

WORKING PAPER · NO. 2022-08

Experimental Entrepreneurs

David W. Galenson

JANUARY 2022

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David W. Galenson
University of Chicago
Universidad del CEMA
January 2022

Abstract

Experimental entrepreneurship is often overlooked: experimentalists are less flamboyant than their conceptual peers, and their innovations arrive gradually and less conspicuously. Experimentalists work patiently to innovate, proceeding by trial and error in pursuit of ambitious but often imprecise goals. When individual experimental entrepreneurs are recognized, their successes are generally regarded as anomalous or idiosyncratic. But there is in fact a pattern of experimental entrepreneurship – of innovators gaining greater knowledge and judgment over the course of their careers, often arriving at their greatest achievements late in their lives. This paper examines the careers of a number of experimental innovators, including some of the most important entrepreneurs of the past century: their products vary widely, from hamburgers and sneakers to microloans and investment management, but all share the quality of perseverance coupled with a commitment to learning from experience.

Introduction

I had rather be wise than artistic.

Robert Frost¹

In today's impatient and frenetic world of social media, instant internet links, and hyperbolic rhetoric, the popular image of a successful entrepreneur is that of a brash young prodigy whose radical new ideas suddenly create magical new products and technologies. Yet some recent commentary has questioned significant elements of this profile. A number of studies have shown that founders of successful startups are not necessarily young.² And an influential business scholar has advocated an approach to entrepreneurship based not on precisely predetermined goals but instead on a cautious iterative process of experimentation and exploration. Thus Leonard Schlesinger has emphasized the benefits of learning from problems that arise in the process of creating an enterprise to improve on the plans with which the entrepreneur began, and of being open to reaching a result that differs from that initially envisioned.³

Studies of a wide range of artistic and scholarly disciplines have demonstrated that there are two distinctly different types of creativity. Both are associated with important innovations, but they differ in how these are achieved, and in the creative life cycles of those who achieve them. *Conceptual* innovators have precise goals, formulate radical new methods to achieve them, and execute their plans directly. But *experimental* innovators have imprecise goals, which they pursue tentatively and incrementally by a process of trial and error. The most conspicuously radical new departures are made by recent entrants to a discipline, who have not become committed to existing methods or constrained by established habits of thought, so the most important conceptual innovations are usually made by confident young practitioners. But the

most important experimental innovations are the product of accumulated knowledge, analyzed with judgment and wisdom, and are consequently made by older, more experienced practitioners.⁴

Experimental Entrepreneurs

Patience, patience, patience.

James Dyson⁵

Successful experimental entrepreneurs typically begin with imprecise, often modest, goals. These goals generally grow out of practical knowledge of an industry or market, derived not from theoretical or academic training, but from personal experience. They usually begin by making a product themselves, and generally have the ability to do this throughout their careers, so that even when they become successful, they are more likely to want to be involved in production than sequestered in an executive office.

Experimental entrepreneurs are realists. They avoid exaggerated claims, and use direct, often understated language to describe their products and goals. They are pragmatists, and believe they can learn whatever skills are necessary to solve problems that arise in the course of creating their products. Because they are unsure of the precise characteristics of the products they want to make, they rarely begin with detailed plans, but instead begin making prototypes. Preferring the concrete to the abstract, they generally prefer physical models to preparatory designs or blueprints.

Experimentalists usually remain involved in working to improve the design of their products throughout their careers. And this process may not have any definite end, because they are committed to continuing experimentation and improvement of their products, drawing on their direct experience of how the products work and their observation of how consumers

perceive them. They are perfectionists, concerned with the smallest details, and this means that they always believe improvement is possible, even if it involves only marginal changes. They value practicality, simplicity, and informality, with a dislike of rigid hierarchies in organization and bureaucratic rules.

Experimentalists are rarely young prodigies, and frequently late bloomers. In some cases, this is a result of spending a long period developing a product. In others it is because they had never intended to become entrepreneurs, but did so belatedly because they perceived an opportunity in the course of their chosen career. In some instances of the latter they are reluctant entrepreneurs, leaving a job they loved because they became aware of a need they felt they had to meet.

Experimental entrepreneurs may spend an entire career producing a single product, or a series of closely related products, as their experience continues to allow them to improve the product. They often benefit from serendipity, when their open-ended process of exploration leads to something different than they had initially intended. Thus their initial uncertainty, which is often perceived as a disadvantage, may have benefits in the end.

This paper will examine the careers of eight important experimental entrepreneurs, all born in the first half of the twentieth century. They differ in many respects. Thus their products range widely, from sneakers and hamburgers to lending and investing. Some made great fortunes, while others devoted themselves to non-profit organizations. But I believe that all exemplify experimental entrepreneurship, and that this can be seen from even a brief consideration of the processes they followed in making their marks.

Ray Kroc (1902 – 84)

You must perfect every fundamental of your business if you expect it to perform well.

Ray Kroc⁶

After finishing high school in the Chicago suburb of Oak Park, Ray Kroc worked in a series of part-time jobs. When he got engaged in 1922, his father told him he could not get married until he had a steady job, so Ray began selling paper cups for the Lily Tulip Cup Company. He was good at the job, and over the course of 17 years worked his way to the top of Lily's sales force. In the late '30s, Ray met an entrepreneur named Earl Prince, who owned a chain of ice cream parlors in Illinois, and had invented the Multimixer, a machine that could make five milkshakes at a time. Prince convinced Kroc to leave Lily and become his partner in Prince Castle Sales, and so Kroc became the exclusive sales agent for the Multimixer.⁷

In the early '50s, Kroc began hearing from his customers about a restaurant in California that had no less than eight Multimixers. Intrigued that anyone needed to make 40 milkshakes simultaneously, in 1954 he flew to Los Angeles, then drove 60 miles east to San Bernardino. Once there he found a full parking lot, with lunchtime customers lining up to buy hamburgers, fries, and shakes at a drive-in called McDonald's. When he asked customers why they were there, they told him the food was good, quick, and cheap. After the lunch rush, Kroc introduced himself to the owners, Mac and Dick McDonald, who gave "Mr. Multimixer" a warm welcome and invited him to dinner.

Kroc was fascinated by the simplicity and efficiency of the system the brothers described that evening:

Each step in producing the limited menu was stripped down to its essence and accomplished with a minimum of effort. They sold hamburgers and cheeseburgers only. The burgers were a tenth of a pound of meat, all fried the same way, for

fifteen cents. You got a slice of cheese on it for four cents more. Soft drinks were ten cents, sixteen-ounce shakes were twenty cents, and coffee was a nickel.

