WHEN OPPORTUNITY KNOCKS

A.C. Markkula had a nice life. As marketing manager for Intel Corporation, a major semiconductor manufacturer, he had an interesting job, a cushy salary, and the recognition of his peers at conferences and conventions. Then one day in 1977 he opened his door and there stood Steve, a scruffy looking flake, who'd dropped out of college, flirted with fruiterianism and Hare Krishna, and spent a year in India contemplating his navel and the ultimate verities. Now Steve was storming back into reality with the claim that he'd discovered a bona fide wizard, plus a secret of the universe. He'd sold his VW bus for $1,300 and set up a venture to spread a special form of information across the globe and now, Steve said, he'd chosen Markkula to be his special agent. All Markkula had to do was quit his job, hand over a quarter of a million dollars, and get to work. And though Markkula wouldn't get paid, he'd have the right to be an equal partner in the venture.

Creativity knocks on the door of our psyche every day. But it does so in the strangest forms: as flakes with messages from God, as weird ideas that wake us from slumber, and as strange visions that vaguely materialize when we're wide awake and otherwise quite sane. Sometimes, it even rises from a sea of numbers that stare back at us from a screen or printed page.

But more often than not, we send it away. We slam the door, go back to sleep, or rub our eyes incredulously, then return to what we were doing. That's a sane, and safe, response. But in doing so we rob ourselves of a part of ourselves—the part that's able to leap tall buildings at a single bound. Why do we do that?

We turn our back on creativity because, well frankly, because it's weird. Itbeckons us to the precipice of illogical danger; like turning over your life savings to a fruitarian in a quest. But ask yourself this—what makes such ventures weird? For the most part, we do. It's weird because no one else is doing it. Or because there's no guarantee it'll work. Or, most often, it's weird because "I can't do that, because ...".

More often than not, the "because" we generate is a bunch of poppycock that we've been suckered into believing, such as, "I'm not creative enough to pull that off, no matter how good it sounds." Well if old A.C. Markkula had succumbed to that self-imposed obstacle, I'd still be writing my articles in longhand. Instead, he walked out the door with that odd-bill and took that grand leap of faith that carried him beyond the boundaries of vocation, family, and logic. That's how he hooked up with Steven Jobs and met the world's bonafide wizard, Stephen Wozniak. Markkula had just joined Apple computer company, which still operated out of Wozniak's garage. And Markkula made Steve's dream come to life. He chased that weird apparition because he believed he had it within himself to muster the creativity required. And he saw his own objections and timidity for what they were—poppycock. So he grabbed the poppy by its privates and gave it a heave. And the rest, as they say, is-history. We can do the same.
All we need to do is separate reality from the myths that plague us. The biggest myth that Constrains us is that creativity is too big for us to handle. The next biggest myth is that we only get creative by bearing down on a problem, through stringent systems, organizational re-design and personal struggle. As it turns out, these two grand myths are mostly hot air, and it is time to deflate them. We need to cut creativity down to size. And we need to substitute the commandment to be creative with the permission to do so.

First, a Look at Reality

Creativity is nothing more than going beyond the current boundaries, whether those are boundaries of technology, knowledge, social norms or beliefs. So Star Trek (boldly going where no man has gone before) certainly qualifies. And so does Beethoven's 5th Symphony. But we lose sight of the fact that a host of mundane acts are equally as creative. Lengthening a hem beyond what the pattern calls for is no less creative than Beethoven's transition to a new kind of music. Both started an existing framework. And both take the existing practice a step farther than the norm. Think about that for a while.

Creativity is nothing more than seeing and acting on new relationships, thereby bringing them to life. Like combining man's two chief needs, sustenance and safety, into a single fruit that guards the house, is incredibly loyal and plops itself into your cereal bowl. Al Capp invented that prototype long ago in his comic strip "Li'l Abner." It was called a Schmoo. Odd? Yes. Unreasonable? Nope. Just new and shocking, because it violated the laws of nature.

