

Innovation Keys



We were all born spontaneous and creative. Every one of us. As children we accepted all things equally. We embraced all kinds of outlandish possibilities for all kinds of things. When we were children we knew a box was much more than a container. A box could be a fort, a car, a tank, a cave, a house, something to draw on, and even a space ship. Our imaginations were not structured according to some existing concept or category. We did not strive to eliminate possibilities; we strove to expand them. We were all amazingly creative and always filled with the joy of exploring different ways of thinking.

Remember how when you were a little child you felt that you were everything. You formed the thought that there was no limit to what was possible. You had this bright, shining self- image and were laughing and curious about everything every day. And then something happened to us, we went to school. In school we were taught how past thinkers thought. We were not taught how to think; we were taught how to reproduce what past thinkers had done in the past. It's as if we entered school as a question mark and graduated as a period.

This is why we so often fail when confronted with a new problem that is similar to past experiences only in superficial ways and is different from previously encountered problems in its deep structure. Interpreting problems by excluding possibilities through the prism of past experience will, by definition, lead the thinker astray. This kind of reproductive thinking leads us to the usual ideas and not to original ones. If you always think the way you always thought, you'll always get what you've always got.

When confronted with a truly original idea, we experience a kind of conceptual inertia comparable to the physical law of inertia which states that objects resist change; an object at rest remains so, and an object in motion continues in the same direction unless stopped by some force. Just as physical objects resist change, ideas resist movement from their current state and change in their direction of movement. Consequently, when people develop new ideas they tend to resemble old ones; new ideas do not move much beyond what exists.

The more educated and expert the person is; the more change is resisted. They see what they expect to see, not what is there. At one time, ancient astronomers believed that the heavens were eternal and made of ether. This theory made it impossible for them to observe meteors as burning stones from outer space. Although the ancients witnessed meteor showers and found some on the ground, they couldn't recognize them as meteors from outer space. They only sought out and

observed only those things that confirmed their theory about the heavens.

Many business people are like the ancient astronomers and actively seek out only that information that confirms their theories about their business and their markets. History is replete with examples of how experts were unable to see the merit or even give fair value to new ideas. In 1899 Charles Duell, the Director of the U.S. Patent Office, suggested that the government close the office because everything that can be invented has been invented.

Duell was not able to think beyond the conventional paradigms of the times. Other examples are:

- The computer is not for business. When Univac invented the computer, they refused to talk to business people who inquired about it, because they said the computer was invented for scientists and had no business applications. Along came IBM.
- The computer is not for personal use. IBM once said that according to their past experiences in the computer market, there is virtually no market for the personal computer. In fact, they said their market research experts were absolutely certain there were no more than five or six people in the entire world who had need for a personal computer. Along came Apple.
- The copier is not for business. In 1938, Chester Carlson invented the electronic copier. Every major corporation turned down his ideas, because carbon paper was so cheap and plentiful no one would buy an expensive copy machine.
- It is not a watch. In 1968, the Swiss dominated the watch industry. The Swiss themselves invented the electronic watch movement at their research institute in Neuchatel, Switzerland. It was rejected by every Swiss watch manufacturer. Based on their past experiences in the industry, they believed this couldn't possibly be the watch of the future. After all, it was battery powered, did not have bearings or a mainspring and almost no gears. Seiko took one look at this invention that the Swiss manufacturers rejected at the World Watch Congress that year and took over the world watch market.
- No business will use Federal Express. Fred Smith, while a student at Yale, came up with the concept of Federal Express, a national overnight delivery service. The U.S. Postal Service, UPS, his own business professor and, virtually every delivery expert in the U.S., doomed his enterprise to failure. Based on their experiences in the industry, no one, they said, will pay a fancy price for speed and reliability.

The first key to innovation is the ability to think beyond conventional paradigms and to examine traditional constraints using non-traditional thinking. You have to be able to go outside your own frame of reference and find another way of looking at the problem. Before Fred Smith created Federal Express, overnight delivery did not exist at the national level. The U.S. Postal Service and UPS both believed that overnight point-to-point was economically not feasible.

