

Embedding Entrepreneurship in Higher Education Institutions: Reconceptualizing entrepreneurship education *

Colette Henry[†]
Pauric McGowan[‡]

[†]Dundalk Institute of Technology

[‡]University of Ulster

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Despite significant developments in the field of entrepreneurship research, particularly in the context of entrepreneurship education (EE), definitional issues have consistently arisen. Over the years, extant scholarship has conceptualized entrepreneurship in a wide variety of ways, including carrying out “new combinations” (Schumpeter, 1934), the creation of new enterprise (Low & Macmillan, 1988), a “process” rather than a “state” (Bygrave, 1989), creating something new and different (Hisrich & Peters, 1998) or the creation of an economic entity (Curran & Stanworth, 1989). However, new venture creation is clearly not the only component of entrepreneurship. More recently, Sarasvathy & Venkataraman (2010) suggest that entrepreneurship has the potential to be reconceptualized as a “powerful social force”, rather than retain its traditional academic construct as a business or management-derived discipline alone, arguing that everyone - not just those aspiring to business ownership - should be taught entrepreneurship (Kuratko, 2005). Such debates are prompting scholars to revisit the content of EE, raising questions such as *what* exactly should be taught, *who* should it be taught to and *who* should *teach* it?

Extant literatures on EE are comprehensive, covering topics such as categorization (Garavan & Ó Cinnéide, 1994), aims and objectives (Hytti & O’Gorman, 2004), attitudes and perceptions (Shinnar et al., 2009), pedagogy (Tautila, 2010), effectiveness (Henry, Hill & Leitch, 2003; OECD, 2009; Martin,

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McNally & Kay, 2013), content frameworks (HETAC, 2013; QAA, 2013) and future research directions (Fayolle, 2013). However, while entrepreneurship is a well-established component of most business and management schools, and a recent addition to many non-business disciplines, it is often seen as an “inserted” rather than “integrated” element of undergraduate curricula (Hannon, 2006:297). This is especially the case within non-business disciplines, where EE has anecdotally been seen as *peripheral* rather than *core* to the particular programme of study. Given the importance attached to the STEM (science, technology, engineering and mathematics) disciplines as important sources of economic growth, it is not surprising that promoting entrepreneurship within the sciences is high on government agendas (EC, 2008; Science and Learning Expert Group, 2010; HETAC, 2012; BIS, 2014). Despite this, with few exceptions^[1], there is a dearth of research in relation to the teaching of entrepreneurship within non-business, especially STEM disciplines. Effectively embedding entrepreneurship in such areas is critical to the future development of the entrepreneurship education agenda (WEF, 2009).

As researchers, we have been prompted to reflect on what we actually mean by *embedding*. Furthermore, we wanted to identify how, or indeed, if *embedding* is different to simply *inserting*. Regardless, we sought to determine how best to *embed* and/or *insert* entrepreneurship effectively. Consequently, in early 2015, we issued a call for papers for a thematic issue of AISHE-J to help address the above questions, and we invited submissions that could offer novel dimensions to extant debates in this area of scholarship. We also welcomed papers – both conceptually and empirically-based - on related topics that offered a suitable fit with the overall theme of the thematic issue: “*Embedding entrepreneurship education in higher education institutions.*”

Abstracts were reviewed in the first instance; feedback was subsequently provided and authors were invited to submit their full papers via the AISHE-J’s electronic on-line system. All papers were discussed and reviewed by the guest editors in consultation with representatives of AISHE-J’s editorial board. Following the formal review process, a total of six research papers, two reflective articles and two book reviews were selected for inclusion in this thematic issue. These contributions represent research studies conducted in Ireland, the UK, Australia and New Zealand.

Our first paper is by Colin Jones and opens the Entrepreneurship Education (EE) debate by discussing the concept of the heutagogical learner. Jones suggests that a deeper repositioning of entrepreneurship and enterprise education is needed if we are to truly embed it in higher education. This is because no

other domain of education is poised to develop the attributes students need to succeed in the 21st century. In his paper, Jones plots a pathway towards full EE integration by proposing a new language from which to reposition and explain the role of EE; this new language highlights the unique potential of heutagogical learning. Jones' contribution offers educators and scholars an opportunity to contemplate ways in which they can cater for students' individual needs and help them prepare for the new world of work that awaits them.

The next paper, by Moylan, Gallagher and Heagney, examines the role of experiential learning in Higher Education, specifically in EE. Moylan et al. propose that experiential learning is best facilitated as a result of the learner's participation in practical events, which support the creation of experiences and their subsequent reflection on these experiences. Current approaches to teaching entrepreneurship within Higher Education are analyzed, and the role experiential learning has to play in this is considered. Findings suggest that, by providing suitable experiential learning opportunities, educators can develop entrepreneurial capabilities and skills in the learners and promote an entrepreneurial ecosystem. A case study of a real-world entrepreneurial teaching environment – IADT - is provided by way of example. The paper allows reflection on EE teaching and assessment experiences at Dun Laoghaire Institute of Art Design and Technology (IADT), and provides an opportunity for their (re)-evaluation and future enrichment in the area of experiential learning.

