

**Graduates of Entrepreneurship Education Programs:
Expectations Versus Outcomes**

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INTRODUCTION

Entrepreneurship has been a growing field within the university context, with increasing attention to courses, competitions, and university incubation activities (Etzkowitz, 2002; Leydesdorff & Etzkowitz, 1996). Increasing pressure on the part of adherents of the triple helix model (Dolfsma & Soete, 2006) - that universities should be actively engaged in commercialization of their intellectual property - have resulted in the proliferation not only of intellectual property offices, but also of dedicated programs to teach entrepreneurship as a distinct discipline (Collins, Smith, & Hannon, 2006; Falkäng & Alberti, 2000). Research has examined the professionalization of various fields, which require associated university programs and degrees, including diverse arenas such as finance (Lounsbury, 2002), organizational development (Church, 2001), public administration (Pugh & Hickson, 1989), sport psychology (Silva, 1989), and adult education (Wilson, 1993), as just a few examples. What is noteworthy about the professionalization of entrepreneurship, however, is that the activity itself is extremely broad, emergent, unspecified, and applicable to virtually any context. It is for this reason that the field has largely avoided agreeing up on one particular definition (Sorenson & Stuart, 2008). In this study, we turn out attention to an interesting and emergent new field of professionalization: the university certified, qualified, and increasingly recognized professional entrepreneur and entrepreneurship instructor. We analyze graduates of one such program in an engineering department, comparing them with departmental graduates that have not taken entrepreneurship training, through interviews two to ten years after graduation. Our objective is to better understand the emergent institutionalization of entrepreneurship professionals in the field.

The attempts to institutionalize a phenomenon frequently starts as soon as this phenomenon emerges. While the process of institutionalization might not be clear, the institutional final form is well recognized, defined by its coercive, mimic, and/or normative forces (DiMaggio & Powell,

1983). Entrepreneurship as a phenomenon is not new; however, its current role in society and the economy, and certainly its promotion and recognition has become more central (Audretsch & Keilbach, 2010). From a cultural perspective, entrepreneurship is perceived as a manifestation of the American dream of freedom, wealth, power, and creativity. This perception has been widely accepted as a result of the romanticized entrepreneurship success stories presented in the media, motivational books, and Hollywood movies (Alger, 2014). From an economic perspective, governments, being pressured to create more job opportunities and economic growth believe that entrepreneurship and innovation can be the economic model of the future. From a social perspective, there is a common belief that entrepreneurship helps resolve current social and environmental problems. Entrepreneurship education programs have been mushrooming all over the world with the intention of training more entrepreneurs that can create sustainable new ventures. However, we have found little scholarly evidence that these programs have significant impact and demonstrably train successful entrepreneurs compared to a control group (Duval-Couetil, 2013).

In this study, we examined a Graduate Program of Entrepreneurship and Innovation (GPEI) at the school of engineering in a prestigious Canadian university. We analyzed the content and structure of the program and conducted more than 35 interviews with the faculty and alumni that graduated at least two years and as long as 10 years prior to our study. This unique approach – interviewing alumni regarding their retrospective opinion of their education – represents an important addition to our assessment scholarship. We compared our findings with data collected from interviews with faculty and alumni of a traditional degree in engineering at the same university and school. Our research objective is to better understand why these programs exist; what are they doing to achieve centrality in the entrepreneurship ecosystem; how they acquire legitimacy; and what happens to their graduates?

We used a concurrent triangulation strategy, (Creswell, 2013), which allowed us to evaluate several relationships (Greene, Caracelli, & Graham, 1989; Morgan, 1998; Steckler, McLeroy, Goodman, Bird, & McCormick, 1992). We examined the relationships among the GPEI program, the school of engineering, the entrepreneurship ecosystem, the GPEI faculty, and its graduates. Then, we collected similar data using similar methods from a traditional graduate program at the same school of engineering in order to compare and contrast between the two programs. Comparing the programs amplified some of their organizational dynamics and made visible attributes of the two programs.

FINDINGS

The professionalization of entrepreneurship is the unintentional contribution of the GPEI to the entrepreneurship ecosystem. Our model, depicted in figure 1, portrays the emergence of entrepreneurship professionals as a process. It begins with the triple helix of innovation: significant political and cultural pressure has made this model a desirable and a normative path for universities to follow. In our case, we observed the nexus of academia, industry, and government, creating a graduate program for entrepreneurship and innovation at the school of engineering, The Graduate Program in Engineering and Innovation “GPEI”.