The McDonalds showed Kroc an architect's plans for a new building, with two arches that went through the roof.⁸

Kroc was excited: "Visions of McDonald's restaurants dotting crossroads all over the country paraded through my brain. In each store, of course, were eight Multimixers whirring away and paddling a steady flow of cash into my pockets." The next day, he pitched his idea to the brothers:

"I've been in the kitchens of a lot of restaurants and drive-ins selling Multimixers around the country," I told them, "and I have never seen anything to equal the potential of this place of yours. Why don't you open a series of units like this? It would be a gold mine for you and for me, too, because every one would boost my Multimixers sales. What d'you say?"

To his surprise, the brothers declined: they had worked hard to establish their restaurant, and had no desire to take on a new challenge. When Kroc suggested they get someone else to open the other restaurants, Dick McDonald asked, who? And Kroc answered, "what about me?"⁹

So it happened that at the age of 52, with diabetes and arthritis, Ray Kroc returned to Chicago carrying a signed contract with the McDonalds, giving him the right to franchise copies of their operation elsewhere in the United States. All the restaurants would bear the same name and follow the original plans, including design and menus. Kroc would receive \$950 for each franchise he sold, he would get 1.4% of gross sales, and the McDonalds 0.5%. Kroc continued to think of himself as a salesman: "I was thinking more about prospective Multimixer sales than hamburgers at that point."¹⁰

To provide a model for the scheme, Kroc decided to open a McDonald's of his own, that he could operate in his spare time from Prince Castle. He chose a location near his suburban Chicago home, and opened the restaurant in Des Plaines in the spring of 1955. The experimental

model proved to be valuable, because Kroc discovered he had to work out many of the details: he eventually changed several of the McDonalds' techniques, including those for making milkshakes and french fries, and it took nearly a year before Des Plaines was running smoothly. Kroc also decided that McDonald's restaurants would not have payphones, jukeboxes, or vending machines of any kind, because he wanted to keep the focus on the food, and on a friendly atmosphere for families. Overall, Kroc's efforts went toward a novel goal, of building a restaurant system that would be known for food of a consistent quality at low prices, so that repeat business would be the result of the reputation of the whole system rather than the quality of the single store.¹¹

Kroc recognized that the McDonald brothers had created a model fast food restaurant, with a rudimentary assembly line for hamburgers. He built on this, with a stream of innovations that made the menu more standardized and the service more systematic: "I knew in my bones that the key to uniformity would be in our ability to provide techniques of preparation that operators would accept because they were superior to methods they could dream up for themselves."¹²

In 1961, Ray Kroc bought out the McDonald brothers for \$2.7 million, and trademarked the name "McDonald's." He worked for the corporation until his death in 1984, when the chain had nearly 8,000 stores. Kroc's achievement lay in creating a franchising system that would make McDonald's not only the largest restaurant chain in the world, but one of the world's largest private employers. At the age of 75, he reflected on the process of becoming a late bloomer:

People have marveled at the fact that I didn't start McDonald's until I was 52 years old, and then I became a success overnight. But I was just like a lot of show business personalities who work away quietly at their craft for years, and then,

suddenly, they get the right break and make it big. I was an overnight success all right, but thirty years is a long, long night.

Kroc also understood that he was not a conceptual innovator:

There is a certain kind of mind that conceives new ideas as complete systems with all of their parts functioning. I don't think in that "grand design" pattern. I work from the part to whole, and I don't move on to the large scale ideas until I have perfected the small details. To me, this is a much more flexible approach. For example, when I was starting McDonald's, my original purpose was to sell more Multimixers. If I had fixed that in my mind as a master plan and worked unswervingly toward that end, my system would have been a far different and much smaller-scale creation.¹³

Michael Young (1915 – 2002)

I have never had an idea that I was sure about.

Michael Young¹⁴

When Michael Young submitted his dissertation in sociology at the London School of Economics in 1955, he wrote that he could no longer remember exactly why he had first gone to Bethnal Green, a working-class community in London's East End: "So far as I can remember, the point of departure for my journey . . . was an interest in the social services, particularly in housing." In contrast, however, he recalled precisely the weather on the day when his inquiry began. On his first visit to the neighborhood, he had arrived in a fog so thick he could not see the ground ahead of him: "I felt my way along, tapping my foot against the kerbstones as I went. I am still tapping."¹⁵

Young's cautious but determined progress through that dense fog, that eventually led to a dissertation titled "A Study of the Extended Family in East London," foreshadowed his later career in a number of respects. Bethnal Green would play a central role throughout his later life. In 1953, even before he completed his thesis, Young founded the Institute of Community Studies in Bethnal Green, illustrating the observation of his biographer Asa Briggs that "Michael has

always been as much of a doer as a thinker.”¹⁶ The ICS would be the first in a long line of institutions that Young created, and although their specific objectives varied considerably, all would share a common lineage in the concerns Young had first studied in Bethnal Green in the early 1950s, so the Briggs could call the ICS “the one institution created by Michael that pulls all the rest together.”¹⁷ And all of Young’s later accomplishments would be based on the same combination of scholarly research and effective political action that had led to the establishment of the ICS.

Among Young’s notable successes was the Consumers’ Association. Two academics had begun a campaign to provide an English equivalent to the American *Consumer Reports*, which provided reliable research on the efficiency and prices of consumer goods, but their efforts gained little support. When they left for the United States Young took over their project, and he became the first chairman of the fledgling association. His breakthrough came in 1957, when he persuaded *The Times* to run a note on the association, stating the membership fee of 10 shillings a year. The response from the public was immediate, and a flood of subscriptions quickly funded *Which?* magazine. In 1962 Young bought the *Good Food Guide* from its founder, and the *Good Hotel Guide* soon followed, as the Consumers’ Association expanded its service to travelers.¹⁸

Young was centrally involved in a series of successful efforts to expand access to higher education by using modern technologies. He was the first chairman of the National Extension College, founded in 1963 as a non-profit organization for distance learning for people of all ages who were unable to attend school full-time. The NEC used radio and television broadcasts to teach courses that could lead to a variety of vocational qualifications and academic diplomas. The NEC became the forerunner for the Open University, established in 1969 by the Labor Government of Prime Minister Harold Wilson, inspired by Young’s vision. Young and Wilson

received the first two honorary degrees awarded by the university, which would go on to become the largest academic institution in the UK.¹⁹

