

**PIMS: PROGRAM IN INNOVATION MANAGEMENT AND INNOVATION STRATEGY
NTNU- TRONDHEIM
NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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HARVARD BUSINESS SCHOOL
SUMMER 2013**

INNOVATION AND ORGANIZATIONS

This doctoral seminar will explore the relations between innovation, organization designs, executive leadership, and organization evolution. We will explore the diverse literatures on the nature of innovation patterns as product/ service classes evolve. Will we pay particular attention to the impact of distributed innovation on organizational forms. We then explore the relations between organization designs and innovation outcomes. We conclude with an exploration of the role of senior teams in shaping organizational designs and organizational outcomes as product classes evolve. We will explore when and under what conditions organizational action shapes innovation outcomes. This course is for students interested in understanding and, in turn, conducting research in these broad domains. As these research areas are contested terrains, after getting through the basics we will focus on the contentious and unresolved issues.

Our seminar will improve your ability to do your own independent theory building and to connect your concepts to empirical research. During the term we will focus on a range of inter-related topics. As issues of technology, strategy, senior teams, organization design, and organizational evolution cross disciplinary boundaries, students will be encouraged to develop their own cross-boundary ideas. Students will review and critique a range of both theoretical and empirical work on technical change, senior teams, organizations, and organizational change.

Each class we will focus on a particular topic. We will read and critically discuss several theoretical and empirical contributions, with individual students playing central roles in leading our discussions.

Discussion of Reading

Each session will have a set of common readings (**see # in syllabus**). Individual students will take responsibility for reviewing the remainder of the readings. Students will prepare a 1-2-page synthesis/ review which should be posted on our class website.

After we discuss the common readings, students will lead a discussion of the papers they reviewed. Reviews/ critics should include the following:

Summary of the paper

This should be brief. Your first task is simply to create some context or background for the

paper and outline its major arguments.

Main contributions

This should be detailed and well articulated. You are expected to show the main contributions of the paper. “Contributions” can refer to several things. They can refer to the contributions made to a particular field of study. Or, contributions can refer to your own understanding of a particular phenomenon—you should therefore answer the question, “What have I learned from this paper?” This can include not only content discoveries (i.e., some novel concept of theory) but also methods discovery (i.e., how to go about being a researcher).

Critique

What are the paper’s conceptual shortcomings and/ or research design or technical flaws? You should also consider new opportunities for research and theoretical development.

Finally, note that selected students are only expected to *start* discussions on a paper. Fellow participants are expected to be active in ensuing discussions.

Class 1 (Monday am): On Technological Change: Discontinuities, Dominant Designs, Distributed Innovation, and Innovation Streams

- # Abernathy, W. J. 1978. The productivity dilemma : roadblock to innovation in the automobile industry. Baltimore: Johns Hopkins University Press. (Read Chapters 1, 2, 4, & 7.)
- # Anderson, P. & Tushman, M. L. 1990. Technological Discontinuities and Dominant Designs: A Cyclical Model of Technological Change. Administrative Science Quarterly, 35(4): 604-633.
- # Barley, S. 1990. The Alignment of Technology and Structure through Roles of Networks. Administrative Science Quarterly, 35(1): 61-103.
- # Bijker, W. E., Hughes, T. P., & Pinch, T. J. (Eds.). 1987. The Social construction of technological systems : new directions in the sociology and history of technology. Cambridge, Mass.: MIT Press.
Read: Pinch and Bijker (pp.17-50)
- # Christensen, C. M. & Bower, J. L. 1996. Customer power, strategic investment and the failure of leading firms. Strategic Management Journal, 17: 197-218.
- # Henderson, R. M. & Clark, K. B. 1990. Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms. Administrative Science Quarterly, 35(1): 9-30.
- # Orlikowski, W. J., & Scott, S. V. 2008. Sociomateriality: Challenging the Separation of Technology, Work and Organization. The Academy of Management Annals, 2(1): 433-474.
- # Tushman, M. L. & Rosenkopf, L. 1992. Organizational Determinants of Technological Change: Toward a Sociology of Technological Evolution. In L. L. Cummings & B. M. Staw (Eds.), Research in Organizational Behavior, Vol. 14: 311-347. Greenwich, Conn: JAI Press.
- # Lakhani, K, H. Lifshitz, and M. Tushman, 2013, Open Innovation and Organizational Boundaries: The Impact of Task Decomposition and Knowledge Distribution on the Locus of Innovation, in A. Grandori (ed), Handbook of Economic Organization: Integrating Economic and Organizational Theory. Northampton, Ma. Edward Elgar Publishing
- # Von Hippel, E. Democratizing Innovation, 2005, MIT Press. Chapters 1-6, 10,11

