

A background image showing a network of interconnected nodes and lines, resembling a molecular structure or a network diagram. The nodes are represented by spheres in shades of blue, yellow, and grey, connected by thin lines. The overall aesthetic is clean and modern, with a light blue and white color palette.

The Challenges of Networked Governance

David Lazer

The Program on Networked Governance

- Goals
- People
- Research projects
- Colloquia
- Fellows

{NSF grant 0131923 }

Goals

- Foster research on networked governance
 - Research Projects
 - Research Fellows in residence
- Provide a forum to discuss the challenges of networked governance

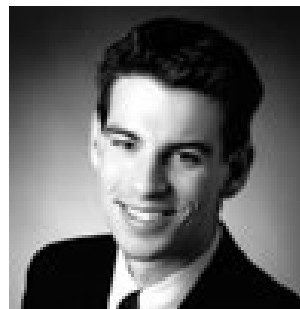
People



David Lazer
Director



Bernie Cahill
Program Director



Alexander Schellong
Communication Director



Ines Mergel
Research Director

Research Projects

- Connecting to Congress
- DNApolicy.net
- Teamnet
- State Health Officials' network

Research Projects: Connecting To Congress

- Diffusion of online practices among Members of Congress within their virtual offices
- Qualitative and quantitative research:
 - Content analysis of all 437 MoCs websites (house.gov)
 - Comparison and changes over time using way back machine (archive.org)
 - Impression Management of MoCs online
 - KnowledgeNetworks: Survey of political perceptions of citizens
- Team:
Harvard U.: David Lazer, Ines Mergel
UC Riverside: Kevin Esterling, Curt Ziniel
Ohio State: Michael Neblo
UMass Amherst: Jane Fountain

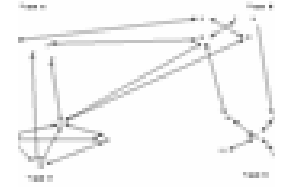


Research Projects: DNAPolicy.net

- DNA and the Criminal Justice System
- Phase 1: Develop an online community of DNA forensic scientists (sponsored by NSF)
- Phase 2: Organize online events to study knowledge sharing and transfer before, during and after the online events within the online community (Sponsored by Ash Institute)
- Team: David Lazer, Ines Mergel, Birgit Rabl, Maria Christina Binz-Scharf (Collaborator at CUNY)

The screenshot shows the homepage of DNAPolicy.net, a website dedicated to DNA and the Criminal Justice System. The header features the site's logo and navigation links for News, Depository, Forum, and My Settings. The main content area includes a welcome message, a list of recent forum threads, a news feature about a forensic scientist, and a depository feature with various updates and articles. The sidebar contains a user login section and a 'Who's Online' status.

Research Projects: Teamnet



- Teams and Networks
- On the role of the structure of interaction patterns in the success and failure of collaborative efforts such as project-oriented teams E.g., how does pattern of ties affect
 - Individual-level effectiveness on teams
 - Individual-level effort.
- Team: Nancy Katz (KSG), Kevin Williams
- Supported by the Center for Public Leadership and the Woman and Public Policy Program

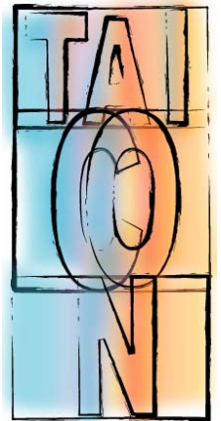
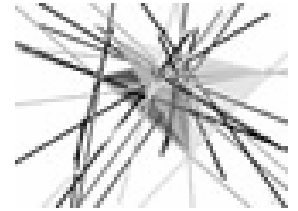
Research Projects: RWJF



