Innovation, Entrepreneurship and the Institutions of Knowledge
Spring 2017
Tuesday, 3:00-5:50 pm
Prof. Michelle Gittelman
Management and Global Business

Session 1. Intro to Knowledge: Economic and Social Perspectives

Dominique Foray, *The Economics of Knowledge*. MIT Press: 2004.

Fredrik Barth, An Anthropology of Knowledge. *Current Anthropology, Vol. 43, No. 1 (February 2002), pp. 1-18.* This paper provides a foundation for understanding the creation, diffusion, and usefulness of knowledge as socially and culturally embedded processes.

Some questions for thought as you read:

Session 2. Entrepreneurial opportunities: Economists perspectives

Frank Knight, Profit and Entrepreneurial Functions, The Journal of Economic History, Vol. 2, (Dec., 1942), pp. 126-132

Joseph Schumpeter, The Creative Response in Economic History. *Journal of Economic History,* Volume 7 Issue 2 (Nov., 1947), 149-159.

F. A. Hayek, The Use of Knowledge in Society, The American Economic Review, Vol. 35, No. 4 (Sep., 1945), pp. 519-530.

Kenneth Arrow, Classificatory Notes on the Production and Transmission of Technological Know-How, The Americal Economic Review, Volume 59 Issue 2, pp. 29-35.

Richard Nelson, On the uneven evolution of human know-how. Research Policy 32 (2003) 909–922

Session 3. Entrepreneurial Opportunities: Sociologists perspectives

James S. Coleman, Social Capital in the Creation of Human Capital, American Journal of Sociology, Vol. 94, (1988), pp. S95-S120

Ronald S. Burt, Structural Holes and Good Ideas, American Journal of Sociology, Vol. 110, No. 2 (September 2004), pp. 349-399.

Mark Granovetter, The Strength of Weak Ties, The American Journal of Sociology, Vol. 78, No. 6 (May, 1973), pp. 1360-1380

Session 4: Organizational Learning 1

Kenneth Arrow, Chapters 1 and 2 The Limits of Organization.

David Teece, Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy pp 285-305

Kogut, B. and Udo Zander, 1992. "Knowledge of the firm, combinative capabilities, and the replication of technology", Organization Science 3(3).

Robert M. Grant, Toward a Knowledge-Based Theory of the Firm, Strategic Management Journal, Vol. 17, Special Issue: Knowledge and the Firm, (Winter, 1996), pp. 109-122

Kogut, Bruce. "The Network As Knowledge: Generative Rules And The Emergence Of Structure." Strategic Management Journal 21.3 (2000): 405.

Von Hippel, E 1994, '"Sticky Information" and the Locus of Problem Solving: Implications for Innovation', Management Science, 40, 4, pp. 429-439

See also:

Zander, U and Kogut, B, 1995. "Knowledge and the Spped of the Transfer and Imitation of Organizationa Capabilities: An Empirical Test", *Organization Science,* vol. 6 No. 1, pp. 76-92.

Von Hippel, E. 1998. Economics of Product Development by Users: The Impact of "Sticky" Local Information, Management Science, 44 5:629-644

Argote, Linda and Paul Ingram, 2000. "Knowledge Transfer: A Basis for Competitive Advantage in Firms", Organizational Behavior and Human Decision Processes, 82 1: 150-169.

Session 5: Organizational Learning 2 (Feb 14)

Simon, Herbert. BOUNDED RATIONALITY AND ORGANIZATIONAL LEARNING. Organization Science [serial online]. February 1991;2(1):125-134

Wesley Cohen and Daniel Levinthal, Absorptive Capacity: A New Perspective on Learning and Innovation, Administrative Science Quarterly, 35 (19901: 128-1S2

James G. March, Exploration and Exploitation in Organizational Learning, Organization Science, Vol. 2, No. 1, Special Issue: Organizational Learning: Papers in Honor of (and by) James G. March (1991), pp. 71-87

Levinthal, Daniel A., and James G. March. "The Myopia Of Learning." Strategic Management Journal 14.(1993): 95-112.

Session 6: NYU Seminar (Tuesday Feb 28)

Richard Nelson and Franco Malerba, History Friendly Models and Technological Evolution

3:30 – 5 pm meet at 3:15 in front of NYU Tisch Building, 44 West 4th Street.