Class 2 (Monday afternoon): Incremental Change, Identity and Inertia

- # Glynn, M. and R. Abzug, 2002, Institutionalizing Identity: Symbolic Isomorphism and Organizational Names, Academy of Mgt. Journal, 45, 267-280.
 - # Tripsas, M. 2009. Technology, Identity, and Inertia Through the Lens of "The Digital Photography Company". Organization Science, 20(2): 441-460.
 - # Benner, M. J. 2010. Securities Analysts and Incumbent Response to Radical Technological Change: Evidence from Digital Photography and Internet Telephony. Organization Science, 21(1): 42-62.
 - # Burgelman, R. A. 2002. Strategy as Vector and the Inertia of Coevolutionary Lock-in. Administrative Science Quarterly, 47(2): 325-357.
 - # Leonard-Barton, D. 1992. Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development. Strategic Management Journal, 13(Special Issue: Strategy Process: Managing Corporate Self-Renewal): 111-125.
- Henderson, R. 1993. Underinvestment and Incompetence as Responses to Radical Innovation: Evidence from the Photolithographic Alignment Equipment Industry. Rand Journal of Economics, 24(2): 248-270.
- Kaplan, S. & Henderson, R. 2005. Inertia and Incentives: Bridging Organizational Economics and Organizational Theory. Organization Science, 16(5): 509-521.
- Milliken, F. & Lant, T. 1991. The Effect of an Organization's Recent History on Strategic Persistence and Change. In J. Dutton & A. Huff & P. Shrivastava (Eds.), Advances in Strategic Management, Vol. 7: 129-156. Greenwich, Conn: JAI Press.
- Siggelkow, N. 2001. Change in the Presence of Fit: The Rise, the Fall, and the Renaissance of Liz Claiborne. Academy of Management Journal, 44(4): 838-857
- Sørensen, J. B. 2002. The Strength of Corporate Culture and the Reliability of Firm Performance. Administrative Science Quarterly, 47(1): 70-91.

Class 3 (Monday afternoon): Organizational Evolution and Change

- # Brown, S. L. & Eisenhardt, K. M. 1997. The Art of Continuous Change: Linking Complexity Theory and Time-paced Evolution in Relentlessly Shifting Organizations. Administrative Science Quarterly, 42(1): 1-34.
- # Gersick, C. J. G. 1991. Revolutionary Change Theories: A Multilevel Exploration of the Punctuated Equilibrium Paradigm. Academy of Management Review, 16(1): 10-36.
- # Greenwood, R. & Hinings, C. R. 2006. Radical Organizational Change. In S. Clegg & C. Hardy & T. B. Lawrence & W. R. Nord (Eds.), The SAGE handbook of organization studies, 2nd ed.: 814-842. London ; Thousand Oaks, Calif.: Sage.

