MGMT 937 (Fall 2022 – Q2)
PhD Seminar in Entrepreneurial Management (0.5cu)
Wharton School, University of Pennsylvania

David H. Hsu (dhsu@wharton.upenn.edu)
Daniel Kim (jdkim@wharton.upenn.edu)

Course Description

This quarter-length PhD class explores topics in entrepreneurial management. While we have assigned two-three main readings per session, we have also listed optional readings. We would like you to pick one additional reading per session to supplement the required readings (or feel free to select another reading on the topic at hand). Doing this will both allow us to have a more wide-ranging discussion, and to allow you a bit of choice on readings to tailor to your interests. There will be an opportunity for you to briefly summarize your optional reading in each class, together with a brief discussion. This will also expand our collective reach/scope on each topic.

Course Logistics

Format

This course consists of six weekly sessions (3 hours each). In each session, we will discuss the assigned papers around a focused theme in entrepreneurship & innovation. Similar to other doctoral seminars, this course is highly interactive. Students are expected to actively contribute to both the classroom discussions and student-led presentations by not only answering questions, but also raising new questions and issues in the broader literature.

Danny Kim will be the instructor for sessions 1, 2, and 5. David Hsu will be the instructor for session 3, 4, and 6.

Discussion Leader Exercise

The field of entrepreneurship and innovation is constantly evolving with new phenomena that underlie how individuals and firms pursue new opportunities. To highlight and learn from recent developments in this area, an assigned discussion leader will open the classroom discussion by identifying an emerging phenomenon in entrepreneurship and innovation – one that hasn't yet been extensively addressed in the existing literature.

While encouraged, the emerging phenomenon need not necessarily be based on the focal topic of that day's class. Examples include: Immigrant startup visa proposed in the LIKE Act; diversity issues in startup hiring; the emergence of the "meta-verse"; recent court rulings on non-compete agreements.

After identifying a topic of discussion, the leader's role on the day of class is the following: (1) Share a news article, blog post, or a real-life example of an organization/individual on the phenomenon; (2) provide a brief description of the phenomenon and why it is intriguing and/or important; (3) prepare a few open-ended questions for classroom discussion. Slides are encouraged but not required. Sign-ups, along with more details, will be provided in the first session.

Final Project

For the final project, you will present EITHER a discussion of a paper from the set listed in this syllabus (i.e., serve as a discussant) OR a research proposal that broadly relates to entrepreneurship and/or innovation. These presentations will take place during the second half of the last two sessions. Each presentation should be 15 minutes and include a slide deck. The final grade will be based on the presentation and the submitted slide deck (i.e., no additional write-up).

Grading

The final course grade will be based on the following:

40% Attendance and Participation
20% Discussion Leader Exercise
40% Final Project

Readings

1. Foundations of Entrepreneurship and Innovation: *Ideas* (10/28)

Arrow, Kenneth. 1962. "Economic Welfare and the Allocation of Resources for Invention." In The Rate and Direction of Inventive Activity: Economic and Social Factors. Princeton, NJ: Princeton University Press. **READ pp. 609-618 ONLY**.

Varian, Hal R. 2004. "Review of Mokyr's 'Gifts of Athena'." *Journal of Economic Literature*, 42(3): 805-810.

Williams, Heidi L. "Intellectual property rights and innovation: Evidence from the human genome." *Journal of Political Economy* 121, no. 1 (2013): 1-27.

+ CHOOSE 1 OF THE BELOW (OR A SUITABLE SUBSTITUTE):

Jaffe, Adam B., Manuel Trajtenberg, and Rebecca Henderson. "Geographic localization of knowledge spillovers as evidenced by patent citations." *Quarterly Journal of Economics* 108, no. 3 (1993): 577-598.

Murray, Fiona, and Siobhán O'Mahony. "Exploring the foundations of cumulative innovation: Implications for organization science." *Organization Science* 18, no. 6 (2007): 1006-1021.

Jones, Benjamin F. "The burden of knowledge and the "death of the renaissance man": Is innovation getting harder?." *The Review of Economic Studies* 76, no. 1 (2009): 283-317.

Wuchty, Stefan, Benjamin F. Jones, and Brian Uzzi. 2007. "The Increasing Dominance of Teams in Production of Knowledge." *Science* 316(5827): 1036-1039.

