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Returning to Ulysses: The Need for Ireland's Higher Education Institutions to Re-imagine the Provision of Entrepreneurship Education

Thomas Cooney
Dublin Institute of Technology, thomas.cooney@dit.ie

Kathleen Farrell
Dublin Institute of Technology, kathleen.farrell@dit.ie

Paul Hannon
National Centre for Guidance in Education, paul.hannon@ncge.org.uk

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Introduction

Within the study of entrepreneurship, the debate continues to rage as to whether or not entrepreneurship can be taught. According to Kirby (2006) many people believe that 'entrepreneurs are born and not made', while Drucker (1985) argued that entrepreneurship is neither an art nor a science, but a practice. Gibb (1987) proposed that while the entrepreneurial role can be both culturally and experimentally acquired, it is consistently being influenced by education and training. But Blenker at al (2006) noted that there exists a large variation in teaching approaches and talked of the dilemma faced by educators of whether to teach 'for' entrepreneurship or 'about' entrepreneurship. This decision is closely related to the question of whether education seeks to improve the student's ability to perform entrepreneurial action as a practical activity or whether to learn about entrepreneurship as an academic subject. This paper is a detailed analysis of entrepreneurship education in Higher Education Institutions (HEIs) on the island of Ireland based on a survey of twenty-six university-level institutions. The paper examines the number and types of courses and activities currently being offered to students and concludes that the vast majority of the existing provision is quite traditional in its approach. It is further argued that entrepreneurship education needs to be re-imagined if it is to meet the needs of Ireland's current economic and social challenges, and that educators should seek inspiration from some of the island's most creative artists from times past.

Background Context

Given the current economic challenges facing many countries across the globe, the notion of engendering greater indigenous entrepreneurial activity has become a prominent goal for many national governments. However, the challenge facing policy-makers is the identify ways in which they can develop such indigenous entrepreneurial potential and thus renew the local economy by building competitive advantage (European Commission, 2008). Within this discussion, it has been broadly agreed that education plays a key role in cultivating future entrepreneurs; indeed, it has been argued by Forfas (2007) that in order for Ireland to have very strong enterprise culture with innovative entrepreneurs, education is essential. According to Forfas there is a need for 'highly-skilled, creative and adaptable' people, who are prepared for the knowledge economy and with team work skills for enterprise. Similarly, according to the European Commission (2008, p.7) the aim of entrepreneurship education at third-level should be to 'develop entrepreneurial capacities and mindsets' that benefit economies. Hytti and Kuopusjarvi (2004) highlighted the relevance of

entrepreneurship to economic development, while Tastila (2010) pointed to evidence that academically educated entrepreneurs are more important in developing regional economies than entrepreneurs with a lower level of education. Pajarinen et al (2006) and Minniti and Levesque (2008) suggested that it is generally recognised that academic education provides people with the opportunity to develop additional skills and exposes them to new developments, thus resulting in further innovation and the supplementary use of new business models. A report by the European Commission (2008) argued that entrepreneurship education is not synonymous with general business and economic studies but its goal is to foster creativity, innovation and self-employment. The report argued that courses in entrepreneurship equip students with the skills for creativity, problem-solving, analytical business skills, communication, networking and evaluation of a project. Consequently students have greater self-confidence in undertaking their business idea. The purpose of this paper is to examine the current provision of entrepreneurship education on the island of Ireland and to propose more effective ways for the transmission of entrepreneurial skills to students and the related development of the appropriate curricula.

What is Entrepreneurship Education?

It is still a topic of much debate whether entrepreneurs are born or made. While it is generally acknowledged that there are natural 'born' entrepreneurs, there are also researchers who believe that entrepreneurship is a skill that can be learned. Drucker (1985) argued that entrepreneurship is a practice and that:

> "Most of what you hear about entrepreneurship is all wrong. It's not magic; it's not mysterious; and it has nothing to do with genes. It's a discipline and, like any discipline, it can be learned."

