

A Bechtel Initiative Research Project

on

**Evolution of Knowledge: Networks, Exchange and Uses (KNEXUS)
In Global Growth and Change**

Second KNEXUS Research Symposium

On

**Institutionalization of knowledge:
How Institutions Develop and Spread Knowledge**

**July 31 – August 2, 2000
Bechtel Conference Room**

**Organized by the KNEXUS Steering Committee
James March, Walter Powell, Nathan Rosenberg, Syed Shariq, Gavin Wright**

**Institute for International Studies
Stanford University**

Institutionalization of Knowledge: How Institutions Develop and Spread Knowledge

"[T]he problem of a rational economic order is determined precisely by the fact that the knowledge of the circumstances of which we must make use never exists in concentrated or integrated form, but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess.... The problem is thus in no way solved if we can show that all of the facts, if they were known to a single mind (as we hypothetically assume them to be given to the observing economist) would uniquely determine the solution; instead, we must show how a solution is produced by the interactions of people, each of whom possesses only partial knowledge."
(Frederich Hayek)

"Institutions are the rules of the game; organizations are the players. The latter are made up of groups of individuals bound together by some common objective—for example firms are economic organizations, political parties or legislatures are political organizations, universities are educational organizations. In broad outline the process of economic change is as follows. Organizations and their entrepreneurs are the actors; they will introduce new institutions or technology when they perceive that they can improve their competitive position by such innovation. Their perceptions are a function of the belief systems they possess."
(Douglass North)

Over the past decades, the problem of knowledge, occasioned by Friedrich Hayek's work on collective learning and cultural evolution, has emerged as a central theme in addressing the imperatives and implications of economic change. In essence, Hayek has conceptualized the culture of a society as an embodiment of "the distilled experience of the past that vastly exceeds the knowledge anyone could accumulate independently in a single lifetime." Coupled with Adam Smith's assertion that "the division of labor is...the major source of increasing our productivity," Hayek's idea gives rise to the contemporary understanding of the interconnection between increasing specialization and the division of labor (North).

North has observed that the problem relating to knowledge, however, lies in its diverse nature and the imperatives of co-ordination, which cannot simply be remedied by a set of prices. Rather, knowledge requires "...a method that not only best utilizes the knowledge dispersed among the individual members of society, but also best uses their abilities of discovering and exploring new things" (North citing Hayek). This implies that institutional structure is critical to determining "the degree to which diverse knowledge will be integrated and available to solve problems as economies become more complex" (North).

Our second KNEXUS symposium pays special attention to the Institutionalization of knowledge with particular emphasis on norms, evolution, culture, and incentives. The goal of the symposium is to explore the challenges facing in the development of effective policies and to foster a discussion and agreement on a research agenda to further enhance our understanding of 'How Institutions Develop and Spread Knowledge.' The research symposium will take place on July 31–August 2, 2000, at the Bechtel Conference Center of the Institute for International Studies, Stanford University. We have invited 40 scholars and affiliated practitioners for stimulating exchange of ideas in an interdisciplinary setting. The agenda consists of five sessions with three speakers and a discussant for each session. Speakers and discussants will be summarizing their main arguments within 15 minute (speakers will be requested to make their full working papers available to the participants prior to the Symposium), allowing half hour per session for discussion. We expect ample time for thoughtful discussion and comments during the symposium regarding on-going research, ideas for collaboration, and implications for future research directions. Pursuant with these goals, we expect to publish papers and proceedings of the symposium in the form of a book. As the ultimate mission of KNEXUS as a Bechtel Initiative project is to address global growth and change, the symposium will close with exploration on the directions and agenda for future research for shaping the development of policy.

Bechtel Initiative on Global Growth and Change
Institute for International Studies, Stanford University

Second KNEXUS Research Symposium
On
Institutionalization of Knowledge:
How Institutions Develop and Spread Knowledge

July 31 – August 2, 2000

July 31

6:00 p.m.-
8:00 p.m. Reception for symposium speakers
at the home of Nathan and Rina Rosenberg (by special invitation)

August 1

7:30 a.m. Breakfast in the Bechtel Conference Room
8:00 a.m. Welcome and Introduction to the Symposium
David Holloway, Nathan Rosenberg and Syed Shariq

Opening Session

8:15 a.m. Emergence of Institutional Norms
Douglass North (Chair): Bertin Martens, Martin Schulz
Discussant: Jim March

10:15 a.m. **coffee break*

Session 1

10:30 a.m. Cognition in Learning and Adaptation
Syed Shariq (Chair): Merlin Donald, Alex Field, Anders Karlqvist
Discussant: Mark Turner

Lunch

12:30 p.m.