Galasso, Alberto, and Mark Schankerman. "Patents and cumulative innovation: Causal evidence from the courts." *Quarterly Journal of Economics* 130, no. 1 (2015): 317-369.

Bresnahan, Timothy F., and Manuel Trajtenberg. 1995. “General Purpose Technologies: Engines of Growth?” *Journal of Econometrics* 65(1): 83-108.

Bloom, N., Jones, C. I., Van Reenen, J., & Webb, M. (2020). Are ideas getting harder to find?. *American Economic Review*, 110(4), 1104-44.

Bloom, Nicholas, Mark Schankerman, and John Van Reenen. "Identifying technology spillovers and product market rivalry." *Econometrica* 81, no. 4 (2013): 1347-1393.

2. Supply of Entrepreneurs and Innovators (11/4)

Sørensen, Jesper B., and Magali A. Fassiotto. "Organizations as fonts of entrepreneurship." *Organization Science* 22, no. 5 (2011): 1322-1331.

Azoulay, Pierre, Benjamin F. Jones, J. Daniel Kim, and Javier Miranda. "Age and high-growth entrepreneurship." *American Economic Review: Insights* 2, no. 1 (2020): 65-82.

Bell, Alex, Raj Chetty, Xavier Jaravel, Neviana Petkova, and John Van Reenen. "Who becomes an inventor in America? The importance of exposure to innovation." *Quarterly Journal of Economics* 134, no. 2 (2019): 647-713.

+ CHOOSE 1 OF THE BELOW (OR A SUITABLE SUBSTITUTE):

Brooks, Alison Wood, Laura Huang, Sarah Wood Kearney, and Fiona E. Murray. "Investors prefer entrepreneurial ventures pitched by attractive men." Proceedings of the National Academy of Sciences 111, no. 12 (2014): 4427-4431.

Zolas, Nikolas, Nathan Goldschlag, Ron Jarmin, Paula Stephan, Jason Owen-Smith, Rebecca F. Rosen, Barbara McFadden Allen, Bruce A. Weinberg, and Julia I. Lane. "Wrapping it up in a person: Examining employment and earnings outcomes for Ph. D. recipients." *Science* 350, no. 6266 (2015): 1367-1371.

Azoulay, Pierre, Benjamin F. Jones, J. Daniel Kim, and Javier Miranda. "Immigration and entrepreneurship in the United States." *American Economic Review: Insights* 4, no. 1 (2022): 71-88.

Sichel, Daniel, and Eric von Hippel. Household innovation, R&D, and new measures of intangible capital. No. w25599. National Bureau of Economic Research, 2019.

Stephan, Paula E. How economics shapes science. Vol. 1. Cambridge, MA: Harvard University Press, 2012.

Moser, Petra, Alessandra Voena, and Fabian Waldinger. "German Jewish émigrés and US invention." *American Economic Review* 104, no. 10 (2014): 3222-55.

Kerr, William R., and William F. Lincoln. "The supply side of innovation: H-1B visa reforms and US ethnic invention." *Journal of Labor Economics* 28, no. 3 (2010): 473-508.

Younkin, Peter, and Venkat Kuppuswamy. "The colorblind crowd? Founder race and performance in crowdfunding." *Management Science* 64, no. 7 (2018): 3269-3287.

Calder-Wang, Sophie, and Paul A. Gompers. "And the children shall lead: Gender diversity and performance in venture capital." *Journal of Financial Economics* 142, no. 1 (2021): 1-22.

Bernstein, Shai, Rebecca Diamond, Timothy McQuade, and Beatriz Pousada. The contribution of high-skilled immigrants to innovation in the United States. NBER Working Paper No. 3748. 2018.

3. Entrepreneurial Resources & Financing (11/11)

Clough, D. R., Fang, T. P., Vissa, B., & Wu, A. (2018). Turning lead into gold: How do entrepreneurs mobilize resources to exploit opportunities? *Academy of Management Annals*.

Drover, W and Busenitz, L and Matusik, S and Townsend, D and Anglin, A and Dushnitsky, G (2017). "A Review and Road Map of Entrepreneurial Equity Financing Research." *Journal of Management*, 43 (6). pp. 1820-1853

+ CHOOSE 1 OF THE BELOW (OR A SUITABLE SUBSTITUTE):

Barrot, J. (2016). "Investor Horizon and the Lifecycle of Innovative Firms: Evidence from Venture Capital," *Management Science*. 63(9): 3021-43.

