

SYSTEMATIC ENTREPRENEURSHIP

“The entrepreneur said the French economist J. B. Say around 1800, “shifts economic resources out of an area of lower and into an area of higher productivity and greater yield.” But Say’s definition does not tell us who this “entrepreneur” is. And since Say coined the term almost two hundred years ago, there has been **total confusion** over the definitions of “entrepreneur” and “entrepreneurship.”

In the United States, for instance, the entrepreneur is often defined as one who starts his *own, new and small business*. Indeed, the courses in “Entrepreneurship” that have become popular of late in American business schools are the linear descendants of the course in starting one’s own small business that was offered thirty years ago, and in many cases, not very different.

But not every new small business is entrepreneurial or represents entrepreneurship.

The husband and wife who open another delicatessen store or another Mexican restaurant in the American suburb surely take a risk. But are they entrepreneurs? All they do is what has been done many times before. They gamble on the increasing popularity of eating out in their area, but create neither a new satisfaction nor new consumer demand. Seen under this perspective they are surely not entrepreneurs even though theirs is a new venture.

McDonald’s, however, was entrepreneurship. It did not invent anything, to be sure. Its final product was what any decent American restaurant had produced years ago. But by applying management concepts and management techniques (asking, What is “value” to the customer?), standardizing the “product,” designing process and tools, and by basing training on the analysis of the work to be done and then setting the standards it required, McDonald’s both drastically upgraded the yield from resources, and created a new market and a new customer. This is entrepreneurship.

Equally entrepreneurial is the growing foundry started by a husband and wife team a few years ago in America’s Midwest, to heat-treat ferrous castings to high-performance specifications—for example, the axles for the huge bulldozers used to clear the land and dig the ditches for a natural gas pipeline

across Alaska. The science needed is well known; indeed, the company does little that has not been done before. But in the first place the founders systematized the technical information: they can now punch the performance specifications into their computer and get an immediate printout of the treatment required. Secondly, the founders systematized the process. Few orders run to more than half a dozen pieces of the same dimension, the same metallic composition, the same weight, and the same performance specifications. Yet the castings are being produced in what is, in effect, a flow process rather than in batches, with computer-controlled machines and ovens adjusting themselves.

Precision castings of this kind used to have a rejection rate of 30 to 40 percent; in this new foundry, 90 percent or more are flawless when they come off the line. And the costs are less than two-thirds of those of the cheapest competitor (a Korean shipyard), even though the midwestern foundry pays full American union wages and benefits. What is "entrepreneurial" in this business is not that it is new and still small (though growing rapidly). It is the realization that castings of this kind are distinct and separate; that demand for them has grown so big as to create a "market niche"; and that technology, especially computer technology, now makes possible the conversion of an art into a scientific process.

Admittedly, all new small businesses have many factors in common. But to be entrepreneurial, an enterprise has to have special characteristics over and above being new and small. Indeed, entrepreneurs are a minority among new businesses. They create something new, something different; they change or transmute values.

An enterprise also does not need to be small and new to be an entrepreneur. Indeed, entrepreneurship is being practiced by large and often old enterprises. The General Electric Company (G.E.), one of the world's biggest businesses and more than a hundred years old, has a long history of starting new entrepreneurial businesses from scratch and raising them into sizable industries. And G.E. has not confined itself to entrepreneurship in manufacturing. Its financing arm, G.E. Credit Corporation, in large measure triggered the upheaval that is transforming the American financial system and is now spreading rapidly to Great Britain and Western Europe as well. G.E. Credit in the sixties ran around the Maginot Line of the financial world when it discovered that commercial paper could be used to finance industry. This broke the banks' traditional monopoly on commercial loans.

Creative destruction

Marks and Spencer, the very large British retailer, has probably been more entrepreneurial and innovative than any other company in western Europe these last fifty years, and may have had greater impact on the British economy and even on British society, than any other change agent in Britain, and arguably more than government or laws.