Education and training play a key role in the development of entrepreneurship. In a traditional sense entrepreneurship is associated with the creation of a business and the skills to achieve this can be developed. However, entrepreneurship is not solely about business skills or starting new ventures; it is a way of thinking and behaving relevant to all parts of society and the economy. This education is a process which helps to develop an individual's mindset, behaviour, skills and capabilities and can be applied to create value in a range of contexts and environments from the public sector, charities, universities and social enterprises to corporate organisations and new venture start-ups. Indeed it has been argued that enterprising graduates should be equipped to fulfil their potential and to create their own futures (NESTA, 2008). Kelley et al (2010) propounded that within any society it is important to support all people with 'entrepreneurial mindsets', not just the entrepreneurs, as they

each have the potential to inspire others to start a business. In a review of the literature, O'Hara (2011) identified five key elements which he believes feature prominently in entrepreneurship:

- The ability to identify and exploit a business opportunity;
- The human creative effort of developing a business or building something of value;
- A willingness to undertake risk;
- Competence to organise the necessary resources to respond to the opportunity;
- The chance of profit or loss.

It is evident from this description of entrepreneurship that it involves more than business start-up, as it also includes the development of skills to grow a business, together with the personal competencies to make it a success. Furthermore, it has been argued that creativity also plays an important role in such education with Cole (1946) arguing that:

"The study of entrepreneurship is similar to the study of creativity in any field, for example, musical composition. On the grand scale of Schumpeter's conception ("creative destruction") to the more modest approach of Kirzner (the entrepreneur as arbitrager), it is creativity, originality which should be the central focus of entrepreneurial studies. The entrepreneurial contribution is precisely that of original perception, new ideas, and new departures. The unexpected is made to happen" (as cited in Hughes, 1983, p.136).

Undoubtedly innovative ideas are characteristic of entrepreneurship and it is important to cultivate a newness of approach which facilitates recognising opportunities. But a very different perspective was propounded by Jamieson (1984) who suggested that entrepreneurial education is actually pertaining to training concerning the development of skills "about, for and in" an enterprise.

Neck and Greene (2011) discussed three modes of entrepreneurship education. First there is the entrepreneur's world and the 'traits' theory starting with the work of McClellend (1965). This theory gave rise to literature which looked at the ideal personality 'traits' of entrepreneurs. Another approach is the process oriented approach. Here there is a greater focus on the organisational level of analysis emphasising 'planning and prediction' where the business plan and the case study form the basis of teaching. The process approach is linear and the issue with this is that entrepreneurship is not linear, even though it is usually taught in this way. The cognitive approach emerged in the last two decades and it acknowledges both the unique role of the person, as well as the entrepreneurship process. Meanwhile, Jones and Iredale (2009) suggested that enterprise education should have three aspects: (1) personal; (2) socio-cultural; and (3) economic. Gibb (2002) made the point that at the individual level, enterprise education equips people with a variety of skills and competences that enable them to deal with the challenges and uncertainties of the business environment. At the societal-cultural level education in enterprise fosters risk-taking in business and

helps people to be more responsible citizens. From an economic perspective enterprise education concerns itself with economic regeneration through business start-ups and the growing SME sector (Jones and Iredale, 2009). While many different opinions exist on what should be taught to students, there appears to be little broad consensus on what entrepreneurship education should look like.

Meanwhile, as the debate continues regarding the definition of entrepreneurship and what should be taught to students, the number of young people being exposed to the topic remains relatively low. In the report 'A Survey of Entrepreneurship in Higher Education in Europe' (European Commission, 2008), it was found that more than 50% of students in Europe (11 million students) do not have exposure to entrepreneurial education in his/her education and the report also found that entrepreneurship is not sufficiently present in third level education courses. Most learning in entrepreneurship is available in the field of business and economics and there is a view that possibly business schools are not the optimum learning environment for entrepreneurship. Indeed the report also highlighted that the question of producing more academically educated entrepreneurs needed to be addressed. Research indeed seems to suggest that many entrepreneurial capabilities are frequently psychological or social skills and not specific to business or academic skills. Tastila (2010) highlighted that the lack of these skills in noticeable in course content in higher education where there seems to be an over-emphasis on academic knowledge and a neglect of the psychological growth of students.

