Research and Teaching Innovation @ BABSON

Winter 2017

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Research and Teaching
Innovation
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Dear Faculty,

As I write this note, the BFRF Summer Stipend and Course Release Award proposals are being reviewed by the BFRF Committee. We are excited to offer awards to both full-time lecturers and tenure/tenure track faculty. Applicants should be notified by early March 2017.

Please see the article discussing the success of Babson's first Research Day in February, 2017. I am working with our partner BOW schools to co-promote a faculty research issues series (first one will be 3/7/17 at Wellesley College, announcement forthcoming) and a grant writing workshop.

The Office of Sponsored Research has been working closely with the Development Office, Provost Johnson, and other key constituents to provide more clarity and guidance concerning the external grant proposal process. In the meantime, feel free to contact me with any questions.

Sandra Castaldini Manager, Babson Sponsored Research & BFRF scastaldini@babson.edu

BFRF Faculty Chat

These are the next chats that will take place during the Spring semester 2017. Feel free to contact Sandra at x5339 if you would like to present at a chat in Spring 2017.

- Monday 3/27/17 Lauren Beitelspacher, Marketing, and Scott Taylor, Management
- Thursday 4/6/17 Jason Mohaghegh, Arts and Humanities, and Jonathan Sims, Management
- Monday 4/24/17 David Nersessian, Accounting and Laws and TBD

Library News

New Research Resource: Slavery in America and the World: History, Culture & Law

This database includes a multitude of essential legal materials on slavery in the United States and the English-speaking world, including every colonial, state, and federal statute related to slavery, as well as all cases on slavery. Legal commentaries, pamphlets and books about slavery, law review articles, and primary sources round out the collection which is continually For example, recently added growing. content includes the autobiography of the Rev. Josiah Henson, a former slave who may have served as the model for Uncle Tom, the character in Harriet Beecher Stowe's novel Uncle Tom's Cabin. The database publisher, William S. Hein & Co., Inc., has made this resource available free of charge as an act of corporate social responsibility.

Do you know your Library liaison?

For any questions about library resources and services, suggestions for resources to purchase, help with your research, or technical/access issues with library resources, please reach out to the librarian who is the liaison to your division:

A&L: Mary Gavett-Orsi 5605

A&H / H&S: Daryl Bullis 6482

Economics: Patricia Berens 5486

Entrepreneur / Finance : Jack Cahill 4578

Managemt. / Mk. : Samantha Porter 4471

M&S / TOIM: Jack Cahill 4578

Babson Research Day

The First Babson Research Day held on Friday, February 3rd, 2017 was a success. A sincere thank-you to all of the presenters and audience members who took time out of their busy schedules to participate in our inaugural event. Over 40 faculty members presented in concurrent sessions on the day and many others attended for all or some parts of the day which offered many opportunities for presenters and attendees to connect and discuss their research. New and old acquaintances chatted during breakfast and lunch as well as at the end of the day when many made their way to Rogers Pub for some complimentary food and beverage. Given the participation from an array of faculty divisions, a range of research topics were presented and examined from various points of view. During the question and answer period that followed each of the sessions, there were lively discussions often with helpful suggestions for pursuing the research topics just presented.

The Research Day committee, consisting of **Roberta Francis**, **Richard Herron**, **David Nersessian**, **Sal Parise**, and **Janice Yellin** are looking forward to gathering feedback regarding what was helpful and what could be improved upon for next year. They would also like to thank **Carolyn Hotchkiss** for financially supporting the event and **Kathy Regan** for her important administrative assistance. We will need a Research Day committee for next year so please be in touch if you would like to participate.

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Faculty News

- Congratulation to **Candida Brush** on her paper "Why do family firms strive for nonfinancial goals? An organizational identity perspective" being selected by Emerald Group Publishing for the Emerald Insight Best Paper Awards in August 2016
- Victor Seidel's paper (with T. Gillier, A. Kazakci, and G. Piat) on "The network structure and evolutionary synthesis of breakthrough product concepts" was selected for the 2016 best papers proceedings of the Academy of Management. His paper (with C. Riedl) on "Design myopia and vicarious learning from good versus bad examples: Lessons from creative design competitions" was also awarded the best paper of the 20th Annual DRUID Innovation Conference, Copenhagen. Great work!

Recent Faculty Publications

Congratulations to **Vincent Onyemah**, on his latest book "Entrepreneurial Selling- the Facts Every Entrepreneur Must Know" published by Business Expert Press..





Candida Brush, Entrepreneurship, co-edited "Women's Entrepreneurship in Global and Local Contexts" which was recently published by *Elgar*. See detail here.

