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## Is Entrepreneurship a Discipline?

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UNIVERSITY OF NEW HAMPSHIRE

# Is Entrepreneurship a Discipline?

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Honors Thesis

Cassidy Croci

5/8/2016

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## Introduction

The legitimacy of entrepreneurship as an academic discipline has been hotly contested in the halls of academia. The question of whether or not entrepreneurship can be considered a discipline is posed by experts outside as well as inside this field. Historically, entrepreneurship “developed in many subfields with several disciplines-primarily economics, management/business administration, sociology, psychology, economic and cultural anthropology, business history, strategy, marketing, finance, and geography- representing a variety of research traditions perspectives and methods,” (B. Carlsson et. al, 2013). Through its very nature of emergence, entrepreneurship appears interdisciplinary and tied to the disciplines of which it emerged. Even experts in the domain of entrepreneurship, agree that there is no definition that precisely represents entrepreneurship completely (Wiklund, Lumpkin, and Freese, 2009). However, my argument does not debate what constitutes the definition of entrepreneurship, but instead whether there is a theoretical framework that can adequately contain all the research on entrepreneurship into an individual discipline that is separate and unique from other disciplines. To create this theoretical framework, factors must be outlined that would indicate that entrepreneurship is a distinct, autonomous discipline that can operate independently as well as interdisciplinary. These factors include: publication levels, training and mentoring mechanisms, social networks and reward systems, and unique empirical phenomena that is only explained educationally through entrepreneurship. These factors must be able to establish a framework that can “explain and predict phenomena neither explained nor predicted by other fields,” (Shane & Venkataraman, 2000). Through these four factors, I seek to add to the understanding of whether or not entrepreneurship can be definitively labeled an institution and discipline in its own right, or if it should be considered interdisciplinary.

## Methodology

For this research question, I will use both qualitative and quantitative methods to assess the validity of entrepreneurship as a discipline. I will analyze research articles, peer-reviewed journals, books, and other credible published materials by experts in entrepreneurial studies, business, and history as well as other relevant fields to define what a discipline is as well as contextually place entrepreneurship in relation to this definition. I will also look at the history of the field of entrepreneurship to determine if there is historical precedent for considering entrepreneurship as an independent field. I will also evaluate opponents who do not believe that entrepreneurship is an independent discipline and explain the detractor's rationale. By evaluating these primary and secondary sources, I will establish factors to rate the field of entrepreneurship against to see if it can be labeled a discipline. These factors include: rate of publishing academic journals and books, systems of entrepreneurial education including teaching and mentoring availability, social networks and reward systems specific to entrepreneurship and independent of other disciplines, and phenomena that can only be explained by the field of entrepreneurship.

To evaluate the factor focusing on publications, I will use the Australian Business Deans' Council's journal quality list, the main registry of international journals in business academia, and extract all of the entrepreneurial themed journals and rankings to establish the number of journals with an entrepreneurial component and compare my findings to that of other researchers specifically Jerome Katz's and his analysis of journals in the Social Science Citation Index that feature entrepreneurship as well as publications in general with entrepreneurship. For the teaching and mentoring section of my evaluation, I will compile a database of all American Universities that incorporate entrepreneurship into their undergraduate education systems in some form whether it is as an independent school, a major, a minor or multidisciplinary major/minor to assess how universities perceive entrepreneurship in the scholastic system. The

factor of social networks and reward systems will be evaluated by discussing the networks that are exclusive to individuals in the domain of entrepreneurship as well as a look at what awards one can receive as a leader in the field. I will also look at social media to determine if networks exist in other forums outside of the traditional academic conferences and meetings. Determining the unique phenomena that separates entrepreneurship from other disciplines will be achieved by a discussion of Scott and Venkataraman's article, *The promise of entrepreneurship as a field of research*. By analyzing these four factors and looking at the historical impact of entrepreneurship education, I will be able to determine whether or not entrepreneurship can stand as an independent discipline or if it is an interdisciplinary field.

## Discipline

The idea of autonomous disciplines is at least as old as the Greeks and Aristotle. However, it was not until the time period from 1780 to 1850, or the "Second Scientific Revolution" where the idea of discipline was reconfigured (Kuhn 1977, 147,220, Hahn 1971:275-276, Brush 1988). Originally, the Mertonian model created by Robert K. Merton, dean of American Sociology of Science for several decades at Columbia University, prevailed as the explanation of how cultural norms could encourage the pursuit of natural knowledge. This model stipulated four norms that constituted an "ethos" "that must hold as sway of science as to flourish or, indeed, in order for anyone to occupy the social role of 'scientist'" (Golinski, 49). These four norms are "universalism," "communism," "disinterestedness," and "organized skepticism." "Universalism" accounts for claims to truth to be assessed independently from their proponents. "Communism" is the disavowal of secrecy or private property rights in knowledge and the ideal that researchers are rewarded with honor within their community, not by keeping intellectual rights in knowledge and the ideal that researchers are rewarded with honor within their

community, not by keeping intellectual rights. “Disinterestedness,” is a further restriction on fraud and self-aggrandizing. “Organized skepticism’ is expected of scientists during the research process and allows for proper research methodology to take place. However, many researchers found that there are faults in the Mertonian model as it fails to account for “material settings, local groups, or formal organizations” (Abraham 1983; 374).

The shift from Mertonian model towards professionalization looking at defining disciplines as the term “scientist” was coined in 1833 by William Whetwell. This coinage signaled these changes as “ the boundaries of distinct disciplines became a more entrenched feature of production of knowledge, embodied in the constitution of university departments and instituted, in specialized scientific societies in new journals,” (Golinski, 67). In the second scientific revolution, new domains of knowledge were emerging with their own defining practices and regulated borders. The rise of professionalization denoted that science achieved a certain autonomy. J.B. Morrell (1990) developed a model of six features of change one would expect to find when transitioning to a professionalized scientific field.

The six factors are: (1) increased numbers of paid posts for scientific specialists and private institutions; (2) the rise of specialist qualifications such as the PhD degree; (3) an expansion of programs of training for students in research laboratories; (4) increased specialization of publications; (5) the rise of institutions; and (6) the creation of an autonomous reward system for career scientists with their own institutions. All of these six factors indicate the viability of a field calling itself a discipline.

In regards to entrepreneurship, a social science, being a discipline or institution in its own right, Howard Aldrich outlined six forces very similar to Morrell’s six features that relate to the

growing and ever-changing field of entrepreneurship research. By “institutional entrepreneurship” Aldrich means collective action by “many people who jointly- via cooperation and competition- create conditions transforming institutions (Aldrich, 2010). “Institutions,” are patterned behavior infused with meaning by normative systems and perpetuated by social exchanges facilitated by shared cognitive understanding (Greenwood et. al.). This definition recalls Merton’s social norms establishing an “ethos” within a field to provide common grounds for interaction. Aldrich’s six factors that indicate the evolution of the field of entrepreneurship and help establish an infrastructure of a discipline are: (1) social networking mechanism creating a social structure facilitating connections between researchers; (2) publication opportunities have increased dramatically, (3) training and mentoring has moved to a collective rather than individual apprentice model; (4) major foundations and many other smaller funding sources have changed the scale and scope of entrepreneurship research; (5) new mechanisms have emerged that recognize and reward individual scholarship, reinforcing the identity of entrepreneurship research as a field and attracting new scholars into or; (6) globalizing forces that have effected all of these trends (2012). Scott Shane and Venkat Venkataraman also add credence for entrepreneurship as an independent discipline as it can explain and predict phenomena- not explained in other fields. This analysis those narrows the scope of research in a particular domain and recalls increased specification of publications.