Bernstein, S., Korteweg, A. G., & Laws, K. (2017). Attracting early stage investors: Evidence from a randomized field experiment. *Journal of Finance*, 52

Cohen, SL., Bingham, CB., & Hallen, BL. (2018). The role of accelerator designs in mitigating bounded rationality in new ventures. *Administrative Science Quarterly*.

S Cohen, DC Fehder, YV Hochberg, F Murray (2019). "The design of startup accelerators," *Research Policy*.

M. Da Rin, T. Hellmann, and M. Puri (2011), "A survey of venture capital research" in G. Constantinides, M. Harris, and R. Stulz (eds.) Handbook of the Economics of Finance, vol 2, Amsterdam, North Holland.

G. Dushnitsky and M. Lenox. "When do incumbents learn from entrepreneurial ventures? Corporate venture capital and investing firm innovation rates." *Research Policy* 34 (2005) 615–639.

G. Dushnitsky and M. Lenox. "When do firms undertake R&D by investing in new ventures?"

Strategic Management Journal, 26: 947–965 (2005).

M. Ewens, RR. Townsend (2020). "Are Early Stage Investors Biased Against Women?" *Journal of Financial Economics*, 135 (3): 653-677.

J. Farre-Mensa, D. Hegde & A. Ljungqvist (2020). "What is a Patent Worth? Evidence from the U.S. Patent 'Lottery'" *Journal of Finance*.

Gambardella, A., Camuffo, A., Cordova, A., & Spina, C. (2020). A scientific approach to entrepreneurial decision making: evidence form a randomized control trial. *Management Science*.

P. Gompers, W. Gornall, SN. Kaplan, IA. Strebulaev (2020). "How Do Venture Capitalists Make Decisions?" *Journal of Financial Economics*.

J. Gonzales-Uribe & M. Leatherbee (2017). "The Effects of Business Accelerators on Venture Performance: Evidence from Start-up Chile," *Review of Financial Studies*.

BL Hallen (2008). "The causes and consequences of the initial network positions of new organizations: From whom do entrepreneurs receive investments?," *Administrative Science Quarterly*.

Hellmann, T, Puri, M. (2002). "Venture Capital and the Professionalization of Start-up Firms: Empirical Evidence," *Journal of Finance*, 57(1): 169-197.

YV Hochberg, A Ljungqvist, Y Lu (2007). Whom you know matters: Venture capital networks and investment performance, *The Journal of Finance*.

DH. Hsu (2004). "What Do Entrepreneurs Pay for Venture Capital Affiliation?" *Journal of Finance*, Vol. 59 (4), August 2004, pp. 1805-1844.

DH. Hsu and RH. Ziedonis (2013). "Resources as Dual Sources of Advantage: Implications for Valuing Entrepreneurial-Firm Patents," *Strategic Management Journal*, 34 (7): 761-781.

R. Katila, J. Rosenberger, J., and K. Eisenhardt. 2008. "Swimming with sharks: Technology ventures, defense mechanisms and corporate relationships." *Administrative Science Quarterly*, 53: 295-332.

S. Ma (2020). "The Life Cycle of Corporate Venture Capital," *Review of Financial Studies*.

Sorenson, O. & Stuart, T. E. (2001) "Syndication networks and the Spatial Distribution of Venture Capital Investments," *The American Journal of Sociology,* 106(6): 1546-1588.

Stuart, T. E., Hoang, H. et al. (1999) "Interorganizational Endorsements and the Performance of Entrepreneurial Ventures," *Administrative Science Quarterly,* 44(2): 315-349.

Tian, X., TY. Wang (2014). "Tolerance for Failure and Corporate Innovation," *Review of Financial Studies*," 27(1): 211-255.

Yu, S. (2020). "How do Accelerators Impact the Performance of High-Technology Ventures?" *Management Science*.

4. Entrepreneurial Strategy (11/18)

J. Gans, S. Stern and J. Wu (2016). "The Foundations of Entrepreneurial Strategy," *Strategic Management Journal*.

M. Marx and DH. Hsu (2015). "Strategic 'Switchbacks': Dynamic Commercialization Strategies for Technology Entrepreneurs," *Research Policy*, 44: 1815-1826.

+ CHOOSE 1 OF THE BELOW (OR A SUITABLE SUBSTITUTE):

A. Arora, A. Nandkumar (2011). "Cash-Out or Flameout! Opportunity Cost and Entrepreneurial Strategy: Theory, and Evidence from the Information Security Industry," *Management Science*, 57(10): 1844-1860.