- Knowledge sharing in a geographically dispersed community of State Health Officials
- Robert Wood Johnson Foundation: sponsor of large scale projects in the public health sector
- Partners: RWJF, Association of State and Territorial Health Officials, National Governors Association, KSG Executive Program
- Research Projects:
 - Program evaluation of the State Health Initiative: Impact of program on network structure and knowledge sharing efforts
 - Social network analysis of decay of relationships over time among State Health Officials
 - Case studies on network efficiency in emergency cases, such as hurricane relief
 - Evaluation of existing data collection efforts
- Team: David Lazer, Ines Mergel, Nancy Katz (Harvard U.); Timothy Huerta (Texas Tech U.)
- One year research project, starting in November 2005

Colloquia

- Cambridge Colloquium on Complexity and Social Networks (CCCSN)
- The Trans-Atlantic Initiative on Complex Organizations and Networks (TAICON) in collaboration with the Swiss Federal Institute of Technology (ETH), (co-chaired by Prof. Lars-Erik Cederman and David Lazer)
- Governance of Information (chaired by Prof. Viktor Mayer-Schoenberger)



Netgov Blog

- Complexity and social networks
- Collaborative with the Institute for Quantitative Social Science
- Each of the presenters will be a guest blogger the week they speak.
- Link from **www.ksg.harvard.edu/netgov**

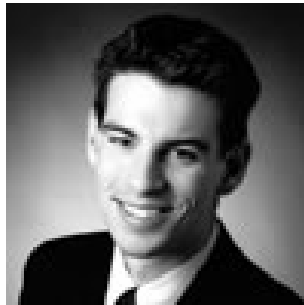
Research Fellows



Birgit Rabl
University of Vienna



Allan Friedman
KSG HU



Alexander Schellong
Johann Wolfgang Goethe-
University, Frankfurt am Main



Thomas Langenberg
EPFL Lausanne

Networked Governance

- Definition: A system populated by autonomous, interdependent agents, where the interconnectedness of those agents affects systemic outcomes.
- Those agents may be organizations or people; government or nongovernment.

Networked government

- Co-production of outcomes among many different entities– “marble cake” vs “layer cake” (Grodzins)
- Ample literature demonstrating how common networked governance (e.g., O’Toole).
- Some literature on “craft” of managing if you are (e.g., Bardach)
- Less conceptual literature examining where this metaphor of government takes you (although some exceptions, e.g. Milward and Provan)

Distinctive characteristics of government networks

- Less flexibility of boundaries– e.g., New York cannot launch a hostile takeover of New Jersey; law enforcement cannot be centralized.
- Various agencies are “monopolies”
- Lack of exit as option
- Limits on exchange

Example: DNA databases

- Federal initiative, creating infrastructure, enabling state to state sharing of data.
- States slow in creating databases, so Federal subsidies to state/local forensic labs, leading to state statutes, increase in capacity
- State/local forensic labs then do not get cooperation from Depts of correction, sheriffs, etc., leading, sometimes, to subsidies, sometimes “use” hierarchy, transparency
- Now that system is producing cold hits, are they used by investigators? Often not....
- All of this is happening while labs are learning from each other...

Limits of hierarchy

- Limits of control– e.g., A (at the top of the hierarchy) cannot tell B to help C whenever it is helpful to the system.
- Limits of decomposability– the disfunctions of silo's.
- →growth of organizational social capital literature

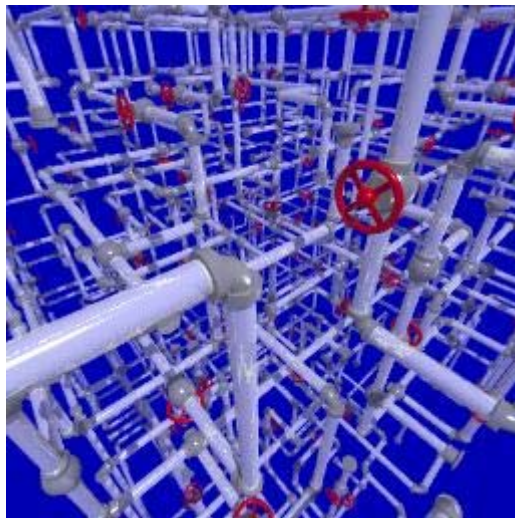
Limits of Markets

- Lack of information about future contingencies (incomplete contracts), and about qualities of goods (lemons)
- Lack of ability of agents to process information
- Inability of hierarchy to efficiently address informational failures under certain circumstances
- →growth of economic sociology