Sessions 7-8: Methods 1 and 2 (Thursday March 2 and Tuesday March 7)

Jaffe, Henderson and Trajtenberg, "Geographic Localization of Knowledge Spillovers as Evidenced by Patent Citations" Quarterly Journal of Economics 108 3 (August 1993): 577-598.

Peter Thompson and Melanie Fox-Kean "Patent Citations and the Geography of Knowledge Spillovers: A Reassessment", American Economic Review, VOL. 95 NO. 1 (2005): 450-460

Alcacer, Juan and Michelle Gittelman, "Patent Citations as a Measure of knowledge flows: The influence of examiner citations" , Review of Economics and Statistics November 2006, 88(4): 774–779

Skim and look at tables in:

Alcácer, J., Gittelman, M., & Sampat, B. (2009). Applicant and examiner citations in U.S. patents: An overview and analysis. Research Policy, 38(2), 415-427

Cohen, W. M., Goto, A., Nagata, A., Nelson, R. R., & Walsh, J. P. (2002). R&D spillovers, patents and the incentives to innovate in Japan and the United States. Research Policy, 31(8/9), 1349.

Roach, M., & Cohen, W. M. (2013). Lens or Prism? Patent Citations as a Measure of Knowledge Flows from Public Research. Management Science, 59(2), 504-525

Andrew J. Nelson, "Measuring knowledge spillovers: What patents, licenses and publications reveal about innovation diffusion" Research Policy 38 (2009) 994–1005.

Gittelman, M. (2008). A Note on the Value of Patents as Indicators of Innovation: Implications for Management Research. Academy Of Management Perspectives, 22(3), 21-27

Tuesday March 7

Lemley M, Shapiro C. Probabilistic Patents. Journal Of Economic Perspectives Spring2005 19(2):75-98

Moore, Kimberly A. "Worthless Patents." Berkeley Technology Law Journal 20.4 (2005): 1521-1552

Lampe, R. (2012). STRATEGIC CITATION. Review Of Economics & Statistics, 94(1), 320-333.

Cotropia C, Sampat, Bhaven. When Do Applicants Search for Prior Art?. Journal Of Law & Economics]. May 2010;53(2):399-416.

Lemley M, Sampat B. Do applicant patent citations matter?. Research Policy [serial online]. May 2013;42(4):844-854.

Read intro and skim tables:

Carley, M. Hegde, D. Marco A. (2015) WHAT IS THE PROBABILITY OF RECEIVING A U.S. PATENT? YALE Journal of Law. & Technology 203.

Session 9. Strategy and IP March 21

Hall, B., and R. Ziedonis, "The Patent Paradox Revisited: An Empirical Study of Patenting in the U.S. Semiconductor Industry, 1979–1995," RAND Journal of Economics 32:1 (2001), 101–128.

Rosemarie Ham Ziedonis, Don't Fence Me In: Fragmented Markets for Technology and the Patent Acquisition Strategies of Firms, Management Science; Jun 2004; 50, 6.

Joshua S. Gans, David Hsu and Scott Stern, "The Impact of Uncertain Intellectual Property Rights on the Market for Ideas: Evidence from Patent Grant Delays" MANAGEMENT SCIENCE Vol. 54, No. 5, May 2008, pp. 982–997.

Rysman M, Simcoe T. Patents and the Performance of Voluntary Standard-Setting Organizations. Management Science. November 2008;54(11):1920-1934.

Somaya D. STRATEGIC DETERMINANTS OF DECISIONS NOT TO SETTLE PATENT LITIGATION. Strategic Management Journal [serial online]. January 2003;24(1):17.

10. Creativity, Innovation and Search March 28

Fleming, Lee (2001). Recombinant Uncertainty in Technological Search. Management Science, 47(1), 117.

Kaplan S, Vakili K. The double-edged sword of recombination in breakthrough innovation. Strategic Management Journal. October 2015;36(10):1435-1457.

Hargadon, A., & Sutton, R. I. (1997). Technology Brokering and Innovation in a Product Development Firm. Administrative Science Quarterly, 42(4), 716-749.