K. Ching, J. Gans, S. Stern (2019). "Control versus Execution: Endogenous Appropriability and Entrepreneurial Strategy," *Industrial and Corporate Change*, 28(2): 389-408.

M. Feldman (2014). "The Character of Innovative Places: Entrepreneurial Strategy, Economic Development, and Prosperity," *Small Business Economics*, 43: 9-20.

JS. Gans and S. Stern. 2003. "The Product Market and the Market for Ideas: Commercialization Strategies for Technology Entrepreneurs," *Research Policy*.

JS. Gans, DH. Hsu and S. Stern (2008). "The Impact of Uncertain Intellectual Property Rights on the Market for Ideas: Evidence from Patent Grant Delays." *Management Science*, 54 (5) 982-997.

S. Garg, KM. Eisenhardt (2016). "Unpacking the CEO-Board Relationship: How Strategy Making Happens in Entrepreneurial Firms," *Academy of Management Journal*, 60(5): 1828-58.

M. Marx, J.S. Gans and D.H. Hsu (2014). "Dynamic Commercialization Strategies for Disruptive Technologies: Evidence from the Speech Recognition Industry," *Management Science*, 60 (12): 3103-3123.

TE. Ott, KM. Eisenhardt, CB. Bingham (2017). "Strategy Formation in Entrepreneurial Settings: Past Insights and Future Directions," *Strategic Entrepreneurship Journal*.

5. Labor Markets, Employee Mobility, and Entrepreneurship (12/2)

Gompers, Paul, Josh Lerner, and David Scharfstein. "Entrepreneurial spawning: Public corporations and the genesis of new ventures, 1986 to 1999." *Journal of Finance* 60, no. 2 (2005): 577-614.

Baron, James N., M. Diane Burton, and Michael T. Hannan. "The road taken: Origins and evolution of employment systems in emerging companies." *Industrial and Corporate Change* 5, no. 2 (1996): 239-275.

Campbell, Benjamin A., Martin Ganco, April M. Franco, and Rajshree Agarwal. "Who leaves, where to, and why worry? Employee mobility, entrepreneurship and effects on source firm performance." *Strategic Management Journal* 33, no. 1 (2012): 65-87.

+ *CHOOSE 1 OF THE BELOW (OR A SUITABLE SUBSTITUTE)*:

Klepper, Steven. "Disagreements, spinoffs, and the evolution of Detroit as the capital of the US automobile industry." *Management Science* 53, no. 4 (2007): 616-631.

Sørensen, Jesper B., and Amanda J. Sharkey. "Entrepreneurship as a mobility process." *American Sociological Review* 79, no. 2 (2014): 328-349.

Marx, Matt, Deborah Strumsky, and Lee Fleming. "Mobility, skills, and the Michigan non-compete experiment." *Management Science* 55, no. 6 (2009): 875-889.

Campbell, Benjamin A., Russell Coff, and David Kryscynski. "Rethinking sustained competitive advantage from human capital." *Academy of Management Review* 37, no. 3 (2012): 376-395.

Tan, David, and Christopher I. Rider. "Let them go? How losing employees to competitors can enhance firm status." *Strategic Management Journal* 38, no. 9 (2017): 1848-1874.

Corredoira, Rafael A., and Lori Rosenkopf. "Should auld acquaintance be forgot? The reverse transfer of knowledge through mobility ties." *Strategic Management Journal* 31, no. 2 (2010): 159-181.

Agarwal, Rajshree, David Audretsch, and M. B. Sarkar. "The process of creative construction: knowledge spillovers, entrepreneurship, and economic growth." *Strategic Entrepreneurship Journal* 1, no. 3-4 (2007): 263-286.

Kim, J. Daniel. "Is there a startup wage premium? Evidence from MIT graduates." *Research Policy* 47, no. 3 (2018): 637-649.

Chatterji, Aaron K. "Spawned with a silver spoon? Entrepreneurial performance and innovation in the medical device industry." *Strategic Management Journal* 30, no. 2 (2009): 185-206.

Starr, Evan, Natarajan Balasubramanian, and Mariko Sakakibara. "Screening spinouts? How noncompete enforceability affects the creation, growth, and survival of new firms." *Management*

Science 64, no. 2 (2018): 552-572.