Networks and Governance: Regulatory and Circulatory Dimensions

➤ Circulatory

- Networks provide the conduit for access to information, resources



➤ Regulatory

- Networks constrain opportunism



Two examples

- Circulatory dimension: the problem of parallel problem solving
- Regulatory dimension: effort in small groups

I The problem of parallel problem solving in human systems (based on research with Allan Friedman)

- Many agents working on same problem simultaneously
- How is that problem solving aggregated?
- Examples:
 - States as “laboratories of democracy”
 - Brainstorming groups
 - Global diffusion

Processes of emulation

- Neo-institutionalism– strong pressures for conformity (DiMaggio and Powell)
- Networks play a key conduit for those pressures (Lazarsfeld, Friedkin, Lazer)
- Convergence often not on system “optimum”, even when emulation is driven by success (Bikhchandani, Hirshleifer, and Welch; Strang and Macy)
- →Little on the role that the configuration of network plays on systemic success.
- →Lots of popular attention asserting the benefits of tying together people with mutual interests, knowledge management, boundaryless organizations.

Model

- **Problem space**– what's the problem agents are trying to solve?
- **Agent decision rules**– how do agents seek improvements in performance?
- **Agent neighborhood**– who do agents see (and emulate)?

Rugged problem space

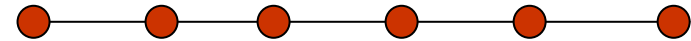


Decision rule

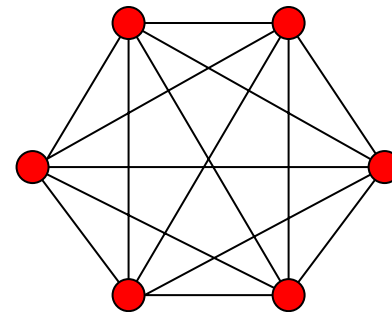
- *If* someone agent can see is doing better than agent at time t , copy best alternative.
- *Otherwise*, look at impact of randomly changing one dimension. If this is an improvement, move there. If not an improvement, stay at previous solution.