Daniel Bell described Michael Young as “that rare sociologist, a man who has done path-breaking empirical and survey research, has applied that research to practical social policy, and has moved on to the more demanding challenge of building institutions – and successful ones, at that – to carry out social practice.”²⁰ Young was committed to lifelong learning, and remaining open to change: “Everything derives from research, and to be any good as a researcher, you have to be prepared to change your mind.” He understood that creating organizations required patience and persistence: “I have never been set back much by failures because I’ve almost *expected* them to fail.” But his reaction to setbacks was to allow “the idea to be changed and sharpened and take its own course.”²¹

Fittingly, the last institution Michael Young created was the School for Social Entrepreneurs, housed initially in the ICS building in Bethnal Green in 1997. He wrote of the school that social entrepreneurs “spot gaps in our social fabric . . . Their aim is to enrich society, to bridge the gap between the powerful and the powerless, and to create a commonwealth of opportunity.”²² Bell considered Young “probably the most successful ‘entrepreneur’ of social enterprises in the world.”²³ Young achieved this through an extraordinarily extended process of research, reflecting his fundamental belief that “entrepreneurship is best thought of as a concentrated and targeted kind of learning . . . The idea has to be subject to continuous examination, a continuous trial and error.”²⁴

Sam Walton (1918 – 92)

I’m always asked if there ever came a point, once we got rolling, when I knew what lay ahead. I don’t think that I did.

Sam Walton²⁵

When Sam Walton left the Army in 1945, he wanted to follow a career in retailing. He intended to join his college roommate from the University of Missouri in opening a department store in St. Louis. But Walton's wife, who had grown up in Claremore, Oklahoma, objected, telling him "I'll go with you any place you want so long as you don't ask me to live in a big city. Ten thousand people is enough for me."²⁶ Helen Walton's ultimatum would have a profound effect on American retailing, as Sam Walton would go on to become the greatest entrepreneur of small-town America.

Walton's plan B was to borrow \$20,000 from his father-in-law to buy a Ben Franklin variety store in Newport, Arkansas. Walton had a lot to learn about running a store, but he was a hard worker, and he took lessons wherever he found them, including studying his competitor across the street. Ben Franklin left their franchisees little discretion, but Walton soon began experimenting – "that's just the way I am and always have been." One of his early discoveries was that he could save money by buying directly from manufacturers. He was constrained in doing this, because he was required to buy at least 80% of his goods from Ben Franklin, but his limited trials had shown him that lower prices could produce higher profits, and this "was the start of a lot of the practices and philosophies that still prevail at Wal-Mart."²⁷

The Newport store did so well that Walton repaid his father-in-law within three years, but Walton was not satisfied: "As good as business was, I never could leave well enough alone, and, in fact, I think my constant fiddling and meddling with the status quo may have been one of my biggest contributions to the later success of Wal-Mart." He enjoyed promotions, and his customers loved them: he put a popcorn machine on the sidewalk, and soon thereafter went to the bank to borrow "what at the time seemed like the astronomical sum of \$1,800" to put an ice cream machine next to it. He was enormously relieved when the ice cream experiment was a

success, because he “really didn’t want to be remembered as the guy who lost his shirt on some crazy ice cream machine.”²⁸

Walton’s store was so successful that his landlord took it over after five years, taking advantage of the novice businessman’s failure to include a clause in his lease allowing him to renew. Walton was devastated, considering this the low point of his career: “I had built the best variety store in the whole region and worked hard in the community – done everything right – and now I was being kicked out of town.”²⁹ But he didn’t believe in dwelling on failures, and he and Helen began looking for a new town.

Their choice was Bentonville, Arkansas, “a sad-looking country town” with only 3,000 people, less than half of Newport’s 7,000. The town already had three variety stores, but Walton loved competition. He found an old store willing to sell, and doubled its size by taking a 99-year-lease on the shop next door (no more 5-year leases). He set up his store as self-service, a new concept he had read about and went to see in person at two Ben Franklin stores in Minnesota. So when he opened in Bentonville in 1950, his was only the third self-service variety store in the country, with checkout registers only in the front – another innovation that would persist for the rest of Walton’s career.³⁰

Walton of course continued to experiment, so that he would later “remember those days mostly as a time of always looking around for ideas and items that would make our stores stand out.” The plural was occasioned by the fact that the profitability of Bentonville led Walton to open more stores, so that by 1960 he was the largest independent variety store operator in the United States. As he expanded, however, he became aware that the volume of his stores was too small to make large profits, and he began building larger stores, that made “unheard-of amounts of money for variety stores,” that were “just unthinkable for small towns.”³¹

By 1960, Walton was committed to the idea of discounting, but he was hesitant to build his own company. He tried to get the owners of the Ben Franklin variety stores to back him as wholesalers in a larger discounting venture, but when they refused, he decided to go ahead on his own: “After years and years of studying the discount business and experimenting with it sort of halfheartedly, we were finally getting ready to jump into it whole hog.” In July, 1962, he opened Wal-Mart No. 1 in Rogers, Arkansas. The early Wal-Mart Stores were not attractive – David Glass, later the CEO of Wal-Mart, famously called the third store, in Harrison, Arkansas, “the worst retail store I had ever seen” – but prices were 20% below their competitors. Walton recalled: “We were trying to find out if customers in a town of 6,000 people would come to our kind of a barn and buy the same merchandise [as in nicer stores] strictly because of price. The answer was yes.” More large Wal-Marts followed, all in small towns: “the first big lesson we learned was that there was much, much more business out there in small-town America than anybody, including me, had ever dreamed of.”³²

Sam Walton acknowledged that the early Wal-Mart stores were lacking in many respects: “so much of what we did in the beginning was really poorly done.” But he never stopped working to improve them, while always holding to the basic premises that all the merchandise was sold at the lowest possible prices, and customers were guaranteed satisfaction. He was always willing to make changes: his son Jim recalled that “we all snickered at some writers who viewed Dad as a grand strategist who intuitively developed complex plans and implemented them with precision. Dad thrived on change, and no decision was ever sacred.”

Sam Walton himself stressed that Wal-Mart was the product of experience:

Somehow over the years, folks have gotten the impression that Wal-Mart was something I dreamed up out of the blue as a middle-aged man, and that it was just this great idea that turned into an overnight success. It’s true that I was forty-four when we opened our first Wal-Mart in 1962, but the store was totally an

outgrowth of everything we'd been doing since Newport – another case of me being unable to leave well enough alone, another experiment. And like most other overnight successes, it was about twenty years in the making.³³

Sam Walton devoted his entire adult life to Wal-Mart: he retired in 1974, quickly discovered he had made a mistake, returned as CEO two years later, and finally stepped down only when he became ill in 1988. In four decades of work, he had created the largest retail company in the world, and changed retailing in rural America.