In order to analyze the legitimacy of entrepreneurship as a truly autonomous and unique discipline and institution, I have selected factors based on Morrell, Aldrich, and Shane and Venkataraman. These factors as well as looking at the history of entrepreneurial research will help me assess the maturity of the field and add input on whether it is a discipline or still interdisciplinary. These factors are: (1) publishing levels that determine what studies, inquiry



and research areas experts are exploring; (2) training and mentoring opportunities in the field of entrepreneurship that assess how knowledge is being transferred; (3) social networks and reward systems that establish internal validity of a discipline; and (4) unique empirical phenomena that can only be explained in entrepreneurship and in no other disciplines. I have elected to explore these factors due to my experience as an entrepreneurial studies student and Executive member of the Rines Angel Fund, a private equity Fund specializing in evaluating start-ups and entrepreneurs to potentially invest in these companies, I am adequately able to assess these four factors qualitatively and quantitatively.

### **History/ Current Definition of Domain**

Entrepreneurship is young in terms of academia; however there is an established tradition and historical precedent in the field. The term “entrepreneur” has been in use since 12<sup>th</sup> century when it first appeared in the French language. Cantillon in 1755 gave the first economic context to the concept of entrepreneurship and established the role of the entrepreneur in the historical milieu in his *Essai sur la Nature du Commerce in Général*. The academic to have a major impact on the field was Joseph A. Schumpeter, the first economist to truly focus on the linkage of entrepreneurship and economic development. He coined terms like “creative destruction,” and stated that the “entrepreneur is the prime agent of change,” (Schumpeter, 1942). Schumpeter’s ideas truly lead to the emergence of entrepreneurship as a field, but at this point it still could not be considered a full-fledged discipline. It took until 1947 for the first class that focused solely on entrepreneurship to be taught at Harvard Business School. Many conferences and courses followed Harvard’s precedent and established courses of their own, however many of these courses and conferences were bound by management practices, not economic theory. It is believed that economic theory followed management practice in entrepreneurial education

because of World War II. After the War, commercialization was taking place by a few incumbent firms and entrepreneurship activity was low in terms of new firm creation from 1950-1965 and remained at these levels until 1985 (Carlsson et. al. 2009). It was important for the American government for entrepreneurship courses to stress the management and creation of small and medium entrepreneurship to promote economic growth. Hence, economic theory and studying why people can become entrepreneurs and entrepreneur' effect on society could not be studied until there was an ample amount of people who understood the management practices of small businesses.

There was a failed attempt to establish a Center in Entrepreneurial History along with a journal, *Explorations in Entrepreneurial History*, in 1948 to establish a foundation for the field of entrepreneurship. Though this attempt failed it symbolized that researchers within the field believed that there was enough history and theory to dedicate to a developing field. However, it can also be argued that the Center in Entrepreneurial History failed because entrepreneurship is not strong enough to be considered a domain in its own right and should stay under other fields. The field of entrepreneurship could not survive the technological shift from individual entrepreneurs to industrial firms and the shift of economic history (the stronger field at the time) away from entrepreneurial history in the post war era like other business disciplines could. After the Center failed in 1958, it appeared that entrepreneurship research came to a dead end despite the belief that without the entrepreneur nothing happens in economic life.

The 1960s saw economists take some interest in entrepreneurship, but it was not until 1980 that there was a "turning point for entrepreneurial activity and entrepreneurial research: (Carlsson et. al, 2003). Activity was stirred because dynamism increased in the economy as global competition intensified. Vesper identified the three broad subjects that swept

entrepreneurship forward: (1) popular literature such as *Entrepreneur, Venture, and Inc.*; (2) increase in in entrepreneurship course offerings and (3) increases US government interest in venture creation (1982). “Wortman (1989, pg. 3) summarized the last ten years in entrepreneurship as ‘(a) a positive movement towards a commonly accepted definition of entrepreneurship; (b) the division of entrepreneurship into individual (or independent) of entrepreneurship and corporate entrepreneurship; (c) a movement into more sophisticated research designs, research methods, and statistical techniques; (d) a shift towards larger data samples and the use of large data bases; and (e) a slight movement away from exploratory to casual research’” (Krueger, 2002). All of these factors suggest that entrepreneurship is becoming more discipline like; however, there are still some division within the field that create barriers to cohesion within the field. See Table 1 in the Appendix for a timetable of field of entrepreneurship over time.

Today the field of entrepreneurship is split between two different views on venture creation: the discovery versus creation view. The focus of this thesis is on whether or not entrepreneurship is a discipline, which is an additional debate in the field today. Carlsson et. al defines that domain of entrepreneurship research as follows:

Entrepreneurship refers primarily to an economic function that is carried out by individuals, entrepreneurs, acting independently or with an organization, to perceive and create new opportunities and to introduce their ideas into the market, under uncertainty, by making decisions about location, product design, resource use, institutions, and reward systems. The entrepreneurial activity and entrepreneurial ventures are influence by the socioeconomic environment and result ultimately in economic environment and result ultimately in economic growth and human welfare (2013).

This definition raises several questions centering on whether entrepreneurship is independent of other social science disciplines, notably economics and management. In many ways the historical trajectory of entrepreneurship indicates that entrepreneurship has outgrown the confines of other

disciplines, yet the paradoxical nature of the field is that it needs multiple levels of analysis and varieties of methods all found in other fields and it “can be seen as a subfield within several disciplines each with its own perspective on the subject matter,” (Carlsson, 2013).

Entrepreneurship is paradoxical because there appears to be enough research to indicate that there is enough historical precedent and research that it can survive independently as a discipline, but the nature of the research and birth of entrepreneurship tie it to other disciplines.

Entrepreneurship research covers a broad set of questions that narrower focused disciplines do not seek to define. There is no clear voice or common research paradigm established in the field and no natural “home for the entrepreneurship in academia but there still may be enough structures and theory that indicate that entrepreneurship can survive as an independent discipline and build its own home in academia.

## Opponents

There are several opponents to the concept of entrepreneurship as an independent discipline and many people. Based upon the multidisciplinary appearance of entrepreneurship, some authors have questioned if a distinctive domain of entrepreneurship is even possible. Especially given that multiple lenses from several disciplines are needed to examine question raised in entrepreneurial research. Davidsson argues that entrepreneurial researchers should make “full use of tools available in other (social science) disciplines,” and that it would be a “wasteful practice,” to adhere within a strict domain that would limit entrepreneurial research (2005). Colleges like the California University of Pennsylvania even state that “entrepreneurship is not discipline-specific, as entrepreneurial opportunities exist in all college disciplines and occupations,” and promote education of entrepreneurship to all students not just those that are in a specific entrepreneurship major. This is not necessarily a poor approach to teaching

entrepreneurship, as it exposes students to entrepreneurship that would not normally be subjected to it. However, promoting entrepreneurship exposure in this manner indicated that the field multidisciplinary and interdisciplinary versus being contained within a singular institution or discipline.

Several academics, specifically in the discipline of strategic management, are incredibly vocal opponents of entrepreneurship becoming an independent discipline. With the publishing of a volume titled Strategic Entrepreneurship: creating a new mindset in 2000, Hitt, Ireland, Camp, and Sexton claimed strategic management could explain most phenomena related to entrepreneurship. Strategic management's debate grows stronger with the publishing of academic journals like *Strategic entrepreneurship* and a "takeover" of the field of entrepreneurship by the Strategic Management Society, with SMS poaching entrepreneurship's most valuable resource, faculty (Meyer, 2009). Many field claim components of entrepreneurship research as under their discipline. Finance can argue that private equity, the study an asset class consisting of equity securities and debt in operating companies that are not publicly traded on a stock exchange in essence recently founded companies with entrepreneurs that need funding, is under its purview instead of just purely entrepreneurship. Economics is closely interlinked with entrepreneurship

### **Social Networks and Reward Systems**

Social networks create and strengthen the idea of a discipline because the individuals within a field decide that there needs to be professional associations and conferences that are independent of other institutions. Like minded scholars and scientists with similar research interests decide that their work merits dissemination to the masses. "Professional associations and conferences are critical for diffusing a field's knowledge base to users; but equally important

is the opportunity for meeting others who are interested and passionate about the work,” (Aldrich, 2014). These social networks can also construct hierarchies within academic communities, through their impact on “invisible colleges.” Zuccala defined invisible colleges “as a set of interacting scholars or scientists who share similar research interests concerning a subject specialty” (2006).