That little poo-poo of Mother Nature is a central point. The laws of nature are merely boundaries. And they've been violated before. Like the law that one body can not occupy two places at the same time. In essence, that law was violated thousands of years ago, with the first letter. One's thoughts could be in Athens, and in Corinth, at the same time. And if we take Descartes at his word, "I think, therefore, I am" the person simultaneously existed in both places since their thoughts did. The telephone and live TV are simply better violations of the same law. Because the thoughts are truly simultaneous whereas the letter writer had probably forgotten the thought by the time it got to Corinth. For letters, phones, telegraphs, and TV's to be invented someone had to believe that even the laws of nature could, in effect, be broken.

Yes, But Can I Do It? Now that we've established the concept of creativity, do you recognize it? Probably so. Have you experienced it? Most of us say "no" because we've never done anything big with it. We've never written a symphony, much less a hit song. We've never painted the Cystine [sic] Chapel, much less our own house. We never really invented anything. So we're likely to sit back and content ourselves with identifying creativity rather than practicing it. That makes us as useless as a drama critique... all talk and no action. The fact of the matter is we've all been creative. We just never labeled it as such, because we didn't understand the various types of creativity. We can rectify that problem pretty quickly.

The Types of Creativity. In essence, there are only three broad types of creativity. You can make things, you can combine things, or you can change things.

Creation is the activity we usually think of when someone says creativity. It is the act of making something out of nothing. With fervid apologies to physicists and their theory of atomic displacement, it is possible to make something out of nothing. Beethoven faced a blank page and made the immortal 5th symphony spring to life. Shakespeare did the same with Othello and a host of other masterpieces. The Wright brothers filled an empty sky with planes. And on and on it goes.

Creation, is without question, creativity. But it is not the whole, nor is it even the most important type. There are others of equal import.

Synthesis is the act of relating two or more previously unrelated phenomena. Take a cake. Take a shovel. Put them side by side and stare at them. Boom! The cake server is born. It's a miniature
shovel. That’s synthesis. The first wheel was the product of creation. So was the first axle and the first box. But until someone came along and synthesized them into the cart, mankind didn’t get much good out of the three components. Synthesis is the core of society’s advancement. Creation is nice, but synthesis is the real engine of survival and prosperity. Have you ever performed synthesis? Did you ever fill a pie tin with mud instead of batter? Ever fill a balloon with water instead of air. Did you ever put Tuesday together with going to the beach rather than going to work? Congratulations. You synthesized. And that puts you in the same league as Thomas Edison. He never created anything in his whole life. All he did was suck the brains of others and synthesized like crazy. So whadayathink? You creative?

Modification is the act of altering something that already exists so that it can: (a) perform its function better; (b) perform a new function (c) perform in a different setting, or (d) be used by someone new. Putting pontoons on an airplane doesn’t change the function of the plane (take off, fly, land), but it certainly broadens the settings in which it can perform its function. Moving a hose to the back end of a vacuum cleaner changes the whole function of the machine, from sucking to blowing. And something as simple as lowering a water fountain, or adding a foot stool opens its use to a whole new group, unattended children.

The remaining point to be made here is that creation, synthesis and modification overlap so much that it is difficult to separate them in reality. The folks at Etion aggressively stumbled on creativity by deciding to play barefoot in the park at midnight. There in the blackness of night their senses took over and rediscovered the incredible lightness of being naked of foot, and the ability to pivot equally well on toe or heel. And that unlocked their “Catalyst” shoe, the revolutionary light shoe with a two piece sole. The Catalyst had never existed before. So in that respect it represented creation. But in essence it was just a modification, one that came via synthesis, putting tennis with bare feet, rather than with shoes.

The reality, therefore, is this. Each of us has the gift of creativity, in one form or another. So don’t fret if a symphony isn’t within you. You have one of the other gifts. And the only thing it takes to release them is for you to remove the self-imposed obstacles . . . the myths that confound us. And that just happens to be our next topic.

The Myths That Confound Us

The Missing Organ. Many people seem to think that creativity is like a mystic organ, say an extra pancreas or enlarged hypothalamus gland, that only a few people possess. In all honesty, they may be correct when it comes to true creation. However, that is a minuscule part of functional creativity, easily swamped by the contribution of synthesis and modification. And the latter two are not dependent on mysticism, revelation, or even an extra organ. All they require is open eyes and the willingness to act on what you see. If you ever hid food under your pillow you’ve got what it takes for those. You went beyond the boundary of Morn’s social order, and you synthesized like crazy—associating food with a bed instead of with a table.