Warren Buffett (1930-)

It must be noted that your Chairman, always a quick study, required only 20 years to recognize how important it was to buy good businesses.

Warren Buffett, letter to Berkshire Hathaway Shareholders, 1983³⁴

As a boy in Omaha, Warren Buffett loved numbers—counting, memorizing, calculating—systems, and rules (when he discovered Dale Carnegie's *How to Win Friends and Influence People*, he was riveted: “Now he had a system. He had a set of rules.”)³⁵ And he loved making money: he sold peanuts and popcorn at football games, he delivered newspapers and magazines, he even handicapped horse races. His high school yearbook picture bore the caption “Likes math . . . a future stockbroker.”³⁶

Loving numbers, rules, and money, it is not surprising that Warren was excited when he discovered the work of the famous investor Benjamin Graham. A biographer described the experience as a revelation: “Quite simply, he had found his idol.”³⁷ Graham had developed the first systematic approach to investing. In 1946, Graham explained that his investment company focused on the purchase of securities “at prices less than their intrinsic value as determined by careful analysis, with particular emphasis on the purchase of securities at less than their liquidating value.”³⁸ The object was to calculate the difference between a company's assets and

its liabilities, using publicly available information. The calculation required some adjustment: a company's report of its liabilities could be taken at face value, but it generally overstated its assets; Graham used rules of thumb to discount the reported values of assets. Graham's practice was to buy the stock of companies with what he called a large "margin of safety" – i.e. those with assets considerably greater than their liabilities. Graham believed that a stock might trade below its intrinsic value for a time, but that at some point its price would rise: "we know from experience that eventually the market catches up with value."³⁹

Buffett was the star student in Graham's course at Columbia Business School, and worked at Graham's investment firm during 1954-56, leaving only when Graham retired. Buffett would subsequently run his own investment firms, and his career would witness the evolution of his investment philosophy away from that of Graham.⁴⁰ Interestingly, in spite of Buffett's great admiration and respect for his teacher and boss, an early harbinger of his departure from Graham's orthodoxy appeared even while Buffett was working as Graham's employee. Irving Kahn, another employee, explained that Graham's strict adherence to his mathematical guidelines meant that he had no interest in learning about a company's products. But Kahn recalled that Buffett's disagreement with the austerity of this attitude occasioned an argument between the two: "Buffett was interested in what made one business better than another and wanted to pursue it. But Graham, who mistrusted corporate managements, discouraged Buffett from visiting companies."⁴¹

Buffett's true evolution would come later. It was closely connected to his relationship with Charlie Munger, whom he met in 1959. The two quickly became friends, and began working together. Munger disagreed with Graham's narrow concentration on statistical bargains, and instead believed in investing in "wonderful businesses" – enduring companies that would be

profitable because of qualitative factors like managerial excellence or brand loyalty. Buffett freely acknowledged Munger's influence: "Charlie shoved me in the right direction of not just buying bargains, as Ben Graham had taught me . . . It took a powerful force to move me on from Graham's limiting views. It was the power of Charlie's mind."⁴²

Buffett underwent "this Charlie Munger-influenced type transition – sort of back and forth. It was kind of like during the Protestant Reformation. And I would listen to Martin Luther one day and the Pope the next. Ben Graham, of course, being the Pope."⁴³ Eventually, in tandem with Munger, Buffett developed a distinctive investment philosophy – "a less compulsive approach to superior investment results than when I was younger."⁴⁴ It had a number of principles. Central among these was a rejection of planning: "At Berkshire, we have no view of the future that dictates what business or industries we will enter."⁴⁵ Instead, "we look for first-class businesses accompanied by first-class managements."⁴⁶ Buffett would invest only in technologies and products he could understand, and in companies whose managers he liked and admired.⁴⁷ He believed in investing for the long run: "Time is the friend of the wonderful business, the enemy of the mediocre."⁴⁸

An illustration of Buffett's mature philosophy was his large investment in Coca-Cola in the 1980s. The true value of the company lay not in its modest physical capital, but in an intangible asset that Buffett described as "the accumulated memory of all those ballgames and good experiences as children which Coke was a part of."⁴⁹ Buffett believed in Coke's enduring competitive advantage: "If you gave me \$100 billion and said take away the soft drink leadership of Coca-Cola in the world, I'd give it back to you and say it couldn't be done." Roger Lowenstein contended that for Buffett, "Valuing companies such as Coca-Cola took a wisdom forged by years of experience."⁵⁰ Early in his career, Warren Buffett enthusiastically embraced

the systematic approach to investing devised by Benjamin Graham – the rule that a stock should be purchased on the basis of “a simple and definite arithmetical reasoning from statistical data.” Over time, however, he developed a more flexible approach, that used quantitative calculation only as one element, and added a number of other factors that were not subject to systematic measurement: Buffett himself observed that “the really sensational ideas I have had over the years have been heavily weighted toward the qualitative side.”⁵¹ Buffett thus evolved from Graham’s objective, conceptual approach based on calculation to a subjective, experimental approach based on judgment. In 1987, he described the latter:

As you’re acquiring knowledge about industries in general and companies specifically, there isn’t anything like first doing some reading about them and then getting out and talking to competitors and customers and suppliers and past employees and current employees and whatever it may be.⁵²

In the end, Buffett considered flexibility his greatest strength: “We do have a few advantages, perhaps the greatest being that we *don’t* have a strategic plan.”⁵³ Buffett’s greatness as an entrepreneur stemmed from his ability to grow beyond his early love of rules and systems, to develop the wisdom and judgment that transformed him from a competent conceptual investor into an exceptional experimental one.

Paul Van Doren (1930 – 2021)

My entire life, I never had one big idea.

Paul Van Doren⁵⁴

Paul Van Doren dropped out of high school at 16, and got a job as a runner at the Randolph Rubber Company, the biggest employer in his hometown of Randolph, Massachusetts. The company sewed canvas tennis shoes for Keds. During the next 20 years, Van Doren worked his way up through the company, “working every section of the production line . . . I knew everything I needed to know about the art and chemistry of making a quality pair of canvas

sneakers.” This was his real education: “Had I never learned how to manufacture shoes, I could never have designed them.”⁵⁵

In 1964, Randolph Rubber sent Van Doren to Southern California, to run a new factory in Orange County. Van Doren discovered that sneakers were much more important in California: because of the weather many people wore them year-round, not just for sports. Van Doren also saw the skateboarding boom in California, and designed a special skateboarding shoe, though it initially had little impact.

