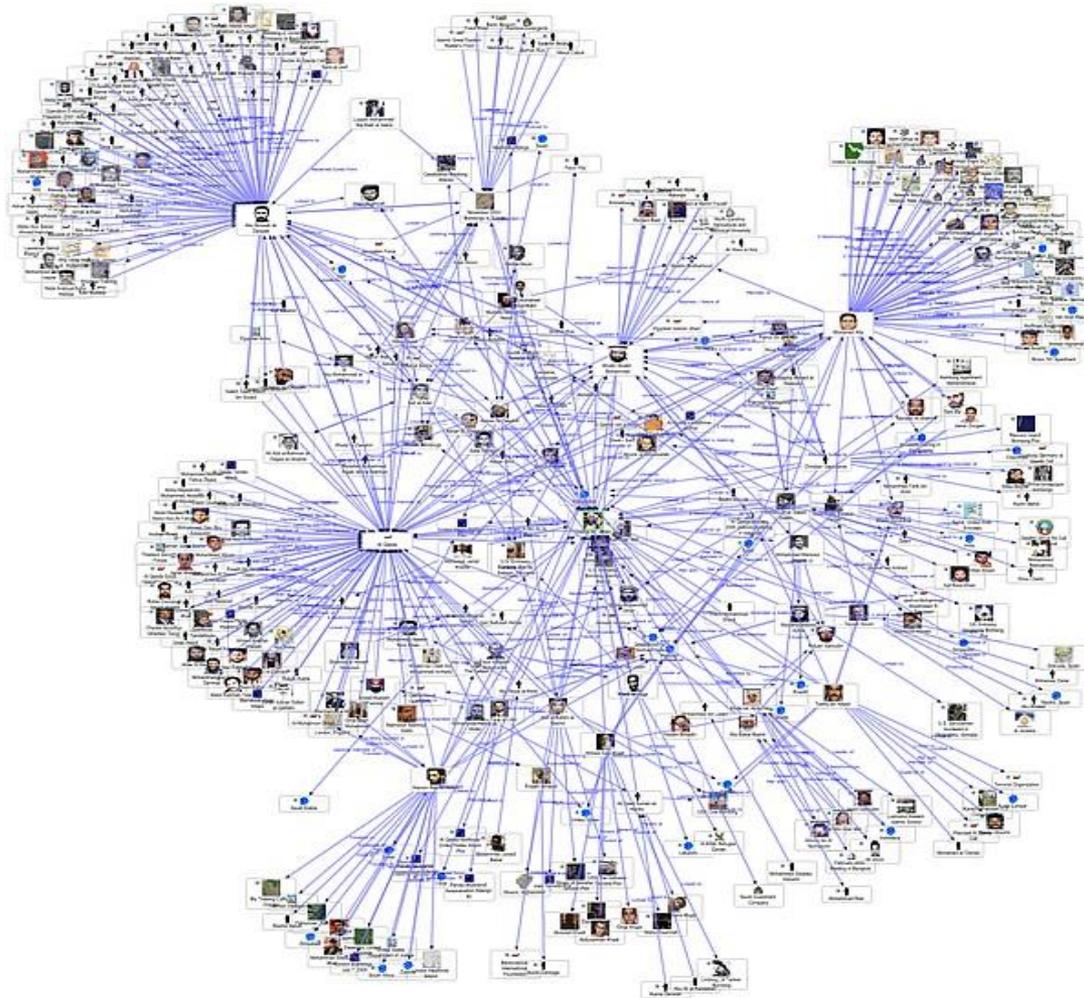
A computer network: Newman 2011



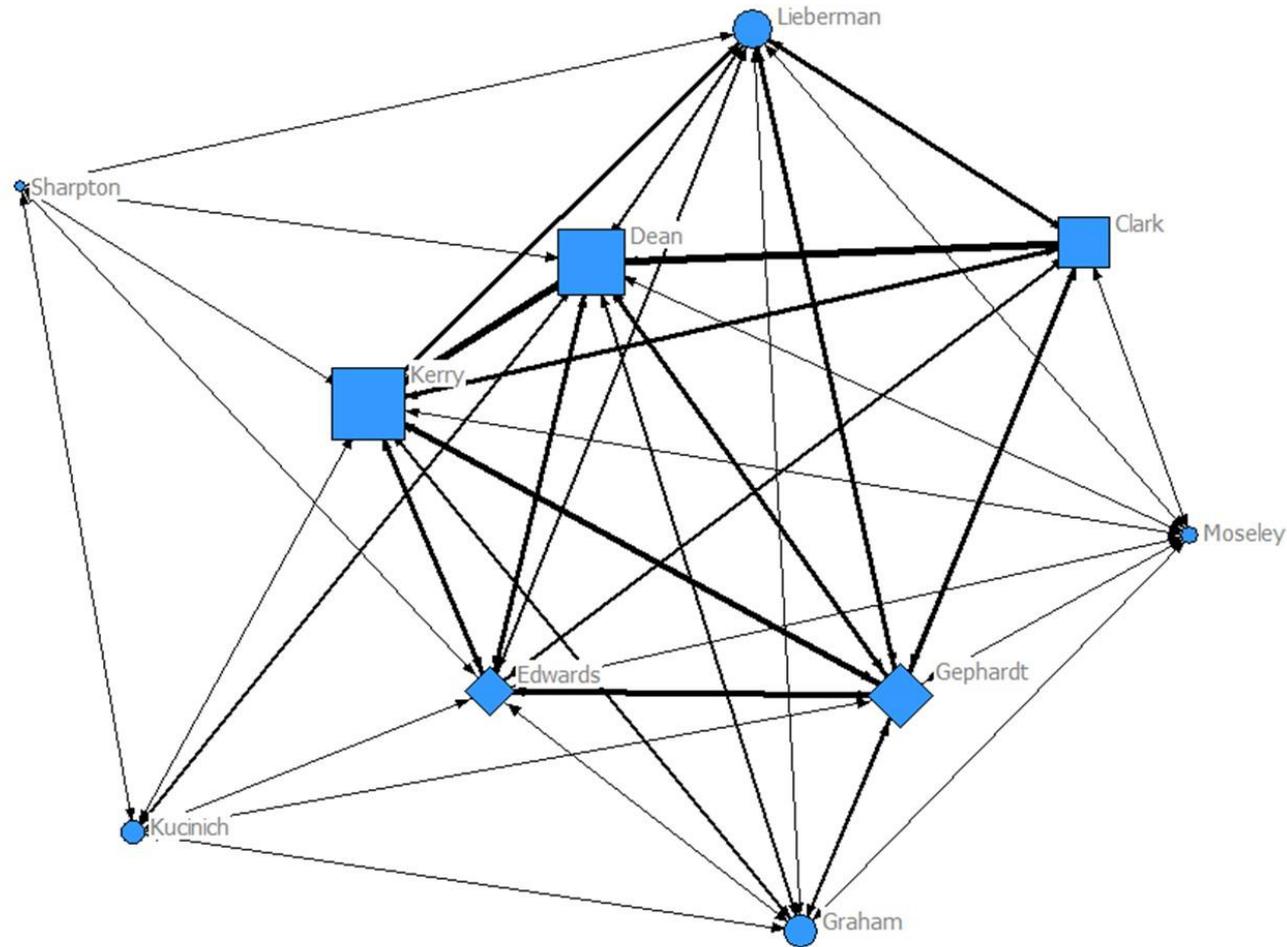