The earliest signs of a separate research division away from “management” and “small business” were a collection of surveys Karl Vesper undertook to catalog university entrepreneurial programs. In 1975, he published the names and contact addresses of respondents and created an informal network for entrepreneurship professionals. This turned into the formation of the Entrepreneurship Interest Group within the Academy of Management in the 1970s. By 1985, it had 1,200 members and the group expanded into an entire division. Despite the growth of the Entrepreneurship Interest Group, it is still a branch of the Academy of Management raising questions if entrepreneurial research can truly escape management’s oversight. It appears that entrepreneurship is a subfield of management as it is considered a division under the Academy of Management’s umbrella. It is promising that an entire division of resources is dedicated to the Entrepreneurship Interest Group and it indicates a rise in entrepreneurial research, however, this research is not autonomous.

In 2007, senior scholars in entrepreneurship created the Society of Entrepreneurial Scholars (SES). The goal of this society was to help junior scholars increase the flow of manuscripts into top tier journals. The creation of the SES imbues not only the factor of social networks in creating a discipline, but also of teaching and mentoring. This is more of an independent society free of other organizations, giving credence to the fact that entrepreneurial research can be conducted independently.

Another social network for entrepreneurial scholars is the Entrepreneurship Research Society. The aim of this society is to “[bring] together a community of scholars for entrepreneurship research across all disciplines. Comprising those who teach, practice, or research entrepreneurship, ERS’ ‘big-tent community’ allows researcher to network, find research partnerships and foster interdisciplinary thinking” (ERS). It is important to note that within the goals of the ERS encompass inter and multidisciplinary thinking and allows members from fields outside of entrepreneurial research like agricultural business, human ecology, and sociology. This society is more inclusive than the SES and remains true to entrepreneurship’s roots, incorporating several disciplines and clearly believes entrepreneurship is an interdisciplinary field over a singular, well-defined discipline.

Another consortium of entrepreneurial researchers is GEM, The Global Entrepreneurship Monitor, which is a “vast, centrally coordinated, internationally executed data collection effort, that is able to provide high quality information, comprehensive reports and interesting stories, which greatly enhance the understanding of entrepreneurial phenomenon-but it is more than that it is also an ever-growing community of believers in the transformative benefits of entrepreneurship” (GEM). It was formed in 1999 as a joint project between Babson College and the London Business School with the aim to consider why some countries are more entrepreneurial than others. GEM has connected over 500 specialists in entrepreneurial research and 300 plus academic and research institutions through its network.

Several Universities have established entrepreneurial research societies to create linkages in academia before graduation. The Ohio State University has the Innovation, Creativity, and Entrepreneurship Scholars program that “allows students to form relationships and network with faculty, staff, entrepreneurs, and industry leaders,” (The Ohio State University). The University

of Utah also has an entrepreneurship scholar's program, that prepares students "for entrepreneurially oriented careers both locally and abroad," (University of Utah). It is important to note that these programs are part of the training and mentoring factor of establishing a discipline, but they also focus more broadly on entrepreneurship as a career and not specifically entrepreneurial research.

Forums and social networks are no longer confined to in person meetings and conferences and have extended to the online world. The EFER (European Forum for Entrepreneurship Research) now has a LinkedIn page where people in entrepreneurial research can follow. The Global Entrepreneurship Research Association and Entrepreneurship Ecosystem Research Network are on LinkedIn as well. Though these social networks are progressive by expending their information to the internet, they have less than 100 followers each. Perhaps, these numbers will grow in the future as more researchers go online to create social networks.

Not only do professional societies and associations like the Academy of Management and the Entrepreneurial Research Society hold conferences, universities and colleges also hold prestigious conferences. The premier research conference is the Babson College Entrepreneurship Research Conference which began in 1981. The conference requires all attendees to submit a paper abstract as a ticket for admittance. Pother conferences included those organized by Alan Casrund at the University of Southern California and at Saint Louis University by Jerome (Jerry) Katz and Robert Brockhaus. Another annual conference is the West Coast Research Symposium on Technology Entrepreneurship sponsored by: Stanford University, University of Washington, the University of Southern California, the University of Oregon, and the University of California at Irvine.



These networking opportunities “facilitate the spread of shared norms about competence and what constitutes a scientific contribution,” (Aldrich). Shared norms and creating an “ethos” around a particular field recalls the Mertonian model of what constitutes a discipline. Social networks create a hierarchy in a field and delineate how scientists and scholars are to act within a discipline as they define it. Entrepreneurship research in terms of being an independent discipline is still murkily defined by these social networks.

## Rewards

Recognition and award mechanisms help institutionalize a field by selecting prizewinners from a group of peers within a same field. With scientists and specialists and specialists within a particular field dictating that their research merits awards it validates that they view their field independently of others. Strong reward systems provide cohesion within a particular area of research and are indicators of an autonomous discipline.

The best-known award in the domain of entrepreneurship research is the Global Award for Entrepreneurship Research. This award was founded in 1996 by the Swedish Foundation for Small Business Research (FSF) and the Swedish Agency for Economic and Regional Growth (Nutek) and is now presented by the Swedish Entrepreneurship Forum is intended to “ recognize the cumulative lifetime contributions by each scholar to entrepreneurship research” (Aldrich). The winner receives 100,000 Euros and is selected from a pool of 250 qualified researchers who nominate candidates.

Over the years the awarded research reveals a shift from basically quantitative and explorative approaches to more integrative and dynamic perspective, emphasizing how entrepreneurship relates to and influences the other sub-disciplines within economics management, and sociology. It is also fair to say that the research awarded in recent years has recognized the integration of entrepreneurship research with theories in establish disciplines such as economics, finance, and organizational behavior,” (Carlsson et al.).

These shifts towards dynamic perspectives raise more questions on whether entrepreneurship is an independent subfield or is a subfield in many established disciplines. Many of the prizewinners come from many disciplines, not strictly entrepreneurial research for a supposedly entrepreneurial research award specifically, 9 of the past 16 winners have roots in economics (Aldrich, 2012). See appendix tables 2 and figure 1 for prizewinners and prizewinners' disciplines in relation to entrepreneurship.

Another major award of merit is the IDEA award, part of the “entrepreneurship research excellence initiative” across multiple disciplines that was established in 2008 in a joint collaboration between the Entrepreneurial Interest Group division in the Academy of Management and the school of business of the University of Connecticut. The rationale for this series of awards was to “grow entrepreneurship scholars” by presenting a model of how to conduct excellent research,” (Aldrich, 2012). This award by definition is not disciplinary as it seeks to cultivate entrepreneurship research from across several disciplines and does not make the award exclusive for individuals who consider themselves entrepreneurial researchers.

However, both of these awards do elevate work to the state of excellence and encourage individuals to emulate top researchers in entrepreneurship. The award systems help link peers through community and role models and encourage scholars to pursue greatness.

## **Publications**

A trend that denotes validity of a discipline as well as its infrastructure is publication of research in academic journals and books. In the field of entrepreneurial research, handbooks were the first major publications that provided broad overview of the field as well as an accessible outlet for entrepreneurial research that was originally scattered across many journals or

independent publications. Donald Sexton was the main compiler of these handbooks and published five handbooks that were considered state of the art reviews on entrepreneurial research being conducted. These handbooks provided context for the field, and represented a singular sources for entrepreneurship research at a time when articles had to be tracked down in obscure journals. Another example of a handbook is *The Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction*. The purpose of this handbook is to “provide a distinctive, multidisciplinary starting point for entrepreneurship research as defined by leading scholars,” (Acs and Audrescth, 2006). Entrepreneurial scholars saw a need to gather literature in entrepreneurship because “entrepreneurship is no a field of research in any major discipline,” instead they view the field as a study that cuts across several disciplines (Acs and Audresch, 2006), The leading scholars in entrepreneurship are stating that they have to pull together research across multiple disciplines in order to create enough substance for the field of entrepreneurship. By nature entrepreneurship has to rely on other fields for legitimacy or to be a subfield. Though these handbooks strengthened the fragmented entrepreneurial research community by bringing their research together, entrepreneurship is still not a singular discipline that can be defined by people within one field. The title of the handbook suggests that entrepreneurship is interdisciplinary and should be viewed through that lens. To these scholars confining entrepreneurship as either a subfield of another field or a discipline in its own right would limit the overall production of research. These handbooks diminished as more prominent journals began giving credence to entrepreneurship papers and the growing number of textbooks and practitioner-oriented books allowed for more readily available access to entrepreneurship research. Today, Amazon.com lists 54,866 results for “entrepreneurship” books; most of these books are not scholarly books, but rather inspirational affidavits and “how to do it books.”