In 1965, Van Doren objected to a management decision, and quit his job with Randolph Rubber. At 35, with a wife and young children, Van Doren was unemployed. What to do? “Making canvas shoes was what I knew best. Hell, making canvas shoes was the only thing I knew.” So with the help of an investor, Van Doren founded the Van Doren Rubber Company in 1966, with a factory and store in Anaheim.⁵⁶

Van Doren was ready to be in charge: “when I got the chance to call the shots, I decided to create a shoe that would be as innovative as it was familiar. The key feature of my design was a diamond-patterned cup sole, twice as thick as any other sneaker on the market, so the shoes would be more durable and wear longer.” But he was also alert to changes. When his sneakers stuck to the tissue paper they were wrapped in, Van Doren assumed his workers were using too much latex cement. But a day on the assembly line showed him he was wrong: the rubber soles were naturally sticky. This turned out to be excellent for skateboarding, “so eventually I learned to love the sticky.” Another Vans signature feature, the waffle pattern, was the result of an improvised solution to the early cracking of the diamond-patterned soles.⁵⁷

Vans expanded, but the company “had no real direction, no specific purpose as a business.” This changed as a result of Van Doren’s belief in listening to his customers. A junior

high school student named Tony Alva began to buy sneakers at a Vans store in Santa Monica. Every time he came in, he would beg the manager to sell him just one shoe, to replace the shoe skateboarders wore out by dragging their back foot on the street. Van Doren agreed, and decided to make “one shoe” a general policy for all his stores. This was the real beginning of Vans’ association with skateboarding: “When skateboarders adopted Vans, ultimately, they gave us an outward culture and an inner purpose.”⁵⁸

Alva became a famous skateboarder, and in the early early ’70s Van Doren invited him and another top skater, Stacy Peralta, to work with Vans to design better skateboarding shoes. In 1976, Vans introduced the Era, a shoe with a padded collar to give skaters extra comfort, in Alva’s signature red and blue. The Era quickly caught on with both skaters and surfers, and Vans began sponsoring individual athletes and competitions in both sports. When local high school students began drawing checkerboard designs on their Vans, Van Doren adopted the black-and-white pattern for the Era.⁵⁹

During the ‘70s, Vans became a successful regional company in Southern California, with a loyal following among boarders and surfers. But a key event occurred in 1982, when Sean Penn wore a pair of checkered Vans in the teen comedy *Fast Times at Ridgemont High*. Overnight, Vans gained international publicity, and became the sneaker of choice for many famous actors and athletes. Vans was on its way to becoming a multi-billion-dollar business.⁶⁰

Paul Van Doren embraced a comparison between his sneakers and Levi’s jeans – “Not fancy, but an everyday staple for millions of people.” When he retired, Vans had become one of the largest athletic shoe companies in the world. His explanation of his own success was that he had always worked hard, listened to his customers, and did only one thing: “It never occurred to me to disappear for a month here and there to pursue other interests. I’m not Bill Gates or Jeff

Bezos or Mark Zuckerberg or Elon Musk.” There was no distinction between his work and his life:” “The way I’ve run my business is the way I’ve lived my life.” His credo: “get your hands dirty. If a young entrepreneur came to me today and asked how to start a company, I would say right off the bat: know what goes into making what you’re selling. If you sell from a place of total confidence in the quality down to the details, you will succeed.”⁶¹

William Siemering (1934-)

All life is an experiment. The more experiments you make the better.

William Siemering, quoting
Ralph Waldo Emerson⁶²

Bill Siemering fell in love with radio in a two-room schoolhouse in rural Wisconsin. Twice a day the teacher turned on WHA and the students listened to the Wisconsin School of the Air, with lessons on science, social studies, music, and art: “From first grade on, I regarded radio as a source of information and imagination.” Primary school also left him with a sense of fairness, from an incident when a black girl in his class was harassed, Bill intervened, and was rewarded with a kiss.⁶³

In college at the University of Wisconsin Bill worked at WHA as a jack of all trades – engineer, announcer, newscaster, and actor. He planned to be a high school counselor, but in 1962 a Wisconsin professor moved to SUNY–Buffalo as an administrator, and hired Siemering to create a radio station like WHA. Buffalo was very different from Madison, and Siemering adapted his agenda: to give a voice to Buffalo’s black population, he set up a storefront studio in a black neighborhood and gave air time to volunteer broadcasters. And when student unrest hit the SUNY campus, WBFO provided live coverage:

When a student strike brought 300 police on campus to quell the disturbance, WBFO broadcast the events over several nights as the confrontation unfolded. We

broadcast the tear-gassing of the student union where the studios were located, all the while bringing in all the perspectives. We heard from the student leader of the movement, the acting university president, and a range of students and faculty. There wasn't a right or wrong, just different perceptions of reality.⁶⁴

Siemering considered his time in Buffalo his "most experimental." Cliff Stoll, a student engineer at WBFO, recalled that "We were unafraid to take risks, and just had fun experimenting. Bill would say, 'Try this, and if that doesn't work – well then try something else.'" Siemering set aside four hours each afternoon for live radio, a program he called *This Is Radio*. Ira Flatow, then a student reporter at WBFO, called the program "Bill's experiment in breaking the format" – "let's not define what a show is in a box . . . Each day, let's just let the show find a life of its own."⁶⁵

Siemering's innovative work at WBFO led to his selection to the founding board of directors of National Public Radio in 1969. The next year, the board asked him to write NPR's statement of Mission and Purpose. The opening paragraph drew on his experiences from Wisconsin schoolhouse to WBFO, and is widely considered the most basic statement of NPR's philosophy:

National Public Radio will serve the individual; it will promote personal growth; it will regard the individual differences among men with respect and joy rather than derision and hate; it will celebrate the human experience as infinitely varied rather than vacuous and banal; it will encourage a sense of active constructive participation rather than apathetic helplessness.⁶⁶

Later in 1970, Siemering was appointed NPR's first director of programming. In spite of its location in downtown Washington, DC, Siemering ran NPR more like a college radio station than a government bureaucracy: his staff, for example, was ethnically and racially diverse, had as many women as men, and included many members who had no broadcast experience. An early staff member, Susan Stamberg, gave him a nickname:

Siemering, she realized, was less a programming director than a visionary. In his hires, his choices of equipment, his maxims, he was, well, a philosopher king. That's what she dubbed him: the philosopher king. Around the news department, others also began using the term, realizing they were working for someone staking out new ground.⁶⁷