Social networks



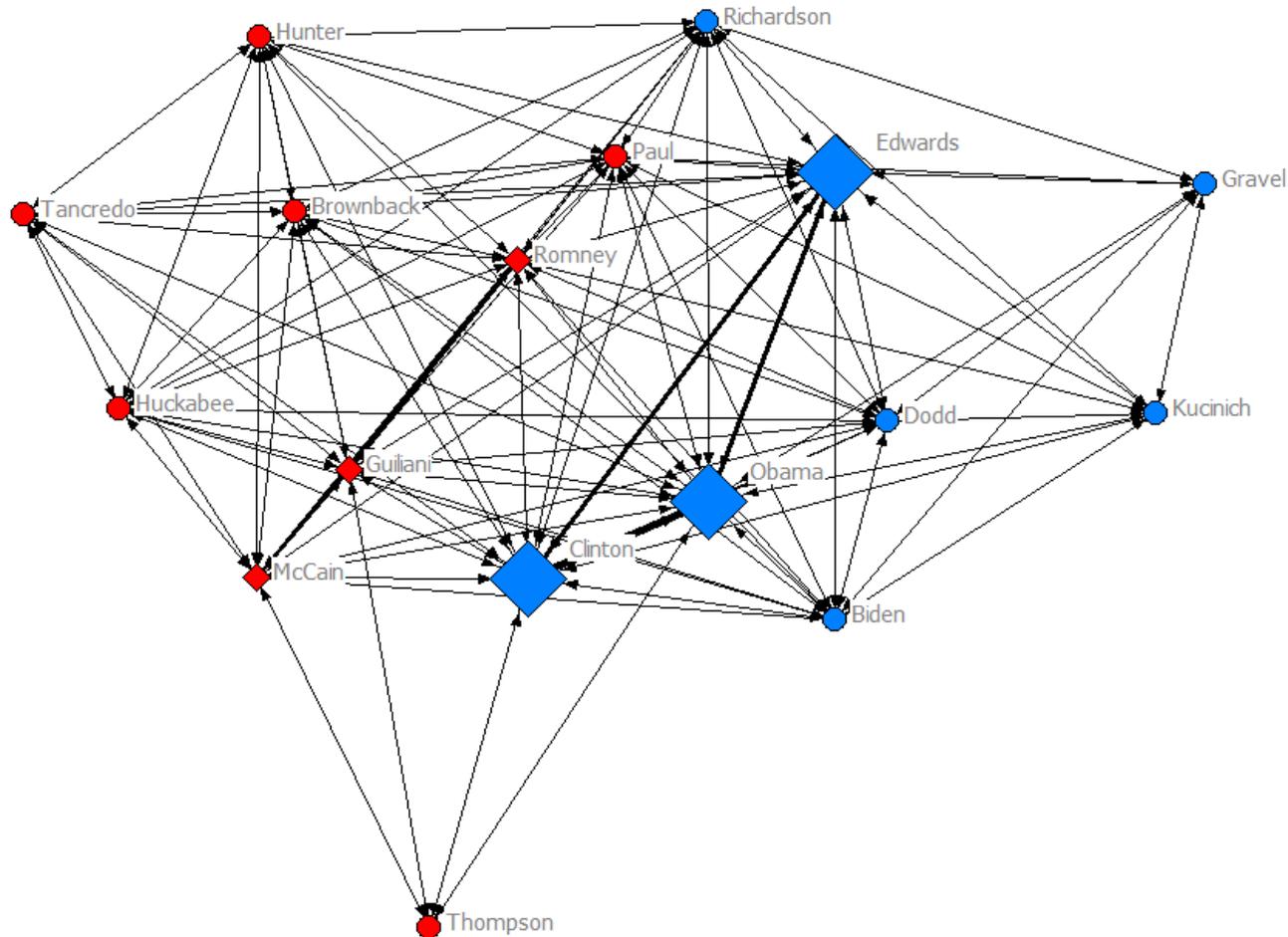
Al-Qaida network



