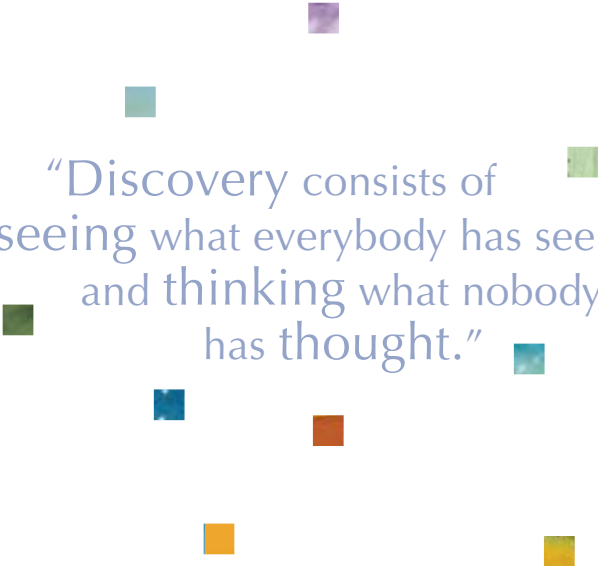


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seeing what everybody has seen
and thinking what nobody
has thought.”

KAUFFMAN Thoughtbook 2009

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Entrepreneurship in American Higher Education

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The Kauffman Foundation is rooted in the belief that entrepreneurial activity is an essential strength of American society. Recent scholarship has underscored the importance of entrepreneurship as a major generator of wealth and source of new enterprises and technological innovation. Through much study and discussion, entrepreneurship increasingly is being seen as the bridge between theory and practice, allowing for integration of various fields of learning. By making entrepreneurship education available to students across all disciplines of study, American college students will become even more aware of entrepreneurial activity and its importance to our economy and society.

To advance this goal further, the Foundation asked a group of distinguished academics to deliberate on the role of entrepreneurship and why this field of study belongs in higher education. The Panel members also explored how entrepreneurship fits in college learning, recognizing that an entrepreneurship curriculum often is best positioned through general education, in the various disciplines, and as co-curricular experiences for students to actively learn about the entrepreneurial process. Finally, the Panel considered how entrepreneurship

can influence the management of universities by infusing a more innovative and entrepreneurial culture on the campuses.

The recommendations in the full Panel report, *Entrepreneurship in American Higher Education*, are the culmination of two years of research and study by some of the nation's most experienced and respected scholars in economics, engineering, and the sciences. The topics discussed in this report are a starting point for further discussion, not a fixed blueprint for every campus. We recognize that entrepreneurial education at its best will be responsive to needs in the local communities universities serve.

Why Entrepreneurship Matters

The values and practices of pure research—discovery, originality, innovation—are the highest expression of American university learning. Entrepreneurship implements innovation. It is the process that transforms discovery and innovation into enterprises that generate value. In so doing, entrepreneurship yields improvement of our goods, services, and institutions that affects large numbers of people. Entrepreneurship's defining trait is the creation of a novel enterprise that the market is willing to adopt.

Their common interest in creativity and originality binds entrepreneurship and higher education to one another. Therefore, entrepreneurship should be both a legitimate subject in American undergraduate education and a pervasive approach to learning and to the management of universities.

Business is part of society and reflects its values. The very ordinariness of entrepreneurship in American commerce suggests that our society prizes

originality and improvement, and the human traits that enable both. Thus, entrepreneurship transcends business practice. It is a distinctive kind of human agency that derives from business but can operate in any realm of human endeavor. Entrepreneurship also is a basic exercise in social responsibility. To suppress or constrain innovation and improvement—and their implementation—ignores a society's needs and wants, holds it back, and diminishes its future.

Entrepreneurship is a field of study that creates its own subject matter and requires the market to be consequential.

Why Entrepreneurship Belongs in College

Four reasons justify a significant role for entrepreneurship in contemporary American higher education. First, entrepreneurship is critical to success in the contemporary global economy. Second, entrepreneurship is already an expanding area of American college learning. Third, through innovation and commercialization, entrepreneurship is becoming a basic part of what universities themselves do. Fourth, entrepreneurship achieves key goals of a quality American undergraduate education. To neglect entrepreneurship distances university learning from the world it is supposed to help students learn to understand.

How it Fits

Entrepreneurship is a field of study that creates its own subject matter and requires the market to be consequential. Therefore, education in entrepreneurship operates along a continuum from the professional to the amateur. At one end, education in entrepreneurship must be about the entrepreneur—the practitioner—and must give students the technical skills to devise and

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sustain new enterprises. At the other end, entrepreneurship education also must be for the amateur, the consumer. Broad education in and about entrepreneurship can help students who are not entrepreneurs understand the skills and intelligence, and the political, cultural, and economic infrastructure that enable new enterprises to emerge.