Changing from Teaching Functions to Skill-Sets

As the Oslo Agenda for Entrepreneurship Education in Europe (European Commission, 2006) highlighted, there are a significant number of challenges facing entrepreneurship education in Europe. The primary need is to foster entrepreneurial drive among students and to equip them with the skills that they will need for business start-up and growth, and arguably a friendlier entrepreneurship culture needs to be encouraged to enable this ambition to be realised (European Commission, 2008). The European Commission suggested that to achieve this goal, higher education institutions should:

- Set up a strategy and an action plan for teaching and research in entrepreneurship, embedding practice based activities;
- Create an entrepreneurship education department, which would serve as an entrepreneurial hub within the institution and spread the teaching of entrepreneurship across all other departments;

- Offer an introduction to entrepreneurship and self-employment to all undergraduate students in their first year. In addition, give all students the opportunity to attend seminars and lectures in this subject;

- Set up incentive systems to motivate and reward faculty staff in supporting students interested in entrepreneurship, and acknowledge the academic value of research and activities in the entrepreneurial field.

Indeed, the European Commission recognised that each university has a key role to play in the development of entrepreneurship education by taking an innovative approach to educational delivery and curriculum content.

On a national level, the Survey of Entrepreneurship in Higher Education in Europe (2008) recommended the development and facilitation of a policy to mainstream entrepreneurship in higher education and to set aside resources, to evaluate the effects of entrepreneurship and to have the focus on the entire educational system (i.e. from primary to tertiary education). In Ireland, the Small Business Forum (2006) suggested establishing an award system for fostering entrepreneurship and that secondary teachers during their teacher training programmes should cultivate the skills and knowledge to deliver business thinking and entrepreneurship courses. But countries such as Norway, Finland and Denmark have gone much further and developed highly integrated entrepreneurship policies that are inclusive of primary, secondary and third level education systems, that bring together educationists, policy-makers and business people, and that cross-over multiple government departments (particularly those relating to Finance, Education and Enterprise). These countries have recognised that the traditional approach to entrepreneurship, with its emphasis on business start-up, needs to change and that the relevance of entrepreneurship education for all disciplines needs to be recognised. Northern Ireland provides a very good example of introducing entrepreneurship to Engineering, Science and Technology students where entrepreneurship has been embedded in a total of 241 courses at different faculties in all higher education institutions (European Commission, 2008).

It is generally recognised that there is a need to move from traditional 'instruction' to experiential learning and an action oriented, mentoring and group-work approach to ensure effectiveness. Critical thinking and problem solving are key skills while risk-taking skills (together with skills in innovation, creativity and collaboration) also need to be valued more. A more hands-on approach is called for project management and the development of professional and budgetary skills so that experience is integrated with the taught curriculum. People benefit from entrepreneurial skills which enable them to take advantage of opportunities, problem solving, the development and transmission of ideas, and the ability to add value to local communities. Increasingly it is being

recognised that teaching entrepreneurship should be interactive and that it should include local case studies, games, projects, simulations, real-life actions, internships with start-ups and other hands-on activities that involve interaction with entrepreneurs. Entrepreneurs and professionals can act as role models, as well as coaches and mentors, thereby fostering an entrepreneurial spirit in the university and providing a link with the local community. Using active learning methods requires skill and trust in involving students more in the learning process, fostering innovation and creativity, while learning from success and failure needs to be encouraged. Huovinen and Tihula (2008) found that learning from failure is an important aspect of entrepreneurship but that some students need help with this. This might involve developing effective educators including professors, entrepreneurs, alumni, business professionals and students (Volkmann et al., 2009).

Herrmann et al. (2008 p.21) made the point that there ought to be a move from 'transmission modes of teaching' to 'experiential learning' so that students can gain real life experience. Learning should be about fostering creativity, critical thinking and reflection among individuals, which improves their motivational skills and entrepreneurial development (Politis, 2008). Hanti et al. (2008) in a study found that giving students the opportunity to carry out real life ventures was the most helpful mode of learning as participants interacted with customers and developed managerial skills. This is happening at the INNOVA programme of the Polytechnic University of Catalonia (Spain) and it is open to staff, students, faculty and staff aimed at turning innovation ideas from the university into ventures. The programme is run by a support centre for the creation of technology-based firms, with the involvement of the universities and business schools of Catalonia. It provides help at the various stages of starting a business. Since its creation, the INNOVA programme has helped in creating 197 technology-based companies (European Commission, 2008). This personal experience is significant in equipping the entrepreneur with holistic skills, namely in the psychological and business skills (Tastila, 2010).