Fred Smith realized that computers were replacing human functions, but the dependability of

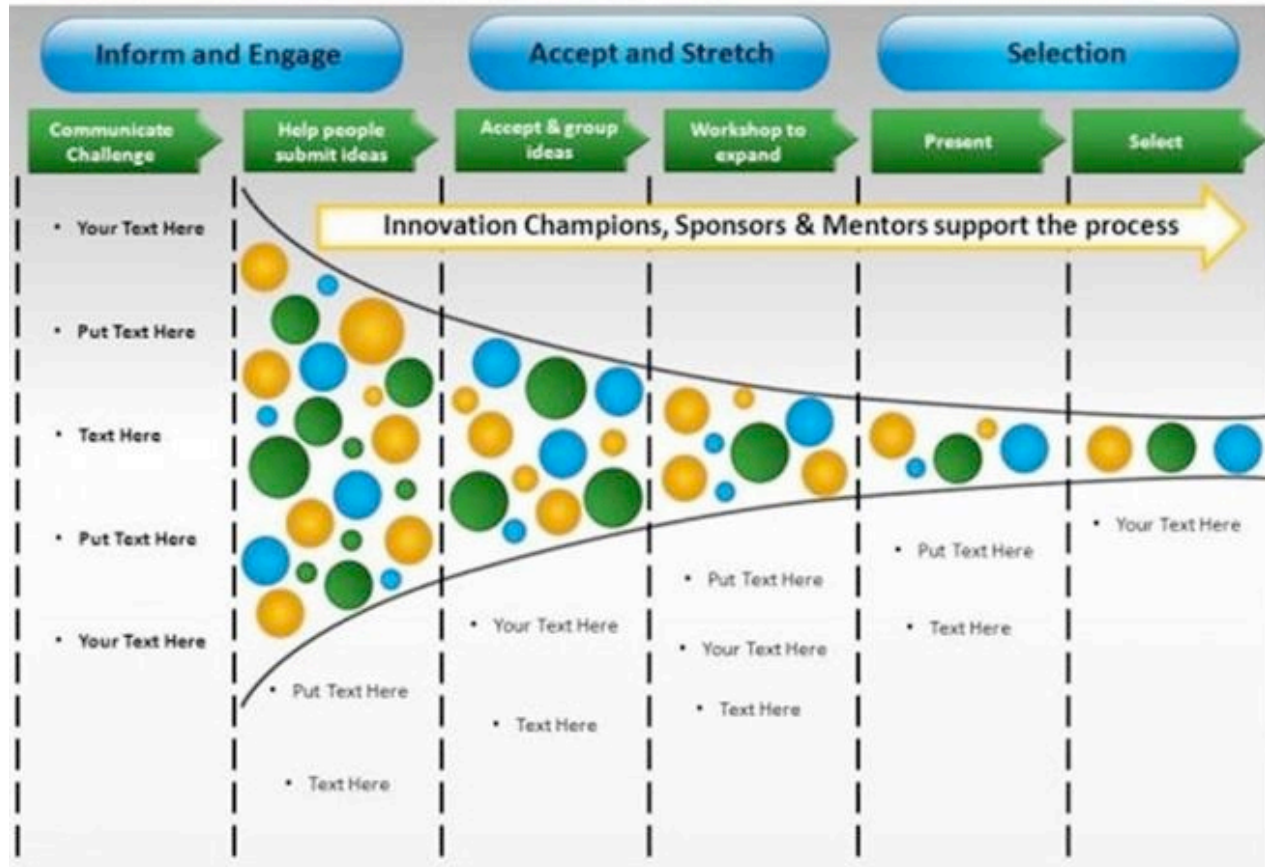
those products and the delivery systems for repairs were not up to par. Where the Postal Service and UPS were satisfied with the available delivery systems, Fred saw an opportunity for a new business.