Again, G.E. and Marks and Spencer have many things in common with large and established businesses that are totally unentrepreneurial. What makes them “entrepreneurial” are specific characteristics other than size or growth.

Finally, entrepreneurship is by no means confined solely to economic institutions.

No better text for a *History of Entrepreneurship* could be found than the creation and development of the modern university, and especially the modern American university. The modern university as we know it started out as the invention of a German diplomat and civil servant, Wilhelm von Humboldt, who in 1809 conceived and founded the University of Berlin with two clear objectives: to take intellectual and scientific leadership away from the French and give it to the Germans; and to capture the energies released by the French Revolution and turn them against the French themselves, especially Napoleon. Sixty years later, around 1870, when the German university itself had peaked, Humboldt’s idea of the university as a change agent was picked up across the Atlantic, in the United States. There, by the end of the Civil War, the old “colleges” of the colonial period were dying of senility. In 1870, the United States had no more than half the college students it had had in 1830, even though the population had nearly tripled. But in the next thirty years a galaxy of American university presidents¹ created and built a new “American university”—both distinctly new and distinctly American—which then, after World War 1, soon gained for the United States worldwide leadership in scholarship and research, just as Humboldt’s university had gained worldwide leadership in scholarship and research for Germany a century earlier.

After World War II a new generation of American academic entrepreneurs innovated once again, building new “private” and “metropolitan” universities: Pace University, Fairleigh-Dickinson, and the New York Institute of Technology in the New York area; Northeastern in Boston; Santa Clara and Golden Gate on the West Coast; and so on. They have constituted a major growth sector in American higher education in the last thirty years. Most of these new schools seem to differ little from the older institutions in their

curriculum. But they were deliberately designed for a new and different “market” for people in mid-career rather than for youngsters fresh out of high school; for big-city students commuting to the university at all hours of the day and night rather than for students living on campus and going to school full time, five days a week from nine to five; and for students of widely diversified, indeed, heterogenous backgrounds rather than for the “college kid” of the American tradition. They were a response to a major shift in the market, a shift in the status of the college degree from “upper-class” to “middle-class,” and to a major shift in what “going to college” means. They represent entrepreneurship.

One could equally write a casebook on entrepreneurship based on the history of the hospital, from the first appearance of the modern hospital in the late eighteenth century in Edinburgh and Vienna, to the creation of the various forms of the “community hospital” in nineteenth-century America, to the great specialized centers of the early twentieth century, the Mayo Clinic or the Menninger Foundation, to the emergence of the hospital as health-care center in the post-World War II period. And now new entrepreneurs are busily changing the hospital again into specialized “treatment centers”: ambulatory surgical clinics, freestanding maternity centers or psychiatric centers where the emphasis is not, as in the traditional hospital, on caring for the patient but on specialized “needs.”

Again, not every nonbusiness service institution is entrepreneurial; far from it. And the minority that is still has all the characteristics, all the problems, all the identifying marks of the service institutionⁱⁱ What makes these service institutions entrepreneurial is something different, something specific.

Whereas English speakers identify entrepreneurship with the new, small business, the Germans identify it with power and property, which is even more misleading. The *Unternehmer*—the literal translation into German of Say’s *entrepreneur*—is the person who both owns and runs a business (the English term would be “owner-manager”). And the word is used primarily to distinguish the “boss,” who also owns the business, from the “professional manager” and from “hired hands” altogether.

But the first attempts to create systematic entrepreneurship—the entrepreneurial bank founded in France in 1857 by the Brothers Pereire in their *Crédit Mobilier*, then perfected in 1870 across the Rhine by Georg Siemens in his *Deutsche Bank*, and brought across the Atlantic to New York at about the same time by the young J. P. Morgan did not aim at ownership.

The task of the banker as entrepreneur was to mobilize *other people's money* for allocation to areas of higher productivity and greater yield. The earlier bankers, the Rothschilds, for example, became owners. Whenever they built a railroad, they financed it with their own money. The entrepreneurial banker, by contrast, never wanted to be an owner. He made his money by selling to the general public the shares of the enterprises he had financed in their infancy. And he got the money for his ventures by borrowing from the general public.