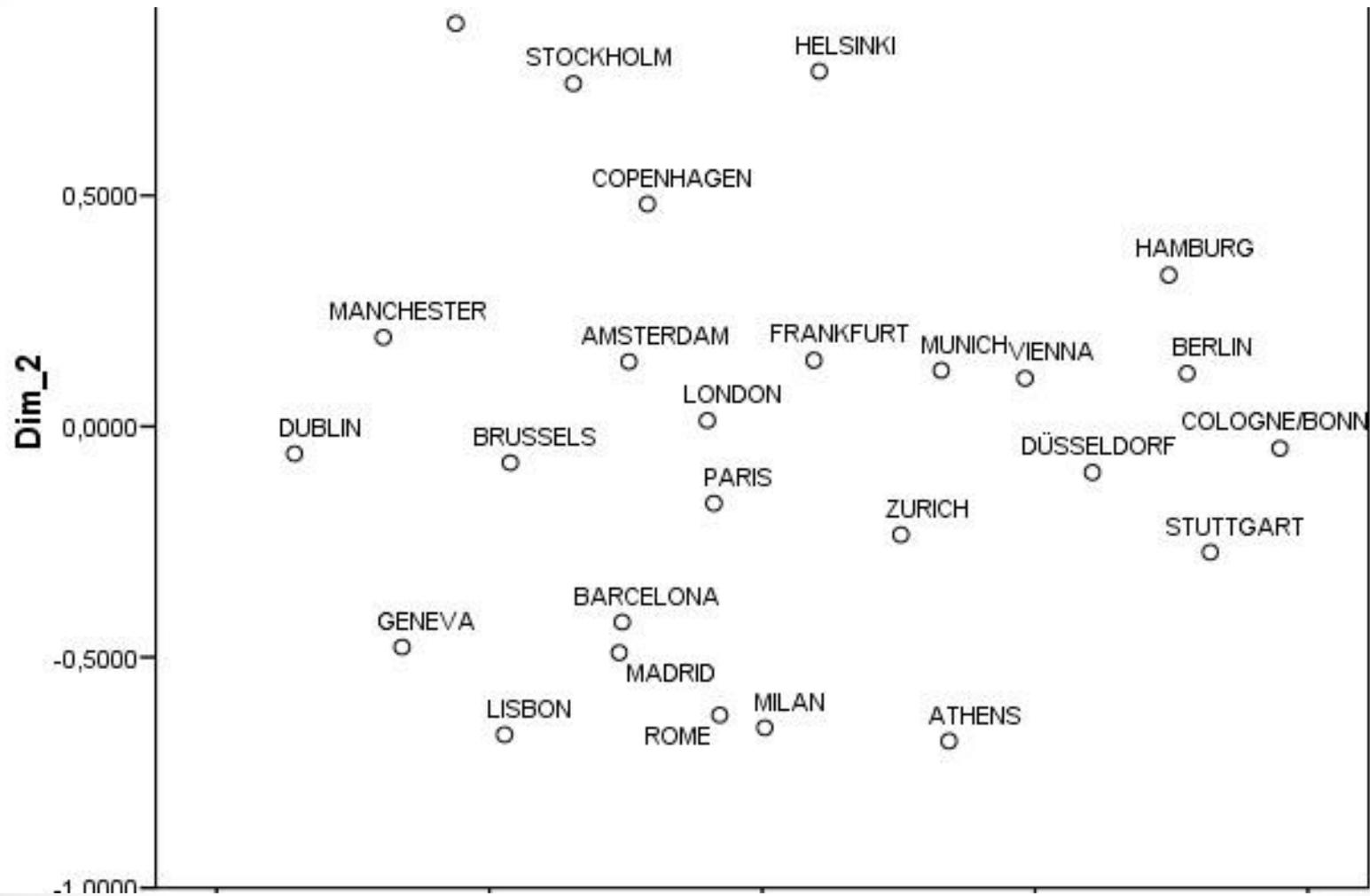
SNA of political campaign: 2004 US Presidential election