Brian Seitz's latest book "Intersubjectivity and the Double: Troubled Matters" has been published by *Palgrave Macmillan* in August 2016.



After over half a decade of work, congratulation to **Michael Goldstein** whose paper "Using an option pricing approach to evaluate strategic decisions in a rapidly changing climate: Black–Scholes and climate change" has been published by *Climatic Change*. For more, see http://rdcu.be/mZw1

2016 had been a fruitful year for **Mahdi Majbouri**, who had three papers published in the same year (1) "Oil and Entrepreneurship," Energy Policy (2016), Vol. 94: 10-15. (2) "Against the Wind: Labor Force Participation of Women and Economic Instability in Iran," Feminist Economics, 22(4): 31-53. (3) "Children and Mother's Participation in MENA," Topics in Middle Eastern and North African Economies, 2016(2).

Deets, **Stephen**, Skulte-Ouaiss, Jennifer (2016) "Jumping out of the "Hobbesian Fishbowl" and into the Fire: Lebanon, Elections, and Chronic Crisis.", *The Journal of Post-Soviet Democratization*, vol. 24 issue 4 (Fall 2016), 513 - 530. This paper was a BFRF mini-grant project.

Seidel, V.P., Packalen, K.A., & O'Mahony, S. (2016) "Help me do it on my own: How entrepreneurs manage autonomy and constraint within incubator organizations" *Research in the Sociology of Organizations*, vol. 47, 277 - 309.

Sebastian Fixson and **Paul Mulligan** co-authored a case "The Grommet: Managing Operation at a Fast-Paced Start-Up", in *Entrepreneurial Leader Collection*, BAB225/February 2016.

Final Product Accepted

Jennifer Bailey, TOIM, "Managing and Mitigating the Operational Risks in Start-Up Ventures: The Impact of Operational Resources on Achieving Milestones"

The purpose of this paper is to examine the operational risks faced by start-up ventures. Several factors have been deemed as significant for predicting the success of start-up ventures. However, the acknowledgement of the role of operational resources and operational capabilities as a predictor of start-up success is often notably absent from the identification of start-up risk factors. This paper proposes a stage-based model of new venture emergence and examines the critical venture resources and capabilities which can impact the successful achievement of venture milestones at each stage. Three key milestones are examined: (i) the time to prototype development, (ii) the time to product launch and first sale and (iii) the time to positive cash flows and profitability.

Lakshmi Balachandra, Entrepreneurship, "Investor Mentor: Evaluating the Entrepreneur as Protégé"

While finances figure strongly when evaluating ventures for investment, we investigate if an angel investor's interest as potential mentor influences their interest in certain ventures over others. Using mentoring theory, we hypothesize that angel investors consider the mentor-protégé relational potential between themselves and the entrepreneur when evaluating their level of interest in investing in a venture. Our findings accordingly demonstrate that angel investor interest in investing increases when observing evidence of mentoring capability as well as receptivity of the entrepreneur to their mentorship. The entrepreneur's receptivity to mentorship also moderates angel investor interest in the venture. We contribute to mentor-protégé theory and investor decision-making theory by identifying an ego-focused process that underlies angels' investment considerations: how investors can personally contribute to the venture's success is an important financial investment consideration. Our findings highlight how interpersonal relational impressions formed from the entrepreneur's pitch may lay the groundwork for the working relationship between angels and entrepreneurs.

Sinan Erzurumlu, TOIM, "Value Creation and Continuation Contingencies in Business Angel Contracts"

This article addresses the challenge of generating firm value through the design of a contingent contract between a business angel investor and an entrepreneur. We develop a two-stage decision-theoretic model that considers the investment size, each party's capability and exerted effort toward the business prospect, as well as their mutual trust to unearth the existence of a threshold contingent on the investor's capability required to continue pursuing the contract to the second stage. From this characterization and that of the entrepreneur's optimal ownership share, we formulate five hypotheses that further characterize this ownership share. Our empirical findings suggest that only the investor's capability and exerted effort influence the ownership share, and not the capability and exerted effort of the entrepreneur. We also find that the relationship between ownership share and either party's capability depends on investment size, and so does the relationship between ownership share and trust but only for large investments.

Davit Khachatryan, Mathematics and Science, "Measuring Technological Depth and Breadth of Patent Documents"

In this work we propose measures for technological depth and breadth of patent documents. We conceptually compare and contrast several measures that have been used in existing literature, illustrating some of their main limitations. Motivated by the drawbacks of the existing metrics we demonstrate how Rao's Quadratic Entropy, an effective measure used in ecology for measuring biodiversity, can be decomposed to measure both technological depth and

breadth. Chosen metrics are then used to investigate, based on patent documents in business data processing arena, the relationship between depth, breadth, and the likelihood of a patent document becoming a successful grant. Four hypotheses are postulated and subsequently tested to illustrate these relationships. The implications of the proposed metrics, as well as the tested hypotheses are discussed in the context of entrepreneurship.