Because American colleges and universities have discrete histories and purposes, and serve a variety of educational functions with increasingly diverse age groups, entrepreneurship cannot be a “one size fits all” discipline. Therefore, the Panel does not prescribe a single set of educational practices. Rather, it encourages America’s educational communities to develop the kinds of entrepreneurship education—along the

continuum just outlined—appropriate to their goals, stakeholders, and resources. Education in entrepreneurship needs to be as responsive to the concreteness and integrity of its varied markets as is entrepreneurship itself.

Entrepreneurship in General Education and the Disciplines

Entrepreneurship is appropriate for both general education (university-wide, trans-disciplinary education, where students acquire the fundamentals of learning that they can then apply to more specialized areas of study and to the rest of their

lives) and to the major (the collection of courses that constitutes an extended and integrated program of learning in a particular subject).

In general education, entrepreneurship shows concretely how cultural values, social institutions, economic policies, and legal practices interrelate to shape human behavior. In so doing, the broad study of entrepreneurship helps prepare students for informed citizenship.

Entrepreneurship easily can be integrated into discrete subjects—history, education, sociology, music, and politics—but it also can shape the major itself. An entrepreneurial approach to the major would stress both the mastery of basic information and insight into the new ideas that have altered a field over time. This kind of program of learning can help students learn to innovate about what they know and make innovation a basic part of their educational experience and discourse. Students are more likely to practice innovation if their education values it. To change the character of the major likely will require the participation of academic learned societies and accrediting agencies, which often establish the educational requirements for their fields.

The same arguments apply with even greater force to graduate and professional studies. In principle, graduate education need not be inimical to the creation of new enterprises. An entrepreneurial climate can offer an enriched perspective on the consequences of pure research.

Entrepreneurship in the Co-curriculum

By its very nature, entrepreneurship in college cannot be limited to the classroom. For students drawn to business or engaged in addressing persisting social problems, entrepreneurship's emphasis on implementing new enterprises provides

a constructive and practical outlet for their natural idealism and its associated enthusiasm. It can help them see how to solve problems and get things done. Entrepreneurship is among a handful of careers that students can pursue while they are in college. Student entrepreneurs integrate learning with the off-campus world of work, problem solving, and achievement.

Innovative Entrepreneurship Programs at Three Kauffman Campuses

In 2003, the Kauffman Foundation launched its Kauffman CampusesSM Initiative, which now consists of grants totaling \$48 million (and matched at least 2:1) to nineteen American colleges and universities to spur new entrepreneurship programs across the disciplines. Below are examples of how three Kauffman Campuses are making entrepreneurship an important part of higher learning.

Arizona State University InnovationSpace

In this two-semester, trans-disciplinary InnovationSpace program, senior-level students work in teams to create unique, real-world, money-making products that contribute to a better society. The course is taught by faculty from industrial design, visual and communications design, engineering entrepreneurship, industrial engineering, and marketing. Students prepare a comprehensive proposal and also present their products to private sector groups and university researchers to pursue options to see if products can become commercially available to those who need them.

Purdue University Entrepreneurial Leadership Academy

This Academy selects ten Purdue faculty members annually to meet monthly in a series

of workshops, lunches, dinners, and meetings to discuss and brainstorm new ideas about Purdue entrepreneurship curricula. Academy members are tasked with undertaking a high-impact project to foster campus entrepreneurship and entrepreneurial leadership. Those selected for the Academy carry the title of Kauffman Entrepreneurship Fellow for the year, receive an honorarium, and meet with senior Purdue administrators and successful entrepreneur leaders from outside the university.

University of North Carolina at Chapel Hill First-Year Seminars

Freshmen in the College of Arts and Sciences at this university have an opportunity to examine the relationship between entrepreneurship and more than 300 areas of scholarship across all disciplines through the First-Years Seminars program. Students can choose from a variety of topics relating to a wide range of disciplines. For example, in *Biologists as Entrepreneurs*, students learn how to write grant proposals to support research; in another area called *Economic Saints and Villains: The Entrepreneurial Spirit in Early English Literature*, students explore how England—from the sixteenth to the nineteenth centuries—envisioned new economic orders through plays and novels.

For more information about the Foundation's Kauffman CampusesSM Initiative, visit kauffman.org/campuses.

Entrepreneurship and the Management of Universities

A key task of American higher education is to establish innovation and its implementation as core educational goals. An educational culture of “curricular entrepreneurship” would create budgetary practices and incentive structures to reward faculty and departments for curricular innovations, fresh interdisciplinary partnerships, and experiments with new methods of teaching and learning that foster creativity and originality. Similarly, in the areas of research and tenure, universities should treat translational research as basic research, and the “measure of impact” of research should be part of the review for tenure and promotion.

Conclusion

As the world’s natural resources ebb and technology advances, humanity increasingly will live by its wits. Innovation alone will not suffice. We will need people who know how to implement new ideas and make them accessible to large populations. We will have to build and maintain an entrepreneurial society. Because innovation and discovery animate and are the most consequential results of American university learning, entrepreneurship is higher education’s authentic and natural ally.

To download a copy of the Panel’s full report, visit kauffman.org/panelreport.