Several publishers have opened special lists in entrepreneurship. Aldrich believes that “agreed-upon norms regarding publication for entrepreneurship scholars now strongly favor journal articles rather than books,” (2014).

Publication within academic journals is a relatively new phenomenon with specialized journals first appearing in the 1980s. The field of entrepreneurship’s publications is growing at a staggering rate. In a 2003 directory, Jerome (Jerry) Katz identified there were at least 44 journals in existence that focus on entrepreneurship/and or small business. This number is comparable with other researchers as Cooper’s found in 2003 that the number of English language entrepreneurship journals exceeded 40 (Cooper 2003, pp. 22-24). In 2016, Jerry Katz revisited his directory and estimated that there are now over 135 academic journals in the entrepreneurial research field (website). Katz’s has implied that major growth has occurred from 2003 to 2016 with these statistics. However, it is important to note that Katz’s number of 135 entrepreneurship journals is inflated to indicate the need for publishing in entrepreneurship and encourage researchers to apply to these publication sites, not all of which are scholarly. Katz’s agenda is to encourage scholars to publish more articles on entrepreneurship and small business and he is encouraging scholars to attempt to submit papers. In fact many of the journals included on this list are not academic. Many journals listed are trade publications and many on the list happen to publish some papers on entrepreneurship though it is not their primary purpose.

On the Social Science Citation Index (SSCI) that includes many of the top business schools, focuses on quality publishing, and journals that published on a scheduled basis, and have financial scholarship there are only sixteen journals that focus solely on entrepreneurship. These journals are: ERD, ERJ, ETP, FBR, IEMJ, IJEER, ISBJ, JBV, Journals of Creative Behavior, Journal of Evolutionary Economics, Journal of Family Business Strategy, JSBM,

Journal of Technology transfer, SBE, SEJ, and Technovation. If entrepreneurship is extended to include the branches of technology transfer and the fourteen mainstream management journals, the number of journals featuring entrepreneurship on the SSCI can increase. However, these journals are not based in entrepreneurship, but in management and other disciplines. This indicates that these journals view entrepreneurship as a sub-field.

The Australian Business Deans Council (ABDC) Journal Quality list for 2013 aims to overcome regional and discipline bias of international lists and is used worldwide for rankings of academic business journals to establish quality. Of 2,765 journals listed, I have found that forty-nine of varying rankings focus on entrepreneurship in some manner (see appendix Table 2). Of these forty-nine journals, only sixteen can be viewed as having the singular focus on entrepreneurship. Thirty-three journals feature entrepreneurship in a multidisciplinary aspect as private equity, finance, management, economics, and development are the primary domains of these journals. The number of journals that can then be considered truly in the category of entrepreneurship is thus reduced. This raises concern when determining whether or not entrepreneurship is a discipline. There is proof in the publication that there is plenty of theory for entrepreneurship, but it is diluted among other disciplines and not maintained in a common core of journals, or not enough to provide infrastructure for an independent discipline.

There has been a clear increase in publications and literature in recent years. Trends in entrepreneurial research literature indicate that the field is becoming somewhat more unified in establishing systematic theories that accepted by many scholars. Wortman (1989, p.3) summarized the recent trends in entrepreneurship as “(a) a positive movement towards a commonly accepted definition of entrepreneurship and toward the boundaries of the field of entrepreneurship; (b) a division of entrepreneurship into individual (or independent)

entrepreneurship and corporate entrepreneurship (intrapreneurship); (c) a movement toward more sophisticated research designs, research methods, and statistical techniques; (d) a shift towards larger data samples and the use of large data bases; and (e) a slight movement away from exploratory research toward causal research.” Though there is a movement towards these elements that would strengthen the case of entrepreneurship as an independent unified discipline, there are still disagreements in the literature that prevent true unification of the field. There is still no commonly accepted definition of entrepreneurship or solid parameters such as industry types, or types of entrepreneurs. “Several attempts at developing a comprehensive framework have been made... , [but] none of the authors has generated a unified theory that has proved useful in a systematic advancement of the field,” (Plascha and Welsch, 1990). The field of entrepreneurship is still limited by its own disagreements in literature. Without a common structure and understanding of what entrepreneurship is contained within a set of commonly accepted journals and publications of researchers that declare that entrepreneurship is its own discipline, it is hard to definitively say that entrepreneurship is its own discipline. Though the level of publications in entrepreneurship research is increasing, it is diluted amongst several other fields another indicator that the field of entrepreneurship lends to me more interdisciplinary and multidisciplinary over a singular discipline.

### **Unique Phenomena**

In an article titled the promise of entrepreneurship as a field of research, Scott Shane and S. Venkataraman attempt to establish an integrative framework for the field of entrepreneurship. Their goal is to legitimize the field and prevent its marginalization as only a “research setting” or “teaching application.” They break their note into five sections: (1) they define the domain the field, (2) they explain why organizational researchers should study entrepreneurship, (3) they

describe why entrepreneurial opportunities exist and why some people, and not others exploit them, (4) they consider different modes of exploitation of entrepreneurial opportunities, and (5) they conclude with the potential value of a framework they have presented. Of these five sections I am most interested in their definition of the domain, analyzing why organizational researchers should study entrepreneurship and how it differs from other fields, and why a potential framework is beneficial. I have selected to examine these three areas because of the impact they have on defining a discipline. A common acceptance and definition of what entrepreneurship as a domain is constructs a distinct field that is unique from others. An indicator of a discipline according to J.B. Morrell is increased specialization of publications (1990). If researchers understand why they are conducting experiments on certain phenomena then they can create a more unified system in which they operate. Also, the creating of an agreed upon theoretical framework specifies that there is a strong relationship and social network between people in a field and if Shane and Venkataraman's framework is considered the constraints on entrepreneurial research then the impact is far-reaching.

Shane and Venkataraman defined the domain of entrepreneurship "as the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited (Venkataraman, 1997). The field [of entrepreneurship] involves the study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them" (2000). This definition extends past prior definitions that focused solely on who is the entrepreneur and what he or she does. Shane proclaims that his and Venkataraman's definition is the consensus definition for the entrepreneurial field (2010). However, many researchers do disapprove of the disequilibrium or discovery process of entrepreneurship that

they put forward. The discovery approach of entrepreneurship focuses on entrepreneurs discovering pre-existing opportunities using whatever data-collection tools are available and exploiting these opportunities. Most notably opponents to Shane and Venkataraman's definition are Alvarez and Barney who take the creation or equilibrium approach in defining entrepreneurial activities. The creation/equilibrium approach states that markets are created by the actions of entrepreneurs (2007). It is still apparent through the creation versus discovery approach debate that there is no consensus in the field of entrepreneurship. Even the definition that I have put forward in the historical section of my thesis by Carsson, is biased and leans towards the discovery school of thought. It is important to note that the field is now conceding and defining entrepreneurship as a field that entrepreneurs can both create opportunities or discover them. Outside of the creation/discovery debate there are other researchers who believe the definition of the field of entrepreneurship is based in the study of firm (or organization) formation (e.g., Klyver, Hindle & Meyer, 2008; Reynolds, 2009; Spencer, Kirchoff & White, 2008). It is evident that there is still no true definition of the field of entrepreneurship by outsiders of the field because there is truly no consensus inside the field. It raises questions if a discipline can be constructed around entrepreneurship if there is no definite definition of the field. There have been several attempts outside of Shane and Venkataraman and Carsson to delineate the field, however, these definitions are always opposed by another in the field do to individual biases. If a true consensus was reached on what constitutes entrepreneurial research then there would be more credence to the field becoming a structured discipline. The argument could be made that because there are so many definitions of the field that the multiple outlines of the field add a uniqueness to entrepreneurial research that other more established field do not have to deal with. Multiple voices are trying to establish what their understanding of the field is



which does lead to discipline creation. People within a field must determine what the field actually constitutes and what is studied in order for the outside world to recognize a field as a discipline. Perhaps, in the future there will be a mutual agreement of what the domain of entrepreneurship actually entails, but for the foreseeable future there will be conflicts of interests and definition. Even without a conclusive definition, the field of entrepreneurship can explain phenomena that other fields cannot.

