# Kevin A Miceli

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## ACADEMIC POSITIONS

#### Michigan State University, Eli Broad College of Business

Assistant Professor of Management

2016-Present

Taught courses in strategic management (undergraduate) 2018 Summer Research Grant recipient (\$8000)

## University of North Carolina at Chapel Hill, Kenan-Flagler Business School

Instructor, Strategy and Entrepreneurship Area

2014-2016

Taught courses in entrepreneurship (MBA) and innovation (undergraduate)

#### **EDUCATION**

## University of North Carolina at Chapel Hill, Kenan-Flagler Business School

Ph.D. Strategy and Entrepreneurship MS Management

2016

2015

Management
Awarded the 2016 Kenan-Flagler PhD Program Service Award

Awarded the 2014 Lee/Wahal award for Best Up and Coming PhD student in the business school

Awarded a CIBER Grant (\$2000) to support summer research

## MBA The Ohio State University, Fisher College of Business

2011

Awarded University Fellowship and Academic Honors Inducted into Beta Gamma Sigma, Business Honor Society

Studied abroad at Università Commerciale Luigi Bocconi in Fall 2010

#### Carnegie Mellon University

**B.S.** Mechanical Engineering, minor in Psychology

2004

Graduated with University Honors

Inducted into Pi Tau Sigma, Mechanical Engineering Honor Society

## RESEARCH

### Interests

Innovation and Entrepreneurship, Inventor and start-up strategies, Evolutionary perspective on knowledge and technology creation

### Dissertation

From the Garage Inventor to the Garage Entrepreneur

2016

Committee: Atul Nerkar (advisor), Scott Rockart, Rich Bettis, Chris Bingham, Howard Aldrich

Abstract: The American garage serves as the backdrop for the image of the independent entrepreneur. However, literature highlights the importance of resources for entrepreneurs that are derived from experience in firms, universities, or markets. This dissertation investigates possible resources and motivators of garage invention that results in garage entrepreneurship. In studying the process and knowledge used by garage entrepreneurs, it studies the competitive and technological environment that is conducive for independent invention turned entrepreneurship.

# **Projects in Process**

The Emergence of New Knowledge: The Case of Zero Reference Patents (with Tian Chen and Changhyun Kim, Status: 2<sup>nd</sup> revision requested at Strategic Entrepreneurship Journal)

Abstract: Knowledge-based theories have posited that new technologies are recombinations of prior technologies. To bring about new innovations, inventors usually use past known knowledge as a familiar ingredient. However, a particular type of new technology does not have any explicit predecessors. These pioneering technologies create new knowledge and can represent the initial seed from which recombination can create further knowledge and technologies. Following a cohort of inventors, we seek to understand inventors who created these pioneering technologies. By investigating their experience we test our hypotheses regarding

the creation of pioneering technologies using patents from 1985 to 2007. We find that having focused, specific expertise is more important than a broad knowledge-base and that prior inventive success can hinder the creation of pioneering technology.

Firm Age, Resource Quality, and Firm Growth (with Scott Rockart, Status: Reject and Resubmit at Strategic Management Journal, revising for resubmission)

Abstract: A robust finding in statistical studies is that older firms grow more slowly. Since firm growth rates are important indicators of competitive advantage, slowing growth raises questions about whether and why firms' competitive advantages decline as they age. Prior work posits that decreasing competitiveness arises from firms' inability or unwillingness to reconfigure bundles of resources and activities, highlighting challenges in adapting routines and activities to maintain fit with changing environment conditions. We note that declining competitive advantage may originate in processes that alter the quality of a firm's individual resources: many resources become less efficient and effective over time independent of any environmental changes. To clarify how the quality (the efficiency and effectiveness) of a firm's resources change over time, and to tease out positive and normative implications, we draw on prior work to construct a model of the dynamics of a firm's resource quality. Consistent with resource quality dynamics affecting firm performance, we find that in industries where a firm's resource quality is likely to remain high over time (i.e., where resources can easily be replaced, develop more rapidly, erode more slowly, and where overall industry recent growth rates have been high) firm growth rates remain higher despite increasing chronological age (time since founding) of the firm.