The Need for Genius. Many people also believe that creativity is the result of the amount of intelligence that one possesses. Clinical and field studies, however, fail to support this hypothesis. Verifiable geniuses (as measured by IQ tests and similar instruments) tend to do very well for themselves vocationally, but they usually do so as corporate vice presidents shuffling paper. They haven’t made much of a dent in terms of making creative contributions to the world. A solid “C” student with curiosity and determination usually makes a bigger impact on the world. Edison, Einstein, and even Theodore Geisel (otherwise known as “Dr. Seuss”) were all lackluster students.

The key is not how much intelligence you have, but the type of intelligence, and your willingness to use it. Steve Jobs was a back alley hustler with street smarts, not an
intellectual. His "genius" was the ability to dream dreams, then convince and cajole others into cooperation.

Woźniak was his first victim, and once he was under wing Jobs convinced lawyers and ad agencies to work for nothing more than the promise of future payments, and Markkula to risk everything he had. Jobs rightfully earned the title as the father of Apple, despite the fact that he was neither a technical nor marketing wizard. He was just a jack-of-all-trades in both, with a whole lot of chutzpa.

The Need for Chutzpa. Does it follow then that chutzpa is a requirement for creativity? No. Walter Mitty, you may recall, was an outward milquetoast at the same time that his imagination was running rampant across the globe. Creativity can easily bloom without the social courage and hustle we call chutzpa. But there is a big difference between dreaming an idea and using it. And at that point chutzpa comes screaming back on stage. Without the outward hustle and courage it brings, ideas stay on the drawing board or get lost in the dark recesses of the mind. Consequently, we’d have to acknowledge that while creativity can bloom for anyone, it only bears fruit for the chutzpatic gardener. So reality provides a simple truth. The meek creative simply needs to form a partnership with an adrenal hustler. "Steve Woźniak, meet Steve Jobs. Now go make millions."

The Solitary Magician. Another myth is that the creative person exists in a vacuum, locked in his garage with God as the only source of inspiration. It makes a great movie script, but usually misses the mark in terms of reality.

Take a look at electricity. Frenchmen came up with the first spark maker and discovered alternating current. Germans invented the Leyden jar and the vacuum pump. Italians came up with the water- and storage batteries. A Dane was the intellectual source of much of electric theory. Then Ben Franklin, perhaps the world’s most under-rated creator, was the world’s foremost authority on electric theory for a considerable time. An Austrian invented the first electric-powered machine. And an academic just down the road from Edison at Rensselaer Institute of Technology was blissfully inventing capacitors, alternators, generators, and filters for his own entertainment. So when Thomas Edison sat alone in his workshop and "invented" the light bulb, he was hardly alone. Every one of those other folks was crammed into the shadows. They represented the ninety-nine percent perspiration Edison advocated—knowing the trail of research. In fact, Edison had been a regular visitor in Professor Henry Rowland’s office, the American academic blissfully puttering away in his lab.

Creativity and Nobility. Since we tend to envision the creative person locked in his garage with God, we tend to see creativity as the progeny of sacred union. Sometimes it may be exactly that, but usually not. In fact, there are numerous indications that creativity is the product of someone you’d like to throw in jail.

In 1860 a group of investors paid young Johnnie to make a field investigation of the commercial viability of petroleum. He thought it was a sure fire winner. So he lied through his teeth. He told the investors it was a loser, put every penny of his own funds into petroleum, and aced them out of the market. Then he went on to invent most of the competitive practices that are now illegal. Before he was a philanthropist, John D. Rockefeller was a crook. But he was also marvelously creative, and the industry still bears his mark in terms of production, distillation, and distribution.

And if you want larceny with a grin, look at Samuel Slater. In 1790 he stole the trade secrets of mass production in England and sold himself to the highest bidder in America, boldly violating every aspect of British patent and copyright law, thereby putting America on the map as an industrial nation. But Sam redeemed himself. He and his wife were the originators of Sunday School in America. And ironically, at the same time he was violating the British, he was the leading advocate of the legislation that established America’s own patent and
copyright laws. You have to sit back and admire that type of gall.