Psychological and social skills are now widely recognised as being vital for effective entrepreneurship development. Taatila (2010) argued that the traditional teaching approach, which is focused on education about entrepreneurship, does not produce such entrepreneurs. According to Dewey (1963) the best education setting for entrepreneurship is found under the pragmatic philosophy of pedagogy. Pragmatism acknowledges that real life situations are unclear and that one needs to develop personal experience. This philosophical perspective views real-life situations as the main focus of research (Dewey, 1963). Acquiring knowledge could be said to be a deductive process (Suomala et al, 2005; Thagard and Croft, 1999) and this deductive process could also be said to be a process which creates knowledge (Dazzani, 2005). Taatila (2010) argued that because of these needs, learning by experience and problem solving should be encouraged in entrepreneurship

education. The student is also motivated to create something of personal value which directs his/her attention to the enterprise (Hanti et al., 2008, Romer-Paakkanen and Pekkala, 2008). Taatila (2010) specified that learning should be inner directed rather than being directed from outside. It is important to stimulate the interest of the students which in turn creates a strong sense of motivation. Hamidi et al. (2008) in their study of students found that exercises in creativity are positively linked to entrepreneurial intentions. Differences in creative styles among students point to the need for a multifaceted approach in order to accommodate all styles of students. In order to cater optimally for students' diverse styles of creativity, enterprise education should build competency in team working, divergent thinking and interpersonal communication. Hmieleski and Baron (2009) in their study on the relationship between optimism and performance in new ventures found that there needs to be a balance between being optimistic and being realistic about the issues. They suggest that educators should train entrepreneurs to manage their optimism so that they can achieve a balance between being realistic as well as having a positive approach.

It is envisaged that both top management and academic (and other) staff need to work together in order to bring about an entrepreneurial institution and this effort can be facilitated by having supportive infrastructures at the institution (such as entrepreneurship centres, departments, incubators, etc) and introducing cross-discipline structures which can complement such entrepreneurial education. Indeed it has been noted that PhD students do not have many possibilities for entrepreneurship education and institutions should cater for this level and not just Undergraduates and Masters students. While entrepreneurship degrees play an important role in the institution, it is also vital that entrepreneurial vision is an integral part of all courses so that all students are exposed to it. The teaching of entrepreneurship will improve if the teachers have practical experience in entrepreneurship and act as role models for the students, all of which calls for training. In Poland, the Ministry of Science and Higher Education has provided financial support to the Dynamic Entrepreneurship Programme to train entrepreneurship lecturers from 20 non-business institutions. Similarly, in Denmark in 2008, IDEA started an international Master's in Entrepreneurship Education and Training (organised by a consortium of Danish and European Universities), and a Diploma Course for Entrepreneurship aimed at post-graduate training for Danish teachers (European Commission, 2008). A key recommendation for everyone is the adoption of a broader definition of entrepreneurship, not just considering it as business venturing (though this can be part of it) but rather expanding the entrepreneurial spirit across the institution, "it is a mindset for sustainable change" (European Commission, 2008).

According to the European Commission (2008) "technical, scientific and creative studies could help in cultivating innovative ideas for business. The aim would be to foster "inter-disciplinary"

learning including team-working amongst students from different disciplines and thus having entrepreneurship education available to everybody. A barrier to the latter would be the fact that many educational departments work quite separately and the curricula can be somewhat inflexible. Experience-based teaching approaches with the lecturer facilitating learning as opposed to lecturing is most effective in fostering entrepreneurial skills. It is very beneficial to have entrepreneurs involved in both teaching and in the development of the curriculum and higher education institutions would benefit from further co-operation, pooling of resources and knowledge of best practice in relation to this aspect. Indeed the Survey of Entrepreneurship Education in Higher Education in Europe (2008, p. 9) recommended that the European Commission put in place a system for the use of EU structural funds for financing of entrepreneurship education in higher educational institutions, to start an EU programme that would involve the exchange of entrepreneurial teachers and to give out an annual award to the best entrepreneurial institution.