Session 2

1:30 p.m. Institutions as Embodied (or Embedded) Knowledge
Woody Powell (Chair): Dick Scott, David Stark
Discussant: Nathan Rosenberg

3:30 p.m. **coffee break*

Session 3

3:45 p.m. Diffusing Institutions of Knowledge Production
Nathan Rosenberg (Chair): Kevin McCabe, Annalee Saxenian
Discussant: Gavin Wright

Dinner

6:30 p.m. Cocktail Reception at the Faculty Club Main Patio
7:00 p.m. Dinner served at the Faculty Club Main Patio
7:30 p.m. Introduction of speaker by James March. Luigi Luca Cavalli-Sforza on "The Great Human Diasporas: Speculations on Institutionalization of Knowledge in the History of Diversity and Evolution?"

August 2

8:00 a.m. Breakfast in the Bechtel Conference Room

Session 4

8:30 a.m. Shaping the Development and Spread of Knowledge
Gavin Wright (Chair): David Holloway, Anjini Kochar
Discussant: Douglass North

10:30 a.m. **coffee break*

Symposium Wrap-up

11:00 a.m. Implications and Agenda for Future Research
Merlin Donald (chair): Chris Mantzavinos, Douglass North, Syed Shariq
Discussants: Jim March, Woody Powell, Nathan Rosenberg, Gavin Wright

Working Lunch

1:00 p.m. Mark Turner (Chair): Closing Remarks from Symposium Participants

Adjourn

2:00 p.m.

Session Chairs, Speakers and Discussants

Luigi Luca Cavalli-Sforza, Stanford University
Merlin Donald, Queens University
Alexander Field, Santa Clara University
David Holloway, Stanford University
Anders Karlqvist, Swedish Polar Research Secretariat
Anjini Kochar, Stanford University
James March, Stanford University
Kevin McCabe, University of Arizona
Chrysostomos Mantzavinos, University of Freiburg
Bertin Martens, European Commission
Douglass North, Washington University
Woody Powell, Stanford University
Nathan Rosenberg, Stanford University
Annalee Saxenian, University of California at Berkeley
Martin Schulz, University of Washington
Richard Scott, Stanford University
David Stark, Columbia University
Syed Shariq, Stanford University
Mark Turner, University of Maryland
Gavin Wright, Stanford University

Invited Participants

Mie Augier, Scandinavian Consortium for Organizational Research
David Bernstein, Stanford University
Barry Blumberg, NASA Ames
Chip Blacker, Stanford University
Linda Capuano, Honeywell Corporation
Francesco Cavalli-Sforza, Independent Scholar
Julian Chang, Stanford University
Malcolm Cohen, NASA Ames
Jeannette Colyvas, Stanford University
Marie Djelic, Stanford University
Lynn Eden, CISAC, Stanford University
Paul Edwards, George Mason University
Naushad Forbes, Stanford University
Anna Gatti, Stanford University
Martin Gjelsvik, Rogaland Research Institute, Norway
Jon Guice, NASA Ames
Yuko Harayama, University of Geneva
Robert Hughes, Bechtel
Marianne Jelinek, National Science Foundation
Stephanie Kalfayan, Stanford University
Evelyn Kelsey, Stanford University
Anupam Khanna, World Bank
Stephen Krasner, Stanford University
Kristian Kriener, Copenhagen Business School
Ralph Landau, Stanford University
Jason Owen-Smith, Stanford University
Tarja Pokki, Helsinki School of Economics
Kelley Porter, Stanford University
Tom Rawski, University of Pittsburgh
Harry Rowen, Stanford University
Jane Seto, Bechtel
Massimo Tamberi, Stanford University
Liisa Valikangas, Strategos Institute
Morton Vendelo, Copenhagen Business School
Michael Wakelin, Bechtel
Barry Weingast, Stanford University
Sha Xin Wei, Stanford University