Network– determines neighborhood

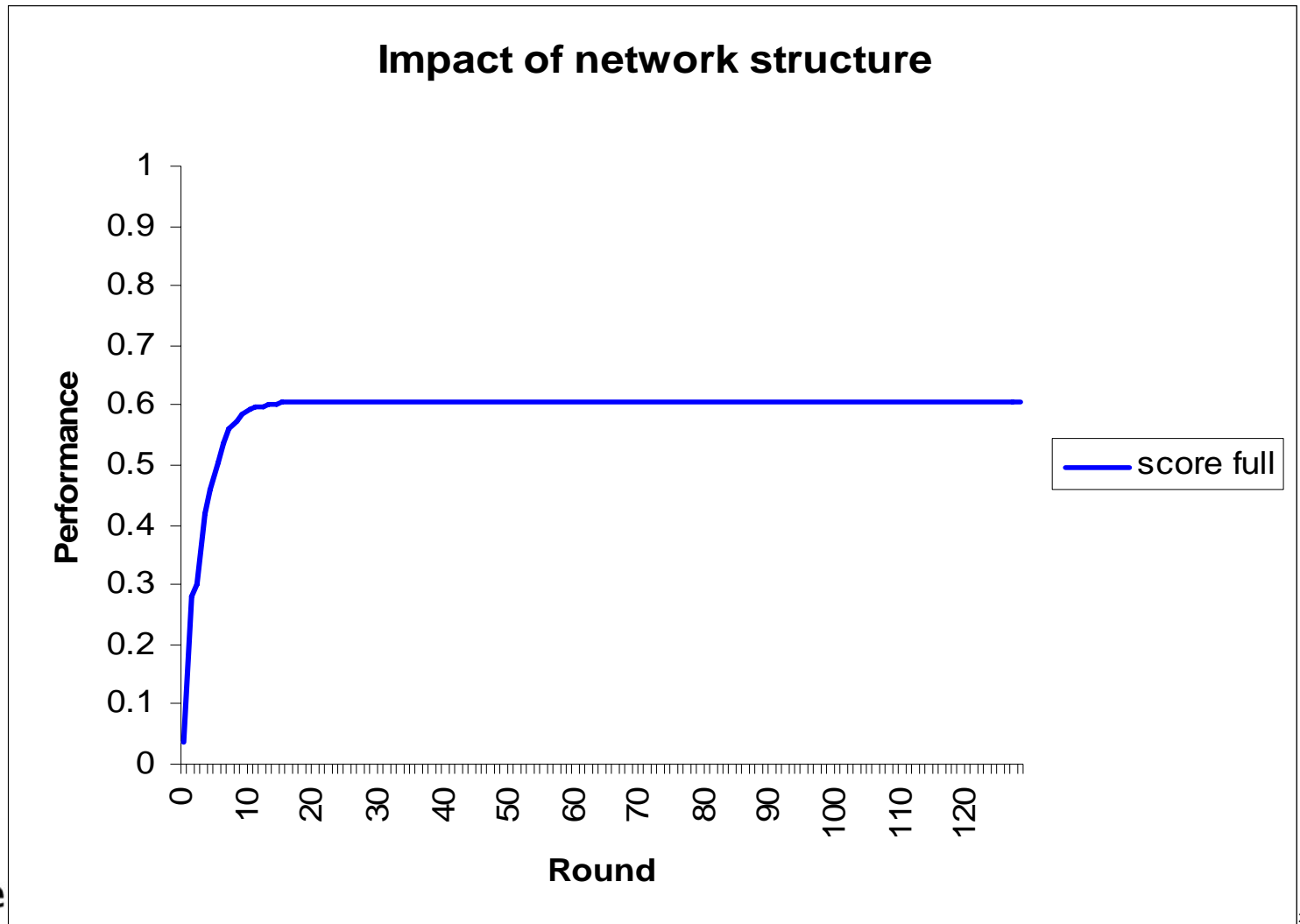
- **Linear** (max degrees of separation = population size – 1)



