GOVERNING LEARNING STRATEGICALLY

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Sub-Theme Overview

Relevance: Large research projects such as ATLAS at CERN operate under conditions of high uncertainty, complexity, and a substantial lack of centralized top-down planning (Boisot et al. 2011). Collaboration and mutual learning take place in an environment where loose control and vague boundary rules are designed to govern the behavior of experts. In addition to deliberately designed learning structures, expectations and social norms emerge and create a context, which shapes exploratory and exploitative learning processes. However, despite of increasing efforts to uncover the antecedents and processes behind the phenomenon of organizational ambidexterity (Raisch & Birkinshaw 2008, Raisch et al. 2009, Simsek et al. 2009), research still lacks a thorough explanation of how learning processes emerge, how the expert's learning behavior is shaped, and how designed structures and social norms complement each other in the quest to facilitate learning. Put simply, hitherto research has not addressed, how firms seek to influence the intention and process of learning *strategically*.

Theoretical Lens: Firms have to manage exploratory and exploitative learning in order to remain competitive in a dynamic environment (March 1991, Levinthal & March 1993). Following the seminal work of March (1991), exploration and exploitation are two distinct modes of organizational learning, which both are "necessary", but "fundamentally incompatible" drivers of organizational development: "The essence of exploitation is the refinement and extension on existing competencies, technologies, and paradigms (…). The essence of exploration is experimentation with new alternatives" (March 1991: 85). Thus, although exploration and exploitation both are organizational *learning* modes, they differ significantly in terms of intensity (Benner & Tushman 2002; Gupta et al. 2006). Research on ambidexterity focuses on the simultaneous pursuit of both learning modes. However, exploratory and exploitative activities are usually based on different routines within a common context (Gibson & Birkinshaw 2004, Güttel & Konlechner 2009) or on the structural separation of various domains with idiosyncratic requirements (Smith & Tushman 2005, Tushman & O'Reilly 1996).

Despite of the importance of combining exploration and exploitation, the questions how learning routines emerge, how they need to be configured in order to govern the organization's development path (Sydow et al. 2009, Schreyögg & Sydow 2010), and how organizational design facilitates strategic learning still remain a largely under-investigated research field.

Questions for the emergence of learning routines are captured in the research on experience accumulation. Experience accumulation results in the development of learning routines that facilitate either exploratory or exploitative learning. Based on the idea of a social learning cycle (Boisot 1998), Zollo & Winter (2002) describe the cyclical evolution of organizational knowledge from an evolutionary perspective. The central idea behind the knowledge evolution is that the development of a firm's knowledge base with its organizational routines passes through stages of exploration and exploitation on their way to being institutionalized. Additionally, experience accumulation is a cornerstone in building dynamic capabilities (Eisenhardt & Martin 2000, Zollo & Winter 2002). However, the configuration of such dynamic capabilities decides whether change impulses are accepted or suppressed. According to Eisenhardt & Martin (2000), the density of an organizations rule regime (March et al. 2000, Beck & Kieser 2003) determines the evolutionary development of a firm. While knowledge creation is based on a set of simple rules that allow a constant evolution of routines (exploratory learning), a complex set of rules and routines reduce the pace of change and enhance exploitative learning, which is particularly important in high-reliability organizations (Weick & Roberts 1993) and in replicator-organizations (Winter & Szulanski 2001), where creating separate learning arenas is the major way to foster innovation and change.

Knowledge management (KM) projects frequently serve as a means to create a designed learning space (Easterby-Smith & Prieto 2008). Verona & Ravasi (2003) conceive KM projects as organizational arrangements (actors, structures and systems, cultures, and physical resources) that encourage organizational learning. KM projects and emerging KM routines are conceptualized as a bundle of organizational sub-routines that are explicitly developed for managing the firm's knowledge base. Embedded learning routines of KM projects stimulate knowledge transfer (e.g. communities of practice), knowledge codification, and the retaining of employee's experience (e.g. the development of ICT-based knowledge data bases) or enhance the creation of new knowledge (e.g. R&D activities). As these examples show, KM projects with

their underlying routines seek to enhance exploitative or explorative learning, i.e. the better use of existing knowledge or the creation of new knowledge and to influence individual learning accordingly.

Expectations: We expect contributions that investigate how learning routines emerge and develop and how structures (design!?) impact the evolutionary development of learning routines. In particular we pose the question, how can we describe the relationship between design and self-organization to explain organizational learning? We look for empirical and theoretical papers that analyze the development of learning processes over time. We also invite papers that explore the impact of differently dense rule regimes to govern exploratory and exploitative learning strategically. In particular, we want to discuss, how firms can transform their learning strategy into action and how they deal with emergent learning processes. However, we also welcome papers that investigate a contrary perspective, i.e. how firms suppress learning where a stable replication is necessary as is likely to be the case for high-reliability organizations and replicator-organizations

Questions: We intend to continue our discourse on learning from the EGOS 2011 colloquium by broadening our focus from the specifics of "big science"-projects to the more general issues of learning behavior in firms. In particular, we welcome contributions that address one or more of the following questions:
• How does organizational design (e.g. by implementing KM projects) influence the emergence and evolution of learning processes?
• How do organizational design and self-organization interact in learning processes?
• Where do the opportunities and constraints that influence learning processes strategically reside? In particular, how can firms govern learning processes, and what are the consequences?
• How do different regimes of rules (design!?) influence the evolution of learning processes? In particular, how do firms accelerate or slow down the pace of learning?

The Convenors

Max Boisot is Professor at ESADE in Barcelona, Fellow at the Saïd Business School, Oxford University, and Senior Research Fellow at the Snider Center for Entrepreneurial Research, The Wharton School, The University of Pennsylvania. Between 1984 and 1989 he was Dean and Director of the China-Europe Management Program in Beijing. This has since evolved into the China-Europe International Business School (CEIBS) in Shanghai. He is currently carrying out research on the generation of knowledge in the ATLAS experiment at CERN. Recently, he organized an EGOS-track in 2011 (Gothenburg).

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