In his paper, Costello argues that collaboration between Higher Education Institutions and Incubation Centres can and do contribute to the embedding of entrepreneurship in Science, Technology, Engineering and Mathematics (STEM) disciplines. The study addresses the dearth of research on the teaching of entrepreneurship to non-business students, and provides a framework to implement a proposed pedagogical approach. Drawing on Schön's seminal work on reflective practice, and using the Galway-Mayo Institute of Technology (GMIT) as the empirical context, the author explores how incubation centres can best support the teaching of entrepreneurship to engineering undergraduate students. The study contributes to extant EE debates by developing a process for collaboration between engineering students and incubation centres that could potentially be replicated in other pedagogical situations.

The new BABE – BA in Business and Enterprise programme – is the subject of the paper by Laing, Hooker, Sargison and Schueler. Mindful of the need to provide a more effective and flexible advanced entry route to degree programmes in the UK, the authors critically reflect on their experiences of

developing BABE. The programme targets employees of small and medium-sized enterprises and not-for-profits, as well as members of the armed forces, who wish to study while they continue working. The authors plot BABE's journey across national and cultural borders, focusing on the experience of Tai Poutini Polytechnic (TPP), a small New Zealand (NZ) polytechnic, which is now teaching the BABE degree. The paper outlines the process by which an international qualification was adapted to meet both the NZ market and the requirements of the New Zealand Qualifications Authority (NZQA).

In their paper, Bridge and Hegarty challenge some of the assumptions about the provision of third level EE, and seek to advance the debate by suggesting alternative approaches. They highlight that, while EE is now well established, it has in-built contradictions because it encompasses both being entrepreneurial and being an entrepreneur; the authors are quick to point out that although these two elements have much in common, they are not the same. Their paper suggests a process of 'reverse engineering' of course content – working backwards from learning outcomes. The authors outline some content ideas drawn from their exploration of epistemological approaches to teaching entrepreneurship and their own experiences. Overall, the paper makes a robust case for changing assumptions about EE, proposing that new courses should focus more on 'being entrepreneurial'.

In their exploratory study, O'Dwyer, McGowan & Hampton position the entrepreneurship educator at the centre of the entrepreneurial learning process. Drawing on an academic literature review and interviews across the primary, secondary and tertiary education levels, the authors help build a platform for deeper analysis at the tertiary level. Their interviews, based on the Pictor Technique, enable the reader to understand the role of learning and experience, and to identify the key influences on becoming an entrepreneurship educator. The authors highlight the fact that despite the ability of entrepreneurship educators to fuel creativity, innovativeness, critical thinking and problem solving behavior, attempting to measure the impact of entrepreneurship education using solid metric driven quantitative approaches does an injustice to the discipline. In so doing, the paper addresses the limitations of entrepreneurship based research to date.

In her reflective paper, Short highlights our constantly changing economic environment and the demands placed on educators to equip students with employable skills, including developing an *entrepreneurial mindset*, and the ability to be dynamic, flexible and self-regulating in uncertain task environments. In order to develop these skills, students need to be offered opportunities to learn how to 'be' something as opposed to simply learn 'about' something; essentially experiential learning. The

author reflects on the use of a role play *serious game* within an Irish Institute of Technology that allows students to *be* Operations Managers. Students revealed the extent to which they immersed themselves in the game, many confessing to losing sleep over deliveries and orders, and generally being ‘in the game’, evidence that they had learned to ‘be’ through the experience of running a business.

In our final paper, Cummins and Zhao compare the attitudes to entrepreneurship education among business and non-business undergraduate students. Based on a pilot study in the university sector, they reflect on the gap between the *importance* students place on entrepreneurship education in the curriculum compared to the role they *believe* it should play; this is especially the case among non-business students. Interestingly, the majority of business students believe entrepreneurship should play a major role in their course, while the majority of non-business students believe that entrepreneurship has some part to play, albeit in ‘minor’ one. The authors highlight the need for future studies to adopt more qualitative enquiry to probe these issues in much greater depth.

Our thematic issue concludes with four very relevant book reviews. The first - by Oster - reviews Donald Kuratko’s new text - *Entrepreneurship: Theory, Process, Practice, 10e*; the second - by McBlain - reviews *Entrepreneurial Finance: Concepts and Cases*, by Vega and Lam. The third review - by Moriarty - considers Mishra’s *The Theory of Entrepreneurship*, while the fourth - by Sisk - deals with *Service Learning and Social Entrepreneurship* by Enos. Each of these authors are perceived as leaders in their respective fields and, as a consequence, all four books are highly recommended for students of entrepreneurship. While all are US-based, the reviewers highlight their value and contemporary relevance in the broader EE curriculum.

We would like to thank all of our contributors to this thematic issue; we are grateful to them for allowing us to include their research in this issue – the very first in AISHE-J to focus on *Entrepreneurship Education*. We are also grateful to our authors for their patience and diligence in working through reviewers’ comments, revising their submissions and helping us meet our publication deadline. We also acknowledge the work of our anonymous reviewers whose constructive comments have undoubtedly improved the quality of our selected articles. Finally, we are grateful to Saranne Magennis and Moira Maguire from AISHE-J’s Editorial Board for their guidance throughout the process.

[1] See, for example, Henry & Treanor (2010); Hynes & Richardson (2007); Souritaris et al. (2007), amongst others.

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