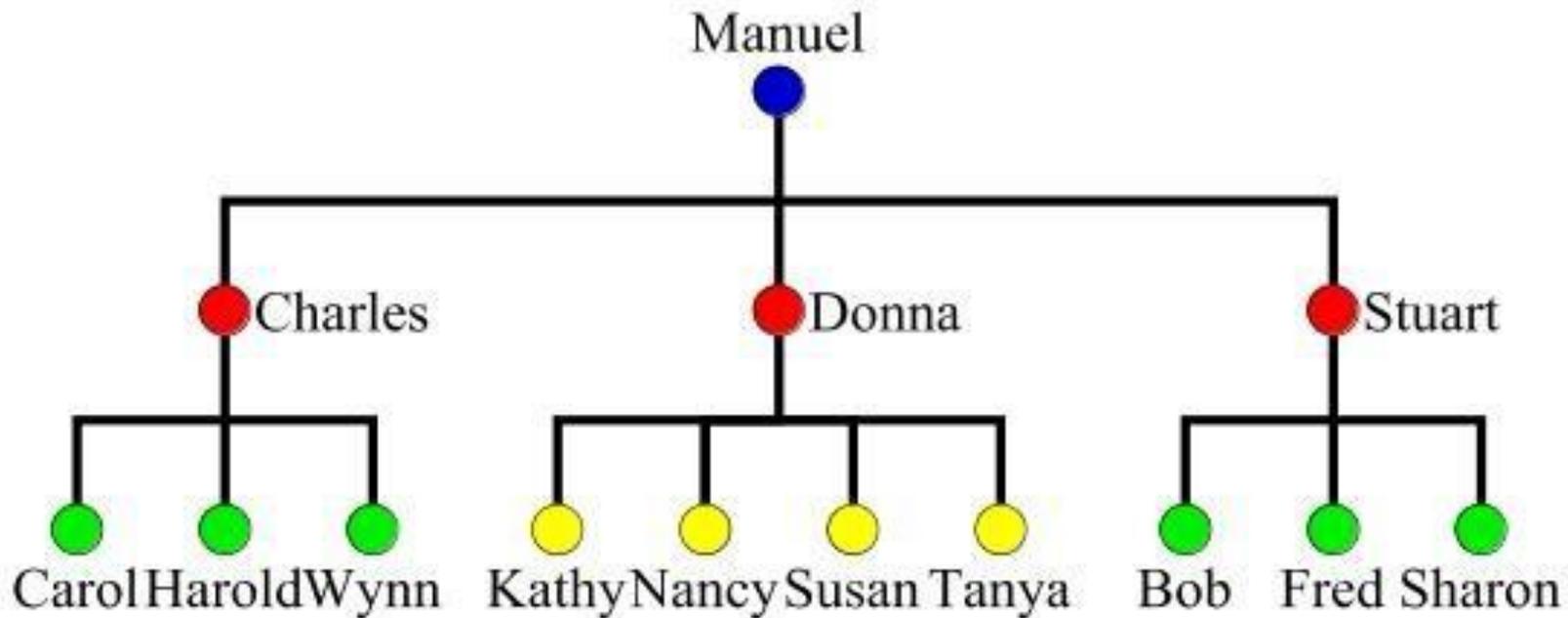
SNA of political campaign: 2008 US Presidential election



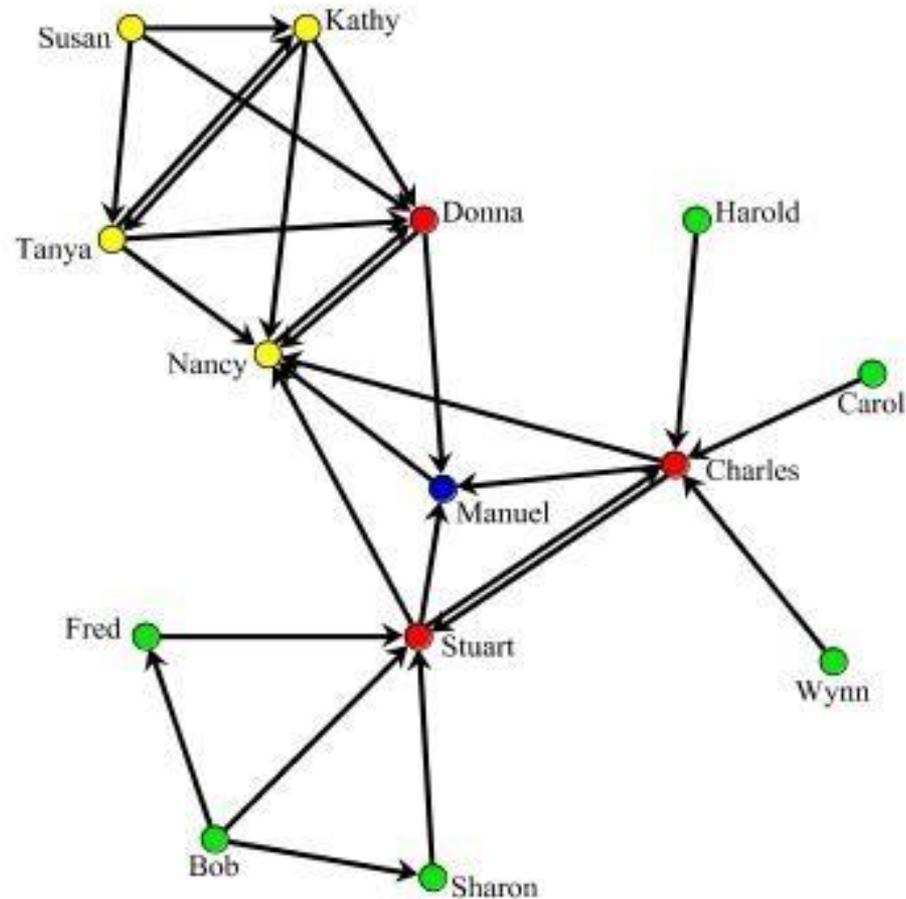
MDS of passenger flow between European cities