Shane and Venkataraman realize that phenomena of entrepreneurship is not exclusive and provides research questions for many different scholarly fields, however, organizational scholars are fundamentally concerned with three sets of research questions about entrepreneurship. These three questions are: “(1) why, when, and how opportunities for the creation of goods and services; (2) [they] examine the influence of individual opportunities, rather than environmental antecedents and consequences (3) and [they] consider a framework broader than firm creation,” (2000). These questions directly relate to the creation versus discovery debate as well as defining the field of study. These phenomena have been discussed in the field of entrepreneurship for quite some time and are not exclusive to the field as Shane and Venkataraman have stated. In his 2012 reflection piece of the Promise of Entrepreneurship as a field, Shane notes that several scholars have challenges his argument specifically strategic management scholars. Strategic management claims that it can explain most if not all of the phenomena that they claimed as a distinctive domain of entrepreneurship. In a more recent publication with Sara Sarasvathy, Venkataraman even stated that “entrepreneurship and strategic management... represent two sides of the same coin: the coin of value creation and capture,” (2001). It appears that even Venkataraman is conceding that the phenomena of entrepreneurship can be explained by other fields, mainly strategic management. Shane even exclaims that “entrepreneurship *cannot* have a

distinctive domain if strategic management explains and predicts all that entrepreneurship explains and predicts. And if entrepreneurship has no distinctive domain, then I would argue that it is not a scholarly field. Rather, it is simply a setting in which other fields examine their research questions,” (2012). This statement raises alarm, however, just because research questions cannot be explained by other fields does not mean that entrepreneurship is without a field altogether. Entrepreneurship might be destined to be an interdisciplinary field over a distinct discipline. Shane’s statement is an overreaction to strategic management in particular. Many fields like sociology and economics could explain the phenomena he posed on firm creation as well just as many other questions in strategic management could be answered through the lens of entrepreneurship.

The real relevance of Shane and Venkataraman’s paper is that it provides a starting point for constructing a framework that can contain the research of entrepreneurship in one field or discipline. They acquiesce that their paper may have some logical fallacies that may be argued and statements that can be proven wrong with future data collected. Nevertheless, their article definitely advanced the debate of whether or not there is a field of entrepreneurial research. Regardless of the success of their article it is significant for individuals who consider themselves entrepreneurial researchers to try and define their field and establish an “ethos.” Perhaps, Shane and Venkataraman did not put forth the correct phenomenon to study, but they succeeded in attempting to narrow the scope of research in the field as well attempt to establish an “ethos” for the field. Entrepreneurship may not be strong enough to considered a discipline yet, but it is clearly worth researching and Shane and Venkataraman are successful in getting this point across as well as encourage others to study in the field and they are open to being proven wrong which recalls the Mertonian model of a discipline. With a tinge of irony, *The Promise of*

*Entrepreneurship as a Field of Research* was published by the Academy of Management. If Shane and Venkataraman were truly serious about furthering the field and creating an entity independent of other fields, specifically strategic management, one would think that they would publish in another journal that focuses more narrowly on entrepreneurship.

### **Training and Mentoring**

Prior to the 1980s any entrepreneurship education was received either in disciplined departments like sociology or psychology, or in a regular business school department like marketing or management (Aldrich, 2012). The research methods in entrepreneurial research were simplistic and suffered from selection bias. Also, research and training methods were tailored to serve individual scholars and not a collective base of students. When different schools and universities taught individuals as opposed to structured courses, a high degree in variability of education occurred. It was not until the 1980s when a shift occurred from the individual teaching to the collective education in entrepreneurship. Schools started to develop structured PhD programs and courses at the graduate and undergraduate levels. It is important to note that schools do have a PhD in entrepreneurship, but these degrees are not in a separate track that separates them in any way from PhDs in management or strategy.

### **Courses and Educational Framework**

Courses taught are another indicator of the success of a discipline and speaks to the level of training and exposure students receive to entrepreneurial research. Looking at the Princeton Review's top twenty-five college programs for entrepreneurship, the courses taught in entrepreneurship ranges from fifteen to 101. That is a large discrepancy even among the top programs in the nation and indicates that the standards for entrepreneurial education are still not solidified. Kruger (2002) shows how entrepreneurial programs are evolving among two

dimensions (1) the absolute number of courses and (2) the degree of integration of entrepreneurial courses. There are two frameworks in which entrepreneurship education can be outlined. The first dimension can vary from a single course to a comprehensive program. A major may consist of a “complete” list of courses, a minor may be comprised of a smaller set of courses in between the extreme of an isolated entrepreneurship course. The initial course is labeled variously as “Entrepreneurship” or “New Venture Creation,” and has standard components like “(1) venture design projects, (2) case studies, (3) readings and (4) lectures by guest speakers and the instructor,” (Vesper, 1985). Strong demand for courses of this structure led to additional courses in entrepreneurship. Courses evolved down two different paths from the original structure Vesper outlines. One direction was a course in field studies only, and investigating if a new venture could be a viable option. The other direction was a combination of entrepreneurship and different functional areas, e.g. “New Venture Financing” and “Entrepreneurship Marketing,” (Hills, 1988). This direction of course evolution indicates that entrepreneurship needs other functional areas to fully assess the field. It is not that there is not enough research in the field to be its own discipline; it is rather the opposite that in growth it can be woven into different areas to establish a comprehensive academic major program.

“Degree of integration” represents the level of acceptance and supports from a variety of different groups (Kruger 2002). Basic working groups of the dean, chairperson, immediate colleagues and students. Additional acceptance can be fostered from intra-university groups like other business faculty and non-business colleagues, and inter-university groups like alumni and small businesses, and business associations. Another way to gauge integration is the degree of cooperation provided by working associates who teach other courses where entrepreneurship could be introduced or expanded. Informal relations can blossom into formal curriculum

requirements. Thirdly cooperative entrepreneurship activities can be viewed as another degree of integration. Such activities include: participation of entrepreneurs, entrepreneurship clubs, internships, and placement of entrepreneurship graduates.

The first framework, A, can be modelled if the dimensions of *Number of Entrepreneurship Courses* and *Degree of Integration* are combined (Figure A ). Four “ideal: combinations are put for by Krueger. The combination of a single course with low integration can be labeled as the *Unsupported Isolated Course*. The lone course is uncoordinated, not fully accepted, and not combined with other entrepreneurship curricula. This is the typical “Entrepreneurship,” or “New Venture Management,” course in a business program.

An *Integrated Supplemented Course* is a single course with high integration. This course is typically well accepted and coordinated with other courses as an elective or mandatory course in the business school. There are several activities attached to the course.

A third combination is a string of multiple course with low integration. This combination is referred to as an *Unrelated Assembly of Courses*. These are a series of unrelated courses not melded well into the curriculum and span a variety of entrepreneurship topics. These courses could have been established through other seminar courses or thought up by individual faculty. There is no rhyme or reason to their existence in relation to an integrated program. Examples of these courses include: “Effective Writing for the Entrepreneur,” “Recordkeeping for the Small Business Owner,” “Small Business Planning for Women,” and “Estate Planning for the Small Business Owner.” Schools that have this collection of unrelated programs are making progress toward an integrated system, however, are “doing a disservice to their students through the bead-string approach,” (Krueger, 2002).