Nor are entrepreneurs capitalists, although of course they need capital as do all economic (and most noneconomic) activities. They are not investors, either. They take risks, of course, but so does anyone engaged in any kind of economic activity. The essence of economic activity is the commitment of present resources to future expectations, and that means to uncertainty and risk. The entrepreneur is also not an employer, but can be, and often is, an employee—or someone who works alone and entirely by himself or herself.

Entrepreneurship is thus a distinct feature whether of an individual or of an institution. It is not a personality trait; in thirty years I have seen people of the most diverse personalities and temperaments perform well in entrepreneurial challenges. To be sure, people who need certainty are unlikely to make good entrepreneurs. But such people are unlikely to do well in a host of other activities as well—in politics, for instance, or in command positions in a military service, or as the captain of an ocean liner. In all such pursuits decisions have to be made, and the essence of any decision is uncertainty.

But everyone who can face up to decision making can learn to be an entrepreneur and to behave entrepreneurially. Entrepreneurship, then, is behavior rather than personality trait. And its foundation lies in concept and theory rather than in intuition.

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Every practice rests on theory, even if the practitioners themselves are unaware of it. Entrepreneurship rests on a theory of economy and society. The theory sees change as normal and indeed as healthy. And it sees the major task in society—and especially in the economy—as doing something different rather than doing better what is already being done. This is basically what Say, two hundred years ago, meant when he coined the term *entrepreneur*. It was intended as a manifesto and as a declaration of dissent: the entrepreneur

upsets and disorganizes.) As Joseph Schumpeter formulated it, his task is “creative destruction.”

Say was an admirer of Adam Smith. He translated Smith’s *Wealth of Nations* (1776) into French and tirelessly propagated throughout his life Smith’s ideas and policies. But his own contribution to economic thought, the concept of the entrepreneur and of entrepreneurship, is independent of classical economics and indeed incompatible with it. Classical economics optimizes what already exists, as does mainstream economic theory to this day, including the Keynesians, the Friedmanites, and the Supply-siders. It focuses on getting the most out of existing resources and aims at establishing equilibrium. It cannot handle the entrepreneur but consigns him to the shadowy realm of “external forces,” together with climate and weather, government and politics, pestilence and war, but also technology. The traditional economist, regardless of school or “ism,” does not deny, of course, that these external forces exist or that they matter. But they are not part of his world, not accounted for in his model, his equations, or his predictions. And while Karl Marx had the keenest appreciation of technology—he was the first and is still one of the best historians of technology—he could not admit the entrepreneur and entrepreneurship into either his system or his economics. All economic change in Marx beyond the optimization of present resources, that is, the establishment of equilibrium, is the result of changes in property and power relationships, and hence “politics,” which places it outside the economic system itself.

Joseph Schumpeter was the first major economist to go back to Say.

In his classic *Die Theorie der Wirtschaftlichen Entwicklung* (The Theory of Economic Dynamics), published in 1911, Schumpeter broke with traditional economics—far more radically than John Maynard Keynes was to do twenty years later. He postulated that dynamic disequilibrium brought on by the innovating entrepreneur, rather than equilibrium and optimization, is the “norm” of a healthy economy and the central reality for economic theory and economic practice.

Say was primarily concerned with the economic sphere. But his definition only calls for the resources to be “economic.” The purpose to which these resources are dedicated need not be what is traditionally thought of as economic. Education is not normally considered “economic”; and certainly economic criteria are hardly appropriate to determine the “yield” of education (though no one knows what other criteria might pertain). But the resources of

education are, of course, economic. They are in fact identical with those used for the most unambiguously economic purpose such as making soap for sale. Indeed, the resources for all *social* activities of human beings are the same and are “economic” resources: capital (that is, the resources withheld from current consumption and allocated instead to future expectations), physical resources, whether land, seed corn, copper, the classroom, or the hospital bed; labor, management, and time. Hence entrepreneurship is by no means limited to the economic sphere although the term originated there. It pertains to all activities of human beings other than those one might term “existential” rather than “social.” And we now know that there is little difference between entrepreneurship whatever the sphere. The entrepreneur in education and the entrepreneur in health care—both have been fertile fields—do very much the same things, use very much the same tools, and encounter very much the same problems as the entrepreneur in a business or a labor union.