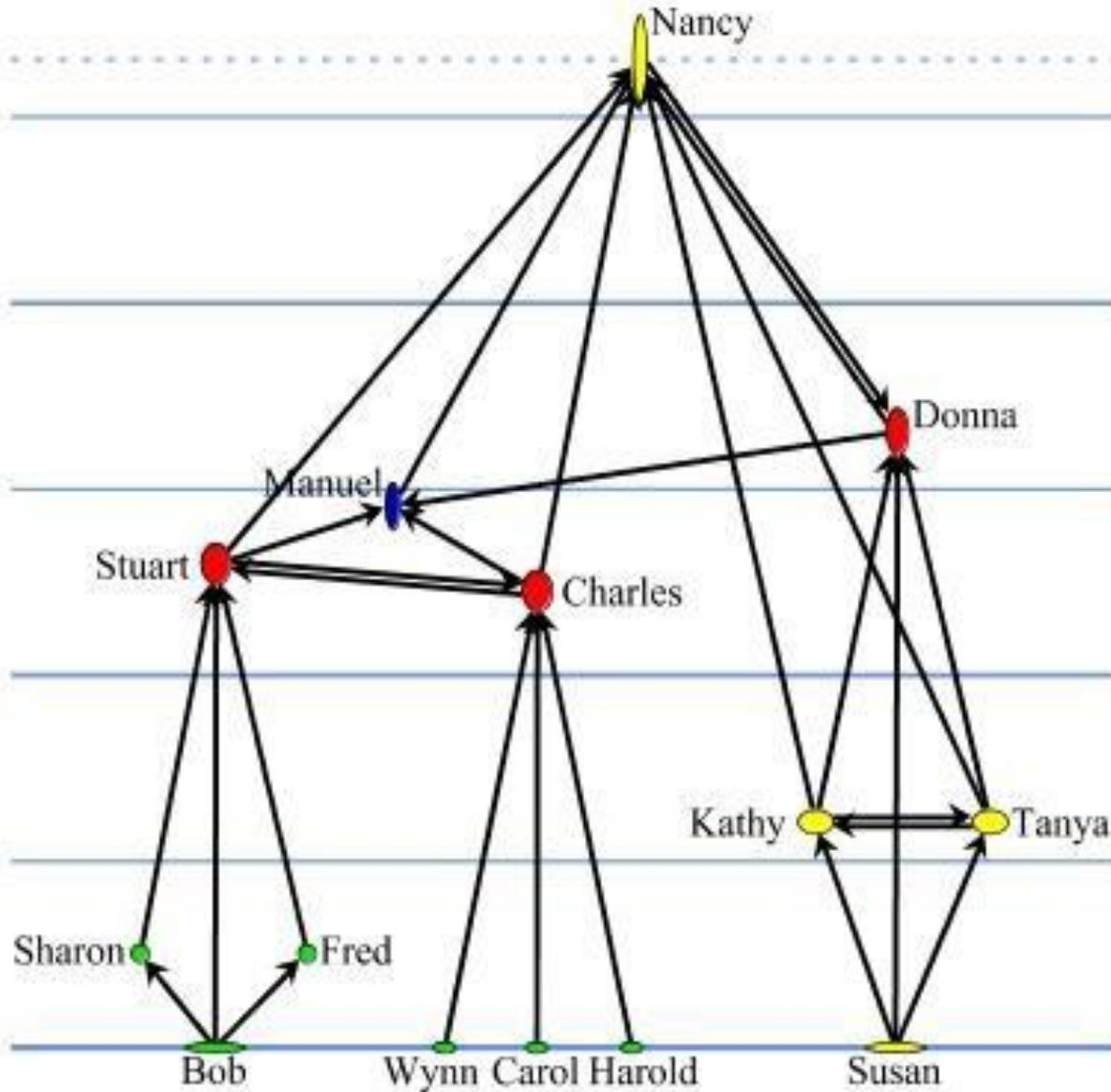
Org-chart shows how authority ties should look...