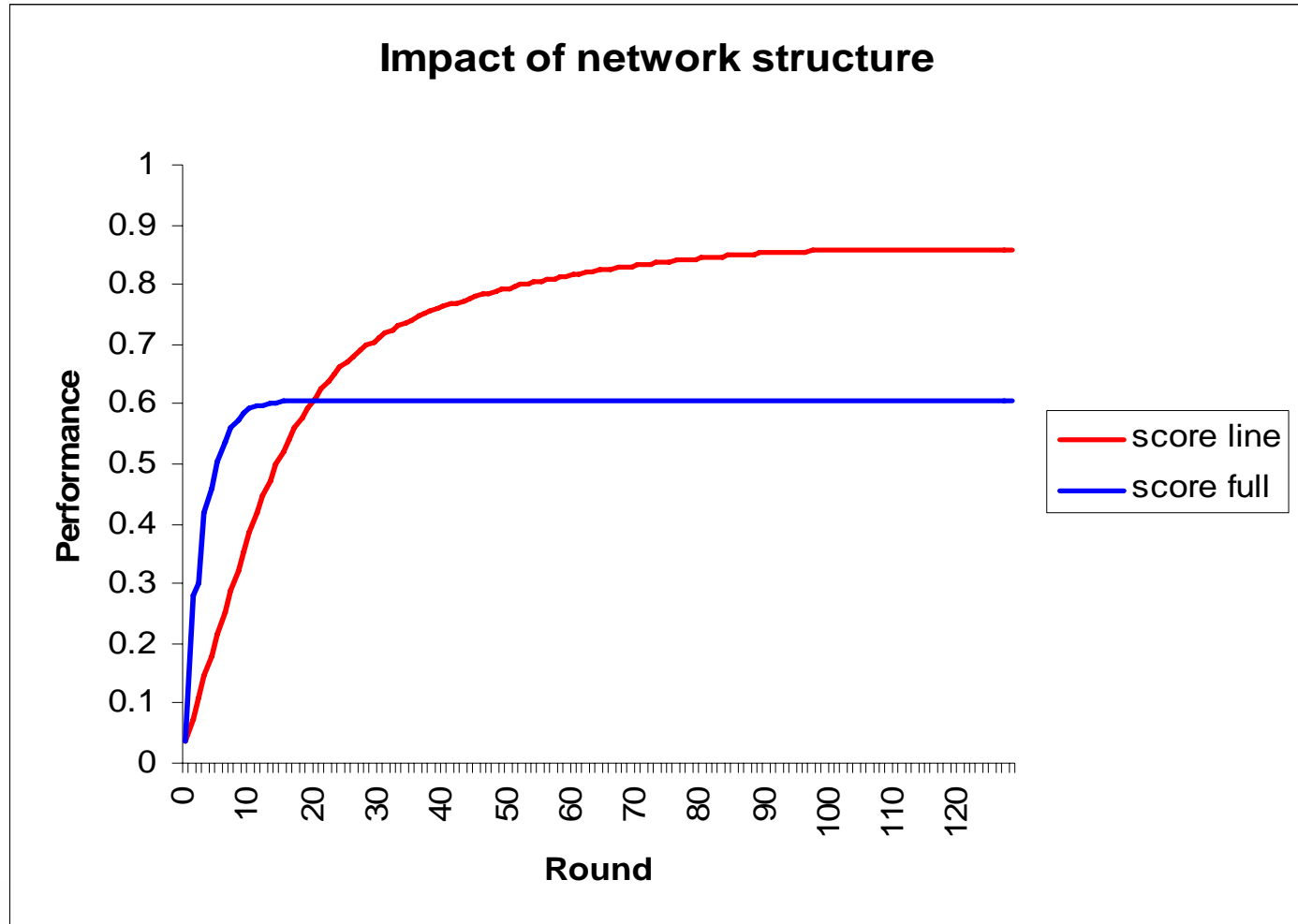
- **Fully connected** (max degrees of separation = 1)



