

USASBE CONFERENCE NASHVILLE 2010: WORKSHOP SUBMISSION
DIVISION: ENTREPRENEURSHIP IN THE ARTS

**EXPLORING PATHWAYS FOR FACILITATING ENTREPRENEURSHIP AT
UNIVERSITIES**

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EXECUTIVE SUMMARY

Literature on entrepreneurial universities focuses on commercialization outcomes and ‘exemplar’ universities that with historical success, research excellence, munificence and geographic factors, mostly in the hard sciences. Entrepreneurial activities in the social sciences and humanities are under-researched. While evidence suggests that research disclosures only represent a small portion of the knowledge on university campuses that has potential commercial value, few studies explain this misalignment or identify alternate pathways for entrepreneurial actions. This workshop will present findings from an international research project, evaluate models and strategies and debate the merits of alternate pathways for universities. New directions for research are discussed.

PRINCIPAL TOPIC

Relatively little is known about the differences between universities and how these differences may affect the types of entrepreneurial activities that can or should take place to facilitate successful innovation (Shane, 2002). This workshop will focus on exploring entrepreneurial activities across a wide range of universities, functions, conceptual domains and outcomes to examine whether or not alternate pathways exist to transfer knowledge to the marketplace. One of the main objectives is to present research from an international project and garner constructive feedback from discussants. We seek to use this session to survey, document and categorize the different types of entrepreneurial

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activities that exist at university, the nature of social sciences research and community culture, the stakeholders involved and a valuation of the current and desired outcomes from within these contexts. A secondary objective is to bring researchers together who may have cases, studies, data or tacit knowledge that may inform upon this issue and develop strategies, discuss methodologies and explore potential conceptual areas for examining entrepreneurial phenomenon that are not considered 'in the mainstream' of current technology transfer strategies at universities. This workshop will be of interest to entrepreneurship educators who have developed unique programs that have facilitated entrepreneurial outcomes in atypical university departments, (such as the arts, humanities, or social sciences); researchers, practitioners or administrators who have developed new criterion for evaluating entrepreneurial activities in universities (that build upon or have diverging perspectives from typical commercialization indicators that encompass the entire campus or university community), or others who have exploiting entrepreneurial opportunities from within a university 'non-hard sciences' context, including atypical forms of knowledge transfer, or utilizing any variety of novel or interesting means, partnerships or strategies.

BACKGROUND

Perhaps the most obvious factor that differentiates universities from one another in terms of their entrepreneurial performance is past success in spinning out new firms and generating royalty revenues from the licensing of intellectual property (IP). Universities with large commercialization outputs (in all categories, not just in spin outs) are often classified in the literature as 'entrepreneurial' (Rothermaehl, et al., 2007, O'Shea, et al.,

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2007). In North America, empirical evidence shows that there is a clear pattern in university commercialization performance that indicates a gap between a small number of universities that are considered 'exemplars' and the rest of the pack (AUTM, 2006). Studies show that performance outcomes are disproportionately concentrated within these top performing universities. Moroz et al., (2008) found that 71% of total net revenues derived from licensing were generated by only 23 out of 188 universities surveyed in North America. But do these statistics tell the full story on the level of entrepreneurial activity, behaviour and outcomes that is generated from within and by universities? Are the outcomes from entrepreneurship at university valued the same across all societal stakeholder groups and how are these outcomes measured? How and where is entrepreneurship being facilitated at universities and does it matter?

The literature illustrates that these top performing universities have developed path dependencies over time that tend to reinforce the patterns, processes and capabilities for transferring new knowledge into economic value through the process of commercialization (Saxenian, 1991; Shane, 2004). Learning how these 'exemplar' universities facilitate both high end research and entrepreneurial behaviour is thus extremely relevant to all institutions. However, past research illustrates that many of these universities have benefited from their historical success for reasons that are not wholly replicable across all universities. Factors such as access to resources (due to critical mass, location, and networks), superstar researchers, and access to capital (due to proximity to venture capital, geographical advantages or historic and well-founded prestige) are all found to be antecedents that may be exogenous to a universities control.

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Likewise, these prestigious universities have evolved over long periods of time to form the networks, institutional capabilities and they attract the best and the brightest. Thus these universities have moved along evolutionary pathways and are far more advanced than others that are just beginning to move toward an entrepreneurial or commercialization paradigm (Shane, 2002; Clark, 2004). The key question becomes: 'is the same path still available to new entrants (universities that are entrepreneurially evolving) or are there alternate approaches for entrepreneurial activities or efforts?'