The fourth combination is the *Integrated Program* that features a high degree of integrations and multiple courses. This is considered the “ideal state” of a mature structure that has evolved from the earlier stages. This structure offers a growth-oriented framework that is well-conceptualized.

The ideal way to progression toward an *Integrated Program* would be to assume a strategy that follows a diagonal path along the matrix. However, not all programs follow this path and never develop an *Integrated Program*. “Some schools find themselves market-driven to add entrepreneurship courses without an overall conceptual foundation, and never consider designing an integrated program,” (Krueger, 2002).

Looking at the top 23 of the 25 top entrepreneurship programs according to the Princeton Review, it is apparent that many of these schools feature the ideal *Integrated Program*. The vast majority of these schools feature a program devoted specifically to entrepreneurship and have a large amount of entrepreneurship-themed courses. This speaks well to the idea of a standard of entrepreneurship research and that there is a need to provide an outlet to this field of research, however, many of these programs though integrated still factor in a level of interdisciplinary studies that would still provide for the argument that entrepreneurship is not a discipline.

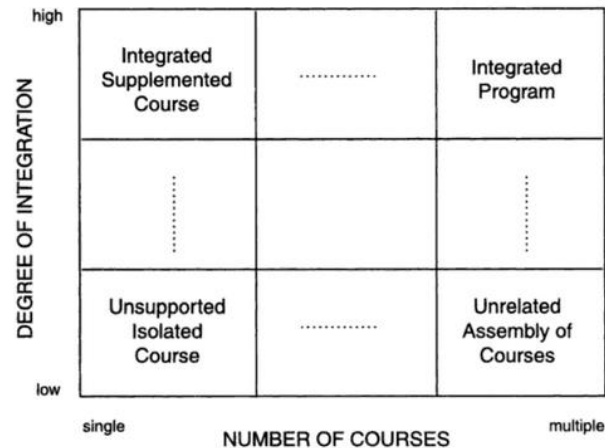


Figure 1 Emerging structure "A" of entrepreneurship education.

Another framework, B, incorporates two paths: (1) stages of transition of a firm and (2) a functional approach, which adds entrepreneurship courses to disciplines that may need them (Figure B). The dimension Transition Stages can be visualized around challenges, deficiencies, and problems that emerge from the different transitional stages in the firm's evolutionary process. These difficulties seem to appear in stages similar to those of McMullan and Long's model (1987) along a sequential progression:

- Entrepreneurship Awareness
- Career Assessment
- Innovation and Creativity
- Opportunity Identification and Analysis
- Feasibility Analysis
- Business Planning
- Resource Assembling
- Assessment and Management of Risk
- New Venture Initiation
- Standardizing Operationf
- Expansion Strategies
- Professionaliziing Management Roles
- Evaluation of Results and Reformation of Plans

The second dimenstion is Number of Disciplines that may be rerepresented in the entrepreneurship curriculum. These topics are the areas that may be required in problem solving

for a new business. “Typically, the ‘entrepreneurship course’ is introduced in a management or marketing department or in some cases, in departments of engineering. Often, more emphasis is placed within the course on the functional field in which the course is introduced,” (Krueger, ). Courses may be added to a discipline if the need arises as identified by instructors and educators. Soon, and *Interdisciplinary Approach* will arise as multidisciplinary set of courses are recognized and the synergy of an interdisciplinary program is blended around the entrepreneur. Schools stress different combinations of functional fields depending on their orientations. Management, marketing, and finance are most frequently added to the basic entrepreneurship course.

Again, looking at 23 of the top entrepreneurial schools according to the Princeton Review, many are interdisciplinary programs. They classify entrepreneurship as an option under a more cumulative business administration degree or combine entrepreneurship with management as that is the way that their institution leans. This brings into question if the ideal for entrepreneurship is indeed an interdisciplinary program as entrepreneurs have to face a myriad of problems not only located in one discipline or that can be contained by entrepreneurship in itself.

TRANSITION STAGES	Maturity Expansion	Unidisciplinary Approach Focusing on Mature Firms	.....	Interdisciplinary Program Focusing on Mature Firms
	Growth	.....	Several Disciplines Focusing on Growing Firms	.....
	Survival Inception	Unidisciplinary Approach Focusing on Start-up Firms	.....	Interdisciplinary Program Focusing on Start-up Firms
		single	NUMBER OF DISCIPLINES	multiple

Figure 2 Emerging structure “B” of entrepreneurship education.



### **Classification of Entrepreneurship**

The Classification of Instruction Programs (IPEDS) is the main source of classifying programs in the university setting. This system gives the code of 52.07 for Entrepreneurship/Small Business Operations. Under this code there are subfields to this field including:

- Entrepreneurship/Entrepreneurial Studies
- Franchising and Franchise Operations
- Small Business Administration/Management
- Entrepreneurial and Small Business Operations, Other

These subfields indicate growth for the field of entrepreneurship and a potential for a new discipline, however, the code 52.07 is still a subfield under code 52 of Business, Management, Marketing, and Related Support Services. IPEDS also defines entrepreneurship as “a program that generally prepares individuals to perform development, marketing and management functions associated with owning and operating a small business” (IPEDS). The definition and classification of entrepreneurship makes it appear to be an interdisciplinary field in relation to other fields.

### **Major Concentration**

In the United States and Canada, an academic major or major concentration is the academic discipline to which an undergraduate student formally commits. A student who successfully completes the courses prescribed in an academic major qualifies for an undergraduate degree. In terms of entrepreneurial education, majors are classified differently at each school. There is no consistent structure to ascribe an entrepreneurial major too. In many cases entrepreneurship is viewed as an academic concentration under another major or discipline (or in some cases the concentration is synonymous with a major). It appears for most schools it is

more favorable to view entrepreneurship as a concentration to the more accepted disciplines of Business Administration or Management.

### **Conclusions**

After analyzing the four factors of: publications, social networks and reward systems, unique phenomena, and training and mentoring systems, I have come to the conclusion that the field of entrepreneurship cannot be considered a discipline. This may seem shocking coming from a student of entrepreneurial studies, but I do not see entrepreneurship being an interdisciplinary and multidisciplinary field as a negative. In fact, entrepreneurial research may be too constrained if forced into an individual silo. The essence of the field is to reach as many populations as possible and the foundation for entrepreneurial research stems from multiple fields.

The field is growing, more publications are being produced with entrepreneurial themes and more academic programs are being created with entrepreneurship in mind. To limit entrepreneurship to a select number of discipline specified journals or a strict regime of courses would be a detriment to anyone studying the field. A true student of entrepreneurship must be versed in management, marketing, finance, and economics to truly understand the start-up and its effects on society, but only looking through one lens is limiting.

However, just because entrepreneurship is interdisciplinary does not mean that it can be housed under another discipline. Strategic management may lay claim to entrepreneurial research, but it can never truly own it. No discipline can lay claim to entrepreneurship because entrepreneurship is separated among other disciplines to study different parts of it. Private equity is meant to instruct students on how to get financing or to invest in a start-up, management

studies how entrepreneurs run a new organization and how the choices they make differ than in the public sector. Entrepreneurship is unique in that it needs several disciplines to remain viable and can never be truly independent.

Entrepreneurship is a unique phenomenon in that it produces distinctive research, but cannot be constrained by the framework of a discipline. To limit the field to only one area would be problematic. Many of the questions that the field raises can be answered by other disciplines, but what separates entrepreneurship research is the ability to analyze and summarize all of these viewpoints in a comprehensive study of the start-up. The ability to constantly evolve and change is essential to the field. Just like the entrepreneurs they study entrepreneurial researchers need to be able to adapt and follow trends. By being placed outside of an academic construct, entrepreneurship research retains flexibility.