The list goes on and on, but the point is that creativity isn't very pristine. In fact, it sometimes emanates from the dark side of our personality. That's unsettling if you see business as a quaint tea party. It's intuitively obvious if you recognize it as trench warfare.

So with a nod to Freud, the first place you may want to check for ideas is your id. The second place you'll want to check is the id of thy neighbor. At its worst, creativity involves outright theft on a grand scale. At its best, it is a form of unconscious plagiarism. If God accompanies us to the garage, he usually sits there and tells us what our neighbors are doing. So don't be timid about where you look or what you use. Any idea is fair game as a starting point. Even if it's protected, it can inspire a useful offshoot. Apple hasn't really "created" anything. But it's been brilliant at synthesis and modification.

Purity of Heart Is to Will One Thing. That's a quote from Kierkegaard, a prominent and very dead theologian. They might be wise words to a religious aesthetic but they are the kiss of death to someone trying to be creative. No matter how creative you might be, you need to pull your head out of the sand and see what else is going on.

Surprisingly enough, though, many firms don't use the ideas and technologies that are readily available. It has been suggested that this is due to an "NIH syndrome" (not invented here), which seems to be equal parts pompous disdain, proprietary fastidiousness, and uncertainty about how to exploit new knowledge.

Bell & Howell was once a major name in every upscale home. Its eight-millimeter movie cameras were the bane and blessing of every family gathering and the chronicler of American family history. By 1972 more than one million cameras were being sold each year, but by 1981, sales had plummeted by almost ninety percent and Bell & Howell became a name used only in nostalgia and Trivial Pursuit. The simplicity of video swept the marketplace, and Bell & Howell ignored the new idea. Now the marketplace ignores Bell & Howell.

Revelation and Creativity. Michelangelo professed that he never created a sculpture. He simply stared at the block of marble until God showed him the statue that was trapped within. Then all Mike had to do was get the gravel out of the way. Wouldn't it be nice to have just such a direct line to the almighty? The fact of the matter is that Michelangelo's profession was probably on a par with Oral Roberts recent proclamation that God said his support is better cough up $8,000,000 or their favorite healer was kaput.

In reality, if a line exists at all, it's so indirect and convoluted that one is reminded of Mark Twain's words, "Lord, if you forgive the little jokes I play on you, I'll forgive the great big ones you play on me." The bulk of creativity comes to the surface by accident, or initially mis-directed.

Alexander Graham Bell didn't get a direct commission from on high to create an instrument for carrying conversations between New York and Paris. He was dinking around trying to invent a hearing aid for his deaf fiancé. In 1795 Nicholas Joseph Cugnot dabbled with an abject failure, a steam-driven cannon carriage for the French army. Men comfortably walk at three to four miles per hour. The gun carriage zipped along at two miles per hour and had to stop every 300 yards to rebuild a head of steam. But it was the first automobile, in disguise. In 1842, Dr. John Gorrie became mentally ill and died, because the medical industry refused to embrace his cure for malaria, which happened to be the first air-conditioner. So keep your eyes open and realize that the best application of your idea might be worlds away from your current focus.

External Validity and Creativity. The previous stories shoot a hole in a major myth that hamstring us—if Mom doesn't tack it on the refrigerator, it doesn't count as art. More often than not we let others decree whether we are creative or not. And when that happens; we're in trouble. Either we stop trying, or we join John Gorrie in a padded cell.
The fact of the matter is that most creative acts are initially rejected, ignored, or belittled. Bell was laughed off the stage at his first demonstration of the phone. Van Gogh never sold a painting—the ones that now go for eight million dollars. It was just about a century before Cugnot's car resurfaced in Henry Ford's factory, and it took just as long for Corrie's machine to become the air conditioner.

Simply put, the rest of the world doesn't immediately embrace creativity. So if you rely on their judgment you'll never get out of the starting blocks. Remember, creativity exists if:

a. a new thing comes into being (creation);

b. two previously unrelated things are joined (synthesis);

c. or, if a thing is improved or gains a new application (modification).

That's it. The total list of requirements. Notice that the list does not say "Creativity exists only if someone else says 'My how creative.'" Once you realize that, you become your own arbiter of creativity. Blanch DuBois may have been "dependent on the kindness of strangers" in A Streetcar Named Desire, but you don't have to be. In other words, stop chasing after the "moms" of the world looking for approval, and spend your time actually being creative. You'll stay sane, and the world will benefit from your work.