Julie Levinson, Arts and humanities, "Cities of Lost Children: Street Kid Films and the Urban Imaginary in Global Cinema: Chapter One"

This introductory chapter of *Cities of Lost Children: Street Kids and the Urban Imaginary in Global Cinema* considers how the films discussed in upcoming chapters betoken a collective need to ponder the social and ideological forces that create and perpetuate the world-wide calamity of children living alone on urban streets. The chapter considers several narrative and sociohistorical contexts for street kids movies and introduces the main analytical lenses through which individual films will be analyzed including cultural constructions of childhood, the city as geo-mythical space, the meaning of home, and the responsibilities of social institutions and state apparatuses vis-à-vis children.

Jason Mohaghegh, Arts and Humanities, "Omnicide: Mania, Fatalism, and the Future-In- Delirium"

This book undertakes a creative mapping of "manic-fatalistic" trends in the recent history of Middle Eastern literature and philosophy, deciphering the particularized exchanges between authors from this region who embark upon a writing of madness, obsession, frenzy, euphoria, and catastrophe. In an attempt to both explore and then surpass the conventions of psychoanalysis, existentialism, and post-structuralism, this book calls forward a subterranean archive of Middle Eastern thinkers whose experiments with manic-fatalistic visions provide us a rare insight into the nexus of death and desire, agony and delirium, creation and destruction.

Over the course of this past year, I have compiled all of the necessary research materials (sources, quotes, outlines) for the overall book project, in addition to completing the writing of the Introduction, an extended chapter on "Dromomania," and an extended chapter on "Colossomania." The Introduction was already published in the Hyperion journal (Spring 2015 edition), while the two finished chapters have been submitted to be published in forthcoming edited volumes. During this same time period, I also co-authored a separate book titled Elemental Disappearances with Professor Dejan Lukic (School of Visual Arts, NYC) published by Punctum Books in Fall 2016.

Wendy Murphy, Management, "The Silicon Valley Start-Up Common: Fostering Developmental Networks for Entrepreneurial Success"

Nonprofit organizations engage in meaningful work every day, as these organizations are often oriented toward serving community's educational, health, or cultural needs. Based on a recent census of women directors of Massachusetts largest nonprofit organizations, it is clear that there is a lack of gender diversity on nonprofit boards (The Boston Club, 2015). Boards play a critical role in organizational governance, hiring top leadership teams and influencing strategy, and without diversity these organizations are not as successful (Lublin, 2015). To understand this issue in more depth, we interviewed 40 women on large nonprofit boards (revenues greater than \$30 million) to understand why they participate, how they got onto the board, how they engage on these boards, and how the experience of board membership benefits their lives and careers.

This project entails three long fictions concerning the life of a Middle Eastern refugee in the United States. The stories move from the American south to New England and back. In these stories Kiddio is a migrating character; he might be considered one and the same person over the course of several years or a different person entirely, and thus the stories can be read as discrete and self-contained or as part of a continuum. The stories may be read out of order, in disruption of a life's chronology: this is my structural gesture to the violent discontinuities wrought by war.

Salvatore Parise, TOIM, "Will Workspace Design Make Us More Innovative?"

Recently, there has been considerable experimentation with physical work environments to determine the best mix of spaces that accommodate optimal effectiveness for everything from informal "water cooler" exchanges to concentrated task work by knowledge workers. While there are numerous models and tactics for driving innovation, there is a lack of empirical data on the influence of the workspace setting on the creative process. Using a case study approach involving a company who redesigned their physical workspace, a "Before and After" organizational network analysis (ONA) was conducted to measure the new workspace impact on both employee collaboration and idea generation. The results from this case study show that open and collaboration-enhancing workspace design led to an overall improvement in the employee idea network, as well as the removal of silos caused by physical locations, employee levels, and product teams. Also, these was a large increase in the number of ideas generated after employees had worked in their new workspace for six months. Follow-up interviews found that the open and dedicated workspace design was a major factor in an increase in employee brokering behaviors, which helped generate these new ideas.

Virginia (Jenny) Rademacher, Arts and Humanities, "From economic crisis to entrepreneurship? Self-employment among Spain's young women"

This paper applies qualitative and quantitative data to examine the effects of the global financial crisis that began in 2007 on self-employment by young women in Spain and other crisis-affected European countries. By focusing on female youth entrepreneurship as an emerging, often overlooked sector of potential growth and innovation, our research addresses an important gap in the literature regarding entrepreneurship and economic recovery. We hypothesize that the depth of the crisis and the scale of youth unemployment may have stimulated self-employment, and we examine how these factors may have impacted entrepreneurial activity among young women.