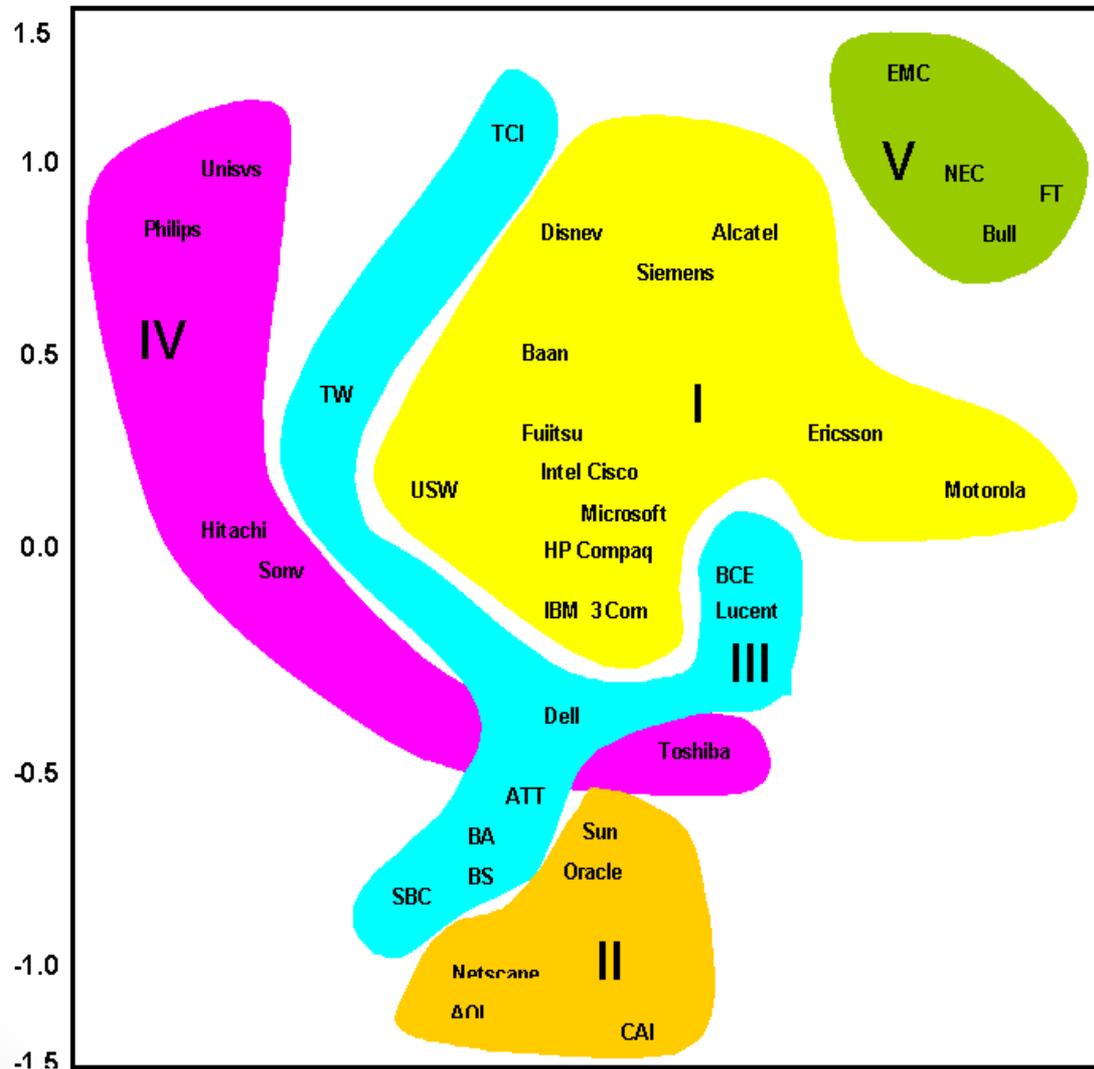
...but the digraph of actual advice-seeking ...



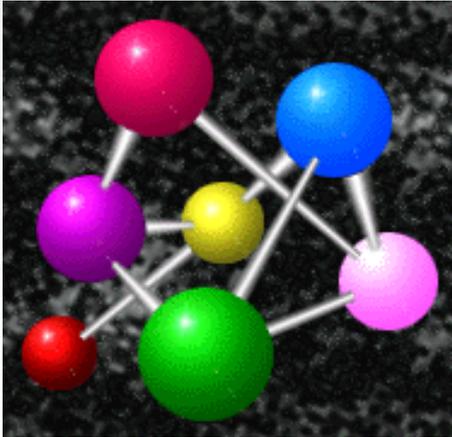
... can be restructured to reveal the “real” hierarchy!



Strategic alliances in the 1998 core GIS



INSNA

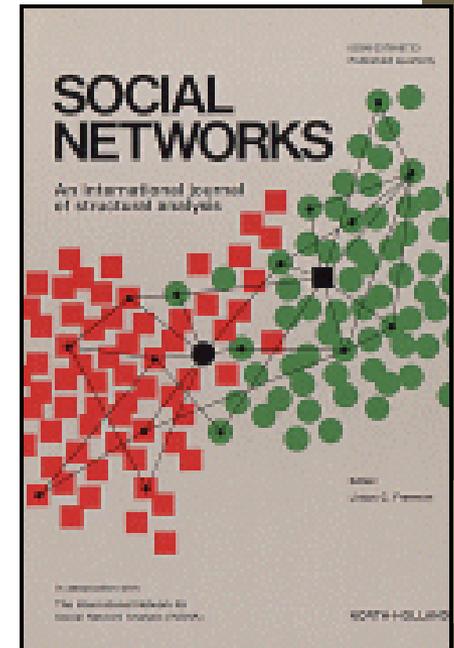


Institutionalization achieved with the 1978 founding of the **International Network for Social Network Analysis** and journal *Social Networks*

<http://www.insna.org>

Sunbelt Social Network Conferences are held annually in North America, Europe, or China (2013西安交大; 2010 Trento, Italy)