Researchers in the field can remain in other disciplines and still study entrepreneurship. Labels should not limit this field. If a professor is under a strategic management department at the school and still focuses on entrepreneurship or a finance professor specializes in private equity they still promote the field of entrepreneurship whether directly or indirectly. Academia is obsessed with labels and by not labeling entrepreneurship a discipline will devalue it in the eyes of several academics. However, if one steps away from definitions and labels and focuses on the research and education the primary reasons academia exists, it is apparent that entrepreneurship should exist interdisciplinary.

There is not enough of a structure to determine that there is a true discipline devoted to entrepreneurial research. The history of entrepreneurship in academia shows that it is formed through interdisciplinary means. There is growth in publications, but not enough journals and

books specifically on the topic of entrepreneurship research and most publications are interdisciplinary. The major social networks and reward systems in entrepreneurship are still connected to other disciplines and not truly selective to only those who consider themselves entrepreneurial researchers. The unique phenomena proposed by Shane and Venkataraman are not truly unique as it can be analyzed by other fields. Teaching and mentoring systems in entrepreneurship are still varied across college campuses. There is no true formula to teach entrepreneurship. Though these factors indicated that entrepreneurship is not a discipline in the strict sense of the definition, they indicate that the field is growing in many ways. Publications are booming, more people are being recognized for research in entrepreneurship, new questions are being raised in the field, and more colleges are adding courses in entrepreneurship. These additions are through multiple venues not those justly strictly devoted to entrepreneurship. Entrepreneurship was formed through interdisciplinary and will thrive through remaining interdisciplinary.

## Appendix

Table 1

The Field of Entrepreneurship Over Time<sup>†</sup>

Date	Place	Entrepreneurship leaders	Comments
1932–1949	Harvard	Joseph Schumpeter	While at Harvard, wrote <i>Business Cycles</i> (1939) and <i>Capitalism, Socialism and Democracy</i> (1942); expanded his theory of entrepreneurship; students included Samuelson, Tobin, Heilbroner
1942	Harvard	Myles Mace	First course in entrepreneurship in 1947
1953	New York University	Peter Drucker	Course in entrepreneurship and innovation
1956	Boulder, CO, University of Colorado with Small Business Institute (SBA)	Wilford White, Bill Boub, Wendell Metcalf et al.	Founding of the National Council for Small Business Management Development became the International Council for Small Business, 1977
1958	SBA	Same + others	Commissioned Small Business Research Series (98 studies), which led to the book <i>Organization Makers: A Behavioral Study of Independent Entrepreneurs</i> (1970) by Collins and Moore
1970	Purdue	John Komives, Ed Roberts (Massachusetts Institute of Technology), Al Shapiro, Arnold Cooper, Karl Vesper	First entrepreneurship research conference with 12 invited papers reporting work done at MIT, Stanford Research Institute, University of Texas, Silicon Valley, and other university approaches to entrepreneurship
1974	Academy of Management (AOM)	Karl Vesper	Creation of the Interest Group on Entrepreneurship as a part of the Division of Business Policy & Planning
1972	SBA created at Texas Tech University	Robert Justice, Dean Jack Steele	Students consult with small businesses; by 1976, 398 universities participating; Small Business Institute Directors Association (SBIDA) association of professors founded
1973	First International Conference on Entrepreneurship Research in Toronto, Canada	Jeff Timmons, George Kozmetsky, Dwight Baumann, David Brophy, Wayne Broehl	Timmons was at Boston University; Kozmetsky became Dean at Texas; Broehl was at Dartmouth; Baumann at Carnegie Mellon; Brophy at Michigan; a mailing list of 42 members attempted to create the Society of Entrepreneurship and Application but it fizzled
1975	Cincinnati: International Symposium of Entrepreneurship (230 in attendance)	Jeffrey Susbauer	Four-day conference with Al Shapiro of University of Texas, Patrick Lyles of Harvard, David Berlew of Development Research Associates, and Joseph Stepanek Consultants of Boulder, CO as the keynote speakers
1977	AOM	Many people	12 papers submitted to the AOM Conference

<sup>†</sup> The Field of Entrepreneurship over Time: Cooper, Hornaday, and Vesper (1997). *Frontiers of Entrepreneurship Research*, Babson College.

Table 2

Award Winners 1996–2008 (affiliation and country pertains to the situation at the time of receipt of the Prize)			
Year	Winner	Field	Motivation
1996	David L. Birch MIT/Cognetics Inc.	Economics, Management	"for having identified the role of new and small firms for job creation."
1997	Arnold C. Cooper Kramert School of Management, Purdue Univ.	Management	His "pioneering work on technical entrepreneurship, new technology-based firms, and incubator organizations has significantly enhanced our understanding of entrepreneurial phenomena."
1998	David J. Storey Univ. of Warwick	Economics, Management	"responsible for the increased focus in research on unbiased large-scale and high-quality empirical work."
1999	Ian C. MacMillan Wharton School, Univ. of Pennsylvania	Management	"instrumental in introducing an international perspective to entrepreneurship research, exemplified by the international comparative studies on cultural differences in entrepreneurship and small business behaviour"; "the integration of two separate research fields: entrepreneurship/small business research and management/strategy research."
2000	Howard E. Aldrich Univ. of North Carolina at Chapel Hill	Sociology	"has generated significant insights into the knowledge of formation and evolution of new and small firms"; "major contributions ... by integrating the most central research questions of the field into a broader sociological research context."
2001	Zoltan J. Acs Univ. of Baltimore David B. Audretsch Indiana Univ.	Economics	"empirical analyses of an impressive number of important questions concerning the role of small firms in the economy"... "the role of small firms in innovation."
		Economics	
2002	Giacomo Becattini Univ. of Florence Charles F. Sabel Columbia Univ	Economics	for revitalizing Marshall's ideas of the "advantages of geographical agglomeration of specialized small firms"; furthering "our understanding of flexible specialization of co-operating small firms"; "importance of networks."
		Political science, Law	
2003	William J. Baumol New York Univ.	Economics	"his insistence that the entrepreneur should have a key role in the theory of the firm"; "his studies of the role of institutions for the channelling of entrepreneurship into productive use"; "his early formulation of a competition policy emphasizing the disciplinary effect of dynamic entrepreneurship."
2004	Paul D. Reynolds Babson College & London Bus. School	Sociology	"has taken entrepreneurship research to new levels, given it new directions and organized several innovative and large-scale empirical investigations into the nature of entrepreneurship and its role in economic development."
2005	William B. Gartner Clemson Univ.	Management	For his research on "new venture creation and entrepreneurial behaviour"; he has shown mastery in combining "the best of two research traditions": US style positivism and hermeneutics.
2006	Israel M. Kirzner New York Univ.	Economics	"clarifies the role of the entrepreneur in society and emphasizes that the behavior of a single entrepreneur may be of importance for the renewal and rationalization of markets" ... "the most prominent contemporary advocate of the Austrian School."
2007	The Diana Group: Candida G. Brush Babson College	Management	For their unique effort to pool "their competencies to create a research team examining women's entrepreneurship. An important contribution lies in the identification of growth oriented women entrepreneurs and issues of access to and usage of resources."
	Nancy M. Carter Univ. of St. Thomas	Management	
	Elizabeth J. Gatewood Wake Forest Univ.	Management	
	Patricia G. Greene Babson College	Sociology	
	Myra M. Hart Harvard Bus. School	Management	
2008	Bengt Johansson Växjö University	Management	"the furthering of our understanding of the importance of social networks of the entrepreneur in a regional context. He has also documented and explained how the social networks of the entrepreneur are related to the 'life' of the entrepreneur."