Brian Seitz, Arts and Humanities, "Pelts: Toward a Genealogy of Fur"

This essay explores a wearable form of warmth that allowed human beings to stray from the fire, a benefit of the direction, rich relationship between procuring meat and procuring furs. Having remarked on that relationship, I turn to the dynamics of pre-capitalist fur markets, which traded in a commodity that was practical as well as beautiful. Then I focus on the modern emergence of large fur companies fed by transatlantic demands for European fashions, for, specifically, beaver felt hats. This demand engendered new forms of imperialism that led to intimate cultural contact between Western trading companies and indigenous people who supplied the furs. In North America, the English, French, and Americans headed west, while Russian headed east into Alaska and down the Pacific coast into Northern California. Eventually, the virtual extermination of beavers in the Rocky Mountains converged with changes in fashion, and market collapsed.

I briefly discuss fur farming and then recent opposition to fur, which reduces fur to the status of a consumer choice and takes us light years away from the originary need to keep warm. Curiously, the acceptable alternative is "faux fur," made from synthetic fibers (i.e. a petroleum product). More recently, there has been a vogue for real fur trimming on parka hoods.

Finally, I make reference to successful rewilding projects (e.g. beavers return to Britain), and then touch on modern Siberian trappers featured in Vasyukov and Herzog's documentary, *Happy People: A Year in the Taiga*.

Jonathan Sims, Management, "Write Code, Save Lives: Community-centric Open Innovation as Ecosystem Catalyst"

This study explores the role of a community practicing open innovation in the creation of an ecosystem of organizations working to improve healthcare in developing nations. Using the OpenMRS open-source software community as our setting, we develop a four-phase model of community-centric social ecosystem development. Our findings highlight that communities are more likely to form ecosystems when members share a common mission, and when founders have wide breadth in both their own professional expertise and social networks. We also discuss how economic opportunities made possible by open innovation can paradoxically create challenges for the sustainability of socially- driven open innovation communities. This study contributes to our understanding of how open innovation enables a community to address social challenges.

Rosa Sleger, Arts and Humanities, "Becky Sharp Goes to Business School: Vanity Fair, Adam Smith, and the Attempt to Direct Vanity to Proper Objects"

This book integrates Adam Smith's moral theory with William Makepeace Thackeray's Vanity Fair and other Victorian novels to formulate an approach to business ethics education centered on vanity. Because Smith is both convinced of the potential of commercial society to improve the fate of humankind and at the same deeply concerned with its potential to corrupt the individual, his reflections on ethics provide a surprisingly modern framework for business education. Thackeray's novel Vanity Fair serves as the literary counterpart to Smith's Theory of Moral Sentiments and is populated with strikingly modern characters that embody, enrich, and sometimes challenge Smith's theory.

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Center News

Center for Engaged Learning and Teaching - CELT News

Special CELT Event:

Teaching and Writing across Disciplines

Panel Event with Jen Bailey, Ben Luippold, Angela Randolph, Adam Sulkowski Tue, March 7, 12n-1:15p, Olin – Needham room

The <u>Rail Trail</u> case, written and taught as a cross-disciplinary case, follows two Babson alumni as they launch their business. The <u>Rail Trail</u> case won an award at the January USASBE annual meeting.

To RSVP for this lunch please reply to <u>Marcia Michelson</u>. Grab your lunch in the Olin dining hall, and let the cashier know you are attending the CELT lunch.

Congratulations and thanks to the following faculty authors who have recently published in the Babson Collection:

Andrew Zacharakis, Entrepreneurship

BAB242: Balanced Snacking

The Balanced Snacking case follows the entrepreneurial journeys of Gautam Gupta and Ken Chen. Gupta and Chen met as Babson undergraduates. The goal of the Balanced Snacking project is to deliver healthy (balanced) snacks to consumers on a subscription basis through an online marketplace. At the time of the case, Gupta and Chen had developed the idea to the point of conducting marketplace experiments to determine demand. They had come from very different backgrounds, but their combined skills complemented each other as they progressed through this trial and error stage. The case focuses on what types of experiments and testing they might pursue to prove their business idea.

