

## **Canada – Israel workshop on organizational networks, May 31 – June 2, 2011**

Room 4707, social sciences building, Mount Scopus campus, Hebrew University, Jerusalem

### **Workshop timetable**

#### **Tuesday, May 31**

|             | presenter                       | Paper  |
|-------------|---------------------------------|--|
| 10:00-12:00 | Amalya Oliver +<br>Yuval Kalish | Opening comments – New directions in organizational network research |
| 12:00-13:30 | Lunch*                          |  |
| 13:30-15:00 | Terry Amburgey                  | Islands in the Net: Homophily, Heterophily and Network Evolution     |
| 15:00-15:30 | Coffee break                    |  |
| 15:30-17:00 | Barak Ahoranson                 | Networks and Growth: The story of VCs                                |

#### **Wednesday, June 1**

|             | Presenter   | Paper  |
|-------------|-------------|--|
| 9:00-10:30  | Stan Li     | Alliance Governance, Supplier Referrals and the Evolution of Multiplex Triads  |
| 10:30-11:00 | Coffee      |  |
| 11:00-12:30 | Ilan Talmud | The Social Organization of Venture Capital Industry in Israel: The Impact of Betweenness Centrality and Local Density on Performance |
| 12:30-14:00 | Lunch*      |  |
| 14:00-15:30 | Dovev Lavie | Collaborating for Knowledge Creation and Application: The Case of Nanotechnology Research Programs                                   |
| 15:30-16:00 | Coffee      |  |
| 16:00-17:30 | Joel Baum   | Mutual Forbearance and Competition for Information Leadership among Security Analysts  |

#### **Thursday, June 2**

|             | presenter         | Paper  |
|-------------|-------------------|--|
| 9:00-10:30  | Ezra Zuckerman    | Managerial Control is Alienating and Often Inefficient, So Why Do Firms Dominate the Capitalist Economy and Sometimes Even Perform Well? |
| 11:00-12:00 | Conclusions       |  |
| 12:00--     | Tour of Jerusalem |  |

\* Note: lunch will be free at Meirsdorf for invited paper presenters. All other participants can join as, but will have to pay.

# Workshop proposal: Patterns and processes in Organizational Networks

## Abstract

Organizational network research is based on sociological and strategy-based system theories coupled with advanced statistical and algebraic methods on the one hand and qualitative, case studies and egocentric approaches on the other hand. This area has been growing significantly over the years, and is mainly characterized by cross-sectional (one time measurement) approaches. This workshop focuses on areas not well developed in the organizational network domain – naming patterns and processes in organizational networks. We outline three directions in organizational research – learning networks, temporary network systems and the development of networks and inertia. These three directions are at the forefront of the existing research. The workshop proposal deals with the main complexities of each research focus and the inherent tensions that are part of organizational network processes. Examples for such tensions are between collaboration and competition, innovation and inertia, stability and fragility in network structures.

## Subject of the workshop

“Where do inter-organizational networks come from?” was the title of a seminal paper by Gulati and Gargiulo (1999)<sup>1</sup> when they aimed to understand the conditions and structures that lead to the formation of organizational networks. We are now asking to explore the counter part of this question – “Where do organizational networks go to?” aiming to explore the patterns and processes of organizational networks after they were formed.

In the following sections, we propose three interesting directions that need to be further explored. Yet, the workshop will be open to discuss other important directions as they will emerge from the presented papers and the discussion that will follow.

## Longitudinal Aspects of Organizational Learning Networks:

Learning collaborations, loose constellations of organizations that are learning from each other, are becoming more and more frequent. Most, however, are short-lived and often do not yield optimal results for their participants (Das, 2004). Research on organizational learning collaborations has focused so far on two distinct components of learning. One line of research highlights the importance of organizational learning, since it is a leading factor in innovation. This is especially relevant for scientific areas in which the quickly-changing knowledge and the skills needed for innovation are seldom found within a single organization, but rather in other organizations (Powell, Koput & SmithDoerr, 1996), universities and pharmaceutical companies (e.g., Oliver 2008; Oliver & Liebeskind, 1998; Powell et al. 2005). Thus, researchers suggest that learning from others is essential for a firms' survival because it generates new knowledge and skills (Larrson et al., 1998). The second, recent stream of research highlights the difficulties associated with organizational learning and describes the risks of free-riding and knowledge leakage that may harm firms (Perkmann, 2009; Das & Kumar, 2007).

These two streams need to be studied with the understanding that organizational learning exchanges are based on an inherent tension. On the one hand, they provide organizations with the opportunity for cooperation under the assumption of mutual collaboration (e.g., open sharing and exchanging knowledge). On the other hand, they provide the grounds for opportunistic behavior aimed at establishing competitive advantage while securing proprietary knowledge from other organizations. This part of the workshop will discuss how organizations that partake in a science consortium select partners for collaborative learning so as to balance these two opposing forces.