If It Ain't Big, It Ain't Creativity. And now we get to the crux of the matter. We surgically gut our latent creativity by setting incredibly high benchmarks, such as "it's only creative if it changes the world." So if we've never written a symphony, or invented a product, or designed a marketing plan that captured twenty-seven percent of the yuppie market, we look despairingly in the mirror at the slack-jawed drone that gazes back, and condemn ourselves to a life of job obedience to those who have.

In the process we forget that moving a desk so that work flows smoother is also creativity. It's modification. And creativity also blooms when we re-assign a job description so that related tasks are given to the same person. That's synthesis. It's even creativity when we cut our losses on a worthless industrial adhesive by slapping it on the back of our secretary's notebook so she can stick our messages where we'll see them. We call that bit of creation the 3-M "Post-It" notes.

And when you get right down to it, our notion of productiveness and importance is usually the opposite of reality. The much ballyhooed creation of the Saturn car company by GM is small potatoes, infinitely unimportant. The car still has four wheels, still uses an internal combustion engine, people still ride inside it, and so on. It's big in terms of dollars, but frankly, it doesn't change the world a bit. What does? The lowly tin can. Now that's something to praise. It revolutionized the world. It changed food production and storage, made armies and individuals more mobile, and virtually eliminated botulism. The flush toilet is another one. Urban mortality rates plummeted as a result.

As it turns out, creativity usually resides in the seemingly small potatoes of corporate and individual life. Or should we say peanuts? George Washington Carver was probably the most prolific creator in America's history, making Edison look like a tortoise in terms of the number of products created. And Carver did it all by looking at one little insignificant thing—the peanut.

So start seeing creativity in your own peanuts: the reporting procedure that could be improved, the sales territory that can be redesigned, the new vendor or purchasing procedure, or the tasks that can be re-designed.

And Now for a Parting Shot

But what if you're trying to get creativity out of other people, and not just trying to be creative yourself? You start by confronting the reality and myths we've just covered. Then you add two more things.

First—realize that no structure, process, incentive system, or management reorganization is going to make your firm creative, unless you first help the individuals within those structures and systems unlock their willingness to try. And that isn't done at arm's
length. You've got to crawl into the trenches and be a cheerleader and seducer. Hold up a mirror for your people and help them see their own creative potential by identifying it for them.

The best creativity motivator I ever met was an old curmudgeon that ran one of the production shops at a naval shipyard. When someone finished a job ahead of schedule (with no defects) he jumped on a workbench with airhorn and megaphone in hand and treated the entire shop to an absolutely obscene drinking song in celebration. The sight of the grumpy old S.O.B. making a fool of himself was so ridiculous, and the instigator received so many kudos and free drinks, that everyone busted a hump to be the next cause of hilarity. Creativity raviied the shop floor, and no problem was insurmountable. They had less down time, less turnover, and higher productivity than any other unit.

Sometimes, our desire for professionalism is so strong that we make the affirmation process needlessly convoluted and diluted. When a kid takes their artwork to Mom, they want a hug and a kiss—an emotional reaction. Given the current climate, a hug and kiss at work will land you in jail, or on the Supreme Court—but some other kind of emotional reaction is certainly called for. So loosen up. Managers prosper from borrowing some inspirational tactics from the art of leadership. And that, in itself, is the creative act of synthesis.

Second—while you're holding that mirror, keep a careful eye on the images they see, because they initially need some help separating the reality from the poppycock.

- Remind them that creativity exists in the small and mundane things of life, as well as in the big things
- Remind them that creativity is more than creation. Celebrate synthesis and modification as well.
- Encourage them to look around—to transfer ideas from other areas, and to look for seemingly absurd applications of what they've already got.
- In short, help them see that they have the seed of creativity in themselves already.

And while you're at it, do the same for yourself.

NOTES


3. The historical information on electricity and other forms of technology comes from *The People's Chronology*, James Trager, ed. (New York: Holt, Rinehart and Winston, 1979). In addition to being an entertaining ammunition dump for *Trivial Pursuit*, it is a fascinating guide to the progression of knowledge. You'd be well served to buy a recent edition.