Andrew Zacharakis, Entrepreneurship

BAB282: Crowdfunding

Crowdfunding is considered an alternative to traditional angel and venture capital funding that has helped get many business ventures off the ground. The basic idea of crowdfunding centers on pitching a business idea to a large group of people and seeking financial support. Although crowdfunding has existed for hundreds of years, it has recently gone to online platforms. The most successful platforms to date have been Kickstarter and Indiegogo, which have helped many ventures raise initial funding. This case is concerned with two different startups, one started by a twin sister duo (Marla and Annie) and the other by a Babson College student (Hanson).

Chuck Winrich, Math & Science

BAB246: Planning a Service-Learning Trip

Service-learning projects typically take place in the community adjacent to a school. However, service

projects can also take place in distant communities to create different learning experiences. Creating a service-learning experience in a distant location requires planning to ensure a quality learning experience. The service project should relate to the academic goals of the course connected to the trip, while also leveraging the location's unique opportunities for learning. The logistics of planning and traveling with a group of students can appear daunting; however, administrative support for college trips can be of great help in creating a successful service-learning trip.

Cheryl Kirschner, Accounting & Law

BAB269: Double Double Toil and Trouble

This case is based on highly-publicized events surrounding lethal medication manufactured and sold by a small pharmaceutical company outside Boston, Massachusetts called New England Compounding Center (NECC). Formed in 1998, NECC was owned and operated by husband and wife Barry Cadden and Lisa Conigliaro Cadden, along with other family members. In conjunction with its sister company, Ameridose, the businesses focused on preparing prefilled syringes and large vats of medication into smaller intravenous bags, ready for individual use. It also compounded medication for individual patients' specific needs. But as the business grew aggressively, taking larger and larger orders, fast production was prioritized over safety and sanitation.

A fungal meningitis outbreak in the Fall of 2012 was linked to steroids fabricated by NECC. Despite an immediate recall, the allegedly contaminated product had been distributed to more than 14,000 patients in 23 states. In total, the Center for Disease Control and Prevention reported 751 cases of fungal infection could be linked to tainted steroid injections compounded by NECC. Of these, 64 were fatal.

How should the legal system respond?

Dennis Ceru/Beth Goldstein, Entrepreneurship

BAB285: Chocolate Remedies

Chocolate Remedies tells the story of an African American couple working together to build their own retail business specializing in sales of high-quality, hand-made, chocolate truffles. The case follows their path as they launch two coffee shops that fail after five years of slow growth and limited revenue, leaving them in debt. The couple returns to corporate positions and rebuilds their financial security. Next, they decide to invest their savings to develop a retail chocolate business. They establish a retail location but watch sales plummet after the first year, leading them to move to a new location and seek a business model that will bring them success. The case addresses the following topics.

- The factors involved, personal as well as financial, in the decision to build rather than buy a business.
- The relationship linking market research and analysis, to their choice of location, as it impacts the success of a retail business.
- The importance of product lines, sales channels, and accurate financial monitoring in crafting a business model that produces revenues and profits.

Bala Iyer, TOIM

BAB288: SIGFOX: Primed for Growth

SIGFOX is a provider of infrastructure services to the emerging Internet of Things (IoT) industry. The company has a homegrown solution to the problem of high energy consumption networks. Their low power

consumption wide area network (LPWAN) will unleash the IoT industry by allowing companies to build viable solutions using IoT. Just as with operating systems, an infrastructure is only as valuable as the solutions that are available on them. A basic challenge needing to be overcome before gaining traction within IoT is that their infrastructure must become widely available. In one approach, the company can get third parties to buy their technology and use it to provide coverage. In the second approach, SIGFOX has to raise capital and do its own expansion of the infrastructure. In addition, they have also chosen a mixed approach: to deploy and operate by themselves in a minority of countries (France, Germany, US) and to deploy/operate via partners (SIGFOX Network Operators) in the rest of the world.

Gaurab Bhardwaj, Management

BAB292: Cytyc: Transforming Cervical Cancer Testing

The case relates the growth story of a transformative medical diagnostics company as it moves from idea to maturity at a critical time when leaders must determine what to do about the falling stock price. As the case unfolds, it shows how an idea for transforming cervical cancer testing was converted to a proof-of-concept, followed by years of scientific and technological research to create products. The case portrays gaining FDA approval while short on resources, persuading skeptical insurers to pay for a new diagnostic test, and managing the challenges of subsequent growth, profit, and maturity while facing the emergence of new technologies and competitors. Students are asked to adopt the role of a newly hired vice president of business development to decide how to address the company's situation. They must identify and frame the problem, generate alternatives and evaluate them critically, then prepare recommendations for an upcoming board meeting. Students take into account industry and company data as well as strategic realities. They examine what makes creating, growing, and managing a science- and medicine-based company different from doing so with other technology companies, especially consumer hardware and software with which students tend to be most familiar.

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