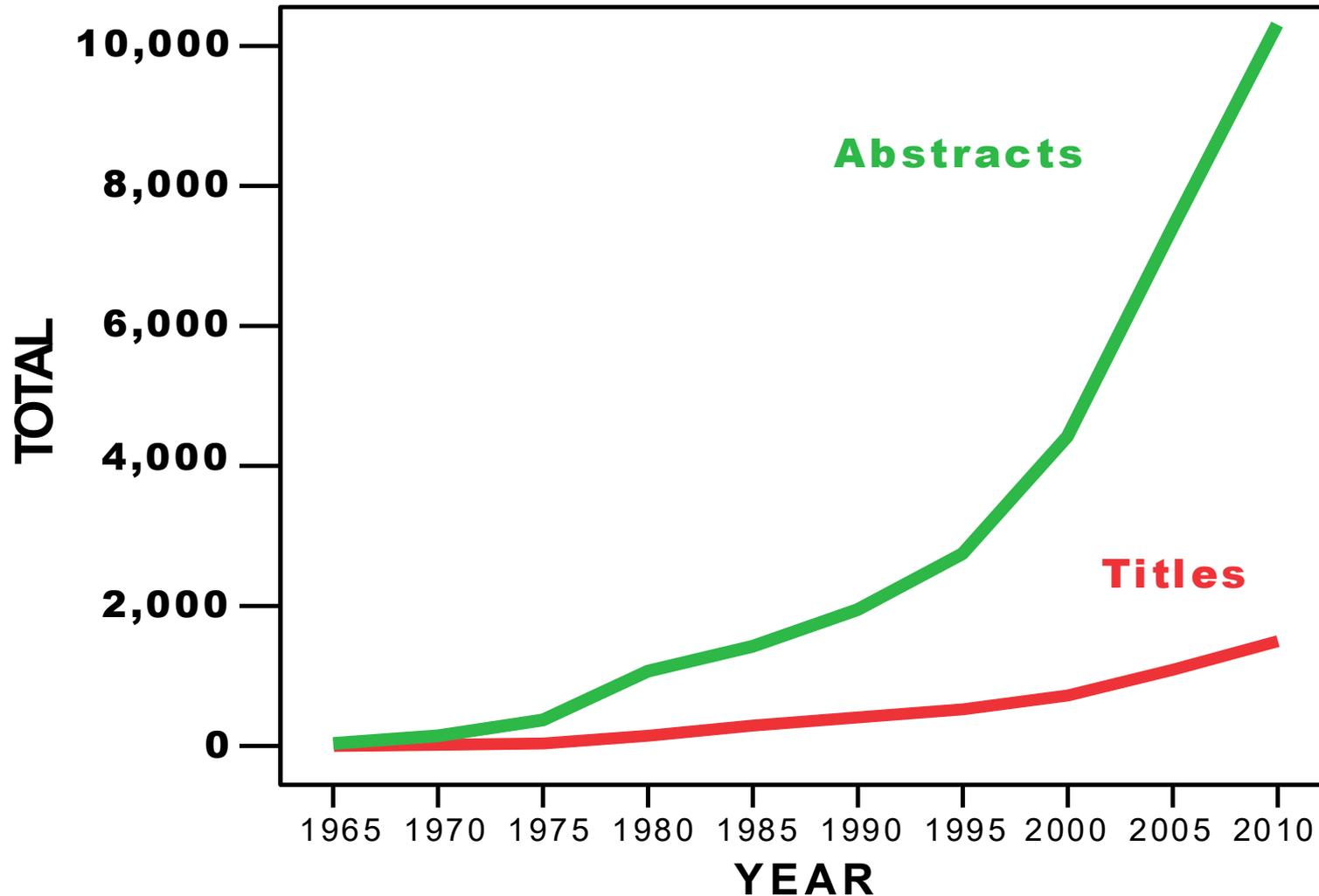
EGOS (European Group on Org Studies) annual colloquium has a Standing Group on Organizational Network Research (2009 Barcelona; 2010 Lisbon)



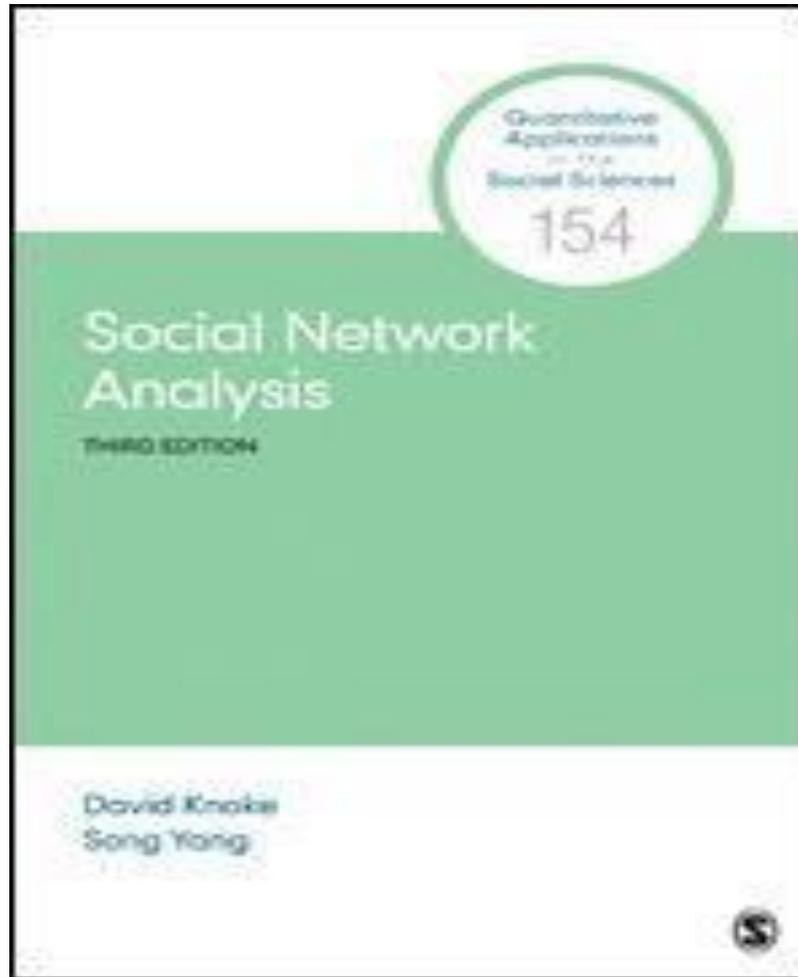
Growth of Social Networks in Social Sciences