The majority of these efforts are targeted at schools of hard science where most commercial innovations tend to arise (Chrisman, et al., 1995; Shane, 2004), while entrepreneurial activity resulting from research in the humanities is overlooked, ignored or discouraged (Kayrooz, et al., 2001; Akerlind and Kayrooz, 2003; Harman, 2005). Thursby et al., (2001) argue that disclosures only represent a small portion of the research on university campuses that has potential commercial value. Yet there are few studies that attempt to explain the potential disconnect between the hard and social sciences in the area of commercial activity, leaving a notable gap in the identification of research that may have potential value to the marketplace. There are also very few academic studies to be mined for insights into why this may be. One reason may relate to the extent of potential codification. Indeed, Audretsch et al., (2004) distinguish between hard science and social science research using regional data on new firm start ups and find that the former consist of highly codified knowledge, produce on average more publications, and are significant to firm establishment. The latter is evidenced as involving research that is less codified (Stephan, 1996), limited in terms of transmitting tacit knowledge through publications and less likely to influence firm establishment. A study of the history of

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commercialization activities at Stanford universities found that in the music department, differences exist between musical logic and technical/commercial logics, but that opposed institutional logics could potentially become complimentary when mediated by individual logics held by influential leaders and amplified by new institutional features (Nelson, 2005). Interested in how social scientists transitioned into the new entrepreneurially focused environments of Australian universities, Harmon (2005) found that social science research was overwhelmingly driven by the interests of faculty and less adaptable to commercial paradigm shifts due to a focus on generating outputs that lead to innovative teaching methods over that of practical or commercially motivated outcomes.

Unlike the majority of projects that concentrate on examining and replicating models based on top performing universities, the research presented takes a different route. We are more interested in discerning where ‘entrepreneurial’ universities are along the evolutionary path, the different types of activities and outcomes that are possible, and why these pathways are disproportionately focused on the hard sciences. Furthermore, we believe that it is important to be able to design models to help understand the contextual differences that exist across a wide range of university environments and circumstances. In short, what is the propensity to facilitate entrepreneurial activity that allows each university to find the path best suited for innovation instead of following in the footsteps of exemplars? Thus the research presented encompasses universities that are not considered ‘top performing’ in order to better understand the potential constraints, challenges and opportunities that these institutions may be facing.

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Through this project, we hope to have a discussion that allows us to categorize and define general differences that exist between entrepreneurial (commercialization) universities (well represented in the literature) and those that are not. Second, we are tasked with finding and vetting models that can accurately capture the many dimensional factors that are important to the creation of new ventures within a university context (Gartner, 1985). Third, we seek to understand what types of entrepreneurial outcomes may be facilitated that create the most value for defined sets of stakeholders. Fourth, we seek to explore the potential misalignments between the hard and social sciences in order to provide greater insight as to why there are fewer entrepreneurial acts of commercialization that emerge from the humanities and arts. We propose that universities that are currently not in the top performance category may benefit from other pathways to innovation that do not follow the typical evolutionary paths of top performers. Finally, we wish to analyze these factors across an international context in order to examine potential differences that may exist that are nationally, culturally, or otherwise influential to entrepreneurial processes at universities.

IMPLICATIONS: SO WHAT?

This workshop is focused on exploring the pathways for entrepreneurship at university that may be overlooked, ignored or discouraged by policy makers and stakeholder groups that are currently pressing for technology based research as the key component for developing and disseminating valuable innovation. We also present and compare models, elicit discussion and probe definitions of ‘university’ entrepreneurship used by

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both exemplar and other universities and stimulate discussion on a variety of potential pathways. Can similar pathways be managed without access to antecedents of entrepreneurial or commercialization success framed by munificence, prestige and geography? These are some of the key questions that we seek pose to discussants in order to build a growing body of knowledge and research interest in this area.

We also seek to specifically engage academics with respect to the differences between the hard sciences and social sciences to elicit feedback, develop research questions, and stimulate discussion on how research and practice may be advanced in order to facilitate new venture creation and entrepreneurial activity from within the arts and humanities domains of universities. Issues such as patents, codification, culture and support mechanisms for bringing knowledge generated within the social sciences to the marketplace. Lastly, we seek to have a round table discussion on just exactly how to measure entrepreneurial outcomes, not just commercialization outcomes where value attributed to innovation to defined stakeholder groups and their aggregate weight on society is realized. The yields to researchers, practitioners and policy makers are wholly evident, as much of the research, tacit knowledge and capacity held within universities is commonly agreed upon as under utilized, especially with respect to creating direct economic value to markets and indirect social value to society.