A more supportive culture for entrepreneurship at institutional level is needed in the modern business environment, as well as involving internal and external stakeholders such as national and local government, funders and employers. Business and social entrepreneurs can enhance the learning experience with their up-to-date expertise and can provide student placements and offer company projects as case studies (NESTA, 2008). It is a sign of optimism to note that educational institutions in England have now embraced the concept of entrepreneurship more in their mission statements, action plans and strategic policies where student enterprise is being supported with the growth in enterprise clubs (National Council for Graduate Entrepreneurship, 2010). Teaching in entrepreneurship should take place at all levels of the educational system and so it is recommended that teacher training courses contain modules on how to deliver entrepreneurship courses. In entrepreneurship education there is a need to move to practice-based activities with a more interactive approach which include mentoring and group work. Students should have the opportunity to engage in real life ventures and entrepreneurs should be involved in both the design and delivery of modules. There is a multiplicity of options available to bring entrepreneurship education to a very different place from where it is currently located, but it will require vision, strategy, desire, commitment and funding to reach a new frontier.

Designing Curricula and Assessments for New Approaches

In European institutions entrepreneurial education is at an early stage, with much of the curricula being based on what is happening in the USA, which frequently is not suitable for transferring to a European context. This presents an opportunity for educational establishments to learn from each other in relation to curriculum development and teaching methods.

Entrepreneurship education is frequently based on cases, where the significance of recognition and identification with the cases is emphasised. Practically all of the higher education institutions in the Survey of Entrepreneurship in Higher Education in Europe (2008) included entrepreneurs and practitioners in the development of the teaching material on entrepreneurship, where the introduction of 'real-life stories' is important. Entrepreneurship is a 'learning-by-doing' subject, implying that learning from others experiences is vital. Nearly all of the survey respondents had in-house development of curricula and teaching methods in relation to enterprise education. Developing customised case studies is important and a suggestion that emerged from the interviews was to create a text book of European cases, showing the differences between the countries and also the similarities in European case studies in contrast to American case studies. This has since been achieved with the launch in 2011 of the website www.eecsrc.eu which features cases from 30 countries, each of which are available in 5 languages. In addition, it was suggested to have a European network for academics teaching entrepreneurship, which could include internet fora for discussion and inspiration possibilities to enable the exchange of lecturers between countries and institutions. A majority of the multidisciplinary higher education institutions have formalised collaboration between faculties/disciplines, which combines thinking and methods in relation to entrepreneurial education (e.g. at the University of Strathclyde in Scotland there is a notable cross-disciplinary co-operation for fostering entrepreneurship education involving 'The Entrepreneurship-in-creative-industries' course which teaches students how to 'produce' music, both as performers, composers and producers as well as making a career in the music industry). Extracurricular activities are important in order to provide the impetus to start a business and to provide a dose of realism. Company visits and matchmaking events provide students with the opportunity to meet real entrepreneurs while competitions, mentoring programmes and summer-school programmes equip people with personal and professional skills (Survey of Entrepreneurship in Higher Education in Europe, 2008). Jones (2011, p.3) believes that entrepreneurship education needs to be more student-centred:

> "I have always felt that entrepreneurial learning is not related to memorising external bodies of knowledge, but rather it is about self-recognition of internal knowledge. It is not always about events that are planned or predictable, but frequently about unplanned and unpredictable events. It is less about the knowledge of the educator and more about the support of the educator…It is about freedom, not restriction and it is as much about failure as success".

It is suggested that entrepreneurship education needs to draw on the student's knowledge and prepare him/her for the complexity of the business world. However, a challenge faces educationists

in seeking to prepare graduates ready for industry. To achieve this, education must extend outside of the classroom and into businesses and organisations. This interaction will equip the students with the skills and competencies to manage a business in a changing environment, and it has been argued that currently a flexible professional is required who can adopt a 'can do' approach in relation to the workplace. Practice based learning has been advocated to meet this need while engaging the learner in real business situations and developing life-long learning skills and the requisite personal qualities to engage in business growth (Hynes et al., 2011).