6. Entrepreneurial Scaling & Exit (12/9)

De Santola, A., & Gulati, R. (2017). "Scaling: Organizing and growth in entrepreneurial ventures," *Academy of Management Annals*, 11(2), 640–668.

V.A. Aggarwal and D.H. Hsu (2014**). "**Entrepreneurial Exits and Innovation**,"** ***Management Science***, 60 (4): 867-887.

+ *CHOOSE 1 OF THE BELOW (OR A SUITABLE SUBSTITUTE)*:

S. Bernstein (2015). "Does Going Public Affect Innovation?" *Journal of Finance*, 70(4): 1365-1403.

Kim, J. D., "Startup Acquisitions, Relocation, and Employee Entrepreneurship." *Strategic Management Journal (Forthcoming)*

M. Baker, P. Gompers (2003). "The Determinants of Board Structure at the Initial Public Offering," *Journal of Law and Economics*, 46(2): 569-98.

A. Boot, R. Gopalan, A. Thakor (2006). "The Entrepreneur's Choice between Private and Public Ownership," *Journal of Finance*, 61(2): 803-36.

M Puri, R Zarutskie (2012). "On the life cycle dynamics of venture-capital-and non-venture-capital-financed firms," *The Journal of Finance*.

DJ. Teece (1993). "The Dynamics of Industrial Capitalism: Perspectives on Alfred Chandler's Scale and Scope," *Journal of Economic Literature*, 31 (1): 199-225.

Black, B.S., Gilson, R.J. (1998). "Venture capital and the structure of capital markets: banks versus stock markets." *Journal of Financial Economics* 47, 243–77.

Guler, I., Guillen, M.F. (2010). "Institutions and the Internationalization of U.S. Venture Capital Firms," *Journal of International Business Studies,* 41: 185-205.

https://hbr.org/2018/11/how-the-geography-of-startups-and-innovation-is-changing

https://sloanreview.mit.edu/article/engaging-with-startups-in-emerging-markets/

Doing Business 2020: Comparing Business Regulation in 190 Economies. World Bank Group.

E Alvarez-Garrido, I Guler (2018). "Status in a Strange Land? Context-dependent Value of Status in Cross-Border Venture Capital," *Strategic Management Journal*, 39(7): 1887-1911.

DE Armanios, CE Eesley, J Li, KM Eisenhardt (2017). "How entrepreneurs leverage institutional intermediaries in emerging economies to acquire public resources" *Strategic Management Journal* 38 (7), 1373-1390.

V Assenova (forthcoming). "Institutional Change and Early-Stage Start-up Selection: Evidence from Applicants to Venture Accelerators," *Organization Science*.

D Cumming (2008). "Contracts and exits in venture capital finance," *The Review of Financial Studies* 21 (5), 1947-1982.

D Cumming, U Walz (2010). "Private equity returns and disclosure around the world," *Journal of International Business Studies* 41 (4), 727-754.

M. Delgado, ME. Porter, S. Stern (2010). "Clusters and Entrepreneurship," *Journal of Economic Geography*, 10(4): 495-518.

C. Eesley, JB. Li, D. Yang (2016). "Does Institutional Change in Universities Influence High-Tech Entrepreneurship? Evidence from China's Project 985." *Organization Science*.

RJ. Gilson (2003). "Engineering a Venture Capital Market: Lessons from the American Experience," *Stanford Law Review*, 55: 1067.

EL. Glaeser, WR. Kerr, GAM. Ponzetto (2010). "Clusters of Entrepreneurship," *Journal of Urban Economics*, 67: 150-168.

PH. Hsu, X. Tian, Y. Xu (2014). "Financial Development and Innovation: Cross Country Evidence," *Journal of Financial Economics*, 112: 116-135.

LA. Jeng, PC Wells (2000). "The determinants of venture capital funding: evidence across countries," *Journal of Corporate Finance*.

M. Kenney, D. Breznitz, M. Murphree (2013). "Coming back home after the sun rises: Returnee entrepreneurs and growth of high tech industries," *Research Policy*.

L. Klapper, L. Laeven, R. Rajan (2006). "Entry Regulation as a Barrier to Entrepreneurship," *Journal of Financial Economics*, 82(3): 591-629.

J. Lerner, A. Schoar, S. Sokolinski, K. Wilson (2018). "The Globalization of Angel Investments: Evidence Across Countries," *Journal of Financial Economics*, 127(1): 1-20.