Insert Figure 1 About Here

We found that most of the graduates ended up in the job market and the GPEI seemed to have become a more convenient type of MBA for these students. By more convenient, we noted that there was no GMAT requirement, fewer courses, and the program was less expensive (less than half the MBA tuition fees at the same university). Moreover, graduates are getting a master’s degree from the school of engineering of a reputable university.

As for the few graduates who became entrepreneurs, all those whom we interviewed joined the program with a business idea if not a prototype. All entrepreneur graduates we interviewed discussed previous entrepreneurial experiences, whether when they were teenagers or during their

undergraduate years. They all maintained that they had ‘the entrepreneurial spirit’, but because they did not get any formal business education, they joined the GPEEI or GPEI to acquire such knowledge. The employed and entrepreneur graduates had different approaches for the GPEI program. Based on their approaches, their outcomes were different. However, they both adopted the same rhetoric when discussing entrepreneurship. It was clear to us that the programs shaped their terminologies and perceptions of entrepreneurship.

The most surprising finding for us was the emergence of a category of graduate students that we call *entrepreneurship specialists*. These graduates were a mix of employees and self-employed graduates that work in the entrepreneurship ecosystem. They might be working as administrative staff at incubators or accelerators or as consultants for entrepreneurs. We observed that this category emerged as an unintentional outcome of the GPEI program. Even the director failed to note that many graduates were working in the entrepreneurship ecosystem. Second, entrepreneurship specialists could be considered an early sign of an emerging entrepreneurship profession; thus, we argue that the GPEI program are professionalizing entrepreneurship.

We identified three subcategories of entrepreneurship specialists among the interviewed; graduates employed in the entrepreneurship ecosystem, those self-employed as consultants or coaches, and those who were developers of programs similar to the GPEI. The first subcategory of entrepreneurship specialists was graduates who ended up finding jobs in organizations that serve entrepreneurs or the entrepreneurship ecosystem. The second subcategory of entrepreneurship specialists were graduates who ended up self-employed as consultants or coaches. While the first subcategory worked for organizations in the ecosystem, the second subcategory decided to become entrepreneurs, but their product was the model they were trained on in the GPEI. The third subcategory of entrepreneurship specialists were graduates who ended up developing similar entrepreneurship education programs. These graduates found themselves working at university-

based incubators and decided to merge between the incubation program and the educational program. They appear to be replicating the GPEI, with an upgraded localized version. They were critical of the programs they graduated from, appeared to be well aware of their strength and weaknesses, and were passionate about providing a better version. This version was centered about the incubation experience that also included a graduate degree in entrepreneurship from their host university. Moreover, they were aware that such programs attract international students and newcomers to Canada. This was an incentive for them to replicate the graduate programs so that they can recruit newcomers and international students.

We found that like many other educational programs, entrepreneurship education created a profession (that we called the “entrepreneurship profession).” While we anticipated our research would examine the legitimization of the GPEI, we found ourselves describing the legitimization of the entrepreneurship profession instead. This finding is consistent with the normative isomorphic effect of educational organizations in institutional theory. The professionalization of entrepreneurship is the unintentional contribution of the GPEI to the entrepreneurship ecosystem, rather than entrepreneurs capable of creating new ventures. We portrayed an emergence process of entrepreneurship professionals in figure 1. The emergence of entrepreneurship professionals is legitimated by the university; thus, it is accepted in the entrepreneurship ecosystem independent of efficiency outcomes. When they become an established normative force within the entrepreneurship ecosystem, entrepreneurship professional programs can successfully develop and introduce new concepts, models and terminologies with little institutional challenge. While the emergence of the entrepreneurship profession is an outcome of an educational program, the process of emergence is driven by graduates seeking to reduce environmental uncertainty. Entrepreneurship education programs may assist entrepreneurs otherwise lacking a formal business education by providing them with language and normative tools that facilitate activities in

the entrepreneurship ecosystem. While we have presented some arguments that support the emergence of an entrepreneurship profession, this phenomenon is in its early stages. More longitudinal research on the graduates of entrepreneurship education programs is needed to better understand the outcomes of this phenomenon.

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Figure 1: The Process of Emergence of an Entrepreneurship Profession