Overcoming the Liabilities of Gender: An Empirical Analysis of Garage Entrepreneurs (with Michelle Rogan and Atul Nerkar, Status: writing manuscript with analysis complete)

Abstract: Research in entrepreneurship has shown a clear effect that women are less likely to engage in entrepreneurship than men. If they do, they are likely to receive less funding or experience worse to neutral performance effects in a diverse set of measures. In this study we seek to understand the baseline gender effect in the decision to become a technological entrepreneur within a unique sample of independent inventors. We then investigate the conditions that ameliorate the gender effect, particularly focusing on the experience and network ties. We show that women are more likely to develop more patents before transitioning to entrepreneurship. Importantly, a stronger inventive network is more important for female than for men and that the structure and nature of this team matters importantly. Women who invent with men are more likely to transition to entrepreneurship than female-only teams. We test this mechanism and show that men connect the focal female inventor with a broader and stronger network. This suggests that while networks are important, the common advice to have women networking events may not be as helpful as designed. We conclude with a discussion of the mechanisms that may drive the liabilities of gender in technological entrepreneurship and directions for future research to address them.

Back in Black: Technological Evolution and Re-emergence (with Stefan Wuorinen and Tian Chen, Status: manuscript complete, finalizing for resubmission)

Abstract: We explore the differences in the use and re-use of form and function aspects of technologies. Technological evolution and product life-cycle models detail the processes of introduction, competition and growth, and eventually decline as new technologies are introduced and displace older models. These models have primarily described the functional components as the dominant driver in the selection mechanism. We present the argument that design-based inventions, in particular, can exhibit some level of re-emergence as consumers' acceptance of design styles may cycle in such a manner to desire products, features, and form factors found in older technologies. These design preferences can change separate from the technical functionality, resulting in technologies seemingly evolving in one dimension but re-emerging or being reused in another, even after new dominant designs have been selected. We test this using design patents representing the way an invention looks through industrial design as compared to utility patents covering an invention's function. We find that design-based inventions have a higher variance of backward re-use and are more likely to re-emerge even after a period of decline. Theoretical implications for firms are discussed in managing technological cycles and design patents as an increasingly important strategic resource.

From Garage Inventor to Garage Entrepreneur (Status: rewriting manuscript)

Abstract: The American garage serves as the backdrop for the image of the independent entrepreneur. However, literature highlights the importance of resources for entrepreneurs that are derived from experience in firms, universities, or markets. This study investigates how theories from those entrepreneurship studies can be applied in the context of independent ("garage") invention that results in garage entrepreneurship. In studying the process used by garage entrepreneurs, it elucidates how the technological, social and geographic opportunity spaces present in the pre-venture period could affect the decision to form a new venture. Using data of non-affiliated technologies from the USPTO from 1975 - 2009, the study sets out to analyze inventors and technologies that are at risk of forming a firm in order to understand which characteristics increase the likelihood of entrepreneurship given prior technological development. I find that the nature of the opportunity spaces through competition and resources is associated with the transition from inventor to entrepreneur and increased experience and network strength can substitute for organizational affiliation.

#### **Other Publications**

Nerkar, A., & Miceli, KA. 2013. *Boundary Spanning*. Invited book chapter in *Palgrave Encyclopedia of Strategic Management*, Augier, M., & Teece, DJ (eds).