- # Greenwood, R. & Suddaby, R. 2006. Institutional entrepreneurship in mature fields: The big five accounting firms. Academy of Management Journal, 49(1): 27-48.
- # Romanelli, E. & Tushman, M. L. 1994. Organizational Transformation as Punctuated Equilibrium: An Empirical Test. Academy of Management Journal, 37(5): 1141-1166.
- Battilana, J., Leca, B., & Boxenbaum, E. 2009. 2 How Actors Change Institutions: Towards a Theory of Institutional Entrepreneurship. The Academy of Management Annals, 3(1): 65-107.
- Battilana, J., & Casciaro, T. 2012. Change Agents, Networks, and Institutions: A Contingency Theory of Organizational Change. Academy of Management Journal, 55(2): 381-398.
- Gulati, R., & Puranam, P. 2009. Renewal Through Reorganization: The Value of Inconsistencies Between Formal and Informal Organization. Organization Science, 20(2): 422-440.
- Hiatt, S. R., Sine, W. D., & Tolbert, P. S. 2009. From Pabst to Pepsi: The Deinstitutionalization of Social Practices and the Creation of Entrepreneurial Opportunities. Administrative Science Quarterly, 54(4): 635-667.
- Kellogg, Katherine C. 2009. Operating Room: Relational Spaces and Microinstitutional Change in Surgery. American Journal of Sociology, 115(3): 657-711.
- Levinthal, D. A. 1997. Adaptation on Rugged Landscapes. Management Science, 43(7): 934-950.
- Schneiberg, M., & Lounsbury, M. 2008. Social Movements and Institutional Analysis. In R. Greenwood, C. Oliver, K. Sahlin-Andersson, & R. Suddaby (Eds.), The Handbook of Organizational Institutionalism: 648-672. London: Sage Publications.
- Tripsas, M. 1997. Unraveling the Process of Creative Destruction: Complementary Assets and Incumbent Survival in the Typesetter Industry. Strategic Management Journal, 18(Summer Special Issue): 119-142.

Class 4 (Tuesday am): Innovation Streams and Ambidexterity

- # Benner, M. J. & Tushman, M. 2002. Process Management and Technological Innovation: A Longitudinal Study of the Photography and Paint Industries. Administrative Science Quarterly, 47(4): 676-706.
- # Boumgarden, P., Nickerson, J., & Zenger, T. R. 2012. Sailing into the wind: Exploring the relationships among ambidexterity, vacillation, and organizational performance. Strategic Management Journal, 33(6): 587-610.
- # Gupta, A. K., Smith, K. G., & Shalley, C. E. 2006. The Interplay Between Exploration and Exploitation. The Academy of Management Journal, 49(4): 693-706.
- # O'Reilly, C., & Tushman, M. 2008. Ambidexterity as a Dynamic Capability: Resolving the Innovator's Dilemma, Research in Organizational Behavior Vol. 28: 185-206.

- # March, J. 1996 “Exploration and Exploitation in Organizational Learning,” Chapter 5 in Cohen, M. D. & Sproull, L. Organizational learning. Thousand Oaks: Sage Publications, 1996.
- # Smith, W. K. & Tushman, M. L. 2005. Managing Strategic Contradictions: A Top Management Model for Managing Innovation Streams. Organization Science, 16(5): 522-536.
- # Tushman, M, W. Smith, G Westerman, R. Wood, and C. O’Reilly. Organizational Designs and Innovation Streams. 2010, Industrial and Corporate Change 19, 5, 1331-1366.
- Adler, P. S., Goldoftas, B., & Levine, D. I. 1999. Flexibility versus efficiency? A case study of model changeovers in the Toyota production system. Organization Science, 10(1): 43-68.
- Gibson, C. B. & Birkinshaw, J. 2004. The Antecedents, Consequences, and Mediating Role of Organizational Ambidexterity. Academy of Management Journal, 47(2): 209-226.
- Lavie, D. & Rosenkopf, L. 2006. Balancing Exploration and Exploitation in Alliance Formation. Academy of Management Journal, 49(4): 797-818.

NORSI-PIMS Executive Forum (Tuesday: 13.00 – 17:00): Organizational Ambidexterity

- Tushman, M. L., Smith, W. K., & Binns, A. (2011). The ambidextrous CEO. *Harvard Business Review*, 89(6), 1-8.
- O’Reilly III, C. A., & Tushman, M. (2004). The ambidextrous organization. *Harvard Business Review*, 82(4), 74-83.
- Tushman, M. L., & O’Reilly III, C. A. (1997). *Winning through innovation: A practical guide to leading organizational change and renewal*. Boston, MA: Harvard Business School Press.

CASE:

USA TODAY: Pursuing the Network Strategy (A)
 by Michael L. Tushman, Michael J. Roberts, David Kiron
 18 pages. Publication date: Jul 11, 2001.
 Prod. #: 402010

Assignment Questions:

1. What was the competitive context facing Curley in February 2000?
2. What is Tom’s network strategy and why is his senior team so ambivalent?
3. What should Tom do?

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<http://hbr.org/product/usa-today-pursuing-the-network-strategy-a/an/402010-PDF-ENG>