NPR's daily evening news program, *All Things Considered*, debuted in May, 1971, with minimal planning, and an emphasis on spontaneity and authenticity. In his history of NPR, Steve Oney commented that the program "defied every norm of American news broadcasting . . . Never before had anything like this coursed over the nation's airwaves." Two years later, *All Things Considered* won NPR's first Peabody Award for excellence in broadcasting. But months before, in late 1972, Bill Siemering was fired from NPR. At the time Siemering was surprised, but years later he reflected that the problem lay in his experimental approach:

The stations, and probably many of my associates at NPR, wanted NPR and *All Things Considered* to sound more like CBS, to sound like the big guys, a *real* network. Rather than the white male voice of authority from a studio in New York, I wanted a conversational style, outside of the studio if possible, that capitalized on the unique strengths of radio as a sound, storytelling, personal medium that would "speak with many voices and many dialects." We treated cultural life as of equal importance as the world of government and politics. I believed it would be successful in time and I have a high tolerance for ambiguity.⁶⁸

Siemering later returned to public radio, as manager of KCCM in Minnesota, and of WHYI in Philadelphia. Among his accomplishments at the latter was the development of *Fresh Air*, hosted by Terry Gross, which became one of NPR's most popular shows. In 2003, he extended his expertise to an international enterprise, by founding the nonprofit Developing Radio Partners, to help independent radio stations in Africa and Asia. He remained with DRP until 2017. He has never lost his love of radio, or his belief in an experimental approach:

I associate "experimentalists" with having insatiable curiosity. That's also an important quality for a journalist. You come up with story ideas as you walk to work – you maybe see a child who's begging and you wonder: where does he spend his nights? And where are his parents? I use this as an example in

developing countries. If you have the curiosity you carry through to the end as far as you can go. However, experimentalists also need to follow through. A vision is but a dream unless it is implemented.

He has no doubt that his work has improved over time: “I value seeing the world through the eyes of an experimentalist . . . I see how everything connects. Every experience prepares you for the next one.”⁶⁹ Steve Oney called Bill Siemering “the person who more than any other invented NPR,” and in recognition of this he was inducted into the Radio Hall of Fame in 2021.⁷⁰

Muhammad Yunus (1940-)

I hoped that if I studied poverty at close range, I would understand it more keenly.

Muhammad Yunus⁷¹

Muhammad Yunus grew up in Chittagong, East Pakistan. After he received an MA from Dhaka University, he accepted a job as lecturer in economics at Chittagong University. To advance his career, he obtained a Fulbright scholarship to study development economics in the United States. He received a Ph.D. from Vanderbilt University, and in 1969 became an assistant professor at Middle Tennessee State University in Murfreesboro.

In 1971, excited by the news that Bangladesh had declared its independence from Pakistan, Yunus returned home to “participate in the work of nation building.”⁷² Upon his return, he was given a government job, but soon became bored. He resigned, and returned to Chittagong to become head of the university’s economics department. He looked forward to a long academic career.

In 1974, however, events disrupted Yunus’ plans, as a devastating famine killed hundreds of thousands of Bangladeshis. Hungry people were all around: “The starving people did not chant any slogans. They did not demand anything from us well-fed city folk. They simply lay down on our doorsteps and waited to die.” Yunus was frustrated:

Nothing in the economic theories I taught reflected the life around me. How could I go on telling my students make-believe stories in the name of economics? . . . I needed to run away from these theories and from my textbooks and discover the real-life economics of a poor person's existence.

In desperation, Yunus began a new intellectual life, in a poor village near his university: "I decided I would become a student all over again, and the people of Jobra would be my professors. I vowed to learn as much as possible about the village."⁷³

Yunus' repeated trips to Jobra became the basis of his career as an experimental entrepreneur: "The poor taught me an entirely new economics. I learned about the problems that they face from their own perspective. I tried a great number of things. Some worked. Others did not." His most stunning discovery came from a conversation with a young woman, who spent her days making stools from bamboo. Each day she borrowed bamboo stalks worth 22 cents from a supplier, which she used to make a stool. At the end of the day, she gave the stool to the supplier to repay the loan. Because the supplier charged her interest as high as 10 percent a day, she was left with a profit of just two cents. In spite of her hard work, the woman could never escape from poverty. Yunus was shocked: "I had never heard of anyone suffering from the lack of *twenty-two cents*. It seemed impossible to me, preposterous." Yet he found the situation was prevalent. Within a week, Yunus collected a list of 42 women in Jobra who depended on usurious loans. He personally gave \$27 to the 42 villagers, to free them from the clutches of the money lenders, but he knew this was inadequate: "What was required was an institution that would lend to those who had nothing."⁷⁴

When Yunus appealed to a local bank, the manager laughed at him: the loans the villagers needed were too small to justify the necessary documents, nor would the bank lend to borrowers who had no collateral. So Yunus became a guarantor: he personally took out a loan

from the bank, and gave it to the poor of Jobra. This initiated the experimental process by which Yunus became a banker:

I never intended to become a moneylender . . . All I really wanted was to solve an immediate problem. Out of sheer frustration, I had questioned the most basic banking premise of collateral. I did not know if I was right. I had no idea of what I was getting myself into. I was walking blind and learning as I went along.⁷⁵

Over time, Yunus and his assistants worked out a set of lending practices. Loans were made to villagers who organized themselves into groups of five, and loans were done by verbal agreement, with no paper contracts. In 1976, Yunus named his project *Grameen*, meaning “rural.” In 1979, he took a two-year leave from Chittagong University, to manage Grameen full time. In fact, he would never return to teaching.

Yunus’ initial goal was to demonstrate the economic feasibility of micro lending then to transfer the program to an existing bank. But although Grameen consistently realized repayment rates over 95% on its loans, conventional banks refused to take it over, insisting – contrary to the evidence Yunus produced – that lending without collateral could not succeed. In 1983, at the age of 43, Yunus launched Grameen Bank as an independent company.

Grameen’s success was dramatic. In 2006, Yunus reported that Grameen was making loans to nearly 7 million people in 73,000 villages throughout Bangladesh. Since its inception, the bank had made loans totaling \$6 billion, with a repayment rate of 99%. Yunus reported these figures in his acceptance speech for the 2006 Nobel Peace Prize, awarded jointly to him and the bank, in recognition of microcredit as a tool in the fight against poverty.⁷⁶

Muhammad Yunus reflected that “I began with a small problem in a small village. I was shocked by the harshness of the problem of money lending, but I was excited by the simplicity of the solution.” His ability to find this solution followed his abandonment of the conceptual approach to economics he had learned in school: instead of assuming that collateral was

necessary for lending, he spoke directly to villagers about their problems, and used the knowledge he gained from them to create an institution that met their needs. When he became a witness to an economic catastrophe, Yunus decided that it was not enough to *imagine* the world, but that he had to *see* it.⁷⁷ Far from his original intentions, his desperate decision to learn about rural poverty firsthand eventually led him to become a banker and entrepreneur, using his own observation to create powerful new institutional forms by a thoughtful process of trial and error.