#### CONFERENCES

### **Participation**

AOM Annual Conference (2012 – 2018; 2018 ENT Division Early Career Faculty Development Consortium; 2017 TIM Junior Faculty Consortium, Discussant during PDW on Innovation in the Automotive Industry)

SMS Annual Conference (2013 – 2018; Research Identity Workshop 2018)

SKEMA KTO Paper Development Workshop, June 2018

Atlanta Competitive Advantage Conference (ACAC) PhD Research Development Workshop (RDW), May 2015

Wharton Mack Emerging Scholars Workshop on Evolutionary Perspectives, June 2013

Mid-Atlantic Strategic Colloquium, 2012-2014 (and doctoral student workshop)

AIB Annual Conference, July 2012, Washington, DC

#### **Presentations**

Kevin Miceli, Stefan Wuorinen, and Tian Chen, "Black in Black: Technological Evolution and Re-emergence"

- SKEMA Knowledge, Technology, and Organizations (KTO) Paper Development Workshop, June 2018, Nice, France
- SMS 2018 Annual Conference, September 2018, Paris, France

Kevin Miceli, "From Garage Inventor to Garage Entrepreneur"

- AOM Annual Conference, August 2017, Atlanta, GA

Kevin Miceli, "Garage Entrepreneurs and the Competitive/Coopetitive Environment for Entry"

- Strategic Management Society Special Conference on Strategy Challenges in the 21st Century: Innovation, Entrepreneurship and Coopetition, June 2016, Rome, Italy

**Kevin Miceli,** Changhyun Kim, Tian Chen "Standing on the Shoulders of Giants? The Creation of Pioneering Technologies" (note: title has changed as the paper has evolved)

- Academy of Management Annual Meeting, August 2016, Anaheim, California
- Darden/Judge Entrepreneurship and Innovation Conference, June 2015, Cambridge, UK
- Atlanta Competitive Advantage Conference PhD RDW, May 2015
- Strategic Management Society Annual Conference, October 2014, Madrid, Spain

**Kevin Miceli**, Changhyun Kim, Tian Chen "Doing, Using, and Having (done): The Performance of Pioneering Technology"

- Strategic Management Society, October 2015, Denver, CO

Kevin Miceli "From Garage Inventor to Garage Entrepreneur"

- CCC Doctoral Consortium, April 2014, Boston MA

Kevin Miceli, Matt Pearsall, Atul Nerkar "Team-Based Outlier Innovation in Pharmaceutical R&D"

- Strategic Management Society Special Conference on Embracing Individuals, June 2014, Copenhagen, Denmark

Scott Rockart and Kevin Miceli. "Aging Resources and the Effects on Firm and Industry Dynamics"

- Duke University, November 2014 (presented by co-author)
- DRUID Conference on Innovation and Entrepreneurship, July 2014 Copenhagen, Denmark
- Atlanta Competitive Advantage Conference, May 2014
- Mid-Atlantic Strategic Conference, March 2014, University of Tennessee

**Kevin Miceli** "Where's My Hybrid: Evolutionary Development of the Hybrid-Electric Vehicle Technology"

- Strategic Management Society 2013 Annual Meeting, September 2013, Atlanta, GA.
- Academy of Management 2013 Annual Meeting, August 2013, Orlando, FL.
- Mid-Atlantic Strategic Conference, February 2013, Blacksburg, VA.

Atul Nerkar and **Kevin Miceli**. "Extreme Success and Failure in Pharmaceutical R&D: Evidence Based on the Bayh-Dole and Hatch-Waxman Acts"

- -Sumantra Ghoshal Conference on Managerially Relevant Research, June 2013, London, UK. (co-presented)
- -Darden/Judge Innovation and Entrepreneurship Research Conference, May 2013, Charlottesville, VA.
- -Wharton Technology and Innovation Conference, April 2013, Philadelphia, PA. (presented by Atul Nerkar)
- -Strategic Management Society Special Conference on Outliers, March 2013, Geneva, Switzerland.

#### **TEACHING**

Interests: Strategy, Innovation, Entrepreneurship at both the undergraduate and graduate levels

#### Instructor

MGT409: Business Policy and Strategic Management (Fall 2016; Fall 2017; Spring 2019)

Instructor for three sections of the senior-level capstone undergraduate class for business majors at the Eli Broad College of Business.