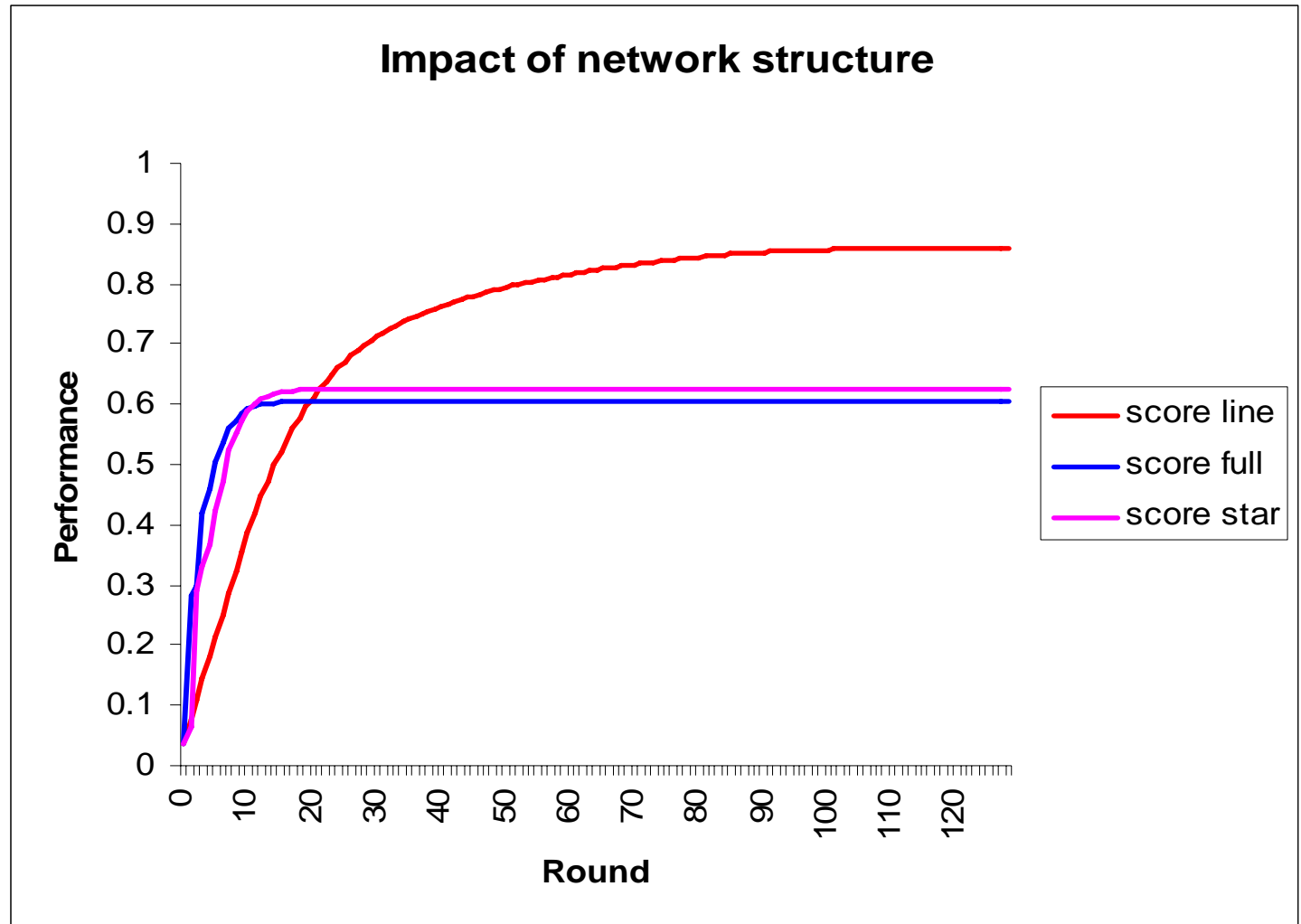
The hare and the tortoise: Small worlds are good for a quick fix...