Figure 1: The Evolving Domain of Entrepreneurship Research

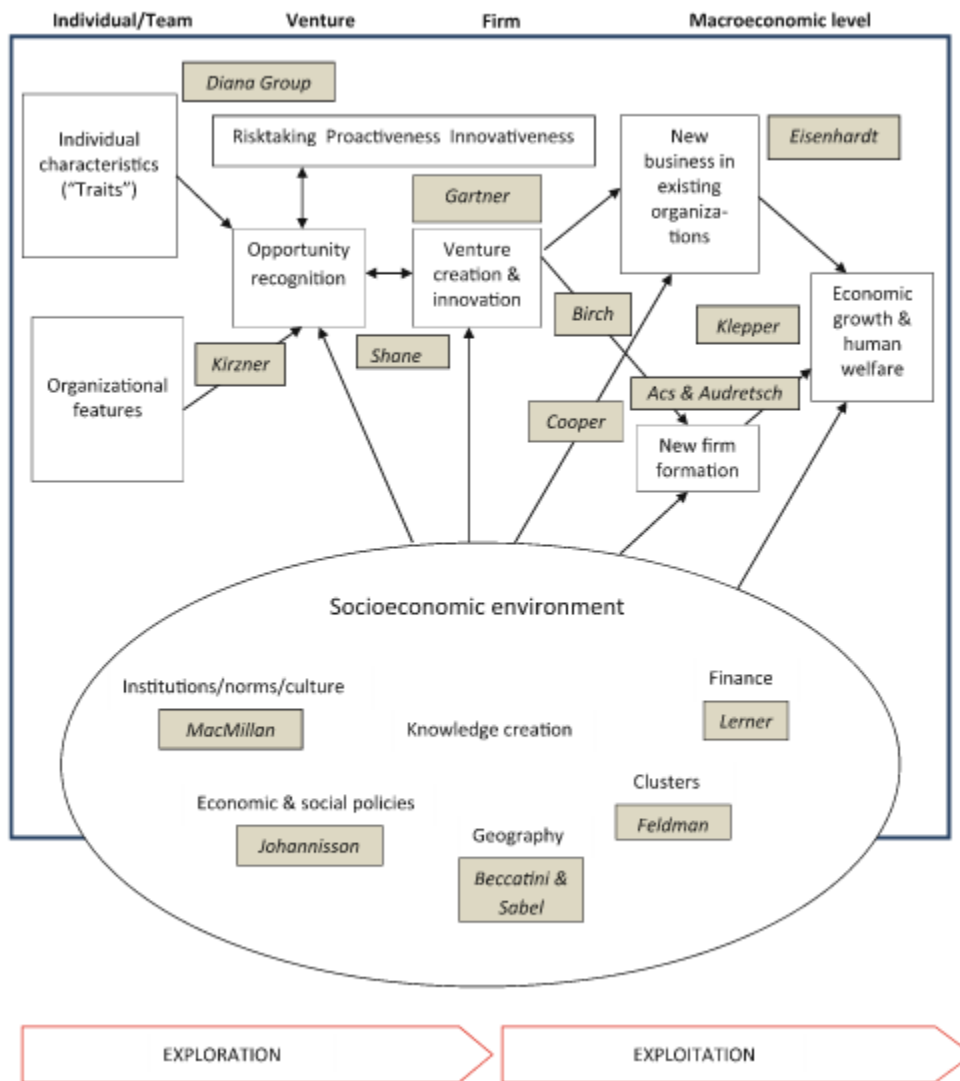


Table 3 Entrepreneurship Journals: Multi/Interdisciplinary or Singular Discipline

Journal name
Entrepreneurship: Theory and Practice
Journal of Business Venturing
Journal of Product Innovation Management
Entrepreneurship and Regional Development
International Small Business Journal
Journal of Small Business Management
Small Business Economics: an entrepreneurship journal
Strategic Entrepreneurship Journal
Economics of Innovation and New Technology
Entrepreneurship Research Journal
Innovation Policy and the Economy
International Journal of Entrepreneurial Behaviour and Research
International Journal of Innovation Management
Minnesota Journal of Business Law and Entrepreneurship
Venture Capital: an international journal of entrepreneurial finance
Academy of Entrepreneurship Journal
Briefings in Entrepreneurial Finance
Business Journal for Entrepreneurs (Quarterly)
Creativity and Innovation Management
European Journal of Innovation Management
Foundations and Trends in Entrepreneurship
Innovation: Management, Policy and Practice: the international journal for innovation research, commercialization, policy analysis and best practice
International Entrepreneurship and Management Journal
International Journal of Business Innovation and Research
International Journal of Entrepreneurship
International Journal of Entrepreneurship and Innovation
International Journal of Entrepreneurship and Innovation Management
International Journal of Entrepreneurship and Small Business
International Journal of Entrepreneurship Education
International Journal of Gender and Entrepreneurship
International Journal of Globalisation and Small Business
International Journal of Innovation and Technology Management
International Journal of Technoentrepreneurship
Journal for International Business and Entrepreneurship Development
Journal of Applied Management and Entrepreneurship
Journal of Developmental Entrepreneurship
Journal of Enterprising Communities: people and places of global economy



Journal of Enterprising Culture
Journal of Entrepreneurship
Journal of Innovation Economics
Journal of Research in Marketing and Entrepreneurship
Journal of Small Business and Enterprise Development
Journal of Small Business and Entrepreneurship
Journal of Small Business Strategy
New England Journal of Entrepreneurship
Perspectives of Innovation in Economics and Business
Small Enterprise Research: The Journal of SEAANZ
The Journal of Private Equity
World Review of Entrepreneurship, Management and Sustainable Development

Total Journals: 49

Focused on entrepreneurship, small business, or innovation (Can be considered a singular discipline)

16

Multidisciplinary Journals 33

Table 4 Entrepreneurship Major Classification

<b>University</b>	<b>Major (Singular)</b>	<b>Major (Multidisciplinary)</b>
<b>Babson College</b>		Concentration in Entrepreneurship
<b>University of Houston</b>	BBA in Entrepreneurship	
<b>Baylor University</b>	Entrepreneurship and Corporate Innovation	Social Entrepreneurship
<b>Brigham Young University</b>		BS Management Entrepreneurship Emphasis
<b>University of Oklahoma</b>	BBA in Entrepreneurship	
<b>Syracuse University</b>	Entrepreneurship	
<b>Northeastern University</b>		BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION (BSBA) Concentration in Entrepreneurship
<b>University of Southern California</b>	Certificate in Entrepreneurship,	
<b>Bernard Baruch College</b>		Major in Entrepreneurship Under Management
<b>Miami University (Ohio)</b>		Interdisciplinary Business Management (IBM) - Bachelor of Science in Business with a focus track in Entrepreneurship.
<b>Temple University</b>		Entrepreneurship & Innovation Management Major
<b>University of North Carolina at Chapel Hill</b>		Entrepreneurship Emphasis
<b>University of Dayton</b>	Bachelor of Science in Entrepreneurship	
<b>Clarkson University</b>	BS in Innovation & Entrepreneurship	
<b>DePaul University</b>	Masters only	
<b>Washington University in St. Louis</b>	Entrepreneurship major	
<b>Lehigh University</b>	Undergraduate courses no specific major	
<b>University of Michigan</b>	Undergraduate courses no specific major	
<b>University of Washington</b>		Entrepreneurship Option (for business majors)
<b>Texas Christian</b>		Entrepreneurial Management - 21 Semester

University		Hours
<b>University of Maryland</b>		
<b>University of Arizona</b>	Entrepreneurship Major	
<b>Saint Louis University</b>		Bachelor of Science (B.S.) in business administration with a concentration in entrepreneurship

Table 5 Top 25 Programs Number of Entrepreneurship Courses

University	Course #
Babson College	55
University of Houston	31
Baylor University	29
Brigham Young University	32
University of Oklahoma	28
Syracuse University	64
Northeastern University	35
University of Southern California	23
Bernard Baruch College	16
Miami University (Ohio)	39
Temple University	47
University of North Carolina at Chapel Hill	41
University of Dayton	30
Clarkson University	21
DePaul University	16
Washington University in St. Louis	30
Lehigh University	31
University of Michigan	48
University of Washington	15
Texas Christian University	29
University of Maryland	101
University of Arizona	15
Saint Louis University	57

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