In Ireland Forfas (2007) identified some aspects of 'The Oslo Agenda for Entrepreneurship Education in Europe' that it felt were particularly important, such as the willingness to integrate more effectively entrepreneurship programmes and activities in the established curriculum and to support the use of practice-based pedagogical tools. They suggested that the other primary aims of an entrepreneurship education strategy should be as follows:

- Grant public funding to the establishment of entrepreneurship centres at universities,
- Adopt innovative methods to train teachers in entrepreneurship,
- Test the entrepreneurial competence of students,
- Associate students with real companies and to business people,
- Offer entrepreneurship education to disadvantaged groups,
- Higher education establishments should integrate entrepreneurship across different subjects of their study programmes,
- Encourage students, graduates and researchers with commercially viable business ideas to develop them into companies,
- Embed evaluation systematically into all programmes.

At European level the ambitious aims for entrepreneurship education echo some commentators who claim that entrepreneurship will be the business discipline of the twenty first century.

To counteract the separation between the educational institutions and the organisation an 'interactive strategy' is needed in the field of management education. Leitch and Harrison (1999) suggested that entrepreneurship education can be incorporated into the field of management education where action learning is a means by which this integration can be achieved. It has also been suggested that entrepreneurship education become more student centred and that research and curriculum development needs to be fostered which will ensure that entrepreneurship is recognised as a discipline it its own right. This search to design curricula and assessments that offer a new approach to entrepreneurship education has been challenging and current thinking appears to favour linking it to management education and the use of action learning. The paper will now

examine what has been happening on the island of Ireland with regard to entrepreneurship education.

Research Methodology

The methodology consisted of a survey of all 26 public Higher Education Institutions (HEIs) on the island of Ireland using a questionnaire designed by the National Council for Graduate Entrepreneurship (NCGE), an organisation which is based in the UK. NCGE's initial design of the survey instrument was influenced by a workshop with experts held in Birmingham (UK), access to the Kauffman Foundation survey instruments, and a review of earlier UK reports and studies (e.g. Price et al., 2004; Levie, 1999). The instrument was subsequently piloted at 2 HEIs in the UK. The initial survey in the UK captured data in the academic year 2005-06 but the methodology has been continually refined in subsequent years.

In addition to capturing basic data concerning the location and size of the institution, the general structure of the main survey instrument examined three key areas:

1. All credit bearing provision relating to enterprise and entrepreneurship education at all levels and modes of delivery. This section further included data collection on the first registration of the provision, numbers of participating students and their profiles, the primary learning outcomes, the leading faculty or centre, and the primary target participants. Further data were sought about the teaching resources engaged in the delivering of the identified provision. The same data fields were used to collect data regards any planned credit bearing provision.

2. All non-credit bearing provision relating to enterprise and entrepreneurship education and support. This section listed 24 categories of provision and collected data against each category for the year started, numbers of students participating, the frequency of the activity, the target participants, the leading faculty or centre, and the primary funding sources.

3. The third section collected data against 28 institutional characteristics that are indicative of support for enterprise and entrepreneurship. The instrument sought to clarify if, or not, each institution possessed any of the listed characteristics.

In supporting respondents through the data entry process a brief guide was produced and made available online. To enable clarity in identifying appropriate course and module entries it was decided early in the design phase that presenting a prescriptive definition would not be helpful as the research team were fully aware of the difficulties and challenges in the use of terminology and language where concepts are often applied interchangeably. Instead it was more important to

understand the range of outcomes that the selected courses and modules sought to achieve, however labelled. An entrepreneurial outcomes template was embedded within the template design to enable this to be achieved.

