

Preface: the entrepreneurial imperative and education

Today's graduating students enter a fundamentally different world than that of any of their predecessors. Born for the most part after the Internet had achieved widespread diffusion, they seek to find their place and make their mark in a time of sustained turbulence. The fundamental nature of economic activity has been transformed into what can be characterized as an age of flux, ambiguity and discontinuity. In such an age, concepts such as stability, predictability and control become elusive if not completely unattainable.

This dynamic environment can be described in terms of four powerful forces: change, complexity, chaos and contradiction (Hitt and Read, 2000). The exponential speed of change creates unprecedented pressures on individuals and organizations. The result is often more than changes in the rules of the game; the game itself is different. Complexity is another critical force and results from change originating from multiple directions at differing velocities, yet simultaneously. The changes occurring in any one area (for example, the technological environment) interact with changes in other areas (for example, the social environment). Chaos, the third critical force, implies disorder, turmoil, surprise and non-linear patterns as things unfold or emerge. Chaos theory suggests that small changes or shocks to the system can have a major impact. There is sensitive dependence on initial conditions, which means that causality between one business variable and another is difficult to establish or understand. Further, the scale effects of change are largely unpredictable. Finally, today's environment is filled with many contradictions, and dealing with paradox becomes a critical aspect of prospering in the new competitive landscape. Today we must embrace contradiction by often replacing *or* with *and*. For instance, quality can be higher *and* operating costs can be lower. Firms must innovate *and* operate with less risk. There needs to be greater autonomy *and* a sense of control.

All of this points to what Grove (1999) called a 'strategic inflection point'. An inflection point occurs when the old strategic picture dissolves and gives way to the new, allowing those who are more adaptive and

proactive to survive and excel. A strategic inflection point is when the balance of forces shifts from the established assumptions and ways of doing things, which must be unlearned, to a new order. Once the inflection point is reached, there is no going back. The competitive conditions and rules never return to the former state.

THE ENTREPRENEURIAL IMPERATIVE

How do individuals and organizations prosper in a dynamic, threatening and complex world? Quite simply, they must learn to think and act in more entrepreneurial ways. If the new millennium is about speed, experimental change, revolutionary processes and continuous adaptation, it is also a time of unprecedented opportunity. Never have there been more opportunities available to more people. The gap between what can be imagined and what can be accomplished has never been smaller. It is a time requiring vision, passion, courage, calculated risk-taking and bold leadership. The key descriptive words that drive the 'entrepreneurial imperative' of the twenty-first century are: dreaming, creating, exploring, inventing, pioneering and imagining (Morris et al., 2011).

A new wave of economic development is sweeping the world, with entrepreneurship and innovation as the primary catalysts. Yet the entrepreneurial imperative involves much more than encouraging people to start new ventures. Rather, it encourages a mindset that centers on seeking opportunities, taking risks beyond security, tolerating failure, bootstrapping, creatively leveraging resources, and having the tenacity to overcome obstacles and push an idea to implementation. Importantly, the entrepreneurial mindset is something that can be developed in individuals. It can be exhibited inside or outside an organization, within start-up or large firms, in profit or not-for-profit enterprises, and in business or non-business activities.

The entrepreneurial imperative redefines the job of management as one of continual experimentation – experimenting with new methods, products, markets, business models, organizational structures, reward systems, technologies and more. Entrepreneurial actions represent the guiding light and the motivating force for individuals and organizations as they attempt to find and sustain advantage in a complex and chaotic age. Moreover, where entrepreneurial thinking and acting are absent, the result is not a steady state. A far more likely outcome is steady decline and eventual demise.

THE CHALLENGE OF ENTREPRENEURSHIP EDUCATION

The at-risk student is the one not prepared for this entrepreneurial age. A constantly changing environment provides a continuous flow of potential opportunities *if* an individual can recognize and act on a high-potential idea amid the chaos and cynicism that also permeates such an environment. While every student has the potential, most lack the knowledge, attitudes, skills and capabilities that define entrepreneurial competence. Entrepreneurial action requires training, time and investment, and there must be continual reinforcement and reinvestment.

As individuals (and others) seek to develop the capacity for entrepreneurial thinking, greater expectations are placed on universities to build high-impact entrepreneurship programs. Unfortunately, even as the world overtly turns to entrepreneurship as a force for commercial and social innovation, wealth creation, job generation and economic growth, universities have failed to keep up. They have lagged in meeting societal demands for better-prepared students and a richer knowledge base. They have been slow to develop the kinds of degree programs, curricula, student programming and research agendas that enable more entrepreneurial individuals, organizations, communities and nations.

Forty years ago, only a handful of universities formally offered any type of entrepreneurship program. The good news is that this situation has changed dramatically. Today, over 3000 institutions across the globe offer multiple courses, degree programs and/or concentrations in entrepreneurship. One could argue that, over the past few decades, entrepreneurship has experienced the most growth of any area of academic study on many campuses. And it appears that the pace is accelerating, with more universities seeking to develop programs and centers focused on entrepreneurship. Importantly, these efforts have begun to extend beyond their traditional base within business schools and to reach faculty, students and administrators across the university campus.

Yet a significant gap remains. Pedagogy has tended to be preoccupied with teaching business planning and tools for small business management, with relatively less emphasis on the entrepreneurial mindset, mastery of the entrepreneurial process, and developing entrepreneurial competencies. Courses in entrepreneurship have been expanded with no real curriculum model in mind, resulting in significant overlap in topical coverage together with holes in coverage of key topics. The number of full-time faculty dedicated exclusively to entrepreneurship remains relatively small, and a very small proportion of these educators have PhDs in entrepreneurship. Faculty members outside of entrepreneurship fail to respect scholarly

work in the field, or to give the journals in entrepreneurship their deserved status. Universities are sponsoring business plan competitions, student incubators, entrepreneurship dormitories and a host of other co-curricular activities, but failing to integrate these efforts and connect them to the curriculum. Other schools are getting involved in outreach and engagement programs with the entrepreneurial community, yet again with no guiding framework and little connection to the classroom or academic research. And as more attention is devoted to the entrepreneurship area, a conundrum exists in assessing these efforts. Far too much weight is placed on evaluating how many businesses are being started by students, while too little attention is given to assessment of changes in student attitudes, knowledge and capabilities.

All the while, the global entrepreneurial revolution continues unabated. New generations of students arrive on campuses unprepared for an age when they must be more mobile, agile, innovative, resourceful and adaptable. And yet there is evidence that they are profoundly more interested in entrepreneurship than generations past (Koebler, 2011).

PURPOSE OF THIS BOOK

Our purpose with this volume is to take stock of how entrepreneurship is being implemented on university campuses, and to provide a roadmap for program developers to follow. Our focus is not simply the business school, but, rather, the importance of entrepreneurial thinking and acting for all disciplines within a university. We seek to demonstrate ways in which entrepreneurship can play a leadership role in transforming students, campuses and communities. We identify the many elements that constitute a comprehensive entrepreneurship program, and explore the kinds of structures, staffing and resource approaches that can sustain such a program. Our goal is to help the reader avoid the disjointed and somewhat hodgepodge approach that has typified the development of many entrepreneurship programs. Hence we advocate a more strategic and integrative framework for building the curricular, co-curricular, research, community engagement and infrastructure components of a program. Our approach builds on the best practices of a number of leading universities.

These are exciting times for entrepreneurship education as it assumes a more prominent role within the modern university. We hope the perspectives shared herein will enable university presidents, provosts, deans, administrators from a range of campus offices, entrepreneurship program directors, faculty members and others to better capitalize upon the empowering and transformative potential of entrepreneurship.

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