James Dyson (1947-)

Keep testing and retesting and believe only the evidence of your own eyes, not of formulae or of other people's opinions.

James Dyson⁷⁸

Early in his career, James Dyson worked for an inventor and entrepreneur named Jeremy Fry. He was struck by the simplicity of Fry's approach: "he did not, when an idea came to him, sit down and process it through pages of calculations, he didn't argue it through with anyone; he just went out and built it." Fry's method left a lasting impression:

College had taught me to revere experts and expertise. Fry ridiculed all that; as far as he was concerned, with enthusiasm and intelligence anything was possible. It was mind-blowing. No research, no "workings," no preliminary sketches. If it didn't work one way he would just try it another way, until it did . . . The more I observed his method, the more it fascinated me.

Dyson understood that the key to Fry's method was to learn from failed experiments:

There were times when he was wrong. In business you will be wrong, by and large, 50 percent of the time. The trick is to recognize when you have gone wrong and correct the damage – not to worry, at the moment of making the decision, whether it is the right one.⁷⁹

Dyson's most celebrated innovation derived from an experience in 1978, when he was helping with the housework, and became frustrated with his Hoover vacuum. When he took the vacuum apart, he discovered that its suction was greatly reduced because the bag that collected

the dirt quickly became clogged. While he was pondering how he might eliminate the bag, he thought of a 30-foot high cone he had seen at a local sawmill, that removed wood shavings from the air by using centrifugal force. Reasoning that this should equally work in miniature, he made a prototype out of cardboard. The results were encouraging and soon “I was the only man in the world with a bagless vacuum cleaner.”⁸⁰

As Dyson began to develop a cyclone vacuum, he thought he should see what had been written on the subject: “if there were simple mathematical models for the principle, it would be easy to work out how best to design the thing.” But he was quickly disappointed: “I have one book which has at least six different formulae for explaining the movement of particles in a cyclone; they all seem to contradict each other; and they are all useless.” Lacking a theoretical formula, Dyson followed the empirical approach he had learned from Fry: “test, and test, and test until it works best.”⁸¹ Dyson claims eventually to have made 5,127 prototypes: “slow, slow, slow. These things cannot be hurried.” And in the end, success: “On 2 May 1992, I found myself looking at the first, fully operational, visually perfect, Dyson Dual Cyclone . . . I was thirty-one years old when I tore the bag off my Hoover . . . 2 May 1992 was my forty-fifth birthday.”⁸²

Dyson contends that the greatest barrier to innovation is the desire for sudden dramatic leaps: “We always want to create something new out of nothing, and without research, and without long hours of effort. But there is no such thing as a quantum leap.” He believes that entrepreneurs should have a thorough knowledge of their products: “If you have the intimate knowledge of a product that comes with dreaming it up and then designing it . . . then you will be better able to sell it and then, reciprocally, to go back to it and improve it.” This conviction underlies the policy that every new employee at Dyson Appliances assembles a vacuum on their

first day of work – so that “everyone in the company understands how the cleaner is put together, how it works, and why, because of its design, it is better.”⁸³

James Dyson considers persistence his greatest strength: “I aim not to be clever, but to be dogged.” In his 1997 memoir, he reflected on the process of his success:

To use a Hollywood cliché, it is said that to be an overnight success takes years of effort. So it has proved with me. There were twenty years of debt, personal overdraft liabilities, at times, of millions of pounds. Four years ago I came out of the dark, and now I head a company turning over £100 million.

He recognized that his experimental method had resulted in a lack of drama, which had made his success unobtrusive: “There have been no massive advertising campaigns . . . and I have not taken over the market with a barrage of free offers, bombastic rhetoric, and gilded promotions.” He had simply made a good product: “It has all happened, I really believe, because of the intrinsic excellence of the machine.”⁸⁴ From his own experience, his philosophy of invention is “constantly to rethink and improve every aspect and function, never being satisfied until you have solved *every* problem.”⁸⁵

Conclusion

Ford could make cars with his bare hands. He hired others who could, too.

Jonathan Hughes⁸⁶

Approaching the age of 30, Steve Jobs feared losing his creativity: “It’s rare that you see an artist in his 30s or 40s able to contribute something amazing.”⁸⁷ For Jobs, creativity wasn’t something an innovator worked at: “When you ask creative people how they did something, they feel a little guilty because they didn’t really *do* it, they just *saw* something.” And those visions were hindered by experience: “It’s wonderful to have a beginner’s mind.”⁸⁸

Steve Jobs was a great entrepreneur, but his understanding of entrepreneurship in general was lacking. All the entrepreneurs considered in this paper *began* their major projects after the

age of 30. James Dyson began his quest for the bagless vacuum at 31. Bill Siemering was appointed the first program director of NPR at 36. Paul Van Doren started his own sneaker company at 36. Warren Buffett became chairman of Berkshire Hathaway at 40. Muhammad Yunus founded the Grameen Bank at 43. Sam Walton opened Wal-Mart No. 1 at 44. Michael Young became the first chairman of England's National Extension College at 48. And Ray Kroc signed a contract to sell McDonald's franchises at 52.

There is no single path to success as an experimental entrepreneur. But experience in an industry is a strong common element for many. Thus Ray Kroc's years of visiting restaurants and soda fountains allowed him to see the potential value of the streamlined food preparation of the McDonald brothers. Paul Van Doren's years on the assembly line of Randolph Rubber prepared him to design sneakers at his own company. Sam Walton's years of running variety stores prepared him to create profitable big-box stores. Bill Siemering's love of public radio from childhood on prepared him to create an intellectual vision for a nascent National Public Radio. And although Muhammad Yunus had no background in banking, his training in economics allowed him quickly to realize that he had to look outside the traditional bounds of the discipline to alleviate the poverty of Bangladeshi villagers.