Five-year totals for 14 literature indexes

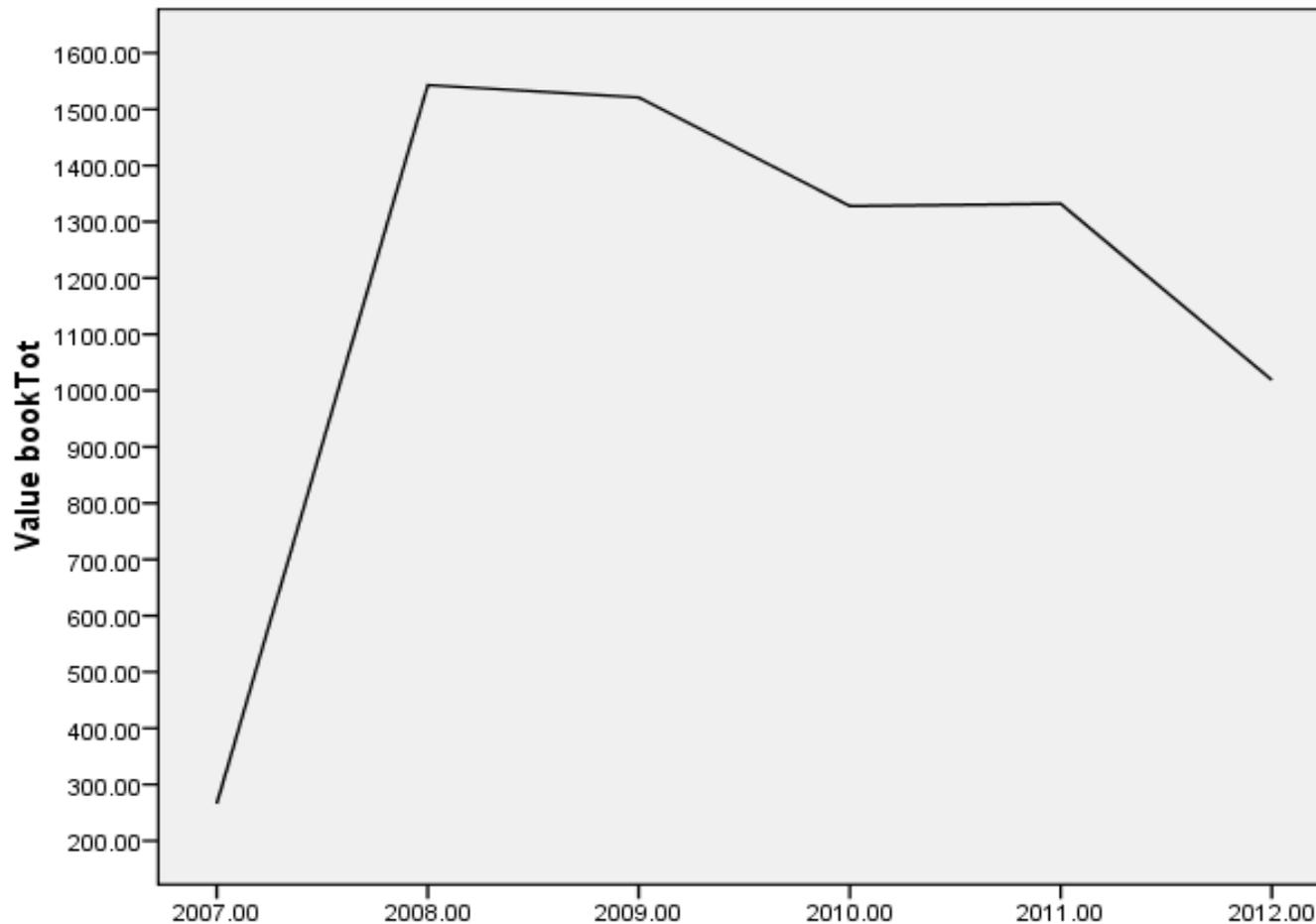
Keyword search for "social" + "network*"



Book Sales of Knoke and Yang SNA 2020



Being cited for more than 1,000 times (counted by Google)



Limitation of atomistic model

- Limited efficacy to explain individual or corporate behaviors, accomplishments, or profits etc with the existent variables at the individual or organization level.
 - Voting for president has everything to do with how you friend vote than who you are
 - Corporate profits are linked to their positioning in their own industry and their connections with firms in other industries
 - Managers whose personal network is full of structural holes receive fast promotion as oppose to managers whose network is redundant and saturated.

In-depth readings

- Students are responsible for the in-depth reading, summarizing their major arguments, and organizing discussions.
- Yang, Song, 2022, “Social Network Analysis”
The SAGE Encyclopedia of Research Design, edited by Bruce B. Frey, Thousand Oaks, CA.: Sage