His solution was to create a delivery system that operates essentially the way a bank clearinghouse does: Put all points on a network and connect them through a central hub. If you take any individual transaction, that kind of system seems absurd -- it means making at least one extra stop. But if you look at the network as a whole, it's an efficient way to create an enormous number of connections. If, for instance, you want to connect 100 markets with one another and if you do it all with direct point-to-point deliveries, it will take 100 times 99 -- or 9,900 -- direct deliveries. But if you go through a single clearing system, it will take at most 100 deliveries. So you're looking at a system that is about 100 times as efficient. The same idea was subsequently employed, of course, in the airline industry.

He did something else a little bit unusual, which was to combine the airplanes and trucks into one delivery system. This combination seems innocuous today but at the time all the traditional people felt that it was highly iconoclastic. So that's the genesis of Federal Express.

The second key to innovation is to be able to discern the important issues and to keep your goal in view. Fred Smith said he didn't understand what his real goal was when he started Federal Express. He thought he was selling the transportation of goods. In fact, he discovered what they were really selling was "peace of mind." After he figured it out, he made it possible for customers to track packages right from their desktops.

Innovation Process



The Postal Service and UPS got in trouble when they confused the means as an end. They were complacent and were reluctant to change or innovate because they were afraid of failure. They followed the old “If it ain’t broke, don’t fix it.” rule. Innovative companies and people understand that whenever we try to do something and fail, we end up doing something else. The two most important questions to ask when we fail are: “What have I learned?” and “What have I done?”.

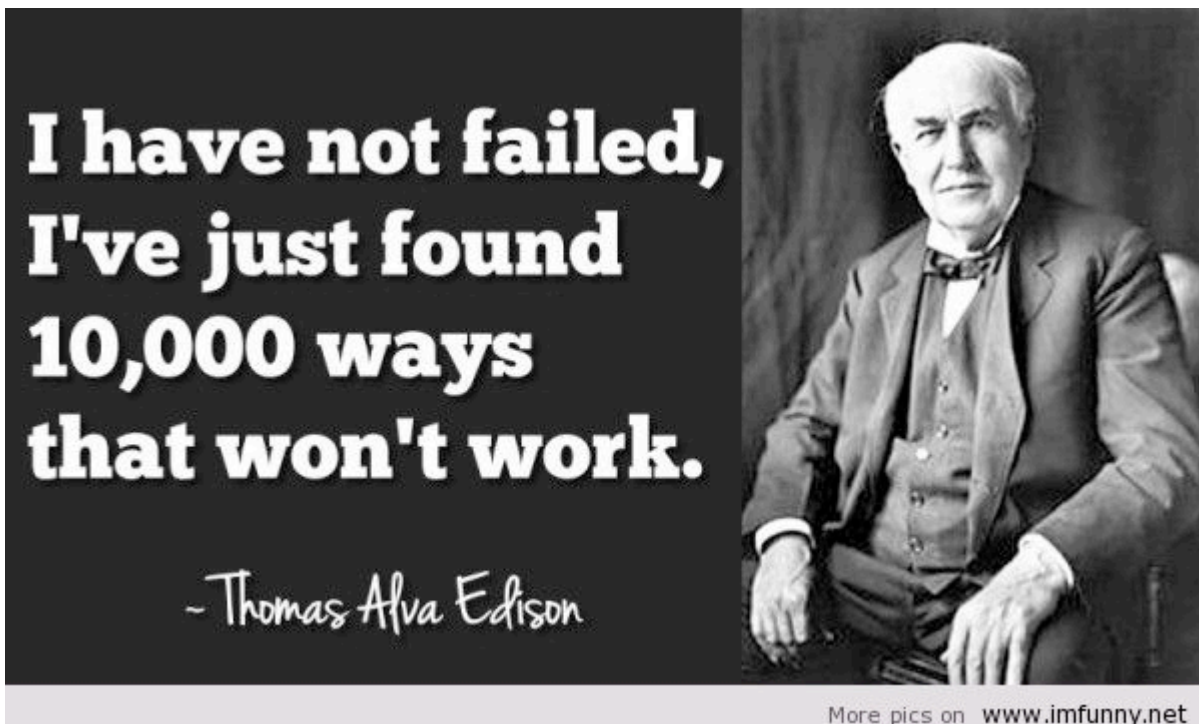
These are questions that are asked at Dell where innovation is about taking risks and learning from failure. Today, Dell is well known for inventory management, logistics, and supply chain management. That wasn’t always the case. In 1989 they were faced with a disaster that rocked the company. The personal computer industry was making a transition to a new type of memory chip, and Dell was way overstocked with the old chip.