Experimental entrepreneurs are typically pragmatic and informal; they generally reject rigid organizational design, and welcome ideas from all employees, regardless of rank. All of Grameen Bank's employees are encouraged to suggest changes in even the bank's most basic rules if they perceive better procedures for dealing with the problems they encounter in their daily work: "We encourage these spirited debates, for innovation can only sprout in an atmosphere of tolerance, diversity, and curiosity."⁸⁹ Warren Buffett remarked that "I found in running businesses that the best results came from letting high-grade people work

unencumbered.”⁹⁰ Bill Siemering reflected that “much of my success has been my ability to hire bright people and then manage them as I would like to be managed, allowing as much freedom as possible.”⁹¹ Ray Kroc declared that “I believe that if you hire a man to do a job, you ought to get out of the way and let him do it,” and he was proud of the fact that such McDonald’s staples as the Big Mac and the Egg McMuffin originated from suggestions by operators of franchises.⁹²

It should be noted that experimental entrepreneurship is not a recent development. The greatest entrepreneur of an earlier generation was an archetypal experimentalist. Henry Ford made his first car by hand at the age of 33, in his spare time from his day job as an engineer; Jonathan Hughes described the process as “a matter largely of trial and error, night after night.”⁹³ Biographer Steven Watts remarked that with that car Ford “embarked upon what would be his life’s work.”⁹⁴ He incorporated the Ford Motor Company at 40, and after a series of earlier cars – Models A, B, C, K, N, R, and S - he introduced the Model T at 45. Ford was personally involved in designing the new car, and did not trust blueprints, so at every stage “he demanded a physical model of the part or component at hand so he could see it, touch it, evaluate it.”⁹⁵ A year later, he decided the Model T would be his only car, and that he would make it in only one color; the car became so famous that Ford stopped paying for advertising for years. At 50, Ford introduced the assembly line at his Highland Park plant, and the Five-Dollar Day at 51. Hughes called Ford “a complete, if cautious revolutionary; ‘We will rip out anything once we discover a better way.’” Ford was never satisfied: his workshops witnessed “constant experimentation with methods.” His plan for personnel was “perpetual ferment,” with no formal titles or duties, but constant competition. A fellow mechanic early in Ford’s career recalled that “He always figured that there was some little improvement he could make,” and he maintained that attitude toward all of his projects throughout his life.⁹⁶

Charlie Munger has attributed Warren Buffett's success to the fact he is a "learning machine."⁹⁷ This may in fact be a good characterization of all the experimental entrepreneurs considered in this paper. All of them ended up in positions quite different from those they had aimed for earlier in their lives. All immersed themselves in the industry in which they ultimately achieved success, and none ever stopped working to learn all they could about it. None of them ever stopped trying to improve their products, no matter how successful they became. And although all were learning machines, over time all developed judgment and wisdom in their chosen trades that no machine has yet been able to match.

Coda: Sprinters and Marathoners

Apple is Picasso; Dell is Cézanne

Malcolm Gladwell⁹⁸

When Steve Jobs asserted that artists rarely make important contributions after 30, he was probably unaware that Fyodor Dostoevsky published *The Brothers Karamazov* at 59, Mark Twain *Adventures of Huckleberry Finn* at 50, and Marcel Proust the final volume of *In Search of Times Lost* at 56; that Robert Frost wrote "Stopping by Woods on a Snowy Evening" at 48, and Elizabeth Bishop "One Art" at 65; that Auguste Rodin completed the *Monument to Balzac* at 49; that Frank Lloyd Wright completed the New York Guggenheim at 76, and Le Corbusier Notre Dame du Haut at Ronchamp at 63; or that Alfred Hitchcock directed *Vertigo* at 59, and *Psycho* at 61. These artists were all great experimental innovators, who thoroughly understood that their work required patience and perseverance. Thus the sculptor Louise Bourgeois, who made her greatest work after 80, declared: "I am a long-distance runner. It takes me years and years and years to produce what I do."⁹⁹

Beginner's mind is valuable to conceptual innovators: the accumulation of knowledge and the entrenchment of habits of thought that come with experience in a discipline create barriers to perceiving the extreme simplifications that often characterize conceptual creativity, and erode the self-confidence of the cocksure prodigy who can make radical new departures from convention because he is not yet aware of, and intimidated by, the difficulty of his discipline. But deep knowledge is the lifeblood of experimental innovators, whose work becomes more powerful over time as they gain greater mastery in their disciplines. And because of this, it is important for experimentalists to understand the basis for their success, and to resist the temptation to try to compete with their conceptual peers by changing problems frequently and trying to make sudden dramatic discoveries.

One recent example of a great experimental innovator who may have failed to appreciate the nature of his own talents is the entrepreneur Michael Dell. Dell was very precocious, but from early on his behavior was that of an experimentalist. When he got his first Apple II, at 14, he immediately took it apart to see how it worked, and soon began working on how to modify it. A few years later, when IBM began making PCs, he duly took one apart, and became a convert: “Practically the moment I opened up my new IBM PC and looked inside, I thought, *How do I soup this thing up?*” Soon he was selling customized PCs to local businesses. When he founded Dell Computer Corporation after his first – and last – year of college, Dell was still making upgraded versions of IBM PCs; several years later, after IBM threatened to sue for patent infringement, he signed an agreement to pay a royalty on sales of PCs to IBM.

Over time, the rise of Dell to a position as one of the largest computer companies depended not on inventing novel electronic devices, but rather on selling PCs at lower prices than their competitors, as a result of incremental innovations in that market, including selling

directly to consumers – initially by telephone and later on the web – providing customized machines, and offering free on-site service.¹⁰⁰ Considering the company’s business model, Malcolm Gladwell observed that “Dell doesn’t come up with bold new ideas that instantly transform the way we use technology. No, they take someone else’s idea and perfect it.”¹⁰¹

Thus although Michael Dell revered Steve Jobs, he has never made any effort to emulate Jobs’ creation of glamorous new products (Jobs himself once mocked Dell for making “un-innovative beige boxes”).¹⁰² But in his less flamboyant way Dell has become one of the greatest entrepreneurs of the computer revolution. It is consequently surprising to find the following in a recent profile of Dell: “although he acknowledges it is harder at his age to cultivate the ‘beginner’s mind’ capable of generating radical new ideas, he says he has no plans to step aside any time soon.”¹⁰³ Dell’s comment may demonstrate how beguiling the image of the conceptual innovator as genius has become. The 56-year-old Dell has consistently acted as an experimentalist for more than four decades – ever since his 14-year-old self couldn’t wait to unwrap his beautiful new Apple II so he could dismantle it. Since then, his growing knowledge of both computer technology and the marketing of computers has made Dell a billionaire. Yet his comment to the *Wall Street Journal* suggests that he imagines himself not as a wise experimental innovator, gradually achieving greater and greater results, but instead as a bold conceptual innovator struggling to forget his past accomplishments in order to make daring leaps into the unknown.

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