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<sup>1</sup> Cited by over 900 times – by Google Scholar

In order to understand how actors balance their need to learn while controlling the risks associated with learning, the research needs to focus on the structure of the learning networks that are formed. Thus, an innovative way to understand this process is by examining the patterns of learning relationships at the dyadic, triadic, and multiplex (multiple) relationships level at three time-points. At the dyadic level, we will examine the size of the network for participants in different learning contexts. At the triadic level, we will explore triadic closure (e.g., Coleman, 1988, when three actors are learning from each other), and structural holes (e.g., Burt, 2005, when the learning between two actors is brokered by a third). However, we plan to extend the logic of closure and structural holes, traditionally used to define opportunity structures within single networks, to the analysis of multiple (multiplex) relationships simultaneously. Three multiplex constructs are defined: Multiplex dyads, multiplex triadic closure and multiplex structural holes. The former suggests that organizations embed their relationships within each other so that given one network relationship another is more likely to be observed. Multiplex closure suggests that organizations introduce learning partners with which they have different types of learning relationships to each other to gain the benefits of protection of knowledge associated with closure. Multiplex structural holes suggest that organizations form different types of learning relationships to learning partners who have no learning relationships between them to enhance the benefits associated with structural holes.

Based on a model suggested by Oliver (2004), we posit that organizations utilize different learning behaviors through time. First, they screen other organizations for their new, compatible knowledge, then, once relevant knowledge has been found, organizations replace scope of search with depth, and collaborate over knowledge that is closer to their core knowledge. As the shared knowledge becomes more tangible, the potential benefits to the organizations grow. We propose that in situations in which the exchanged knowledge is highly tangible, firms will prune learning relationships, focusing on a selected few, thus minimizing their risk of knowledge leakage. They would prefer to form univariate and multiplex network structures that allow for greater control over misbehavior, thus limiting the chance of knowledge leakage to competitors and reducing the likelihood of their cooperative learners to start competing with them.

### **Networks as Temporary Systems:**

Temporary systems are of special interest to network research as they allow researchers to observe the temporal elements in which compositions and dissolution of networks take place. Temporary systems of organizations are defined as "temporary entities that combine several participants to accomplish a single pre-determined short-term task" (Schwab and Miner, 2008: 1117). In addition of being ad-hoc compositions, they can also take place in formal, permanent organizations as a solution to path dependency problems (where inertia become dominant) due to their high task orientation, their focus on renewal and their detachment from ongoing processes (Lundin and Söderholm, 1995). At the same time, we observe a growing prevalence of temporary systems and projects in industrial contexts (such as construction, advertising and design). Such project-based organizational forms bring to the fore the organizational impact of differentiated perceptions of time and expectations in organizations and organizational life. Such complexities and temporal lenses extend the existing set of variables and relationships needed to analyze temporary systems and consequentially the set of managerial actions taken (Ancona et al., 2001).

### **Development of Networks and Inertia or "lock-ins":**

Although the dynamics of organizational networks have recently received increasing attention in organization research, the development of theory and analytic instruments based on structural approaches (i.e., networks) are still highly needed. The importance of structure on different levels of analysis (e.g. organization, network, organization field) has been noted (Gulati et al. 2000). Yet, our aim is to further advance the understanding of process theories of networks that are assumed to be of greater practical relevance for developing and managing

networks and other types of collaborations. While collaborations in general, and regional clusters<sup>2</sup> in particular, have been considered a fertile ground for both strategic innovation and structural persistence (e.g. Grabher, 1993; Huxham, 1996), “network inertia<sup>3</sup>” (Kim, Oh & Swaminathan, 2006) has only been theorized much more recently (Sydow et al. 2009). Once such inertia has emerges over time, these forms of organization are not only likely to lose a significant amount of their flexibility, but to get “locked-in” (David, 1985). A better understanding of this particular process of “becoming inert” on the network level will help to elucidate how flexibility can be sustained over time. The process of becoming inert via collaboration will be studied by looking at its antecedents (for example: transaction-specific investments, cognitive frames) as well as its consequences (for example: sunk costs, lock-in), but most of all by examining the self-reinforcing processes that lead to inertia.

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<sup>2</sup> Regional clusters are geographically based compositions of organizations that are considered an engine for local innovation due to spill over of knowledge and technologies in certain areas.

<sup>3</sup> Inertia is a stage in which no new resources are entering the system, change becomes impossible and thus, systems are at risk of dissolving.