The survey undertaken in Ireland utilised the online questionnaire designed by NCGE. The benefit to the research team of the online mapping template was that it removed the normal need to enter data submitted by all respondents, thus reducing lead times in starting the analysis of the information. As a result, it was possible to achieve returns from 22 from 26 HEIs on the island of Ireland in the study (an 85% response rate). All survey data were exported from the online template into SPSS for analyses. The data from which the findings are presented in this paper are all self-reported and voluntarily provided. Key contacts have utilised existing data where available, have sought additional supplementary data where needed from centralised units such as Academic Registries, and in larger institutions have worked with faculty colleagues to provide a full picture from across the campus. The research team continuously monitored template entries as well as reviewing HEI's websites and followed up with individual contacts if there were any potential anomalies. The dataset thereby represents the most recent and accurate data available.

Survey Results

A detailed analysis of the survey was undertaken and then cross-referenced against earlier research on entrepreneurship education in the third-level sector in Ireland that was undertaken by Cooney and Flynn (2008). Some of the headline results from the analysis found that:

- The majority have no explicit entrepreneurship policy,

- The majority have no Advisory Group,

- 81% have Vice President responsible for entrepreneurship related matters,

- Only 4 institutions have Professors,

- The majority have no facilities or start-up funds for students,

- The majority have no dedicated webpage,

- The majority have no Visiting Professors or Entrepreneurs-in-Residence.

The broad institutional support was therefore found to be relatively weak structurally and so the analysis then examined what the institutions were providing for students, which were as follows:

- Courses at undergraduate and postgraduate levels (particularly New Venture Creation)

- Business plan competitions,

- Entrepreneur events,

- Ideas competitions,

- Placements / internships,

- Careers Services events,

- Networking events and Student Societies.

This shows that much of the provision for students is quite traditional and does little to introduce action-learning in a truly innovative fashion. Examples of individual initiatives (such as the Charity Assignment at the Dublin Institute of Technology and the EBay Assignment at IADT) that encourage students to engage with real entrepreneurial activity can be found in some of the institutions but generally the provision and examination of entrepreneurship education remains static. One of the more interesting findings was that in comparison to the Cooney and Flynn (2008) study, there had been significant improvement in the provision of entrepreneurship support for staff members by way of Training, Continuing Professional Development, Intellectual Property Commercialisation and Incubation Space. However, staff support remains poor for Awards for Excellence, Sabbaticals, Coaching Non-Staff, and Incentives to Attract Entrepreneurs.

A more detailed analysis of the results of the survey revealed that HEIs now offer 44 full entrepreneurship education awards and 416 courses with credit-bearing entrepreneurship modules. The upward trend in full awards is testimony to the increasing recognition of entrepreneurship education as a substantial subject in HEIs. But the survey also confirmed that there is a shortage of dedicated facilities provided for student entrepreneurship. Only 5 HEIs out of the 26 surveyed reported providing dedicated centres for undergraduates, although university enterprise clubs and societies form an integral part of the education experience in entrepreneurial HEIs. The survey found that there were 1,084 students studying for full entrepreneurship education awards, while the numbers studying full entrepreneurship education courses and embedded modules were 6,020 and 5,488 respectively. A total of 6,540 students were engaged in entrepreneurship education extra-curricula activities. The Irish Student Engagement Rate in relation to entrepreneurship education is calculated at 12.2%. The equivalent figures for the UK and EU were 16% and 24%.

TABLE 1 – Number of Students Taking Courses

NCGE–YES (22 HEIs)	Student Numbers
Full Awards	1,084
Full Modules	6,020
Embedded Modules	5,488
Extra-Curricula Activities	6,540
Total Engagement Number	19,132
Total Enrolment Number	157,369
Student Engagement Rate	12.2%

The number of start-up enterprises launched by students and graduates of the respondent HEIs amounted to 41 and 40 respectively in 2009–2010.

TABLE 2 – Start-Ups by Students

Start-Ups by	2008–2009	2009–2010
Students	38	41
Graduates	40	40

Data was also sought on the respondent's institutional policy in relation to entrepreneurship education. The results from these questions are detailed in Table 3.

