



Strategic Control and Innovation in Organizations

(Outils de pilotage de l'innovation)

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Course overview and objectives

Innovation is the most intriguing and challenging topic of organizational studies. Researchers have been struggling for nearly a century to understand how individuals are able to produce new ideas and turn them into new products, new social processes, and new forms of human organizing.

Companies heavily depend upon the renewal of their products and services. Innovation is crucial to both organizations' survival and current routines. Hence, controlling strategically innovation processes in organizations has become a central objective of most firms.

This course aims at enhancing your understanding of creativity and its sources in organizations, the management and triggering of innovative processes in organizations, and the implementation of effective strategic control routines of innovation in organizations.

The seminars are organized as research discussions. Each student assigned to readership introduces his selected paper (see assigned papers below). Students hands in a 10 lines abstract, summarizing the paper's intents and findings, and raising two critical (unanswered / puzzling) questions that he believes central to the issue.

Evaluation

Evaluation is based on class participation, and on syntheses and critical comments from the students. Comments of articles should be around 15 lines, and handled in the beginning of each class. Names of students assigned to articles' comments are written after each article in the syllabus. All the articles are available on-line. Students are also invited to scour these additional resources: Mailing List MINT <http://mint.mcmaster.ca/mint/news/news.htm>. AOM Interest Group TIM: <http://aomtim.org/>

Participating students

J. HABIB, P. LOUX, A. MATHIEU, V. PAGANELLI, S. QUIEVREUX, A. SAFI, S. LAGHZAoui

1. Understanding Innovation Processes in Organizations

In this first session, we will explore together the industry, organizational and individual determinants of innovation. The class is focused on defining and understanding innovation processes in organizations.

- Van de Ven & M. Poole (1995), "Explaining development and change in organizations", *Academy of Management Review*. (**J. HABIB**)
<http://legacy.csom.umn.edu/wwwpage1/faculty/vandeven/mirp/changamr.pdf>
- Van de Ven, "Trends in Information Technology and Innovation Management," *MIS Quarterly*, 2004. (**P. LOUX**)
<http://legacy.csom.umn.edu/WWWPages/Faculty/VanDeVen/IT&KM%20MISQ%206-17-03.pdf>
- William H. Starbuck, "How Organizations Channel Creativity", published in C. M. Ford and D. A. Gioia (eds.), *Creative Action in Organizations*; Sage, 1995, pages 106-114.
<http://pages.stern.nyu.edu/~wstarbuc/creativity.html> **A. MATHIEU**
- Managing Creativity: An experience account from a videogame designer:
http://www.stibbe.net/Writing/Games_Industry/Managing_Creativity.htm **V. PAGANELLI**

Inventors' profiles to discuss in the classroom:

- What makes individuals creative?
- What characteristics could Kahneman, Van de Ven, Moreno and Paulos share? (try to answer seriously ;-) (yes – they all lack hair – the student that comes up with this gets a D-).

Daniel Kahneman: http://www.business.uiuc.edu/krische/accy302/materials/21_NobelPrize.pdf

Andrew Van de Ven <http://legacy.csom.umn.edu/WWWPages/Faculty/VanDeVen/ahvhome.htm>

Roland Moreno: <http://svm.vnunet.fr/moreno/index.html>

Eric Paulos: <http://www.paulos.net/>

2. Innovation at Work: The design and control of innovation projects

In this session, we explore how organizations can capture innovations when they occur (Hossein), and how they can efficiently design, implement and control innovation projects (case study: The Great Duck Island).

- Ian Hosein, "A Research Note on Capturing Technology: Towards Moments of Interest", Working Paper, Department of Information Systems, The London School of Economics and Political Science. <http://is.lse.ac.uk/staff/hosein/pubs/capturingtechdraft.pdf> **S. QUIEVREUX - A READING FOR ALL**

Case study: *The Great Duck Island' Sensors Network for Habitat Monitoring*

RF-ID sensors are on the edge of becoming a disruptive technology, as their prices drop at a faster rate than Moore's law. In the spring of 2002, the [Intel Research Laboratory at Berkeley](#) initiated collaboration with the College of the Atlantic in Bar Harbor and the University of California at Berkeley to deploy wireless sensor networks on Great Duck Island, Maine. These networks monitor the microclimates in and around nesting burrows used by the Leach's Storm Petrel. Our goal is to develop a habitat monitoring kit that enables researchers worldwide to engage in the non-intrusive and non-disruptive monitoring of sensitive wildlife and habitats.

Understanding RF-IDs: <http://www.intelleflex.com/> (a start-up providing RF-ID sensors).

3. To which extent can innovation be “strategically controlled”?

Many obstacles come in the way of “strategic control” of innovation processes. First, executives are prone to “perceptual filters” and bias perception. Most innovations are unnoticed by firms that have hosted them. Second, organizations have difficulties to unlearn obsolete technologies, make their programs congruent to old schemata and beliefs. The objective of our class discussion is to build a model of triggers, impediments, obstacles and facilitators of strategic control of innovation, including organizational, socio-psychological (perception) and individual determinants.

- Hans-Helmuth Jung, Philip Bucher (2003), “Strategic Technology Control: A Conceptual Framework”, *PICMET (Portland International Conference on Management of Engineering & Technology)*
<http://www.tim.ethz.ch/research/publications/jun%20-%20Strategic%20Technology%20Control.pdf> **A. SAFI**
- William H. Starbuck and Frances J. Milliken, (1988), « Executives perceptual filters: what they notice and how they make sense”, in Donald Hambrick (ed.). *The Executive Effect: Concepts and Methods for Studying Top Managers*. Greenwich. CT: JAI Press, 1988, pp. 35-65 <http://pages.stern.nyu.edu/~wstarbuc/Hambrick.htm> **S. LAGHZAoui**
- William H. Starbuck, “Unlearning Ineffective or Obsolete Technologies”, *the International Journal of Technology Management*, 1996, 11: 725-737.
<http://pages.stern.nyu.edu/~wstarbuc/unlearn.html> **J. HABIB**

4. Can we design organizations to be more innovative?

Does a better organizational design could improve innovation of organizations? In this class, we explore the myths behind the reality of innovative organizations. Our objective is to discuss potential prescriptions for making organizations more innovative by acting on their design.

- Bo L. T. Hedberg, Paul C. Nystrom, and William H. Starbuck, “Camping on Seesaws: Prescriptions for a Self-Designing Organization” *Administrative Science Quarterly*, March 1976, volume 21, pp. 41-65. <http://pages.stern.nyu.edu/~wstarbuc/Camping.htm> **P. LOUX**
- “Myths of Management”, a presentation from James G. March at Ecole de Paris:
<http://www.ecole.org/2/GR280598-ENG.pdf> **A. MATHIEU**

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- Utterback James M. and Fernando F. Suarez (1993): Innovation, Competition, and Industry Structure, in: *Research Policy*, Vol. 22, pp. 1-21