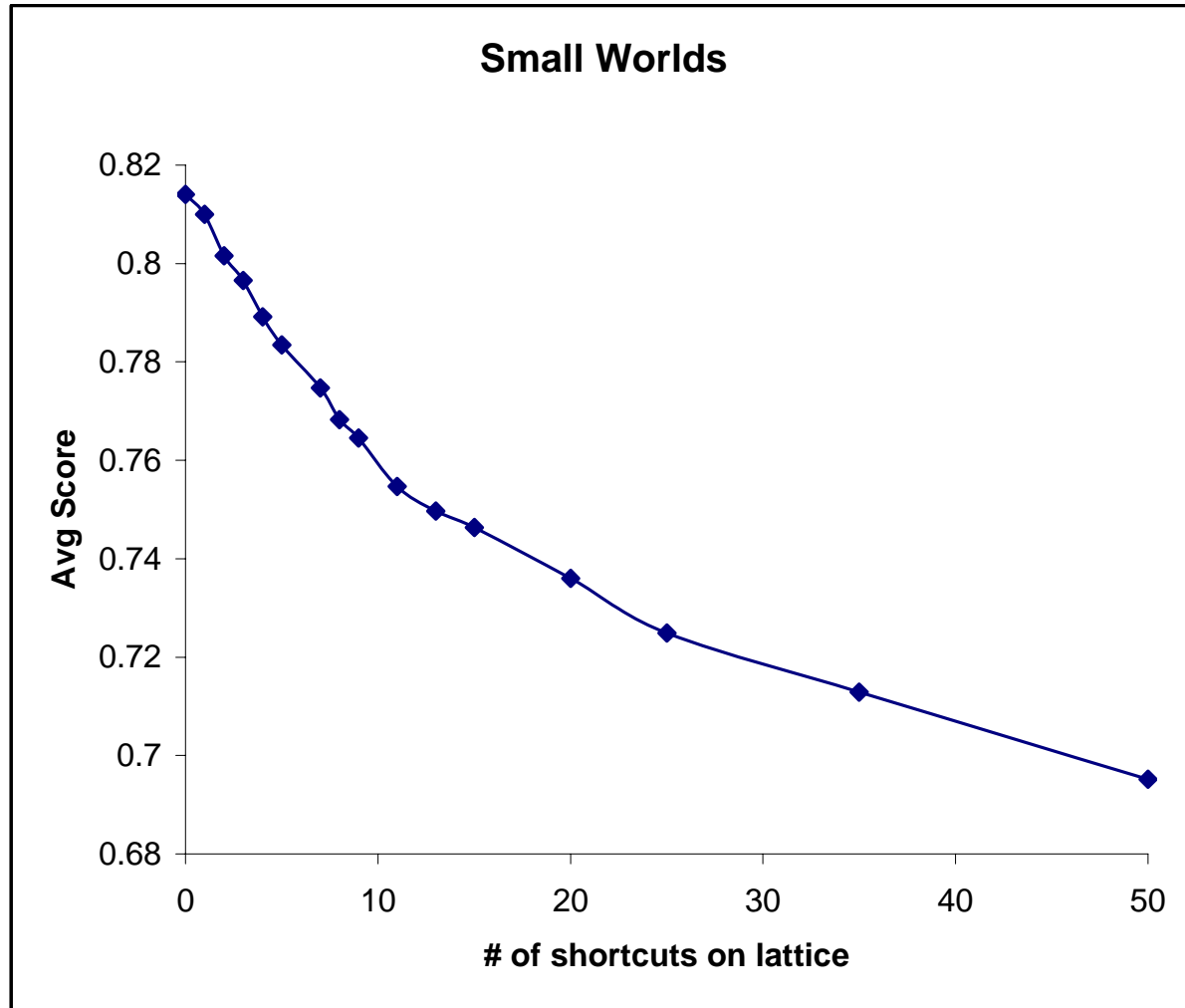
...but not so good in the long haul



...but not so good in the long haul



Small worlds do worse in the long run...



Illustrations

- Small group behavior (Leenders, Goldstone)
- “Pre-historical” diffusion of agricultural innovations (Diamond)

II Regulatory effects of ties on teams (with Nancy Katz)

- Key problem of teams: how much effort do people put in?
- Free riding/social loafing problem
- Studied in the context of week long student exercise at the end of their first year, where

Design

- Research design
 - Students are randomly placed with 4 other students
 - Survey after regarding their ties with everyone in year, and a variety of other things, including hours worked
- Key independent variables
 - Number of people you know on team
 - Number of teammates your average friend off of team knows (between 1 and 4)
- Controls
 - Total ties an individual has (controlling for whether certain types of people have more ties)
 - Hours worked in the preceding (individual) week of exercise (controlling for individual-level correlates)

Results

- Ties to teammates are not related to effort
- But ties to third parties has a very strong ($p < .01$) relationship with effort
 - A jump from 1 to 2 is associated with a **15 hour increase in effort.**
- Further, ties to third parties predicts the percent of your time that you work with other teammates, suggesting that the network affects the extent that one is willing to subjugate oneself to the collective.
- → Implication is that in choosing how to put teams together, one is also choosing relationship structure, which, in turn, affecting the investments each person puts into that particular team.

Conclusions

- Two key dimensions of networked governance: circulatory and regulatory
- Distinctive institutional features of networked government: lack of exit, monopoly, rigid boundaries, limits on exchange.
- Within literature on networked governance, literature on networked government establishes salience of concept, but leaves a lot of work to be done on further implications.
- Methodological issue disentangling networks from outcomes.