Entrepreneurs see change as the norm and as healthy. Usually, they do not bring about the change themselves. But—and this defines entrepreneur and entrepreneurship—*the entrepreneur always searches for change, responds to it, and exploits it as an opportunity.*



Entrepreneurship, it is commonly believed, is enormously risky. And, indeed, in such highly visible areas of innovation as high tech-microcomputers, for instance, or biogenetics—the casualty rate is high and the chances of success or even of survival seem to be quite low.

But why should this be so? Entrepreneurs, by definition, shift resources from areas of low productivity and yield to areas of higher productivity and yield. Of course, there is a risk they may not succeed. But if they are even moderately successful, the returns should be more than adequate to offset whatever risk there might be. One should thus expect entrepreneurship to be considerably less risky than optimization. Indeed, nothing could be as risky as optimizing resources in areas where the proper and profitable course is innovation, that is, where the opportunities for innovation already exist. Theoretically, entrepreneurship should be the least risky rather than the most risky course.

In fact, there are plenty of entrepreneurial organizations around whose batting average is so high as to give the lie to the all but universal belief in the high risk of entrepreneurship and innovation.

In the United States, for instance, there is **Bell Lab**, the innovative arm of the Bell Telephone System. For more than seventy years—from the design of the first automatic switchboard around 1911 until the design of the optical fiber cable around 1980, including the invention of transistor and semiconductor, but also basic theoretical and engineering work on the computer—Bell Lab produced one winner after another. The Bell Lab record would indicate that even in the high-tech field, entrepreneurship and innovation can be low-risk.

IBM, in a fast-moving high-tech field, that of the computer, and in competition with the “old pros” in electricity and electronics, has so far not had one major failure. Nor, in a far more prosaic industry, has the most entrepreneurial of the world’s major retailers, the British department store chain **Marks and Spencer**. The world’s largest producer of branded and packaged consumer goods, **Procter & Gamble**, similarly has had a near-perfect record of successful innovations. And a “middletech” company, **3M** in St. Paul, Minnesota, which has created around one hundred new businesses or new major product lines in the last sixty years, has been successful four out of every five times in its ventures. This is only **a small sample** of the entrepreneurs who somehow innovate at low risk. Surely there are far too many of them for low-risk entrepreneurship to be a fluke, a special dispensation of the gods, an accident, or mere chance.

There are also enough individual entrepreneurs around whose batting average in starting new ventures is so high as to disprove the popular belief of the high risk of entrepreneurship.

Entrepreneurship is “risky” mainly because **so few of the so-called entrepreneurs know what they are doing.** They **lack the methodology.** They violate elementary and well-known rules. This is particularly true of high-tech entrepreneurs. To be sure (as will be discussed in Chapter 9), high-tech entrepreneurship and innovation are intrinsically more difficult and more risky than innovation based on economics and market structure, on demographics, or even on something as seemingly nebulous and intangible as *Weltanschauung*—perceptions and moods. But even high-tech entrepreneurship need not be “high-risk,” as Bell Lab and IBM prove. **It does need, however, to be systematic. It needs to be managed. Above all, it needs to be based on purposeful innovation.**

ⁱ See the section on The American University in my book *Management: Tasks, Responsibilities, Practices* (New York: Harper & Row, 1973), pages 150-152.

ⁱⁱ *On this, see the section Performance in the Service Institution (Chapters 11-14) in *Management: Tasks, Responsibilities, Practices*, but also Chapter 14 of this book, Entrepreneurship in the Service Institution.