TABLE 3 – Institutional Policies

Institutional policy	Number of HEIs
An explicit institutional entrepreneurship policy	9
Enterprise/entrepreneurship embedded in the mission statement	15
An entrepreneurship advisory board/council/steering group	7
Faculty-level entrepreneurship action plans	9
Dedicated institutional funding for enterprise/entrepreneurship	11
Non-research professors of enterprise/entrepreneurship	4
Support for enterprise in local communities	15

In general, respondents had little knowledge about estimates of funding, sources of funding, number of student start-ups, and information that is or is not tracked / gathered by the institutions. Overall, it was found that high level statements are common, that there is much activity at classroom level, that there is plenty of general activities for students at a basic level, that there is a lack of committed leaders at upper management level, that there is a lack of information and tracking, and that the approach remains traditional and lacks real engagement. The research also found that the lack of entrepreneurial experience among teaching staff, combined with the general lack of entrepreneurial experience among students, tends to produce classroom situations which focus heavily on what participants feel is a comfortable working and studying environment. Teaching for entrepreneurship is often centred on improving the student's ability to write a business plan and students are taught to see the formulation of their potential business idea as sequential by going through a number of phases and guest lecturers from the 'real world' serve as case study input. However, it is arguable

that enterprising behaviour cannot be created in a contextual vacuum. To enhance this behaviour networks need to be created between departments and faculties, and industry and government networks should be offered and encouraged. Henderson and Robertson (1999) made the point that if entrepreneurs can be trained and developed, then educationalists can have a positive effect on the small business environment. However, the current provision of entrepreneurship education on the island of Ireland needs to seriously re-imagined if enterprising solutions are to be found to the current economic challenges facing communities throughout the island.

Conclusions

This paper has examined the nature of entrepreneurial education and found that it is not solely about business skills or starting new ventures, but it is a way of thinking and behaving relevant to all parts of society and the economy. In truth, it was found that it is important to support all people with 'entrepreneurial mindsets', equipping them to fulfil their potential and to create their own futures. The traditional approach to entrepreneurship with its emphasis on business start-ups needs to change and the relevance of entrepreneurship education for all educational disciplines needs to be recognised. There is a need to move from traditional instruction to experiential learning and an action oriented, mentoring and group-work approach to ensure effectiveness. Critical thinking and problem solving are key skills. Research and curriculum development is vital if entrepreneurship is to be valued as an academic discipline alongside others. What is required is the introduction of more curricula that focus on learning 'for' rather than 'about' entrepreneurship. While starting an enterprise is part of learning, students also need to learn to manage and grow enterprises. Entrepreneurship needs to be an integral part of the curriculum and not just a stand-alone module, an elective or an extracurricular activity. It is important to benchmark against best practice in relation to initiatives in making entrepreneurship more student-centric, to have better training of educators, more experiential learning and better quality assurance to name but some areas for improvement.

The European Commission (2008) report, '*Entrepreneurship in Higher Education, Especially in Non-Business Studies'*, noted that a good way to achieve high visibility for the entrepreneurial commitment of an institution is through the provision of dedicated spaces to support students' start-up ambitions. These facilities include 'hatcheries' (pre-incubators) where students can prepare their business plans and incubators where they can prepare to trade. A key component in this institutional support is the provision of 'entrepreneurship tutors' to guide and encourage the incubator participants. The Irish Government has allocated substantial funding in its recent National Development Plans to establish Technology Transfer Offices/Industry Liaison Offices in all HEIs and

to equip them with campus incubation facilities. These incubators tend to be mainly used by science and technology graduates who have identified commercial opportunities for their research results. A number of these graduates would have been encouraged to start their own business through their exposure to entrepreneurship modules while studying as undergraduates.

The history of Irish imagination is incredibly rich as the island of Ireland has a long and exciting legacy with regard to its contribution to the arts at a national and international level. Music groups such as U2 and Westlife have global audiences, playwrights such a Frank McGuinness and Martin McDonagh are equally at home in the West End or Broadway, film directors such as Neil Jordan and Jim Sheridan are regular nominees for BAFTA and Oscar awards, while writers such as Roddy Doyle and Maeve Binchy continue to be published in many languages. But it was the work of James Joyce with the publication of 'Ulysses' that arguably had the greatest impact upon the English language. It is that spirit of pushing the boundaries of the imagination that is now required if HEIs on the island of Ireland are to move beyond their current staid and conforming practices.

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