**Spring 2019:** 

Quality of Instructor (Question 5): average: 4.3/5.0 average of other fourteen sections: not available yet Quality of Class (Question 9): average: 4.0/5.0 average of other fourteen sections: not available yet

Fall 2017:

Quality of Instructor (Question 5): average: 4.0/5.0 average of other seven sections: 4.0 Quality of Class (Question 9): average: 3.9/5.0 average of other seven sections: 3.8

Fall 2016:

Quality of Instructor (Question 5): average: 4.1/5.0 average of other six sections: 3.7 Quality of Class (Question 9): average: 3.9/5.0 average of other six sections: 3.6

BUSI590-16: Strategic Innovation

Created new elective for the undergraduate curriculum, proposed the close to the business school faculty and marketed the class to students

MBA@UNC Introduction to Entrepreneurship (July 2014 – April 2016)

Section Faculty in the graduate level entrepreneurship course in UNC's online MBA program

### **Teaching Assistant**

Strategic Management – BUSI 411 – Core Undergraduate Strategy course

- 4 sections Fall 2013 Mod I (for Kristin Wilson)
- 2 sections Fall 2013 Mod II (for Changhyun Kim)

Strategic Innovation - MBA828C - Elective MBA Strategy & Innovation course

- Winter 2012-2014 (for Atul Nerkar)

Intro to Entrepreneurship - MBA835 - Elective MBA Entrepreneurship Course for Full-Time and Evening MBA

- Winter 2012-2014 (for Atul Nerkar)

## ACADEMIC SERVICE AND AFFILIATIONS

### Service

Dissertation Committee Member:

- Lingling Pan (final defense Feb 2018; placement: University of Pittsburgh)
- Da Huo (proposal defended Sept 2018; final defense scheduled July 2019)

MGT Dept. representative at December 2018 undergraduate commencement

Search Committee Member – Spring 2017 PhD Admissions

MSU Management Speaker Series - Strategy speaker coordinator 2017-present

Reviewer – SMS Annual Conferences 2014-Present

Reviewer - SMS Special Conference 2017 in Milan on Strategic Human Capital

Reviewer – AOM Annual Conference 2013-Present

(2018 Best Reviewer Award for ENT division – top 3% of reviewers)

Reviewer - AIB Annual Conference 2013

Ad-hoc Reviewer – Academy of Management Journal (2017-2018), Strategic Entrepreneurship Journal (2018), Journal of Operations Management (2018), Journal of IEEE Transactions on Engineering Management, Industrial and Corporate Change

President of the Kenan-Flagler PhD Student Association, 2013-2015

AOM Annual Meeting 2013 – Session Chair for TIM Paper Session "The Innovation Process"

AOM Annual Meeting 2017 – Session Chair and Discussant for ENT Paper Session "Entrepreneurial Identity and the Maker Movement"

#### Kevin A Miceli

AOM Annual Meeting 2018 – Session Chair and Discussant for ENT Paper Session "Academic Entrepreneurship and Incubation"

Membership

Strategic Management Society: Interest Groups: Entrepreneurship and Strategy and Knowledge & Innovation

Academy of Management: Divisions: TIM, BPS, ENT

## PROFESSIONAL EXPERIENCE

Cardinal HealthDublin, OHCorporate Treasury InternJun 2010 – Aug 2010

GE Transportation

Project Manager, New Product Introduction

Reliability Manager, DC Locomotive Models

Edison Engineering Development Program

Rotational Leadership Program with the following roles:

Off-Highway Vehicle Cost-Out Engineer

Controls and Software Release Coordinator

Engine Performance Engineer Locomotive Test-2<sup>nd</sup> Shift Supervisor

**Erie, PA** 2008 - 2009

2007 - 2008

2005 - 2007