Fleming L, Mingo S, Chen D. Collaborative Brokerage, Generative Creativity, and Creative Success. Administrative Science Quarterly. September 2007;52(3):443-475.

Katila, Riitta, and Gautam Ahuja. "SOMETHING OLD, SOMETHING NEW: A LONGITUDINAL STUDY OF SEARCH BEHAVIOR AND NEW PRODUCT INTRODUCTION." Academy Of Management Journal 45, no. 6 (December 2002): 1183-1194.

11. Knowledge communities, boundaries and brokerage: implications for firms April 4

David A. Hounshell, "Edison and the Pure Science Ideal in 19th-Century America" Science, New Series, Vol. 207, No. 4431 (Feb. 8, 1980), pp. 612-617

John K. Smith and David A. Hounshell, "Wallace H. Carothers and Fundamental Research at Du Pont" Science, New Series, Vol. 229, No. 4712 (Aug. 2, 1985), pp. 436-442.

Gittelman, Michelle and Bruce Kogut, 2003. “Does Good Science Lead to Valuable Knowledge? Biotechnology Firms and the Evolutionary Logic of Citation Patterns” Management Science, Vol. 49, No. 4, pp. 366–382

Gittelman Michelle “Does Geography Matter for Science-Based Firms? Epistemic Communities and the Geography of Research and Patenting in Biotechnology”. OrganizationScience Vol. 18, No. 4, July–August 2007, pp. 724–741

Sauermann H, Stephan P. Conflicting Logics? A Multidimensional View of Industrial and Academic Science. Organization Science [serial online]. May 2013;24(3):889-909.

Hsu, David and Lim, Kwanghui, Knowledge Brokering and Organizational Innovation: Founder Imprinting Effects. Organization Science [serial online]. July 2014;25(4):1134-1153.

12. **Alliances and inter-firm cooperation (April 11)**

Hagedoorn, J. 2002. Inter-firm R&D partnerships: An overview of major trends and patterns since 1960. Research Policy 31, 477-492.

Arora, A. Fosfuri, A. Gambardella, A. – Markets for Technology and their Implications for Corporate Strategy, Industrial and Corporate Change 10 2: 2001.

Anand, Bharat N. and Tarun Khanna. "Do Firms Learn to Create Value: The Case of Alliances." Strategic Management Journal, vol. 21, no. 3, Mar. 2000, p. 295.

Ziedonis, AA 2007, 'Real Options in Technology Licensing', Management Science, 53, 10, pp. 1618-1633.

13. Knowledge sources, spin outs and mobility I and II (April 18 and 25)

Rosenkopf, Lori, and Paul Almeida. "Overcoming Local Search Through Alliances and Mobility." Management Science 49, no. 6 (June 2003): 751-766.

Almeida, Paul, and Bruce Kogut. 1999. "Localization of Knowledge and the Mobility of Engineers in Regional Networks." Management Science 45, no. 7: 905-917.

Song, J., Almeida, P., & Wu, G. (2003). Learning-by-Hiring: When Is Mobility More Likely to Facilitate Interfirm Knowledge Transfer?. Management Science, 49(4), 351-365.

Agrawal, A., Cockburn, L., & McHale, J. (2006). Gone but not forgotten: knowledge flows, labor mobility, and enduring social relationships. Journal Of Economic Geography, 6(5), 571-591.

Marx, M. and D. Strumsky, L. Fleming "Mobility, Skills, and the Michigan Non-compete Experiment," Management Science, 55 (2009): 875-889.

Agarwal, R., & Shah, S. K. (2014). Knowledge sources of entrepreneurship: Firm formation by academic, user and employee innovators. Research Policy, 43(7), 1109-1133

Agarwal, Rajshree, et al. "Knowledge Transfer through Inheritance: Spin-Out Generation, Development, and Survival." Academy of Management Journal, vol. 47, no. 4, Aug. 2004, pp. 501-522.
Ganco, M. (2013). Cutting the Gordian knot: The effect of knowledge complexity on employee mobility and entrepreneurship. Strategic Management Journal, 34(6), 666-686.
Klepper, Steven. 2007. "Disagreements, Spinoffs, and the Evolution of Detroit as the Capital of the U.S. Automobile Industry." Management Science 53, no. 4: 616-631.