That was a costly mistake for a small company, and it took over a year to recover, but Dell learned from it. The failure led them to create and develop a new way to manage inventory, and they went from being in the last place in the minor leagues of the computer industry to where they win the World Series every year.

Dell discovered what all innovators know.....that failure is a prerequisite to invention. No

business can develop a breakthrough product or service if it's not willing to encourage risk taking and learn from the subsequent mistakes. IBM's Thomas Watson, Sr. put it this way, "The fastest way to succeed is to double your failure rate."

Remember the Ford Edsel? Everybody knows the Ford Edsel was the biggest new car failure in automotive industry. What people don't realize is that the Edsel was the foundation for the company's later successes. When the Edsel spectacularly bombed, Ford executives realized that something was happening in the automobile market. No longer was the market segmented by income groups; the new principle of segmentation was "lifestyles." Ford's response was the Mustang, a car that reestablished Ford as the industry leader.



Understanding how and why Ford succeeded after the failure, changes one's perception of the value of the failure of the Edsel. "The glass is half full" and the "glass is half empty" are descriptions of the same phenomenon but have vastly different meaning. Changing a company's perception from half full to half empty opens up big innovation opportunities. There have been dramatic improvements in health care over the last twenty years leading to longer and healthier lives for Americans. Still, rather than rejoicing in the great improvements, Americans emphasize how far away they still are from immortality. This perception of the glass being half empty opened vast opportunities in the nineties for new health magazines, exercise classes, jogging equipment and health foods.

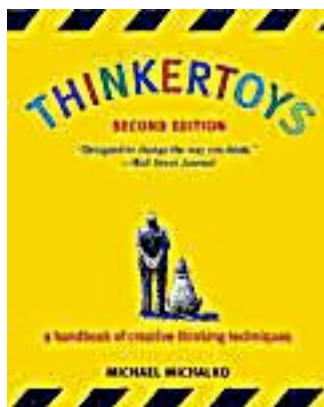
A change in perception does not alter facts. It changes the meaning. You do not see things as they are, you see them as you are. There was a time when no one wanted to use Post-It notes. When Arthur Fry, corporate scientist at 3M, first started people about Post-It notes, no one understood what he was talking about. Advertising didn't work so, of course, no one at 3M believed there

was a market for it. Fry had to plead with management not to kill the idea. Desperate, he launched his own innovative campaign to generate interest. He had the Mid-Atlantic sales manager give away Post-Its to secretaries and other key people in companies up and down the east coast. Then, abruptly, he stopped giving out free samples. Within a short time, everyone realized how much they had come to rely on those notes. They had become addicted to them. Fry realized that the only way to change the market's perception about the notes was to get people to try them by giving away samples free.

Another way to look at things with a new perspective is to hire people from some other industry. Citizens Financial Group in Providence R.I., hires people who have experience outside of banking— creative people who can apply what they've learned from other industries to the Group's traditional business. For example, they've put full-service branches into grocery stores run by a person with a sales background. Their ATM division is run by someone who was in real estate. One of the chief executives has a background in packaging.

Employing people with diverse skills and talents helps the group to continually challenge the status quo when developing business strategies. Most banks, for example, concentrate on being a service for existing customers. Citizens uses their grocery store branches to acquire new customers. The staff go into the grocery aisles wearing their Citizens aprons pushing Citizens shopping carts with promotional offers, and getting into friendly conversations. Their objective is to develop relationships with store customers. Then when shoppers have banking needs, they'll find a friendly, familiar face at the bank.

To truly understand the necessity of innovation, sit down and prepare a trial P&L for your business dated five years from now, assuming no new products, services, and improved business processes. People who have done this suddenly realize that innovation is their lifeline to the future and the time to grab it is now. If you wait too long, it may be beyond your reach.



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